5.3 Visual Effects and Neighborhood Character

This section describes the existing visual setting of the project and vicinity within the context of the surrounding community. Additionally, this section identifies applicable guidelines and regulations related to visual resources and evaluates potential visual impacts related to implementation of the project.

5.3.1 Existing Conditions

5.3.1.1 Views of the On-Site Development

The Riverwalk Specific Plan area is situated in the western portion of central Mission Valley (see Figure 2-3, *Project Location Map*). The approximately 195-acre Specific Plan area is currently developed with the Riverwalk Golf Course, which consists of three nine-hole golf courses, a clubhouse building, driving range, maintenance facility, surface parking, access roadways, and golf cart paths/bridges (see Figure 2-4, *Existing Site Conditions*). Landscaping consists of turf, non-native ornamental vegetation, and trees.

Views of the project site from the north along Friars Road and from the east along Fashion Valley Road are currently of the golf course through a chain link fence, as well as maintenance facilities opposite Via las Cumbres. Because Friars Road sits at a higher elevation that the majority of the project site, where not obstructed by existing development along Friars Road (particularly in the northeast portion of the site), views are of the manufactured golf course sloping down to the San Diego River.

Main access to the site is located off Fashion Valley Road, which makes up the project's eastern boundary, from Riverwalk Drive. Views of the project site from the east are of a graded pad off Fashion Valley Road used for temporary SDG&E vehicle storage, portions of the golf course, the driving range, the San Diego River, and the Green Line Trolley as it enters the project site.

Views from the south are limited by existing berming on the golf course and development (office, multi-family residential, and hotel) along Hotel Circle North. The golf course can be seen from the southwest portion of the project site, with glimpses to the San Diego River.

Public views are not readily provided from the west, due to the proximity of The Courtyards residential development, as well as the elevation difference between western land uses and the project site. Views are further obstructed by landscaping of the golf course and the Courtyards. Where glimpses are possible of the project site, they are of the golf course and golf course landscaping.

5.3.1.2 Views from the Project Site to Off-site Development

Views from the Specific Plan area are of the surrounding urban development. Views to the south are of the I-8 freeway, as well as the backside of the existing hotels along Hotel Circle North ranging in height from two to seven stories, multi-family residential (Presidio View Apartments) that is four stories in height, and multiple office uses that range from two to seven stories in height. Beyond I-8, some of the taller hotel elements that front Hotel Circle South are visible, including recent development of the Morris Cerullo Legacy Center, which has a maximum height of 65 feet. Views from the project site to the north are of existing multi-family residential development ranging in height from two to four stories, two-story office, and single- and two-story commercial development on the north side of Friars Road. Views from the project site to the east are of two- and three-story office buildings, the Fashion Valley Mall parking lots, four-story parking structures, and two- and three-story retail buildings; Fashion Valley Transit Center, with its elevated trolley platform; and active redevelopment of the Town and Country Resort Hotel, which includes conference center buildings and seven- and 10-story towers to remain following redevelopment. Views to the west are of four-story multi-family residential development (The Courtyards) over partial at-grade parking and undeveloped land.

5.3.1.3 Neighborhood Character

The Specific Plan area is located in the urbanized community of Mission Valley. Situated in the west-central portion of the community, the character of the surrounding area is an evolving mix of multi-family residential; hotel development; retail commercial in the form of regional malls and several smaller commercial retail centers and strip malls; and office/employment development, both as mid- and high-rise structures. Redevelopment has recently occurred or is actively occurring within Mission Valley, most notably at:

- The mixed-use redevelopment of the Town and Country Resort Hotel site, immediately east of the project site,
- The Morris Cerullo Legacy Center resort and conference center project, south of the site beyond I-8,
- The Union-Tribune mixed-use project site, located less than one-half mile east of the project site,
- The Alexan Fashion Valley mixed-use project, located less than one-half mile east of the project site,
- The Witt Mission Valley mixed-use project, located approximately one-half mile east of the project site,
- The Millennium Mission Valley mixed-use project, located approximately one-half mile to the east of the project site,

- The Vulcan quarry site that is redeveloping as the Civita neighborhood, located approximately two miles to the east of the project site, and
- The Friars Road Residential Mixed Use Project, which is permitted for redevelopment up to eight and nine stories along Friars Road, northeast of the Specific Plan area.

In addition to redevelopment, the regional malls of Westfield Mission Valley Mall and Fashion Valley Mall are periodically remodeling and modernizing.

5.3.1.4 Light/Glare/Shading

Lighting from commercial office, retail, and multi-family residential development, as well as street lighting on public streets and freeways, predominates the area. Because the majority of development in the project area is comprised of multi-family residential developments, glare from an expanse of windows is minimal. The nearest office building is located to the south of the project site and is approximately seven stories in height. The design of that building combines concrete and windows, which limits the amount of glare. Relative to shading, there are no buildings in the immediate project area that can cast substantial shadows on the project site for extended periods of time.

5.3.2 Regulatory Framework

5.3.2.1 Mission Valley Community Plan

The Urban Design section of the Implementation chapter of the Mission Valley Community Plan contains guidance relative to the public realm, general design, and area-specific design. The following Design Guidelines are relevant to the Riverwalk project. As individual developments come online in conformance with the Riverwalk Specific Plan, they may further address project- and site-specific design guidelines of the Mission Valley Community Plan, as applicable and not in conflict with the Riverwalk Specific Plan.

Public Realm

- ***DG-1 Active Commercial Entry Areas.*** *In building entry areas in front of ground floor commercial uses, include spaces for outdoor dining, displays (stands, book racks, etc.), planters, and plazas.*
- ***DG-2 Entry Area Open Spaces.*** *Define entry plazas and passenger loading areas with distinctive paving materials, seating, shade, and attractive landscaping.*
- ***DG-3. Sidewalks.*** *Provide active pedestrian pathways along all private drives that provide primary access and public streets as noncontiguous sidewalks.*

- ***DG-4 Multi-functionality.*** *Where desirable, encourage the multi-functionality and flexibility of the sidewalk and streetscape by supporting various modes of travel and pedestrian and bicycle amenities (e.g., street furniture, sidewalk dining, bicycle parking).*
- ***DG-5 Sidewalk Pavers.*** *Vary pavers in an effort to delineate active pedestrian pathways from passive uses, including landscaping, street furniture, and public space areas.*
- ***DG-6 Street Trees.*** *Incorporate street trees into sidewalk buffer areas in order to increase shade, promote carbon sequestration, shield pedestrian pathways, and provide vegetation in the urban environment.*
- ***DG-8 Landscaping.*** *Use landscaping strategically to identify pedestrian entrances and articulate edges for plazas and courtyards.*
- ***DG-9 Sun Exposure.*** *Locate open space along the east, west, or southern block or building face, where feasible, and design to maximize exposure to the sun, while protecting from wind. Incorporate shaded and sheltered areas in addition to full sun areas.*
- ***DG-10 Shared Amenities.*** *Provide amenities for public use within public open spaces, including ample seating (benches, seating walls, movable seating, etc.); trees and other plantings; and shaded and sheltered areas.*
- ***DG-11 Maintenance.*** *Ensure that open spaces are clean and well-maintained. Use high-quality, durable materials that are cost-effective, energy efficient, and require minimal maintenance. Potential implementation includes standardized amenities (e.g., benches and trashcans) and energy efficient technology (e.g., solar trash compactors, moisture-sensing sprinklers, and light sensors).*
- ***DG-12 Pedestrian-Scaled Lighting.*** *Provide pedestrian-scaled lighting along all walk-ways and common areas. Levels of illumination should be responsive to the type and level of anticipated activity without under- or over-illuminating.*
- ***DG-16 Green Streets.*** *Implement Green Streets that can vary in design and appearance while still meeting functional goals (refer to Figure 23* [of the Mission Valley Community Plan]*)*
    - *Alternative Street Designs (Street Widths). New streets should be planned accordingly so that existing hydrologic functions of the land are preserved (e.g., wetlands, buffers, and high-permeability soils).*
    - *Swales. Vegetated open channels designed to accept sheet flow runoff and convey it in broad shallow flow. Swales reduce storm water volume, improve water quality, and reduce flow velocity.*
    - *Bioretention Curb Extensions and Sidewalk Planters. Attractive planter boxes or curb extensions help infiltrate and store storm water, which reduces runoff volumes and attenuates peak flows.*
    - *Permeable Pavement. Provides structural support, runoff storage, and pollutant removal through filtering and adsorption.*
    - *Sidewalk Trees and Tree Boxes. Street trees are good for the economy, reduce the urban heat island effect and storm water runoff, improve the urban aesthetic, and improve air quality.*

Large tree boxes and root paths can be used under sidewalks to expand root zones, which allows street trees to grow to full size.

- ***DG-17 Paseos.*** *Provide enhanced paths to allow pedestrians to bisect mega blocks and connect to transit/recreation areas. When paseos are needed along property lines, they should be designed to be extended onto adjacent properties.*

General Design

- ***DG-18 Reduced and Shared Access.*** *Minimize curb cuts and driveway entrances to parking facilities and loading areas. Wherever possible, design driveways to be shared among neighboring properties in order to reduce potential conflicts with pedestrians and bicycles. Provide space for shared transportation services, such as circulators, rideshare vehicles, and microtransit, to allow for the safe pick-up and drop-off of passengers.*
- ***DG-19 Lighting.*** *Ensure adequate lighting of parking areas to improve visibility and safety. Motion-sensor lighting can reduce energy use.*
  - *Surface lots should have frequently spaced lights no more than 15 feet tall, rather than a few tall bright lights.*
  - *Parking garages should have adequate lighting along façades, but should shield the street from interior garage lighting.*
- ***DG-20 Additional Safety Measures.*** *Employ design features and programs to enhance safety in parking areas, including prominent and well-illuminated entries. These may include additional lighting along pedestrian paths, low-rise landscaped buffers, and/or a comprehensive surveillance system where applicable.*
- ***DG-21 Flexibility.*** *Design parking areas to be capable of eventually accommodating parking structures where surface parking is provided.*
- ***DG-22 Ground Floor of Structured Parking.*** *Reduce the apparent mass on the ground floor through well-proportioned windows, landscaping, screening, and architectural emphasis on pedestrian entries and towers.*
- ***DG-23 Parking Structure Façade.*** *Provide variation and interest on the façade of parking garages through decorative screens, trellises, ornamental railings, and/or openings that appear as well-proportioned windows.*
- ***DG-24 Subterranean Parking Design.*** *Activate exposed portions of subterranean garages with landscaping and stoops or terracing.*
- ***DG-25 Parking Lot Landscaping.*** *Design surface parking lots to incorporate trees for shading and permeable surfaces to minimize storm water runoff.*
  - *Round headed, rather than upright trees should be utilized in parking areas. Parking lot trees should have a mature height and spread of at least 30 feet. They should also be long-lived (60 years), clean, require little maintenance, and be structurally strong, insect and disease-resistant, and require little pruning.*
  - *More than 10 percent of the parking lot area is encouraged to be landscaped. Landscaping areas should be distributed between the periphery and interior landscaping islands and be*

designed to break up large paved areas. A minimum ten foot wide landscaping island is encouraged. Parking lot landscaping should include primarily ground cover and tall-canopied trees, instead of bushes or short, bushy trees.

- *To screen parking lots and structures from the street, large dense shrubs may be massed at the edge of the parking area. Trees and shrubs can be combined with earth berms to screen adjacent parking.*

- ***DG-26 Entries.*** *Orient the primary building entrance (defined as the entrance which provides the most direct access to a building's lobby and is unlocked during business hours)* to face the *primary frontage. Secondary building entrances are encouraged to access side streets, parks, or plazas. Building overhangs, canopies, and entryway landscaping should not obstruct views, the street tree canopy, or street signs.*
- ***DG-27 Solar Access and Energy Conservation.*** *Employ climate-appropriate design strategies to allow for passive solar access and energy-efficient installations, including:*
  - *Allowing for adequate access to light and air so that daylight is able to reach all living spaces for part of the day, and adequate ventilation is provided when windows are open. Prioritize south-facing windows and private open space.*
  - *Siting building so that plazas and other public spaces will not be kept in shadows at all times and will not experience excessive wind conditions.*
  - *Locating parking areas with large paved surfaces to the east and north of adjacent buildings to reduce solar reflection on buildings.*
  - *Placing evergreen trees on the west side of buildings to provide protection from prevailing winds.*
- ***DG-28 Energy****. Consider clustering buildings to use a common heating/cooling source.*
- ***DG-29 Crime Prevention and Safety****. Design buildings and public spaces to be defensible, clearly identified and demarcated, and designed with high visibility and to prevent access of unauthorized persons. This can be accomplished through natural surveillance. Position common spaces, pedestrian pathways, and entries such that they are clearly visible from the street. Position windows to allow for visible sight lines toward public spaces, parking areas, and entrances to dwellings.*
- ***DG-30 Territorial Reinforcement.*** *Delineate the transition from public space to private space with signs, pavement, building uses, or other objects. Fencing may only be used if a publicly accessible route is provided through the site.*
- ***DG-31 Building Bulk.*** *Encourage variation and articulation through changes in height and massing. This can be achieved through building design that creates smaller masses corresponding to the internal function of the building, modest changes in roof heights, and varied vertical planes.*
- ***DG-32 Diversity and Innovation.*** *Find opportunities for diversity, creativity, and innovation in building form.*
- ***DG-33 Shadows.*** *Consider the potential shade impacts on the surroundings, and design buildings such that heights, massing, and site plans respond to potential shading issues.*

- ***DG-34 Roof Surfaces.*** *Consider locating sloped roof surfaces facing the south, and at an angle that can accommodate solar panel or film installation for renewable energy generation or centralized solar hot water heating.*
- ***DG-35 Towers.*** *Design towers to be slender in order to minimize the casting of large shadows. If large floor-plates are necessary on lower floors, middle and upper floors should taper, step back, or otherwise employ a reduction in massing.*
- ***DG-36 Vertical Segmentation.*** *Articulate a distinct building base, middle, and top through changes in materials, colors, or fenestration that reflect the internal function of the building. Avoid repetitive elements or monolithic treatments.*
- ***DG-37 Ground Floors.*** *In multi-story buildings, design the ground floor to be tall, prominent, and establish a street presence.*
- ***DG-38 Façades.*** *Treat all publicly visible façades of a building equally in terms of materials, colors, and design details. The building should have a finished appearance on all visible sides.*
- ***DG-39 Limitations on Blank Walls.*** *Minimize the amount of the linear frontage on the first story street-facing wall that may consist of blank walls. Where blank walls are unavoidable, reduce the impact by:*
  - *Placing blank walls as out of view as possible from the street.*
  - *Providing architectural treatments such as panels, contrasting textures, high-quality and interesting building materials, blind windows, planting treatments, murals or other public art, and/or exterior detailing. As much creativity should be given to these walls as to the rest of the façade of the building (Figure 28* [of the Mission Valley Community Plan]*).*
- ***DG-40 Operable Windows.*** *Wherever applicable, provide operable windows that allow natural ventilation and potentially eliminate the need for mechanical ventilation. If mechanical systems are necessary, use energy-efficient and low emission heating, ventilation, and air conditioning (HVAC) systems.*
- ***DG-41 Garage Doors.*** *Reduce the visual prominence of garage doors on the street level using the following methods:*
  - *Locate garage doors facing a side street wherever feasible. Garage doors are not recommended along pedestrian paths.*
  - *Dimension garage doors as narrow as is functionally feasible.*
  - *Place the garage door toward the end of the façade, not in the middle or toward an intersection.*
  - *Recess the garage door.*
  - *Call attention to other prominent architectural elements on the façade.*
  - *Design the garage door to be consistent with the architectural style of the building.*
- ***DG-42 Visual Access.*** *Building height, spacing, and bulk should be designed to create landscaped and visually accessible areas from projects to community landmarks and open space features.*
- ***DG-43 Design of Building Signs.*** *Design building signage to be compatible with the building architecture and to be harmonious with signs on adjacent buildings. On high-rise buildings, symbols and graphic designs, rather than full building-width lettering, are encouraged.*

- ***DG-44 High Quality Materials.*** *Use high- quality, durable architectural materials and finishes that provide a sense of permanence through the exterior and public interior spaces of the buildings. The materials palette should be reflective of the character of the location, type of architecture, and use of the building, and a unified palette of materials should be used on all sides of buildings.*
- ***DG-45 Energy and Building Materials.*** *Use building materials which will act as insulators or conductors, depending on energy needs.*
- ***DG-46 Authentic Materials.*** *Use authentic materials with a substantial appearance, including natural stone, brick, masonry, tile, wood shingles, metal panels, and glass panels. Avoid using inauthentic materials that have the appearance of thin veneer or attachment such as scored plywood, vinyl, and aluminum siding. If used, inauthentic materials should not be the dominant façade material and should not be used for detailing or ornamentation.*
- ***DG-47 Architectural Styles.*** *No particular architectural style is mandated for any area in Mission Valley. However, design should:*
  - *Be sensitive to the context and the surroundings without necessarily conforming to the architectural styles of surrounding development.*
  - *Consider and respect the architectural features and styles of adjacent buildings and the surrounding district. Provide compatible or complementary features through architectural details, materials, colors, and lighting. In particular, draw on adjacent or nearby building features that are desirable to achieve compatibility.*
- ***DG-48 Color.*** *Employ a color palette that reinforces building identity and complements changes in plane. The body of the building should generally be muted and light in tone to reduce heat gain. Bright colors should be used as accent colors only. A coordinated palette of complementary colors should be used rather than a patchwork of competing colors.*
- ***DG-49 Family-Oriented Housing.*** *Design family-oriented housing and units for a range of ages. Opportunities include:*
  - *Situate family-oriented units on lower floors to maximize accessibility for children and elderly.*
  - *Provide adequate storage space and design entryways that are visible from inside the home with wider hallways to accommodate stroller and bicycles, etc.*
- ***DG-50 Views.*** *Take advantage of views to the San Diego River, hillsides, and other natural features in design, particularly for living areas.*
- ***DG-51 Privacy.*** *Maintain a sense of privacy from within housing units, while allowing views onto streets or interior courtyards. In areas with narrow side yards, side elevation windows should be offset from those of the adjacent unit or otherwise obscured (e.g. with frosted glass) to ensure privacy.*
- ***DG-52 Air and Sunlight Access.*** *Balance privacy and safety with air and sunlight access, as well as wind protection. Prioritize south facing open space opportunities and design balconies with slatted or partially transparent grating or railing.*

- ***DG-53 Safety and Security.*** *Integrate features that enhance security such as timed lighting and windows that look out onto pedestrian paths. Avoid using bars or security grills on windows and doors.*
- ***DG-54 Frontages.*** *Articulate frontages to differentiate residential units from each other and from the overall massing. Incorporate porches, stoops, recessed windows, bay windows, accordi[o]n/roll-up doors, and balconies to provide visual interest (see Figure 29* of the Mission Valley Community Plan*).*
- ***DG-55 Residential Windows.*** *Design windows to highlight the uses within. In residential areas on upper stories, for example, smaller windows allow more privacy.*
- ***DG-56 Ground Floor Private Open Spaces.*** *To ensure privacy and sunlight access, provide partially transparent screening or landscaping for open spaces facing a public street, such as tall grasses and fences with openings.*
- ***DG-57 Separation from Shared Open Space.*** *Separate private open space from common open space with low walls or fencing.*
- ***DG-58 Active Uses.*** *Prioritize active uses on the ground floor.*
- ***DG-60 Compatibility of Uses.*** *Maximize compatibility and mutual benefit in the mix of uses. Retail use should be generally limited to the ground-floor spaces along the street.*
- ***DG-61 Ground Floor Windows.*** *Consider installing operable windows or stacking doors that allow the full length of the storefront to be opened to the sidewalk. At the street level, storefront windows should enliven the street and provide pedestrian views into the interior.*
- ***DG-62 Sustainable Materials.*** *Where possible, use sustainable building materials. Incorporate recycled, renewable, sustainable, and non-toxic/ low-VOC (volatile organic compound) materials. Use of locally harvested and/or manufactured materials is desired.*
- ***DG-63 Sustainable Landscaping.*** *Provide attractive and context-sensitive on-site landscaping that minimizes heat gain, is drought-resistant, requires minimal irrigation by:*
    - *Planting deciduous trees on the south side of buildings to shade the south face and roof during the summer while allowing sunlight to penetrate buildings in the winter.*
    - *Exploring vegetation on the exposed east and west facing walls.*
    - *Planting groundcovers that prevent ground reflection and keep the surface cooler, preventing re-radiation.*
    - *Building roof gardens, eco-roofs, or other vegetated roof systems to help reduce the solar heat gain of building roofs and to serve as shared open space.*
    - *Minimizing impervious surfaces that have large thermal gain.*
- ***DG-64 Water Efficiency and Conservation.*** *Install water saving appliances and systems such as gray water systems, moisture-sensitive irrigation rainwater cisterns, and low-flow toilets and faucets. Any exterior systems should be integrated into building design.*
- ***DG-65 Storm Water Capture and Treatment.*** *Ensure the design of new development integrates storm water best management practices on site to maximize their effectiveness by:*
    - *Allowing the use of green roofs and water collection devices, such as bioswales, cisterns, and rain barrels, to capture rainwater from the building for re-use.*

  - *Utilizing disconnected drain sprouts to interrupt the direct flow of rain-water from the buildings to the storm water system. Integrate these features to imbibe buildings with a distinctive architectural character.*
  - *Minimizing on site impermeable surfaces, such as concrete and asphalt. Utilizing permeable pavers, porous asphalt, reinforced grass pavement, cobble stone block pavement, etc. to detain and infiltrate runoff on-site.*
  - *Encouraging the use of permeable paving elements in auto and non-auto-oriented areas.*
- ***DG-66 Daylight Utilization.*** *Install timed or motion sensor light fixtures that turn off or dim during daylight hours in interior hallways, foyers, and other spaces that are constantly used.*
- ***DG-67 Energy Generation.*** *Integrate energy generation and sustainability such as solar, wind, geothermal or other technologies into the overall building design consistent with the architectural design.*
- ***DG-68 Carbon Sequestration.*** *Incorporate new trees into site plans that have the potential for storage and sequestration of high levels of carbon.*
- ***DG-69 Zero Net Energy Buildings.*** *Strive for zero net energy in a building design.*
- ***DG-70 Maintenance.*** *Develop long-term maintenance for all vegetation to be in accordance with adopted City-wide landscape standards.*

Area-Specific Design

- ***DG-71 Station Arrival Plaza.*** *Incorporate an arrival plaza as a visual gateway. Include public art, landscaping, lighting, and pavers to the station and plaza design.*
- ***DG-72 Station Amenities.*** *Improve the experience of trolley riders by providing a range of amenities at each trolley station. Amenities may include bike parking, benches, substantial overhangs and/or awning, shelters, information kiosks, public restrooms, and other trolley rider-serving amenities.*
- ***DG-73 Mobility Hubs.*** *Design areas around trolley stations to provide for a range of services that can improve first-last mile connections. This includes drop-off/pick-up areas for ride-hailing and shuttle services, space for scooter- and bike-share storage, parking spaces dedicated to car-sharing services, charging stations, and package pick-up areas.*
- ***DG-74 Mix of Uses.*** *Promote vertically and horizontally mixed uses within the trolley areas. Enhance livability and neighborhood vitality by providing a range of uses that serve visitors, workers, and residents.*
- ***DG-75 Identifiable Style.*** *Encourage building design in each trolley station area to exhibit an identifiable architectural style.*
- ***DG-76 Walkable Blocks.*** *Explore opportunities for large site redevelopment to reduce existing block scale by establishing new streets and/or public pedestrian pathways. Block faces longer than 350 feet should provide mid-block crossings to achieve a fine-grained street grid.*
  - *Design direct and attractive pedestrian routes and pathways to connect trolley stations, local destinations, activity centers (retail core, plaza, etc.), and the surrounding neighborhood.*

- *Avoid meandering paths or any treatment that would unnecessarily obstruct the view to the trolley station.*
- *Design pedestrian routes to prioritize public right-of-way. Routes across private land should be open to the public at all time and be clearly marked for public use.*

- ***DG-77 Wayfinding.*** *Locate directional signage at key locations such as major intersections and trail access points to direct people to trolley stations.*
- ***DG-78 Orientation of Development.*** *Within Community Nodes, design site plans with buildings facing, and paths leading toward, the Node's "center of gravity."*
- ***DG-79 Main Street Facades.*** *Strive to achieve a "street wall" effect along Main Streets. Incorporate pedestrian-only paths or alleys to parking areas, open space, or rights-of-way to the rear.*
- ***DG-80 Gateway Features.*** *Incorporate a signature architectural element, public art, or other gateway features at the end of a Main Street or at the center of a Node to enforce the identity of the area provide a recognizable feature.*
- ***DG-81 Pedestrian Scaled Articulation.*** *Incorporate pedestrian-scaled façade articulation to create an active and inviting public realm, create visual interest and diversity, and reinforce the pedestrian scale and character of main roadways and pedestrian paths.*
- ***DG-82 Amenities.*** *Provide amenities for public use, including benches, overlooks, drinking fountains, public bathrooms, and bicycle parking. Amenities may be shared with adjacent public facilities such as transit stations and public parks, per the San Diego River Park Master Plan.*
- ***DG-83 Pavers.*** *Wherever possible, pave all multi-use portions of the trail. Trail segments may be unpaved when they lead off to interpretive overlooks or when paving may negatively impact sensitive habitats.*
- ***DG-84 Overlooks.*** *Create overlooks at viewpoints or at nodes where north-south connection to a community meets the San Diego River Pathway. Overlooks may include amenities such as picnic tables, interpretive signs, and seating according to the size of the space.*
- ***DG-85 Shading.*** *Ensure adequate shading at various portions of the trail throughout the day. Shading provided by trees is more desirable than shadow cast by adjacent development.*
- ***DG-86 River Presence.*** *Emphasize the location and presence of the river corridor by creating view corridors to the river within development projects and extending landscaping of the riparian corridor—both native trees and understory vegetation—through to the project site.*
- ***DG-87 Building Access.*** *For development that abuts the River Corridor Area, provide the following: a primary façade and entrance oriented towards the River Corridor Area; and a pedestrian path from the river side of the building to the San Diego River Pathway that utilize the same materials as the primary entrance.*
- ***DG-89 Crosswalks.*** *At intersections adjacent to the River Corridor Area, consider crosswalks of a different paving material and color than the street, bulb-outs to help ease traffic, signaling that counts down time to cross, and raised crosswalks to match the level of the connecting sidewalk.*
- ***DG-90 Architecture.*** *Along the River Influence Area, vary buildings in form and façade and avoid repetition in order to create visual interest and to help define view corridors. There should also be*

variety through roof form, recesses or extensions of the façade form, window and curtain wall patterns, shading devices, balconies, material changes, color variation, and surface pattern and texture changes.

- ***DG-91 Transparency.*** *Design building facades above the ground floor that front the River Corridor Area or a street that abuts and runs parallel to the area to be a minimum of 25 percent transparent. This includes glass windows, display windows, or windows affording views into customer services, offices, galleries, cafes, lobby spaces, or pedestrian entrances.*
- ***DG-92 River-Adjacent Landscaping.*** *Include sustainably grown wood products and 'green' materials with post-consumer recycled content in landscaping materials. This includes, but is not limited to, fencing, trellises, and hardscapes. Plant materials should frame and enhance views of the River Corridor Area.*
- ***DG-93 Public Art.*** *Design art within the River Influence Area to celebrate and enhance the river experience, as well as to compliment the natural colors and textures of the river valley where it is located. The placement of public art is encouraged to be viewed not only from the River Influence Area, but also from the San Diego River Pathway in the River Corridor Area. Public art should be integrated into functional elements, such as site furnishings and signage, to engage and educate the public about the river park and its environs.*
- ***DG-107 Site Planning.*** *In plans for large sites, locate taller buildings so that they act as buffers between residential uses and the freeway.*
- ***DG-108 Freeway-Adjacent Landscaping (Buffers).*** *Install ample landscaping adjacent to the freeway. This should include understory vegetation as well as trees.*
- ***DG-109 Noise Attenuation.*** *Buffer residential development from noise with setbacks or elevation differences. Use noise-absorbing building materials and install double-paned windows. Incorporate landscaping materials, landscaped berms, and structural forms in wall design. Consider installation of sound walls where appropriate.*

5.3.2.2 San Diego Municipal Code

Chapters 11 through 15 of the SDMC are referred to as the Land Development Code, as they contain the City's Land Development Regulations that dictate how land is to be developed and used within the City.

Lighting Regulations

Outdoor lighting is regulated by Section 142.0740 of the City of San Diego LDC. The purpose of the City's outdoor lighting regulations is to minimize negative impacts from light pollution including light trespass, glare, and urban sky glow in order to preserve enjoyment of the night sky and minimize conflict caused by unnecessary illumination. Regulation of outdoor lighting is also intended to promote lighting design that provides for public safety and conserves electrical energy. New outdoor lighting fixtures must minimize light trespass in accordance with the Green Building regulations where applicable, or otherwise shall direct, shield, and control light to keep it from falling onto

surrounding properties. No direct-beam illumination is permitted to leave the premises. The City's lighting regulations require that most outdoor lighting be turned off between 11:00 PM and 6:00 AM with some exceptions (such as lighting provided for commercial uses that continue to be fully operational after 11:00 PM, adequate lighting for public safety, etc.).

Glare Regulations

Glare within the City is controlled by SDMC, Section 142.0730 (Glare Regulations). The City's Glare Regulations (City of San Diego 2012) include the following:

- *A maximum of 50 percent of the exterior of a building may be comprised of reflective material that has a light-reflectivity factor greater than 30 percent (Section 142.0730 (a)).*
- *Reflective building materials shall not be permitted where the City Manager determines that their use would contribute to potential traffic hazards, diminished quality of riparian habitat, or reduced enjoyment of public open space (Section 142.0730 (b)).*

5.3.3 Impact Analysis

5.3.3.1 Issue 1, Issue 2, and Issue 3

Issue 1 *Would the project result in the creation of a negative aesthetic site or project?*

Issue 2 *Would the project's bulk, scale, materials, or style be incompatible with surrounding development?*

Issue 3 *Would the project result in substantial alteration to the existing or planned character of the area, such as could occur with the construction of a subdivision in a previously underdeveloped area?*

Impact Thresholds

Based on the City's CEQA Significance Determination Thresholds, a project could result in a significant impact associated with visual quality and neighborhood compatibility if it would:

- *Create a disorganized appearance and would substantially conflict with City codes (e.g., a sign plan which proposes extensive signage beyond the City's sign ordinance allowance).*
- Significantly conflict *with the height, bulk, or coverage regulations of the zone and does not provide architectural interest (e.g., a tilt-up concrete building with no offsets or varying window treatment).*
- *Exceed the allowable height or bulk regulations and the height and bulk* of the existing patterns of development in the vicinity of the project by a substantial margin.
- *Include crib, retaining, or noise walls greater than six feet in height and 50 feet in length with minimal landscape screening or berming where the walls would be visible to the*

public.

- *Have an architectural style or use building materials in stark contrast to adjacent development where the adjacent development follows a single or common architectural theme (e.g., Gaslamp Quarter, Old Town).*
- Be *located in a highly visible area (e.g., on a canyon edge, hilltop, or adjacent to an interstate highway) and would strongly contrast with the surrounding development or natural topography through excessive height, bulk, signage, or architectural projections.*

Analysis

Project Compatibility and Community Character

Community character may be split into two categories: the character of the existing natural environment of the community, and the character of the existing built environment. Relative to the natural environment, the community character is defined by the San Diego River that runs through the central portion of the Specific Plan area, as well as the steep hillsides to the north of the project site to the north mesa, connecting Mission Valley to Linda Vista. The steep hillsides are visually and geographically separated from the project site by existing and future multi-family development (the area containing the steep slopes to the northeast of the project site has been approved for and is undergoing redevelopment from commercial office buildings to multi-family residential). Within the Specific Plan area, the proposed landscape plans and regulations and policies of the Riverwalk Specific Plan thematically unify the Riverwalk Specific Plan with the San Diego River and provide transition between the river and development within the Specific Plan area and beyond. The goals, policies, and regulations of the Riverwalk Specific Plan relative to the treatment of and along the river ensure future compatibility of the project with the existing natural environment of the San Diego River.

Relative to the built environment, the character of the surrounding area is an evolving mix of multi-family residential; hospitality development; retail commercial in the form of regional malls and several smaller commercial retail centers; and office development, both as mid- and high-rise structures. Redevelopment has occurred or is actively occurring within Mission Valley, largely in a mixed-use fashion with some combination of multi-family residential, commercial retail, commercial office, and hospitality uses. No single architectural theme is present in Mission Valley or along project frontage roads.

The project would be a mixed-use development consisting of residential, office and non-retail commercial, commercial retail, and parks and open space uses. The Specific Plan allows for future structures that range in height ~~up to 200 feet~~ (structures in the North and Central Districts would be limited to seven stories not to exceed ~~(~~85 feet~~)~~ in height from the highest adjacent finished grade, with additional limitation of five stories not to exceed 65 feet in height from the highest adjacent finished grade adjacent to The Courtyards and Mission Greens condominiums), with parking

structures and minimal surface parking. Based on the Design Guidelines outlined in the Specific Plan, the project's massing, colors, and materials would be compatible with adjacent development. Land uses proposed by the project currently exist within the project's surrounding area. The project's allowed setbacks and massing would provide for a transition from existing development to the west and northeast. Chapter 6, *Land Uses, Development Standards, and Design Guidelines*, of the Specific Plan contains discussion, policies, and Tailored Development Standards relative to site planning, setbacks, and massing. Additionally, district-specific policies of the Specific Plan for the North District address abutting residential developments (Policy N-1 through Policy N-4), as well as special treatment area policies relative to The Courtyards condominium complex to the west (Policy N-7 through Policy N-9) and Mission Greens condominium complex to the northeast (Policy N-10 through Policy N-15). Redevelopment has already occurred or is already occurring at a larger scale within the Mission Valley community, trending toward mixed-use projects and walkable, pedestrian-friendly developments. As such, the project would not result in substantial alteration to the existing or planned character of the area.

The design criteria and policies included in the Specific Plan are intended to define and guide development to create a visually and functionally integrated urban environment. While detailed architecture would be defined at the time of Building Permit submittal for each individual development project, the Riverwalk Specific Plan contains discussion, goals, and policies relative to architectural styles and design. Per Section 6.3.9, *Architectural Style and Development Aesthetics*, the following discussion would provide overarching guidance for architectural style and building materials.

> *A variety of architectural styles and building materials are envisioned for Riverwalk. Different architectural styles are encouraged and are intended to co-exist in the overall Specific Plan to provide for independent and distinct neighborhood character and identifying elements. The use of a variety of building materials provides additional opportunity to create distinctive elements within each District and to lend an air of authenticity and timelessness to neighborhood development.*
>
> *The building aesthetics within each of the Districts should complement each other, without resulting in homogeneity. This may include having similarly sized massing elements, materials, or overall building character. The buildings should feature enhanced and high-quality materials to encourage pedestrian activity and visual interest. The ground plane and the first floor of each building should be enhanced through architectural details, street furniture, and other amenities.*
>
> *Because architectural style is constantly changing, the type of architecture within a particular planning District will be determined at the time a given parcel is brought forward for development. The type of architecture ultimately selected for each parcel will depend on market trends and design styles at the time of development. However, all buildings will adhere to cohesive*

design elements, such as quality building materials and similar landscape palette, to create cohesion and aesthetic harmony throughout. This Specific Plan encourages distinct architectural styles that address project- and District-specific identities as an integral component of placemaking.

Additional policies and discussion throughout Chapter 6 of the Specific Plan further define project architecture, materials, massing, site planning, and other design parameters. Highly reflective glass would not be used in any manner prohibited by the following components of the Riverwalk Specific Plan and/or the San Diego LDC:

- River Corridor General Design Theme – *Discourage use of highly reflective plate glass on building elevations that face the river.*
- River Influence Area building façades - *Building façades that front the River Corridor Area shall not include materials with a visible light reflectivity (VLR) factor greater than 30 percent and shall consult architectural design guidance of the American Bird Conservancy Bird-Friendly Design.*

Consistent architectural themes would be emphasized throughout the elements of design, color, materials, and finish, as well as signage and landscaping. The consistency of themes serves to unify Riverwalk's land uses and product types, giving the neighborhood a distinctive and easily recognizable identity. Buildings developed in accordance with the Riverwalk Specific Plan would regularly vary in mass, bulk, scale, design style, and materials. A specific goal of the Riverwalk Specific Plan is to introduce architectural variability, which would avoid monotonous and overly uniform urban form and would create a sense of place. With consistency in themes identified, coupled with the variability in building-to-building design, the intent of the Riverwalk Specific Plan is to create a harmonious and visually interesting neighborhood. As such, architecture would be complementary to the vision for Mission Valley, as land use policies evolve and redevelopment projects emerge. The vision for Mission Valley is in part guided by the design guidelines of the Mission Valley Community Plan. The project's application of and consistency with the previously-identified applicable design guidelines is shown in Table 5.3-1, *Riverwalk Application of Mission Valley Community Plan Applicable Design Guidelines.*

The project would not create a negative aesthetic site or property, nor would it create a disorganized appearance. Building materials would be compatible with what exists currently, conveying the character of an urban project and reflecting the Mission Valley setting. The project's architectural elements are intended to provide interesting and identifiable features, which would allow pedestrians and motorists to easily find their destinations. Architectural features such as varied building material, heights, and setbacks would provide vertical relief to the façades and would create focal points around the project for both pedestrians and passing vehicles. Plant materials would be used at the ground level to not only create interest, but also integrate architectural forms within the site. The Specific Plan's goals, policies, regulations, and overall discussion would require greater

architectural detail and color palette than what is existing on-site and in the nearby development, as presented in Table 5.3-1. Project design includes recessed and protruding elements, such as windows and balconies, to add visual interest and character to the project site. Building mass and rooflines would be varied, as would be proposed finishes and materials, as described above. Paths, walkways, and buildings would include a variety of materials and colors to create visual interest and encourage a higher level of use. The project would not degrade the visual character of the project site or its surrounding. The project would also not result in creating a negative aesthetic site or property.

Views

The Mission Valley Community Plan includes the following design guideline, relative to views:

- ***DG-50 Views.*** *Take advantage of views to the San Diego River, hillsides, and other natural features in design, particularly for living areas.*

The Riverwalk Specific Plan includes discussion of views and view corridors in Section 3.5, *Site Planning and View Corridors*. View corridors are considered both within the Specific Plan area and also into the site from adjacent roadways (Figure 5.3-4, *Riverwalk View Corridors*). These are views as seen by pedestrians, from automobiles and transit, and other individuals passing by the property at the street level. Most of the views from I-8 are obscured by existing development. The Riverwalk Specific Plan would additionally afford views from the north and south into the Riverwalk River Park. Views of other elements of Riverwalk's open space system include emphasis on view corridors from Friars Road through the development parcels of the North District and Central District toward the San Diego River. A major view corridor into the San Diego River would be provided from Fashion Valley Road. Section 3.5.2, *Views and View Corridors*, of the Riverwalk Specific Plan includes the following additional discussion:

> *The placement and orientation of buildings should reflect the visual corridor objectives by organizing in a pattern which emphasizes these focal points. Providing interior view opportunities defines the urban character of Riverwalk through a variety of spaces linked by walkways and plazas, and articulated by overhead structures that frame views and create a changing spatial experience for pedestrians. Tree-framed view corridors are encouraged.*

Bulk and Scale

The Riverwalk Specific Plan would allow development that would vary in height ~~up to 200 feet~~ (building height in the North and Central Districts would be limited to seven stories not to exceed 85 feet in height from the highest adjacent finished grade, with additional limitation of five stories not to exceed 65 feet in height from the highest adjacent finished grade adjacent to The Courtyards and Mission Greens condominiums). Residential buildings within Riverwalk would include parking primarily in above-ground parking structures incorporated into individual project design in the

North and Central Districts. Additional parking structures would be located in the South District, adjacent to employment buildings that may house non-retail commercial, retail, and/or residential uses. The project would include an articulated network of parks, plazas, open space, and other areas for gathering, and various walkways and trails promoting pedestrian and bicycle activity through the project site. Open spaces further break up the bulk and scale of the project and allow views into the project and to the San Diego River, avoiding a solid massed appearance along the roadways or from vantage points.

The flood elevation of the San Diego River across the project site varies. Portions of the project site are currently above the flood elevation, while others are below the flood elevation. Grading would be required to ensure that all development areas are above the flood elevation and in accordance with City regulations. In total, 173.6 acres (or 89 percent of the total project site) would be graded; 0.65 acre of off-site area would also be graded. Remedial grading, which would involve the removal and recompaction of alluvium, would consist of 1,506,700 cy. The amount of cut would be 426,400 cy, with a maximum cut depth of 24 feet. The amount of fill would be 1,454,000 cy (requiring 1,028,000 cy of import), with a maximum fill depth of 32 feet. Grading would be required to raise developable portions of the project site out of the 100-year floodplain, and to leave the site in a manner to allow for development as required by the Riverwalk Specific Plan and VTM. The graded site would appear generally consistent with what occurs today, with relative level development pads following site topography gently sloping toward the San Diego River.

The project also proposes construction of multiple retaining walls throughout the project site. A retaining wall would be constructed on the north side of Riverwalk Drive, on either side of Street J, to support the trolley tracks. The maximum exposed height of this wall would be 18 feet, tapering down to zero feet at the eastern and western ends of the wall. There is another wall on the north side of Riverwalk drive to support the trolley stop. Another retaining wall would be located on the west side of Street V, which would be constructed from Hotel Circle North into the project site. This wall is required to protect the drainage along the property line and would be approximately 450 feet in length and at a maximum height of 3.5 feet. Appearance of retaining walls would be softened with the planting of vines and other traveling landscaping at the base of the walls, trailing landscaping at the top of the walls, intermittent planters along the walls, and/or other landscaping methods available and appropriate at the time of construction. With appropriate landscaping and retaining walls, the project would not result in a significant impact to visual effects.

Additionally, development of Riverwalk would include the following three Tailored Development Standards relative to retaining walls. (1) Relative to retaining wall regulations in all zones, included in LDC §142.0340(c)(1), two retaining walls with a maximum height of three feet are permitted in the required front and street side yards, if the two retaining walls are separated by a minimum horizontal distance equal to the height of the upper wall. The retaining walls on the southern boundary of Lot QQ adjacent to the transit stop and the southeastern corner of Lot SS are in excess

of three feet and necessary to support the MTS Trolley Tracks. Two three-foot retaining walls would not provide the needed separation for Street 'J' to cross under the MTS Trolley Tracks; therefore, a single retaining wall that ranges in height from 23 feet to less than three feet would be allowed (the length of wall above three feet in height would be 298 feet), provided it includes landscaping such as vines and trees to assist with masking the wall.

(2) Relative to LDC §142.0340(c)(3), retaining walls of three feet in height or greater are required to have at least one horizontal or vertical offset for each 120 square feet of wall area, except where otherwise provided in LDC §142.0340(f). The horizontal or vertical offset shall be at least 12 inches wide with a minimum reveal of four inches. Vertical or horizontal offsets for every 120 square feet of wall area would not be practical for a retaining wall necessary to support the MTS Trolley Tracks that reaches a height of 23 feet. Offsets would be provided through the use of vines, trees, or other landscaping elements.

(3) Relative to retaining wall height outside of required yards regulations in all zones, LDC §142.0340(e) requires that retaining walls located outside of the required yards not exceed 12 feet in height. The retaining wall located near the rear of Lot 28 would not be visible from a public right-of-way and would largely be lower than the elevation of the MTS Trolley Tracks that are adjacent to the rear of Lot 28. Since the retaining wall would be provided to allow access to a Public Utility facility that crosses under the MTS Trolley Tracks, it cannot be screened with trees or shrubs; however, it would be screened with vines plant above and below the wall.

These Tailored Development Standards provide for landscaping to screen the visual appearance of retaining walls. No significant visual impact would result from the retaining walls allowed with application of these Tailored Development Standards.

Alteration of Character

The project would result in a change to the existing character of the community of the area, as the site is currently developed as a golf course and the project proposes the development of an integrated infill mixed-use neighborhood. The project would be consistent with the planned character of the community of the area, both as presented in the Mission Valley Community Plan and as demonstrated by project incorporation of applicable Mission Valley Community Plan design guidelines, as shown in Table 5.3-1. As described above, the character of Mission Valley is evolving, particularly in the area of the project, where redevelopment projects are being implemented. The project is consistent with the planned land use and design guidelines of the Mission Valley Community Plan; impacts relative to alteration of the character of the community of the area, therefore, would be less than significant.

Significance of Impacts

The project would not result in substantial alteration to the existing or planned character of the area. The project would not contrast with existing surrounding development through excessive height or bulk. Retaining walls proposed would not be in excess of height and length regulations, except as noted with the Tailored Development Standards above. The project's bulk, scale, and materials would be compatible with the surrounding development. The project would not create a disorganized appearance, nor would it result in an architectural style or building materials in contrast with surrounding development. Therefore, impacts would be less than significant.

Mitigation Measures

Mitigation would not be required.

5.3.3.2 Issue 4

Issue 4 *Would the* project create *substantial light or glare that would adversely affect daytime or nighttime views in the area?*

Impact Thresholds

Based on the City's CEQA Significance Determination Thresholds, a project could result in a significant impact associated with light and glare if it would:

- *Be moderate to large in scale, more than 50 percent of any single elevation of a building's exterior is built with a material with a light reflectivity greater than 30 percent, and the project is adjacent to a major public roadway or public area.*
- *Shed substantial light onto adjacent, light-sensitive property or land use, or would emit a substantial amount of ambient light into the nighttime sky. Uses considered sensitive to nighttime light include, but are not limited to, residential, some commercial and industrial uses, and natural areas.*

Analysis

The project area currently contains existing lighting sources, such as on-site lighting for buildings and golf cart paths, lighting from golf carts, parking area lighting, and lighting for the driving range. Adjacent sources of light occur from streetlights along major surrounding roadways, surrounding developments, and associated parking lighting.

Lighting

Landscaping and architectural features of the project would be illuminated and accented with lighting. Lighting would be provided for parking structures and surface parking areas. Additional lighting would be provided in pedestrian and circulation areas for added security. The project would

not create a new source of substantial light that would adversely affect daytime or nighttime views in the area. Outdoor lighting would be regulated by compliance with Section 142.0740 of the City LDC and would not trespass onto adjacent properties or into the nighttime sky. In addition, the Specific Plan includes policies relative to lighting. However, where the Specific Plan does not address a specific lighting regulation or requirement, the LDC requirements apply. The following are the policies relative to lighting:

Riverwalk Specific Plan - Section 6.5.10, Outdoor Lighting
The design issue of lighting includes street lighting and lighting for open space and park areas, as well as building and landscape accent light and sign illumination. The following policies should be considered in the provision of lighting:

- *Policy-44. Street lights should provide a safe and desirable level of illumination for motorists, pedestrians, and bicyclists.*
- *Policy-45. Lighting should not intrude into residential areas. Where feasible, all lighting should be comprised of full cut-off fixtures to minimize light pollution and glare.*
- *Policy-46. Lighting fixtures should relate to the human scale, especially security lighting and lighting in pedestrian areas.*
- *Policy-47. Lighting and lighting fixtures should complement the design and character of the environment in which they are placed.*
- *Policy-48. Enhanced lighting should be utilized in areas designed as primary connections between residential and commercial area, as well as to public transit facilities. Shielding, appropriately scaled lighting fixtures, and light wattage are all measures to ensure against escape of light into unintended areas, such as residential units or natural areas.*
- *Policy-49. Safety lighting adjacent to the San Diego River corridor must be directed lighting, as opposed to general lighting, to prevent spill-over and illumination of habitat areas in compliance with the City's MHPA adjacency guidelines.*

Site lighting is an important design issue that affects public streets, bicycle travel ways, open space, parks, and private areas. The lighting of these areas can encourage use after sunset and before sunrise, which increases the opportunities for social interaction, active transportation, and the creation of neighborhood, as well as promotes safety through longer hours of neighborhood use. One of the main objectives of the Riverwalk Specific Plan is to encourage active transportation movements such as walking and bicycles. The American National Standard Practice for Roadway Lighting (RP-8-00) may serve as a guide to supplement the minimum City standards for street lighting.

Lighting along trails, paths, walkways, and sidewalks should combine pedestrian-scale lighting with the adjacent building lighting, so as not to overwhelm the pedestrian/bicyclist.

- *Reg-86. Lighting adjacent to the San Diego River shall comply with the City's MHPA guidelines for lighting.*
- *Reg-87. Pedestrian/bicycle tunnels will be internally lit and include mirrors.*

Security lighting fixtures should not project above the face of the buildings and are to be shielded and match the surface to which they are attached.

- *Reg-88. Security lighting fixtures shall not substitute for the parking lot and/or walkway/path lighting fixtures.*

Illuminated entries should direct lighting low to the ground and be limited to only the immediate vicinity of the entry. Lighted entries should complement the building and should not be distracting or create visual clutter or glare.

The following additional lighting policy and regulations are included in the Riverwalk Specific Plan:

- *Policy-78. Low-wattage and/or LED light features, lighting controls, zoned lighting banks, and time-controlled lighting for public areas should be used.*
- *Reg-109. The primary pedestrian paths shall have adequate security lighting and signage to provide for the safety of the users.*
- *Reg-117. All bikeways shall have adequate lighting and signage to provide for the safety of the users as determined by the City Engineer. Lighting and signage within 100 feet of the River Corridor Area shall be shielded and directed away from the River Corridor Area.*

Lighting within the River Corridor Area is regulated as follows, per the San Diego River Park Master Plan: *Reg-144. Light posts shall not exceed 12 feet in height (lighting for public streets excepted). All lighting within 100 feet of the River Corridor Area shall be shielded and directed away from the River Corridor Area.* Lighting within the River Influence Area is regulated as follows, per the San Diego River Park Master Plan: *Reg-161. All lighting within 100 feet of the River Corridor Area shall be shielded and directed away from the River Corridor Area.*

Glare

Generally, glare within the Riverwalk Specific Plan area would be regulated by the LDC to ensure no impact would occur relative to glare. Glare would be avoided in accordance with Section 142.0730 of the LDC. Less than 50 percent of building façades would incorporate glass or other reflective material that would cause glare effects on surrounding roadways and properties. Where glass is incorporated, it would be non-reflective in nature and meet the 30 percent reflectivity factor requirement.

The Riverwalk Specific Plan requires lighted building entries to not create glare; discourages of the use of highly reflective plate glass on building elevations facing the San Diego River (per Riverwalk Specific Plan Reg-153, *building façades that front the River Corridor Area shall not include materials with a visible light reflectivity factor greater than 30 percent*); and regulates the use of highly reflective glass in any manner prohibited by the Mission Valley Community Plan, the SDRPMP, or the LDC. Additionally, with the following Specific Plan policies that address glare, the project would be precluded from creation of significant glare:

- *Policy-45. Lighting should not intrude into residential areas. Where feasible, all lighting should be comprised of full cut-off fixtures to minimize light pollution and glare.*
- *Reg-98. Evergreen canopy-form shade trees are to be used within surface parking area to reduce solar glare and provide variation in character. Trees shall be provided at a rate of one canopy form tree within 30 feet of each parking stall. Species shall be selected from the Recommended Plant Materials (Riverwalk Specific Plan Section 3.6.9, Recommended Plant Materials).*

Shading

The project would not contribute to shading of surrounding areas. Within the North and Central Districts, building heights are limited by the Riverwalk Specific Plan to seven stories (not to exceed 85 feet in height from the highest adjacent finished grade). Where abutting existing off-site development occurs, additional height limitations (five stories not to exceed 65 feet in height from the highest adjacent finished grade adjacent to The Courtyards and Mission Greens condominiums), setbacks, and stepbacks are required by the Riverwalk Specific Plan. As such, the project would not contribute substantial shading to off-site uses. In the South District, ~~development is limited to 200 feet in height and~~ potential shadows from buildings would fall primarily on-site into the South District; the southeastern portion of Riverwalk River Park; on roadways of the South District and Hotel Circle North; and a portion of the adjacent Town and Country Resort Hotel, which is currently developed as parking lot and conference center/ballroom space and is being redeveloped to include multi-family residential units. Such effects would not substantially interfere with useable areas since shading would be limited and dependent on time of year and the sun's location in the sky. Off-site shading would be comparable to what occurs as a result of surrounding development today, with no buildings tall enough to create permanent pockets of shade off-site throughout the day. Similar to surrounding development and typical of mid-rise urban development, shading provided by the project would move throughout the day with the movement of the sun. Shadows from development in the Riverwalk Specific Plan area would not result in a significant impact.

Significance of Impacts

The project would not result in significant lighting, glare, or shading impacts. The Specific Plan is not anticipated to create a new source of substantial light that would adversely affect daytime or nighttime views in the area, as the project lighting would be in conformance with the City's outdoor lighting regulations, as well as the regulations and policies of the Specific Plan. Glare impacts would

not occur because the project would consist of less than 50 percent reflective materials in compliance with the City's glare regulations; development projects would be further required to comply with regulations and policies of the Riverwalk Specific Plan relative to glare. The impact of shadows cast by the project would not be considered significant.

Mitigation Measures

Mitigation would not be required.

5.3.3.3 Issue 5

Issue 5 *Would the* project *result in the loss of any distinctive or landmark tree(s), or stand of mature trees as identified in a community plan?*

Impact Thresholds

According to the City's Significance Determination Thresholds, a project is considered to have a significant impact if the project would result in the physical loss, isolation, or degradation of a community identification symbol or landmark (e.g., a stand of trees, coastal bluff, historic landmark) that is identified in the General Plan, applicable community plan, or local coastal program.

Analysis

The Mission Valley Community Plan does not identify any distinctive or landmark tree(s), or any stand of mature trees. Vegetation on-site includes mature trees. The Riverwalk Specific Plan includes the following language relative to the preservation of existing mature trees: *Existing on-site tree specimens will be analyzed on an individual basis for preservation in their present or in a new location to the greatest extent feasible. All efforts will be made to preserve mature trees where possible. Existing trees will be analyzed and assessed in accordance with Council Policy 900-19 and the Conserve-A-Tree Program.* This regulation would require evaluation of on-site trees to preserve existing mature trees, where possible.

Additionally, the Specific Plan includes the following policy relative to existing trees along Friars Road:

- *Policy-55. To the greatest extent feasible, the existing trees lining the south side of Friars Road will be retained to reinforce the visual character of Friars Road.*

No impacts relative to distinctive or landmark trees, or a stand of mature trees, as identified in the Mission Valley Community Plan would occur.

Significance of Impact

No distinctive, landmark, or stand of mature trees is identified on the project site. However, the Specific Plan makes provision for the retention of existing mature trees, which would ensure that impacts are less than significant.

Mitigation Measures

Mitigation would not be required.

5.3.3.4 Issue 6

Issue 6 Would the project *result in a substantial change in the existing landform?*

Impact Threshold

According to the City's Significance Determination Thresholds, *a project is considered to have a significant impact if a project would result in more than 2,000 cy of earth per graded acre by either excavation or fill. In addition, one or more of the following conditions* (1 through 4) *must apply to meet this significance threshold:*

1. *The project would disturb steep hillsides in excess of the encroachment allowances of the Environmentally Sensitive Lands regulations (LDC Chapter 14, Article 3, Division 1). In evaluating this issue, environmental staff should consult with permit staff.*
2. *The project would create manufactured slopes higher than ten feet or steeper than 2:1 (50 percent).*
3. *The project would result in a change in elevation of steep hillsides as defined by the SDMC Section 113.0103 from existing grade to proposed grade of more than 5 feet by either excavation or fill, unless the area over which excavation or fill would exceed 5 feet is only at isolated points on the site. (A continuous elevation change of 5 feet may be noticeable in relation to surrounding areas. In addition, such a change may require retaining walls and other features to stabilize slopes, potentially resulting in a manufactured appearance.)*
4. *The project design includes mass terracing of natural slopes with cut or fill slopes in order to construct flat-pad structures.*

However, the above conditions may not be considered significant if one or more of the following apply:

1. *The grading plans clearly demonstrate, with both spot elevations and contours, that the proposed landforms will very closely imitate the existing on-site landform and/or the undisturbed, pre-existing surrounding neighborhood landforms. This may be achieved through "naturalized" variable slopes.*

2. *The grading plans clearly demonstrate, with both spot elevations and contours, that the proposed slopes follow the natural existing landform and at no point vary substantially from the natural landform elevations.*
3. *The proposed excavation or fill is necessary to permit installation of alternative design features such as step-down or detached buildings, non-typical roadway or parking lot designs, and alternative retaining wall designs which reduce the project's overall grading requirements.*

Analysis

Development in accordance with the Riverwalk Specific Plan would result in greater than 2,000 cy of earth per graded acre by either excavation or fill. As discussed previously, grading associated with development of the Specific Plan would involve approximately 1,506,700 cy of grading required for alluvium removal and recompaction; 426,400 cy of cut; and 1,454,000 cy of fill. However, none of the conditions identified above would apply to the project. The project would not disturb steep hillsides in excess of the encroachment allowances of the Environmentally Sensitive Lands regulations (LDC Chapter 14, Article 3, Division 1), as the project site does not contain steep hillsides. The project would not create manufactured slopes steeper than 2:1 (50 percent). The project would not result in a change in elevation of steep hillsides as defined by the SDMC Section 113.0103, as there are no steep hillsides present on-site .The project design does not include mass terracing of natural slopes with cut or fill slopes in order to construct flat-pad structures, as no natural slopes are present on-site. Since the project would not meet any of the primary conditions, the secondary criteria delineated above does not apply.

Significance of Impact

The Specific Plan area does not contain steep hillsides and would not involve grading that exceeds the secondary significance thresholds relative to grading. Impacts to landform alteration would be less than significant.

Mitigation Measures

Mitigation would not be required.

5.3.3.5 Issue 7

Issue 7 *Would the* project *result in a substantial obstruction of any vista or scenic view from a public viewing area as identified in the community plan?*

Impact Thresholds

The City's Significance Determination Thresholds establish thresholds for potential impacts to *public views from designated open space areas, roads, or parks, and for project impacts to visual landmarks or*

scenic vistas. In order for a project to result in a significant impact, *one or more of the following conditions must apply:*

- *The project would substantially block a view through a designated public view corridor as shown in an adopted community plan, the General Plan, or the Local Coastal Program;*
- *The project would cause substantial view blockage from a public viewing area of a public resource (such as the ocean) that is considered significant by the applicable community plan; or*
- *The project exceeds the allowed height or bulk regulations, and this excess results in a substantial view blockage from a public viewing area.*

Analysis

The Mission Valley Community Plan does not identify any designated public view corridors nor does it include designated public viewing areas that are considered significant. Although not specially identified as such in the Mission Valley Community Plan, the San Diego River is considered a significant visual resource within Mission Valley. As previously discussed and as illustrated in Figure 5.3-4, the Specific Plan would create view corridors, which would be preserved and enhanced. The Specific Plan would not exceed the allowed height (limited to seven stories not to exceed 85 feet in height from the highest adjacent finished grade in the North District and Central District, with additional limitation of five stories not to exceed 65 feet in height from the highest adjacent finished grade adjacent to The Courtyards and Mission Greens condominiums) or bulk and scale regulations. Specific development regulations, such as project-specific height limits, would result in less height that could be developed on-site with standard zoning and would allow for views over project development from the north mesa of Linda Vista to the San Diego River area. The Specific Plan's regulations on bulk and setbacks would ensure buildings would not encroach into the view corridors established by the Specific Plan. Impacts to public views would be less than significant.

Significance of Impact

The Mission Valley Community Plan does not include any designated view corridors or public viewing areas. As the San Diego River is a significant visual resource of the community, the Specific Plan would create view corridors through the Specific Plan area to the river for view preservation. Impacts would be less than significant.

Mitigation Measures

Mitigation would not be required.

Table 5.3-1. *Riverwalk Application of Mission Valley Community Plan Applicable Design Guidelines.*

Mission Valley Community Plan Design Guideline	Riverwalk Specific Plan Application.
Public Realm	
DG-1 Active Commercial Entry Areas. In building entry areas in front of ground floor commercial uses, include spaces for outdoor dining, displays (stands, book racks, etc.), planters, and plazas.	The Riverwalk Specific Plan includes special guidance for ground level activation areas (see Riverwalk Specific Plan, Section 6.4.6, *Activated Interfaces*). The Retail Activation Interface (Figure 5.3-1, *Riverwalk Specific Plan Retail Activation Interface*) requires that an enhanced pedestrian experience shall be accomplished through enhanced paving, storefront canopies or outdoor seating in areas near building entrances, cafés, and restaurants. Wider sidewalks onto private property are encouraged to accommodate sidewalk cafés.
DG-2 Entry Area Open Spaces. Define entry plazas and passenger loading areas with distinctive paving materials, seating, shade, and attractive landscaping.	Building entries are addressed throughout the Riverwalk Specific Plan, in particular in Section 6.3.6, *Building to Street Relationship:* *One of the critical objectives of the Riverwalk Specific Plan is to create a friendly and appealing pedestrian environment, which is, in part, the result of site planning and architecture that emphasizes the relationship between Riverwalk's streets and the buildings that front onto these streets. To that end, the buildings should be oriented to the internal streets to reinforce the urban character of Riverwalk.* *Buildings shall engage the public realm through various activating conditions and uses. Within these areas, buildings shall have, as appropriate to the building design and topography constraints:* • *Enhanced public lobbies and/or entrances addressing the street;* • *Ground floor individual unit entries;* • *Patios;* • *Ground floor resident amenities; and/or* • *Outdoor seating or display for retail use.*
DG-3. Sidewalks. Provide active pedestrian pathways along all private drives that provide primary access and public streets as noncontiguous sidewalks.	As shown in Figure 3-4, *Pedestrian Circulation*, the Riverwalk Specific Plan would establish a multi-faceted pedestrian circulation network, which would include sidewalks along public streets and private drives, as well as walkways within open space areas. As shown in Figure 4-11 through Figure 4-36 of the Riverwalk Specific Plan, the majority of Riverwalk's street would develop with non-contiguous sidewalks.
DG-3. Sidewalks. Provide active pedestrian pathways along all private drives that provide primary access and public streets as noncontiguous sidewalks.	

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DG-4 Multi-functionality. *Where desirable, encourage the multi-functionality and flexibility of the sidewalk and streetscape by supporting various modes of travel and pedestrian and bicycle amenities (e.g., street furniture, sidewalk dining, bicycle parking).*	As shown in Figure 3-4 and Figure 3-6, Riverwalk would develop an extensive multi-modal circulation network, which includes the sidewalks, dedicated bicycle facilities, and multi-modal facilities that would provide flexibility for all modes of active transportation. Bicycle amenities, including parking, would be provided throughout the Specific Plan area, as described in Section 6.5.3, *Parking*, of the Riverwalk Specific Plan, and included within the Mobility Design Objectives of the Specific Plan. Sidewalk dining is supported throughout the regulations and policies of the Specific Plan, including Section 6.3.6, *Building to Street Relationship*, and Section 6.6, *District Specific Guidelines.* Street furniture in the form of public seating and other pedestrian amenities are supported throughout the Riverwalk Specific Plan, including in Section 6.3.6, *Building to Street Relationship,* Section 6.3.7, *Mixed-Use Core/Retail/ Transit/Trolley Stop*, Section 6.4.6, *Activated Interfaces,* and Section 6.6, *District Specific Guidelines.*
DG-6 Street Trees. Incorporate street trees into sidewalk buffer areas in order to increase shade, promote carbon sequestration, shield pedestrian pathways, and provide vegetation in the urban environment.	Greenbelt and street trees are incorporated into the Riverwalk Specific Plan (Figure 5.3-2, *Riverwalk Greenbelt and Street Trees)*. Included in Section 3.6.9, *Recommended Plant Materials*, of the Riverwalk Specific Plan are the variety of tree species that may be planted in the various greenbelt and street tree area. The recommended plant materials include evergreen and deciduous canopy trees to increase shade, promote carbon sequestration, shield the pedestrian pathways, and provide vegetation in the urban environment.
DG-8 Landscaping. Use landscaping strategically to identify pedestrian entrances and articulate edges for plazas and courtyards.	Section 6.5.11, *Landscape Features*, of the Riverwalk Specific Plan includes the landscape policies for the Specific Plan area, including streetscape design and open areas, such as plazas and courtyards. The planting palette identified in Section 3.6.9, *Recommended Plant Materials*, of the Specific Plan organizes plant material in a manner that landscaping assists in project component identification.
DG-9 Sun Exposure. Locate open space along the east, west, or southern block or building face, where feasible, and design to maximize exposure to the sun, while protecting from wind. Incorporate shaded and sheltered areas in addition to full sun areas.	The Riverwalk Specific Plan incorporates the following policies relative to sun exposure/solar access: • *Policy-21. Building placement should consider indoor and outdoor privacy, solar access, public and private open space, and overall aesthetics.* • *Policy-76. Strive for innovative site design and building orientation to reduce energy use by taking advantage*

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	of sun-shade patterns, prevailing winds, landscaping, and sun-screens. • *Policy-86. Deciduous trees should be used in south-facing and west-facing outdoor areas around buildings to provide solar access during winter months and shade in hot summer months.*
DG-10 Shared Amenities. Provide amenities for public use within public open spaces, including ample seating (benches, seating walls, movable seating, etc.); trees and other plantings; and shaded and sheltered areas.	As described in Section 6.5.16, *River Corridor Area*, Section 3.2, *Parks* (in particular, Section 3.2.1, *Riverwalk River Park*), shared amenities within Riverwalk's public spaces would include seating and benches, shade structures, and landscaping.
DG-11 Maintenance. Ensure that open spaces are clean and well-maintained. Use high-quality, durable materials that are cost-effective, energy efficient, and require minimal maintenance. Potential implementation includes standardized amenities (e.g., benches and trashcans) and energy efficient technology (e.g., solar trash compactors, moisture-sensing sprinklers, and light sensors).	The Riverwalk Specific Plan includes a discussion of maintenance responsibilities in Section 7.7, *Maintenance Requirements*. Maintenance within Riverwalk is broken into parkways and public areas (Section 7.7.1) to include public parks and private development landscaped areas (Section 7.7.2). Responsibilities are clearly discussed in Section 7.7 and illustrated in Figure 7-3 of the Riverwalk Specific Plan to ensure that proper maintenance occurs.
DG-12 Pedestrian-Scaled Lighting. Provide pedestrian-scaled lighting along all walk-ways and common areas. Levels of illumination should be responsive to the type and level of anticipated activity without under- or over-illuminating.	Section 6.5.10, *Outdoor Lighting*, of the Riverwalk Specific Plan includes a number of policies related to the design and placement of outdoor lighting in the Specific Plan area. Relative to pedestrian-scaled lighting, Policy-46 states that *[l]ighting fixtures should relate to the human scale, especially security lighting and lighting in pedestrian areas*. Additional language in this section states *[l]ighting along trails, paths, walkways, and sidewalks should combine pedestrian-scale lighting with the adjacent building lighting, so as not to overwhelm the pedestrian/bicyclist.*
DG-16 Green Streets. Implement Green Streets that can vary in design and appearance while still meeting functional goals (refer to Figure 23 of the Mission Valley Community Plan) • Alternative Street Designs (Street Widths). New streets should be planned accordingly so that existing hydrologic functions of the land are preserved (e.g., wetlands, buffers, and high-permeability soils). • Swales. Vegetated open channels designed to accept sheet flow runoff and convey it in broad shallow flow. Swales reduce storm water volume, improve water quality, and reduce flow velocity. • Bioretention Curb Extensions and Sidewalk Planters. Attractive planter boxes or curb extensions help infiltrate and store storm water,	The Riverwalk Specific Plan incorporates bioswales and street trees into the Specific Plan, as described in Specific Plan Section 3.6.6 and Section 3.6.1, respectively. Street trees are also illustrated in Figure 5.3-2 of this EIR.

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which reduces runoff volumes and attenuates peak flows. • Permeable Pavement. Provides structural support, runoff storage, and pollutant removal through filtering and adsorption. • Sidewalk Trees and Tree Boxes. Street trees are good for the economy, reduce the urban heat island effect and storm water runoff, improve the urban aesthetic, and improve air quality. Large tree boxes and root paths can be used under sidewalks to expand root zones, which allows street trees to grow to full size.	
DG-17 Paseos. Provide enhanced paths to allow pedestrians to bisect mega blocks and connect to transit/recreation areas. When paseos are needed along property lines, they should be designed to be extended onto adjacent properties.	Development as envisioned by the Riverwalk Specific Plan would not result in any mega blocks. However, paseos are encouraged in the Specific Plan area to enhance the pedestrian experience. Specific language relative to paseos in Section 3.2.2, *Urban Parks*, of the Riverwalk Specific Plan states: *As described in the Mission Valley Community Plan, paseos are enhanced pedestrian paths that provide ingress/egress through development projects that are privately owned and publicly accessible. Paseos can create corridors that function as secondary frontages for business storefronts and product displays or for café seating and plazas. Paseos may be anchored by new spaces that serve as space for seating, music, performances, art, and festivals. Actual design and locations of paseos will be determined as individual developments come online.*
General Design	
DG-18 Reduced and Shared Access. Minimize curb cuts and driveway entrances to parking facilities and loading areas. Wherever possible, design driveways to be shared among neighboring properties in order to reduce potential conflicts with pedestrians and bicycles. Provide space for shared transportation services, such as circulators, rideshare vehicles, and microtransit, to allow for the safe pick-up and drop-off of passengers.	Relative to reduced/shared access, the Riverwalk Specific Plan includes the following policies and regulation: • *Policy-74. When feasible, vehicular access should be provided through shared driveways at property lines.* • *Policy-75. Driveway entrances to parking areas should minimize disturbances to the pedestrian continuity of the sidewalk areas.* • *Reg-121. Rideshare drop-off/pick-up areas shall be designated to avoid conflicts with the circulation system.*
DG-19 Lighting. Ensure adequate lighting of parking areas to improve visibility and safety. Motion-sensor lighting can reduce energy use. • Surface lots should have frequently spaced lights no more than 15 feet tall, rather than a few tall bright lights.	Parking lot lighting would be required to adhere to policies and regulations of the Riverwalk Specific Plan, specifically those within Section 6.5.10, *Outdoor Lighting*, as well as Section 6.5.13, *Sustainable Features*, which addresses lighting and energy use.

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• Parking garages should have adequate lighting along façades, but should shield the street from interior garage lighting.	
DG-20 Additional Safety Measures. Employ design features and programs to enhance safety in parking areas, including prominent and well-illuminated entries. These may include additional lighting along pedestrian paths, low-rise landscaped buffers, and/or a comprehensive surveillance system where applicable.	The project has been designed with Crime Prevention Through Environmental Design (CPTED) as referenced in Section 5.1.4 of the Specific Plan. CPTED elements include a mixture of uses to support 24-hour life and eyes on the street, as well as lighting. The Riverwalk Specific Plan includes policies and regulations that relate to additional safety measures: • *Policy-44. Street lights should provide a safe and desirable level of illumination for motorists, pedestrians, and bicyclists.* • *Policy-48. Enhanced lighting should be utilized in areas designed as primary connections between residential and commercial area, as well as to public transit facilities. Shielding, appropriately scaled lighting fixtures, and light wattage are all measures to ensure against escape of light into unintended areas, such as residential units or natural areas.* • *Policy-49. Safety lighting adjacent to the San Diego River corridor must be directed lighting, as opposed to general lighting, to prevent spill-over and illumination of habitat areas in compliance with the City's MHPA adjacency guidelines.* • *Reg-109. The primary pedestrian paths shall have adequate security lighting and signage to provide for the safety of the users.* • *Reg-117. All bikeways shall have adequate lighting and signage to provide for the safety of the users as determined by the City Engineer. Lighting and signage within 100 feet of the River Corridor Area shall be shielded and directed away from the River Corridor Area.* The following discussion and regulations are also included in Section 6.5.10, *Outdoor Lighting*: *Lighting along trails, paths, walkways, and sidewalks should combine pedestrian-scale lighting with the adjacent building lighting, so as not to overwhelm the pedestrian/bicyclist.* • *Reg-86. Lighting adjacent to the San Diego River shall comply with the City's MHPA guidelines for lighting.*

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	• *Reg-87. Pedestrian/bicycle tunnels will be internally lit and include mirrors.* *Security lighting fixtures should not project above the face of the buildings and are to be shielded and match the surface to which they are attached.* • *Reg-88. Security lighting fixtures shall not substitute for the parking lot and/or walkway/path lighting fixtures.* *Illuminated entries should direct lighting low to the ground and be limited to only the immediate vicinity of the entry. Lighted entries should complement the building and should not be distracting or create visual clutter or glare.*
DG-21 Flexibility. Design parking areas to be capable of eventually accommodating parking structures where surface parking is provided.	The Riverwalk Specific Plan includes the following policy, relative to flexibility in parking: *Policy-32. Provision for future vehicular innovations, such as autonomous vehicles, should be accommodated as those technologies become more prevalent in the future. Should structured parking become unnecessarily abundant, parking structures may be re-purposed to alternative uses within the land use constraints of this Specific Plan.*
DG-22 Ground Floor of Structured Parking. Reduce the apparent mass on the ground floor through well-proportioned windows, landscaping, screening, and architectural emphasis on pedestrian entries and towers.	The Riverwalk Specific Plan includes policies for integration of parking structure design, including the ground floor of structured parking: • *Policy-17. When parking garages are provided, they should be integrated into each new development and should occur under or adjacent to each structure or related group of structures, providing for the most efficient use of space and direct access for the user. Ground-level parking spaces should be utilized for retail activity whenever feasible, but should be minimized to avoid expansive open parking areas.* • *Policy-31. Parking structures should be architecturally integrated with development to reduce the visual prominence devoted to parking.* • *Policy-33. Development of Riverwalk provides off-street parking facilities that are attractively designed and integrated into development. The parking pattern will be created through the joint use and physical interconnection of parking areas and garages, when feasible.*

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DG-23 Parking Structure Façade. Provide variation and interest on the façade of parking garages through decorative screens, trellises, ornamental railings, and/or openings that appear as well-proportioned windows.	The Riverwalk Specific Plan includes the following policy relative to parking structure façades: *Policy-31. Parking structures should be architecturally integrated with development to reduce the visual prominence devoted to parking.*
DG-24 Subterranean Parking Design. Activate exposed portions of subterranean garages with landscaping and stoops or terracing.	Any exposed portions of subterranean garages would be required to be architecturally integrated into development design, consistent with Specific Plan Policy-17, Policy-31, and Policy-33.
DG-25 Parking Lot Landscaping. Design surface parking lots to incorporate trees for shading and permeable surfaces to minimize storm water runoff. • Round headed, rather than upright trees should be utilized in parking areas. Parking lot trees should have a mature height and spread of at least 30 feet. They should also be long-lived (60 years), clean, require little maintenance, and be structurally strong, insect and disease- resistant, and require little pruning. • More than 10 percent of the parking lot area is encouraged to be landscaped. Landscaping areas should be distributed between the periphery and interior landscaping islands and be designed to break up large paved areas. A minimum ten foot wide landscaping island is encouraged. Parking lot landscaping should include primarily ground cover and tall-canopied trees, instead of bushes or short, bushy trees. • To screen parking lots and structures from the street, large dense shrubs may be massed at the edge of the parking area. Trees and shrubs can be combined with earth berms to screen adjacent parking.	Parking lot landscaping allows for softening of the aesthetic of these areas and improved ecology by filtering runoff, reducing urban heat island effect, and passive air quality improvements. The Riverwalk Specific Plan includes the following policies and regulations relative to parking lot landscaping: • *Policy-56. Evergreen trees and shrubs may be combined with earthen berms to screen surface parking and parking structures from adjacent view corridors, development, streets, and river views.* • *Policy-57. Cascading-type plant materials may be used in edge planters along each level of parking.* • *Reg-97. Surface parking areas shall be broken into sections. Each parking area is to be separated by landscape buffers. Exclusive of setbacks from public streets a minimum of ten percent of the parking area shall be landscaped.* • *Reg-98. Evergreen canopy-form shade trees are to be used within surface parking area to reduce solar glare and provide variation in character. Trees shall be provided at a rate of one canopy form tree within 30 feet of each parking stall. Species shall be selected from the Recommended Plant Materials (Riverwalk Specific Plan Section 3.6.9, Recommended Plant Materials).* • *Reg-99. Within Vehicular Use Areas, tree wells shall have a minimum root zone of 40 square feet with no dimension less than five feet, per the City's Landscape Regulations. Where trees are placed within the Vehicular Use Area, diamond shaped planters shall not be allowed. Instead, trees shall be placed in either finger islands or placed in planters spanning the width of two parking stalls (approximately 16 feet) for a depth of three feet at the head of each abutting parking stall (approximately six feet) and centered with parking stall striping.* • *Reg-100. Trees shall provide a canopy when at mature height and spread. They should be known as strong,*

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	insect and disease resistant, deep-rooted, tolerant of street environments, low-maintenance, drought tolerant, and long living, if possible.
DG-26 Entries. Orient the primary building entrance (defined as the entrance which provides the most direct access to a building's lobby and is unlocked during business hours) to face the primary frontage. Secondary building entrances are encouraged to access side streets, parks, or plazas. Building overhangs, canopies, and entryway landscaping should not obstruct views, the street tree canopy, or street signs.	Street activation would occur throughout Riverwalk and would be a prevalent feature that residents, employees, and visitors experience. Street activation shall occur regardless of the specific land use fronting the street. Examples of the street activation interface features are illustrated in Figure 5.3-3, *Riverwalk. Specific Plan Street Activation Interface,* and include special treatments for building lobbies, patios, and resident amenities/retail, as described below (excerpt from Riverwalk Specific Plan Section 6.4.6, *Activated Interfaces*): • *Policy-26. Where possible, first floor patios should provide direct access to the sidewalk, and outdoor seating for adjacent uses shall be provided near entrances and amenities.* • *Reg-26. Building lobbies shall orient the primary entrance and exit toward the activated street interface to add life and activity at the street level.* • *Reg-27. Articulated features, such as canopies and/or architectural building signage, shall enhance the lobbies and entrances.* • *Reg-28. Residential units on the ground floor shall provide patios or direct entrances, where feasible.* • *Reg-29. Residential amenities on the ground floor such as a fitness or business center shall utilize storefront glass windows, large roll-up windows, or other transparent elements to give the appearance of retail and invite views of the interior space.* • *Reg-30. Enhanced paving shall be utilized in high-traffic pedestrian areas, as well as street furniture, such as benches, trash cans, and/or bicycle racks.*
DG-27 Solar Access and Energy Conservation. Employ climate-appropriate design strategies to allow for passive solar access and energy-efficient installations, including: • Allowing for adequate access to light and air so that daylight is able to reach all living spaces for part of the day, and adequate ventilation is provided when windows are open. Prioritize south-facing windows and private open space. • Siting building so that plazas and other public spaces will not be kept in shadows at all times and will not experience excessive wind conditions.	The following policies and regulations of the Riverwalk Specific Plan address solar access and energy conservation: • *Policy-21. Building placement should consider indoor and outdoor privacy, solar access, public and private open space, and overall aesthetics.* • *Policy-86. Deciduous trees should be used in south-facing and west-facing outdoor areas around buildings to provide solar access during winter months and shade in hot summer months.*

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• Locating parking areas with large paved surfaces to the east and north of adjacent buildings to reduce solar reflection on buildings. • Placing evergreen trees on the west side of buildings to provide protection from prevailing winds.	• *Policy-87. Vestibule use at entryways should be considered in order to reduce heat and cold infiltration into buildings.* • *Policy-88. Overhangs or canopies should be used, where possible, to shade areas from direct sunlight and reduce heat gain.* • *Policy-90. Consider larger surface parking areas to be located to the east and north of adjacent buildings to reduce solar reflection on buildings.* • *Reg-98. Evergreen canopy-form shade trees are to be used within surface parking area to reduce solar glare and provide variation in character. Trees shall be provided at a rate of one canopy form tree within 30 feet of each parking stall. Species shall be selected from the Recommended Plant Materials (Riverwalk Specific Plan Section 3.6.9, Recommended Plant Materials).* • *Reg-128. Utilize trees to maximize energy efficiency. Place evergreen trees in surface parking lots to diminish heat island effect.*
DG-28 Energy. Consider clustering buildings to use a common heating/cooling source.	Sustainable building practices, including energy conservation/efficiency, is addressed in Riverwalk Specific Plan Section 6.5.13, *Sustainable Features.* Policy-75 strives for *innovative site design and building orientation*, which may include clustering of buildings, as appropriate.
DG-29 Crime Prevention and Safety. Design buildings and public spaces to be defensible, clearly identified and demarcated, and designed with high visibility and to prevent access of unauthorized persons. This can be accomplished through natural surveillance. Position common spaces, pedestrian pathways, and entries such that they are clearly visible from the street. Position windows to allow for visible sight lines toward public spaces, parking areas, and entrances to dwellings.	As addressed Section 5.1.4, *Police*, of the Riverwalk Specific Plan, the Riverwalk project would incorporate CPTED design measures as a means of reducing potential incidents of crime in the neighborhood.
DG-30 Territorial Reinforcement. Delineate the transition from public space to private space with signs, pavement, building uses, or other objects. Fencing may only be used if a publicly accessible route is provided through the site.	The Riverwalk Specific Plan includes the following discussion relative to the differentiation of public and private spaces within Section 6.5.9: *Along Riverwalk's pedestrian-oriented residential streets, heights of fences and walls should differentiate between the public and private realms without creating a total visual barrier between the sidewalk and building. Low fences and walls or substantial planter boxes can provide an attractive distinction between public walkways and private residential spaces, while also enhancing the character of Riverwalk's active pedestrian street-scene.*

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DG-31 Building Bulk. Encourage variation and articulation through changes in height and massing. This can be achieved through building design that creates smaller masses corresponding to the internal function of the building, modest changes in roof heights, and varied vertical planes.	The form and scale of development conveys a story about the use within and acts as a transitional element where adjacent to existing development. Building massing can creatively mask the intensity of development to allow for maximum site efficiency within a less obtrusive form. The following policies of the Riverwalk Specific Plan address bulk and scale: • *Policy-13. Structures should create transitions in form and scale between large buildings and adjacent smaller buildings.* • *Policy-14. Massing of buildings should present a cluster of forms with landscaped open areas as an integral part of the site plan, to create courtyards and plaza areas between buildings and to avoid the appearance of a uniform building mass along roadways and pedestrian pathways. Varying building heights, setbacks, and planes can create a visually satisfying structure and help define view corridors. Intermittently step back upper levels to reduce perceived scale of buildings. Step backs should be varied and interspersed, as appropriate, to avoid a homogeneously stepped massing.* • *Policy-15. Transitions between the street and buildings at the pedestrian level should create visual interest and promote human activity.* • *Policy-16. Buildings and landscaped slopes should transition down to the river to provide major view corridors and open up areas to maintain comfortable scale relationships and avoid walling off amenity areas.* • *Policy-21. Buildings should be designed to visually minimize the impact of large continuous massing elements, both within Riverwalk and from the surrounding community. To achieve this, each building shall incorporate variations in heights and setbacks to reduce the architectural scale and massing element. Care should be taken to ensure not all buildings are a wrap design.* • *Policy-22. Visual corridors through Riverwalk should be respected and encouraged by building setbacks, step backs, and articulation.* • *Policy-23. Uninterrupted walls of structures should be avoided.*
DG-32 Diversity and Innovation. Find opportunities for diversity, creativity, and innovation in building form.	The Riverwalk Specific Plan includes the following discussion and policy relative to innovation:

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	• Long Term Flexibility Design Objective - *Allow flexibility for innovative and creative development and design solutions that respond to market trends during the construction phase of the project.* • *Policy-76. Strive for innovative site design and building orientation to reduce energy use by taking advantage of sun-shade patterns, prevailing winds, landscaping, and sun-screens.*
DG-33 Shadows. Consider the potential shade impacts on the surroundings, and design buildings such that heights, massing, and site plans respond to potential shading issues.	Section 6.4.1, *Site Planning*, of the Riverwalk Specific Plan include the provision that site planning *take into account orientation of buildings and the creation of view corridors*. This consideration for orientation may include potential shadows, on- and off-site.
DG-34 Roof Surfaces. Consider locating sloped roof surfaces facing the south, and at an angle that can accommodate solar panel or film installation for renewable energy generation or centralized solar hot water heating.	Roof treatments within the Riverwalk Specific Plan may include roofline variations, residential terraces and other amenity uses, parking areas, and/or solar arrays. Roof design would take into account the LDC regulations in place at the time individual developments come forward. Additional policies of the Specific Plan relative to rooflines include: • *Policy-3. Design and development of buildings should complement the landscape through features such as terraces and roofscapes.* • *Policy-11. Special attention shall be paid to roof area treatment and materials in all buildings.* • *Policy-18. Residential buildings should make use of balconies, decks, roof terraces, or other features that provide texture and depth of building façades and allow views of open spaces. Flat roofs may be designed for human use as terraces, gathering decks, and gardens.*
DG-35 Towers. Design towers to be slender in order to minimize the casting of large shadows. If large floor-plates are necessary on lower floors, middle and upper floors should taper, step back, or otherwise employ a reduction in massing.	Section 6.4.1, *Site Planning*, of the Riverwalk Specific Plan include the provision that site planning *take into account orientation of buildings and the creation of view corridors*. This consideration for orientation may include potential shadows, on- and off-site. Additionally, Policy-1 of this section addresses orientation of taller buildings to maximize sun exposure.
DG-36 Vertical Segmentation. Articulate a distinct building base, middle, and top through changes in materials, colors, or fenestration that reflect the internal function of the building. Avoid repetitive elements or monolithic treatments.	Section 6.4.2, *Materials and Treatments*, Section 6.4.3, *Form and Scale*, Section 6.4.4, *Architectural Use*, and Section 6.4.5, *Building Style and Massing Guidelines*, of the Riverwalk Specific Plan include policies emphasize articulation of buildings through materials, massing, form and scale, and architectural elements that would articulate distinct building features, including vertical segmentation.

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DG-37 Ground Floors. In multi-story buildings, design the ground floor to be tall, prominent, and establish a street presence.	Reinforced throughout the Riverwalk Specific Plan is the need for an articulated ground plane and first floor of buildings. This is specifically addressed in Section 6.3.7, *Mixed-Use Core/Retail/Transit/Trolley Stop*, Section 6.3.9*, Architectural Style and Development Aesthetics*, Section 6.4.6, *Activated Interfaces*, and Section 6.6, *District Specific Guidelines.*
DG-38 Façades. Treat all publicly visible façades of a building equally in terms of materials, colors, and design details. The building should have a finished appearance on all visible sides.	High-quality materials and thoughtful application of architectural treatments are key components of the Riverwalk Specific Plan to ensure neighborhood cohesion across varying architectural styles and timelines within which development would occur in the Riverwalk Specific Plan area. Riverwalk Specific Plan policies that guide materials and treatments include: • *Policy-7. Construction materials shall convey the character of an urban project and reflect the Mission Valley setting.* • *Policy-8. Design features should be incorporated into all structures to increase visual interest at street level. A series of openings and/or façade details that approximate the scale of any entryway into the building and open to the exterior on at least one side create a feeling of invitation to pedestrians.* • *Policy-9. Buildings at the perimeter of the neighborhood may reflect the architectural elements of the adjacent buildings.* • *Policy-12. Paths, walkways, and buildings should include a variety of materials and colors to create visual interest and encourage a higher level of use*.
DG-39 Limitations on Blank Walls. Minimize the amount of the linear frontage on the first story street-facing wall that may consist of blank walls. Where blank walls are unavoidable, reduce the impact by: • Placing blank walls as out of view as possible from the street. • Providing architectural treatments such as panels, contrasting textures, high-quality and interesting building materials, blind windows, planting treatments, murals or other public art, and/or exterior detailing. As much creativity should be given to these walls as to the rest of the façade of the building (Figure 28 of the Mission Valley Community Plan).	The Riverwalk Specific Plan includes a specific policy to avoid expanses of blank walls: • *Policy-23. Uninterrupted walls of structures should be avoided.* Additionally, the Specific Plan promotes high-quality materials and an articulated color palette in Section 6.2, *Design Objectives*, Section 6.3.9, *Architectural Style and Development Aesthetics,* Section 6.4, *Architectural Foundation,* and Section 6.4.2, *Materials and Treatments.*
DG-40 Operable Windows. Wherever applicable, provide operable windows that allow natural ventilation and potentially eliminate the need for	The Riverwalk Specific Plan includes the following policy, which promotes the use of operable windows:

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mechanical ventilation. If mechanical systems are necessary, use energy-efficient and low emission heating, ventilation, and air conditioning (HVAC) systems.	• *Policy-84. Maximize the use of natural ventilation in buildings.* Relative to HVAC systems, the following policy is applicable: • *Policy-83. Energy efficient HVAC systems.*
DG-42 Visual Access. Building height, spacing, and bulk should be designed to create landscaped and visually accessible areas from projects to community landmarks and open space features.	The San Diego River is a community landmark that runs through the central portion of the Specific Plan area. The Riverwalk Specific Plan includes a discussion of views and view corridors in Section 3.5, *Site Planning and View Corridors,* and view corridors are shown on Figure 5.3-4 of this EIR. The Riverwalk Specific Plan includes the following discussion relative to views and view corridors: *The placement and orientation of buildings should reflect the visual corridor objectives by organizing in a pattern which emphasizes these focal points. Providing interior view opportunities defines the urban character of Riverwalk through a variety of spaces linked by walkways and plazas, and articulated by overhead structures that frame views and create a changing spatial experience for pedestrians. Tree-framed view corridors are encouraged.*
DG-44 High Quality Materials. Use high- quality, durable architectural materials and finishes that provide a sense of permanence through the exterior and public interior spaces of the buildings. The materials palette should be reflective of the character of the location, type of architecture, and use of the building, and a unified palette of materials should be used on all sides of buildings.	The Riverwalk Specific Plan includes the following discussion relative to building materials (Riverwalk Specific Plan Section 6.3.9, *Architectural Style and Development Aesthetics*): *A variety of architectural styles and building materials are envisioned for Riverwalk. Different architectural styles are encouraged and are intended to co-exist in the overall Specific Plan to provide for independent and distinct neighborhood character and identifying elements. The use of a variety of building materials provides additional opportunity to create distinctive elements within each District and to lend an air of authenticity and timelessness to neighborhood development.* *[…]The buildings should feature enhanced and high-quality materials to encourage pedestrian activity and visual interest. The ground plane and the first floor of each building should be enhanced through architectural details, street furniture, and other amenities.*

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	[…][A]ll buildings will adhere to cohesive design elements, such as quality building materials and similar landscape palette, to create cohesion and aesthetic harmony throughout. This Specific Plan encourages distinct architectural styles that address project- and District-specific identities as an integral component of placemaking.
DG-45 Energy and Building Materials. Use building materials which will act as insulators or conductors, depending on energy needs.	Section 6.5.13, *Sustainable Features*, supports sustainable building and the use of sustainable building materials. This may include materials that would act as insulators or conductors, depending on energy needs.
DG-46 Authentic Materials. Use authentic materials with a substantial appearance, including natural stone, brick, masonry, tile, wood shingles, metal panels, and glass panels. Avoid using inauthentic materials that have the appearance of thin veneer or attachment such as scored plywood, vinyl, and aluminum siding. If used, inauthentic materials should not be the dominant façade material and should not be used for detailing or ornamentation.	The Specific Plan promotes high-quality, authentic materials in Section 6.2, *Design Objectives*, Section 6.3.9, *Architectural Style and Development Aesthetics,* Section 6.4, *Architectural Foundation,* Section 6.4.2, *Materials and Treatments*, and Section 6.5.6, *Private Open Space.* Recommended materials include, but are not limited to, stucco, stone, glass, metal, wood or composite material, and concrete.
DG-47 Architectural Styles. No particular architectural style is mandated for any area in Mission Valley. However, design should: • Be sensitive to the context and the surroundings without necessarily con- forming to the architectural styles of surrounding development. • Consider and respect the architectural features and styles of adjacent buildings and the surrounding district. Provide compatible or complementary features through architectural details, materials, colors, and lighting. In particular, draw on adjacent or nearby building features that are desirable to achieve compatibility.	The Riverwalk Specific Plan includes the following discussion relative to architectural styles: *A variety of architectural styles and building materials are envisioned for Riverwalk. Different architectural styles are encouraged and are intended to co-exist in the overall Specific Plan to provide for independent and distinct neighborhood character and identifying elements. The use of a variety of building materials provides additional opportunity to create distinctive elements within each District and to lend an air of authenticity and timelessness to neighborhood development.* *The building aesthetics within each of the Districts should complement each other, without resulting in homogeneity. This may include having similarly sized massing elements, materials, or overall building character. The buildings should feature enhanced and high-quality materials to encourage pedestrian activity and visual interest. The ground plane and the first floor of each building should be enhanced through architectural details, street furniture, and other amenities.* *Because architectural style is constantly changing, the type of architecture within a particular planning*

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	District will be determined at the time a given parcel is brought forward for development. The type of architecture ultimately selected for each parcel will depend on market trends and design styles at the time of development. However, all buildings will adhere to cohesive design elements, such as quality building materials and similar landscape palette, to create cohesion and aesthetic harmony throughout. This Specific Plan encourages distinct architectural styles that address project- and District-specific identities as an integral component of placemaking.
DG-48 Color. *Employ a color palette that reinforces building identity and complements changes in plane. The body of the building should generally be muted and light in tone to reduce heat gain. Bright colors should be used as accent colors only. A coordinated palette of complementary colors should be used rather than a patchwork of competing colors.*	The Riverwalk Specific Plan promotes unity through consistent and/or complementary color palettes. However, the Specific Plan does not determine a specific color palette, so as to not create a monotonous appearance. The following policy and excerpts are included in the Specific Plan: • *Policy-12. Paths, walkways, and buildings should include a variety of materials and colors to create visual interest and encourage a higher level of use.* • *Consistent architectural themes will be emphasized throughout the elements of design, color, materials, and finish, as well as signage and landscaping.* • *However, a single color scheme, massing approach, materials, and/or architectural style shall be avoided, as these differentiations provide identity to buildings and neighborhoods and help to create a timeless sense of place.*
DG-49 Family-Oriented Housing. Design family-oriented housing and units for a range of ages. Opportunities include: • Situate family-oriented units on lower floors to maximize accessibility for children and elderly. • Provide adequate storage space and design entryways that are visible from inside the home with wider hallways to accommodate stroller and bicycles, etc.	The Riverwalk Specific Plan includes amenities that would be attractive to families, including children's play areas, multi-purpose courts, and ball fields within park elements. Additionally, the proximity of housing to transit and employment, as well as zoning that allows for child care facilities as a limited use, would make Riverwalk a potential destination for families to locate.
DG-50 Views. Take advantage of views to the San Diego River, hillsides, and other natural features in design, particularly for living areas.	The Riverwalk Specific Plan includes discussion of views and view corridors in Section 3.5, *Site Planning and View Corridors*. View corridors are considered both within the Specific Plan area and also into the site from adjacent roadways (Figure 5.3-4, *Riverwalk View Corridors*). These are views as seen by pedestrians, from automobiles and transit, and other individuals passing by the property at the street level. Most of the views from I-8 are obscured by existing development. The Riverwalk Specific Plan would

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	additionally afford views from the north and south into the Riverwalk River Park. Views of other elements of Riverwalk's open space system include emphasis on view corridors from Friars Road through the development parcels of the North District and Central District toward the San Diego River. A major view corridor into the San Diego River would be provided from Fashion Valley Road. Section 3.5.2, *Views and View Corridors*, of the Riverwalk Specific Plan includes the following additional discussion: *The placement and orientation of buildings should reflect the visual corridor objectives by organizing in a pattern which emphasizes these focal points. Providing interior view opportunities defines the urban character of Riverwalk through a variety of spaces linked by walkways and plazas, and articulated by overhead structures that frame views and create a changing spatial experience for pedestrians. Tree-framed view corridors are encouraged.*
DG-53 Safety and Security. Integrate features that enhance security such as timed lighting and windows that look out onto pedestrian paths. Avoid using bars or security grills on windows and doors.	The Riverwalk Specific Plan does not contemplate the use of bars or security grills on windows or doors for safety and security. Rather, the Specific Plan would implement CPTED principles of passive security by collocating a variety of uses to create 24-hour life in the Specific Plan area. The locations of residential use throughout the Specific Plan area would create eyes on the street for both formal circulation elements, as well as paths within the Riverwalk River Park adjacent to development areas.
DG-54 Frontages. Articulate frontages to differentiate residential units from each other and from the overall massing. Incorporate porches, stoops, recessed windows, bay windows, accordi[o]n/roll-up doors, and balconies to provide visual interest (see Figure 29 of the Mission Valley Community Plan).	Frontages are addressed in Section 6.4.6, *Activated Interfaces*, as well as Section 6.6, *District Specific Guidelines,* of the Riverwalk Specific Plan.
DG-55 Residential Windows. Design windows to highlight the uses within. In residential areas on upper stories, for example, smaller windows allow more privacy.	Windows are anticipated by the Riverwalk Specific Plan to provide natural light and ventilation. Windows at the ground level would allow for transparency, particularly where facing the River Corridor Area. The Riverwalk Specific Plan would not preclude the design of individual buildings to take into account window location and size to address building-specific privacy concerns.
DG-56 Ground Floor Private Open Spaces. To ensure privacy and sunlight access, provide partially transparent screening or landscaping for open spaces	Private open space is addressed in Section 6.5.6, *Private Open Space.* Private open space would be demarcated from the public realm and would be

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facing a public street, such as tall grasses and fences with openings.	constructed with building materials such as, but not limited to, stucco, stone, glass, metal, wood, or concrete. Reg-75 requires private recreational space and urban plazas to be visually or physically linked to the greater open space network.
DG-57 Separation from Shared Open Space. Separate private open space from common open space with low walls or fencing.	
DG-58 Active Uses. Prioritize active uses on the ground floor.	Ground floor activation is promoted throughout the Riverwalk Specific Plan. Specifically, this is addressed in Section 6.4.6, *Activated Interfaces*.
DG-60 Compatibility of Uses. Maximize compatibility and mutual benefit in the mix of uses. Retail use should be generally limited to the ground-floor spaces along the street.	The Riverwalk Specific Plan would develop as an integrated mix of compatible and complementary uses that would be mutually supportive and reinforcing of each other. Residential uses would provide employees and customers for the various non-residential components. The various non-residential components would contribute to demand for on-site residential use. These uses together would create 24-hour life throughout the Specific Plan area with mutual benefit for all uses.
DG-61 Ground Floor Windows. Consider installing operable windows or stacking doors that allow the full length of the storefront to be opened to the sidewalk. At the street level, storefront windows should enliven the street and provide pedestrian views into the interior.	Ground floor activation, including windows, are addressed throughout the Riverwalk Specific Plan, and specifically within Section 6.4.6, *Activated Interfaces*. Activated interface regulations address storefront windows, as well and residential lobbies and ground floor patios/sidewalk cafés, which would enliven the street and provide for pedestrian views and interaction.
DG-62 Sustainable Materials. Where possible, use sustainable building materials. Incorporate recycled, renewable, sustainable, and non-toxic/ low-VOC (volatile organic compound) materials. Use of locally harvested and/or manufactured materials is desired.	The Riverwalk Specific Plan includes the following policies and regulations relative to sustainable building and site design: • *Policy-77. Consider re-use of building materials, materials that have post-consumer recycled content, and materials that are derived from sustainable or rapidly renewable sources.* • *Policy-78. Low-wattage and/or LED light features, lighting controls, zoned lighting banks, and time-controlled lighting for public areas should be used.* • *Policy-80. Strive for innovative site design and building orientation to reduce energy use by taking advantage of sun-shade patterns, prevailing winds, landscaping, and sun-screens.* • *Reg-123. Design buildings that meet CALGreen, California Green Building Standards Code.* • *Reg-124. Design for convenient waste segregation and management, including recycling and composting, in order to meet State and local zero waste management requirements.*

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	• *Reg-125. Construct and operate buildings using materials, methods, and mechanical and electrical systems that promote a healthful indoor air quality.* • *Reg-126. The use of low–flow shower heads and faucets, low-flow toilets, cycle adjustment dishwashers, pressure regulators, hot water pipe insulation or instantaneous water heaters, and standard water meters connection pipe sizes (no oversizing).* • *Reg-127. Ground-mounted solar arrays are prohibited.*
DG-63 Sustainable Landscaping. Provide attractive and context-sensitive on-site landscaping that minimizes heat gain, is drought-resistant, requires minimal irrigation by: • Planting deciduous trees on the south side of buildings to shade the south face and roof during the summer while allowing sunlight to penetrate buildings in the winter. • Exploring vegetation on the exposed east and west facing walls. • Planting groundcovers that prevent ground reflection and keep the surface cooler, preventing re-radiation. • Building roof gardens, eco-roofs, or other vegetated roof systems to help reduce the solar heat gain of building roofs and to serve as shared open space. • Minimizing impervious surfaces that have large thermal gain.	The Riverwalk Specific Plan includes the following policies and regulations relative to sustainable landscaping practices: • *Policy-79. Incorporate sustainable landscape design and maintenance.* • *Policy-80. Increase the city-wide urban tree canopy by providing a broad range of trees in a hierarchy of locations throughout Riverwalk, when feasible. Consider trees that have greater carbon sequestration.* • *Policy-81. Consider high efficiency irrigation technology and recycled water, when available, to reduce the use of potable water for irrigation.* • *Policy-82. Low-water-use plant material, automatic sprinkler systems with timers, and drip-irrigation systems are encouraged.* • *Reg-128. Utilize trees to maximize energy efficiency. Place evergreen trees in surface parking lots to diminish heat island effect.* • *Reg-129. Incorporate water conservation measures in site/building design and landscaping.*
DG-64 Water Efficiency and Conservation. Install water saving appliances and systems such as gray water systems, moisture-sensitive irrigation rainwater cisterns, and low-flow toilets and faucets. Any exterior systems should be integrated into building design.	The Riverwalk Specific Plan encourages sustainable development, to include development that takes into account water efficiency and conservation. Additionally, the Riverwalk Specific Plan includes the following regulations relative to water efficiency and conservation: • *Reg-103. The use of turf is regulated by the Water Conservation section of the Landscape Regulations (LDC Section 142.0413), which limits use to 10 percent of the landscape areas on a premises, excluding required common areas, active recreation areas, and areas located in the public right of way between the curb and the sidewalk. At thematic entries, use of turf is limited to 50 percent of the entry area, and may not exceed the 10 percent allowed on the premises.* • *Reg-126. The use of low–flow shower heads and faucets, low-flow toilets, cycle adjustment dishwashers,*

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	pressure regulators, hot water pipe insulation or instantaneous water heaters, and standard water meters connection pipe sizes (no oversizing). • *Reg-129. Incorporate water conservation measures in site/building design and landscaping.*
DG-65 Storm Water Capture and Treatment. Ensure the design of new development integrates storm water best management practices on site to maximize their effectiveness by: • Allowing the use of green roofs and water collection devices, such as bioswales, cisterns, and rain barrels, to capture rainwater from the building for re-use. • Utilizing disconnected drain sprouts to interrupt the direct flow of rain-water from the buildings to the storm water system. Integrate these features to imbibe buildings with a distinctive architectural character. • Minimizing on site impermeable surfaces, such as concrete and asphalt. Utilizing permeable pavers, porous asphalt, reinforced grass pavement, cobble stone block pavement, etc. to detain and infiltrate runoff on-site. • Encouraging the use of permeable paving elements in auto and non-auto-oriented areas.	The Riverwalk Specific Plan incorporates storm water capture and treatment through the implementation of Low Impact Development (LID) measures, as discussed in Section 6.5.13, *Sustainable Features*. The LID principles, guidelines, and BMPs would be *incorporated during the planning, design, implementation, and maintenance of the public spaces throughout the project. In particular, planting areas within parks, on slopes, and along trails would be designed to incorporate stormwater management BMPs to slow, infiltrate, and cleanse stormwater. Trails and hardscape features within the public realm would be designed with permeable paving materials, where appropriate, such as porous concrete, porous asphalt, interlocking pavers, decomposed granite, or similar treatments to promote stormwater infiltration and reduce stormwater discharge.*
DG-68 Carbon Sequestration. Incorporate new trees into site plans that have the potential for storage and sequestration of high levels of carbon.	As described in Section 5.1, *Land Use*, of this EIR, the Riverwalk Specific Plan would conservatively double the tree canopy percentage on the project site. This increased tree canopy, in addition to other project landscaping, would result in increased carbon sequestration.
DG-69 Zero Net Energy Buildings. Strive for zero net energy in a building design.	Development of the Riverwalk Specific Plan would be consistent with Title 24 and would adhere to the various sustainable policies of Section 6.5.13, *Sustainable Features.*
DG-70 Maintenance. Develop long-term maintenance for all vegetation to be in accordance with adopted City-wide landscape standards.	The Riverwalk Specific Plan includes a discussion of maintenance responsibilities in Section 7.7, *Maintenance Requirements*. Maintenance within Riverwalk is broken into parkways and public areas (Section 7.7.1), to include public parks, and private development landscaped areas (Section 7.7.2). Responsibilities are clearly discussed in Section 7.7 and illustrated in Figure 7-3 of the Riverwalk Specific Plan to ensure that proper maintenance occurs.
Area-Specific Design	
DG-71 Station Arrival Plaza. Incorporate an arrival plaza as a visual gateway. Include public art,	Relative to the transit stop plaza, the Riverwalk Specific Plan offers the following description and regulations:

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landscaping, lighting, and pavers to the station and plaza design.	*The retail/trolley area that makes up the mixed-use center of the North District is intended to be one of Riverwalk's primary entryways and, as such, represents a front door of the neighborhood and window to the public's arrival at Riverwalk via mass transit or passing through on the way to a destination beyond. Riverwalk's Green Line Trolley transit stop and mobility hub serves Riverwalk's residents, as well as the adjacent retail spaces and the Riverwalk River Park and will provide connections to the surrounding communities. The transit stop and mobility hub are integrated with the retail area and provide activated uses fronting on to the north side of the platform. The south side of the platform opens out to the San Diego River and the Riverwalk River Park, offering expansive and stunning views of the Riverwalk River Park, Mission Hills, and the entire south mesa in the distance. The proximity of the retail and park space to the transit stop offers an experience truly unlike any other in San Diego.* • *Reg-16<u>6</u>. The transit~~/trolley~~ stop and mobility hub shall be activated by plazas and/or paseos, and enhanced landscaping, or other features that encourage pedestrian activity and visual interest.* • *Reg-18<u>6</u>. The design of the transit~~/trolley~~ stop shall be activated through the use of plazas and/or paseos and landscaping.* Actual station design and amenities would be coordinated with MTS when development of the transit stop occurs.
DG-72 Station Amenities. Improve the experience of trolley riders by providing a range of amenities at each trolley station. Amenities may include bike parking, benches, substantial overhangs and/or awning, shelters, information kiosks, public restrooms, and other trolley rider-serving amenities.	The transit/trolley stop would include amenities. Actual station design and amenities would be coordinated with MTS when development of the transit stop occurs.
DG-73 Mobility Hubs. Design areas around trolley stations to provide for a range of services that can improve first-last mile connections. This includes drop-off/pick-up areas for ride-hailing and shuttle services, space for scooter- and bike-share storage, parking spaces dedicated to car-sharing services, charging stations, and package pick-up areas.	Relative to a mobility hub, the Riverwalk Specific Plan includes the following description and policy: *The mobility hub is a place of connectivity where different modes of travel – walking, bicycling, transit, and shared mobility – seamlessly converge. It provides an integrated suite of mobility services, amenities, and technologies to bridge the distance between high-frequency transit and an individual's origin of*

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	destination. Sample mobility hub services, amenities, and technologies include: bikeshare, carshare, neighborhood electric vehicles, bicycle parking, dynamic parking management strategies, real-time traveler information, real- time ridesharing, microtransit services, bicycle and pedestrian improvements, wayfinding, and urban design enhancements. • *Policy-69. The transit/trolley stop will be part of a mobility hub and will provide access to and from buses, the trolley, and paths, trails, and sidewalks that serve the neighborhood and the region. The facility will include multiple mobility options, such as bicycle lockers/racks, scooter and bicycle rental, automobile drop-off/pick-up, rideshare, and other forms of transportation options. The transit/trolley stop will be architecturally and functionally integrated into the design of the community.*
DG-74 Mix of Uses. Promote vertically and horizontally mixed uses within the trolley areas. Enhance livability and neighborhood vitality by providing a range of uses that serve visitors, workers, and residents.	Section 6.3.7, *Mixed-Use Core/Retail/Transit/Trolley Stop*, of the Riverwalk Specific Plan includes the following guidance specific to the transit stop and the mix of uses that would occur there. *The character of this area is envisioned to be a mix of office and retail uses on the ground level, fronting the streets and public spaces such as plazas. While residential use is not precluded from the ground level in this area, in order to promote enlivenment throughout the day, residential uses should include active elements such as ground floor private open space and/or direct access to the public realm as described in Section 6.3.6, Building to Street Relationship, of the Riverwalk Specific Plan. Above the first floor, a mix of office and residential, depending upon market conditions, is encouraged to contribute to the 24-hour life of the mixed-use core, which supports place-making and adds passive security. The combination of uses and emphasis on ground level activation will create a vibrant and inviting neighborhood. Should residential be included on the ground floor, emphasis shall be added to energize the pedestrian-level through patios and plazas, ground floor entries to individual units, and patio spaces interspersed into the public interface.* *The community-serving retail, boutique office, and public space, such as plazas, are central to providing a*

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	neighborhood heart in this location and offers an exciting new destination for visitors and residents. This mixed-use core is also accessible via the north-south entry procession from Friars Road, which takes visitors through a well-landscaped retail street defined by storefronts, wide, tree-lined sidewalks, and public seating and gathering spaces. This street continues to the public plaza that serves as the neighborhood's central gathering area. Beyond the plaza is the transit stop and mobility hub, with its surrounding mix of retail, office, and residential uses.
DG-75 Identifiable Style. Encourage building design in each trolley station area to exhibit an identifiable architectural style.	It is the intention of the Riverwalk Specific Plan that all buildings would be unified through the use of high quality materials and similar landscape palette. The buildings incorporated into the transit stop would be consistent with this design aesthetic resulting in a transit station area that has a unique identity.
DG-76 Walkable Blocks. Explore opportunities for large site redevelopment to reduce existing block scale by establishing new streets and/or public pedestrian pathways. Block faces longer than 350 feet should provide mid-block crossings to achieve a fine-grained street grid. • Design direct and attractive pedestrian routes and pathways to connect trolley stations, local destinations, activity centers (retail core, plaza, etc.), and the surrounding neighborhood. • Avoid meandering paths or any treatment that would unnecessarily obstruct the view to the trolley station. • Design pedestrian routes to prioritize public right-of-way. Routes across private land should be open to the public at all time and be clearly marked for public use.	Development of Riverwalk would include the creation of a general grid pattern of streets, as shown in Figure 3-8 of this EIR. As shown in Figure 3-4 of this EIR, pedestrian facilities are located along the majority of project streets, as well as within green spaces and park elements. Direct connectivity would be provided to the mixed-use core/transit stop, as well as other residential, commercial, employment, and recreational features of the project.
DG-77 Wayfinding. Locate directional signage at key locations such as major intersections and trail access points to direct people to trolley stations.	Wayfinding would be provided, as appropriate, to direct users to the transit stop. Additionally, the Riverwalk Specific Plan includes specific guidance for wayfinding relative to the Special Treatment Area - Fashion Valley Road Interface, as well as within the Central District, as described in Section 6.6, *District Specific Guidelines*, of the Riverwalk Specific Plan. Actual locations of directional signage would be determined when development comes forward.
DG-78 Orientation of Development. Within Community Nodes, design site plans with buildings facing, and paths leading toward, the Node's "center of gravity."	The transit stop and its surrounding development would function as the Community Node for Riverwalk. As described in Section 6.3.7, *Mixed-Use Core/Retail/ Transit/Trolley Stop*, buildings and pedestrian amenities would be oriented toward this location. The

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	mixed-use core's role as Riverwalk's "center of gravity" would be further reinforced by the mixture of uses, including residential, retail, and employment uses.
DG-79 Main Street Facades. Strive to achieve a "street wall" effect along Main Streets. Incorporate pedestrian-only paths or alleys to parking areas, open space, or rights-of-way to the rear.	Riverwalk's internal spine road within North District (Street 'D1', 'D2', and 'E') would function as the project's "Main Street". Street, retail, and park activation, as described in Section 6.4.6, *Activated Interfaces*, of the Riverwalk Specific Plan would reinforce the ground plane, include pedestrian-focused design elements, and orient building entrances toward this street.
DG-80 Gateway Features. Incorporate a signature architectural element, public art, or other gateway features at the end of a Main Street or at the center of a Node to enforce the identity of the area provide a recognizable feature.	Section 6.5.8, *Monumentation and Community Signage*, of the Riverwalk Specific Plan addresses community gateway signage as a distinct identifier for Riverwalk. A total of *two prominent, statement gateway signs may be provided within Riverwalk: one north of the San Diego River and one south of the San Diego River. These gateway signs may span an internal roadway, similar to the Hillcrest sign in the Hillcrest neighborhood of the Uptown community, or be located within a central median, such as the Civita sign in the Civita neighborhood of Mission Valley. Materials and landscaping utilized in concert with these signs should be of the highest quality, as these gateway signs set the tone for the entire Riverwalk community.*
DG-81 Pedestrian Scaled Articulation. Incorporate pedestrian-scaled façade articulation to create an active and inviting public realm, create visual interest and diversity, and reinforce the pedestrian scale and character of main roadways and pedestrian paths.	Section 6.4.6, *Activated Interfaces*, of the Riverwalk Specific Plan includes regulations for pedestrian-scaled development throughout the Specific Plan area. Activated interfaces would occur in the North, Central, and South Districts; along the Park District interface with the Central and South Districts; and along Fashion Valley Road.
DG-82 Amenities. Provide amenities for public use, including benches, overlooks, drinking fountains, public bathrooms, and bicycle parking. Amenities may be shared with adjacent public facilities such as transit stations and public parks, per the San Diego River Park Master Plan.	As described in Section 3.2.1, *Riverwalk River Park*, and Section 6.5.16, *River Corridor Area*, pedestrian amenities within park elements would include seating and benches, restrooms, bicycle racks, and nature viewing areas.
DG-83 Pavers. Wherever possible, pave all multi-use portions of the trail. Trail segments may be unpaved when they lead off to interpretive overlooks or when paving may negatively impact sensitive habitats.	As described in Section 6.5.16, *River Corridor Area*, trails within the Riverwalk River Park would either be concrete or decomposed granite.
DG-84 Overlooks. Create overlooks at viewpoints or at nodes where north-south connection to a community meets the San Diego River Pathway. Overlooks may include amenities such as picnic tables, interpretive signs, and seating according to the size of the space.	As described in Section 3.2.1, *Riverwalk River Park*, and Section 6.5.16, *River Corridor Area*, pedestrian amenities within park elements would include nature viewing areas/overlooks, picnic areas, shade structure, seating, and educational signage/kiosks.

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DG-85 Shading. Ensure adequate shading at various portions of the trail throughout the day. Shading provided by trees is more desirable than shadow cast by adjacent development.	Landscaping within the Riverwalk River Park, which includes the San Diego River Pathway, would include groundcover, shrubs, and trees. The planting palette would ultimately be determined through the GDP process and would include shade trees for enjoyment of trail users.
DG-86 River Presence. Emphasize the location and presence of the river corridor by creating view corridors to the river within development projects and extending landscaping of the riparian corridor—both native trees and understory vegetation—through to the project site.	Section 3.5.2, Views and View Corridors, of the Riverwalk Specific Plan discusses the creation of view corridors through the site to the San Diego River from the north, east, and south. Figure 5.3-4 of this EIR illustrates those view corridors.
DG-87 Building Access. For development that abuts the River Corridor Area, provide the following: a primary façade and entrance oriented towards the River Corridor Area; and a pedestrian path from the river side of the building to the San Diego River Pathway that utilize the same materials as the primary entrance.	Section 6.5.17, *River Influence Area,* addresses building facades and entrances within the River Influence Area: *Development that abuts the River Corridor Area shall provide a river-fronting facade and entrance that are of substantially equivalent design and quality of materials as the primary building facade and entrance to the satisfaction of the City Manager.* Pedestrian access from buildings toward the River Corridor Area is addressed in the *Access to the River Corridor Area from the River Influence Area* subsection of the Riverwalk Specific Plan Section 6.5.17, *River Influence Area.*
DG-88 Streets. Where appropriate along the river, locate public streets adjacent to the river corridor area so as to orient the buildings naturally toward the river. This eliminates the necessity for long lengths of fencing along private property.	With the exception of small segments of Riverwalk Drive, the Specific Plan does not include public streets adjacent to the River Corridor Area. Instead, Riverwalk would orient buildings (and building entrances) and park elements toward the river to incorporate the river as a feature of the project, to promote pedestrian use, and to avoid lengths of fencing along private property along the river. To promote this interface, Section 6.5.17, *River Influence Area*, include the following regulation: *Development that abuts the River Corridor Area shall provide a river-fronting facade and entrance that are of substantially equivalent design and quality of materials as the primary building facade and entrance to the satisfaction of the City Manager.*
DG-89 Crosswalks. At intersections adjacent to the River Corridor Area, consider crosswalks of a different paving material and color than the street, bulb-outs to help ease traffic, signaling that counts down time to	Street 'S' of Riverwalk Drive would be located within the River Corridor Area. Access to the San Diego River Pathway would be provided at the intersection of Riverwalk Drive and Fashion Valley Road. Crosswalks may be provided at additional locations adjacent to

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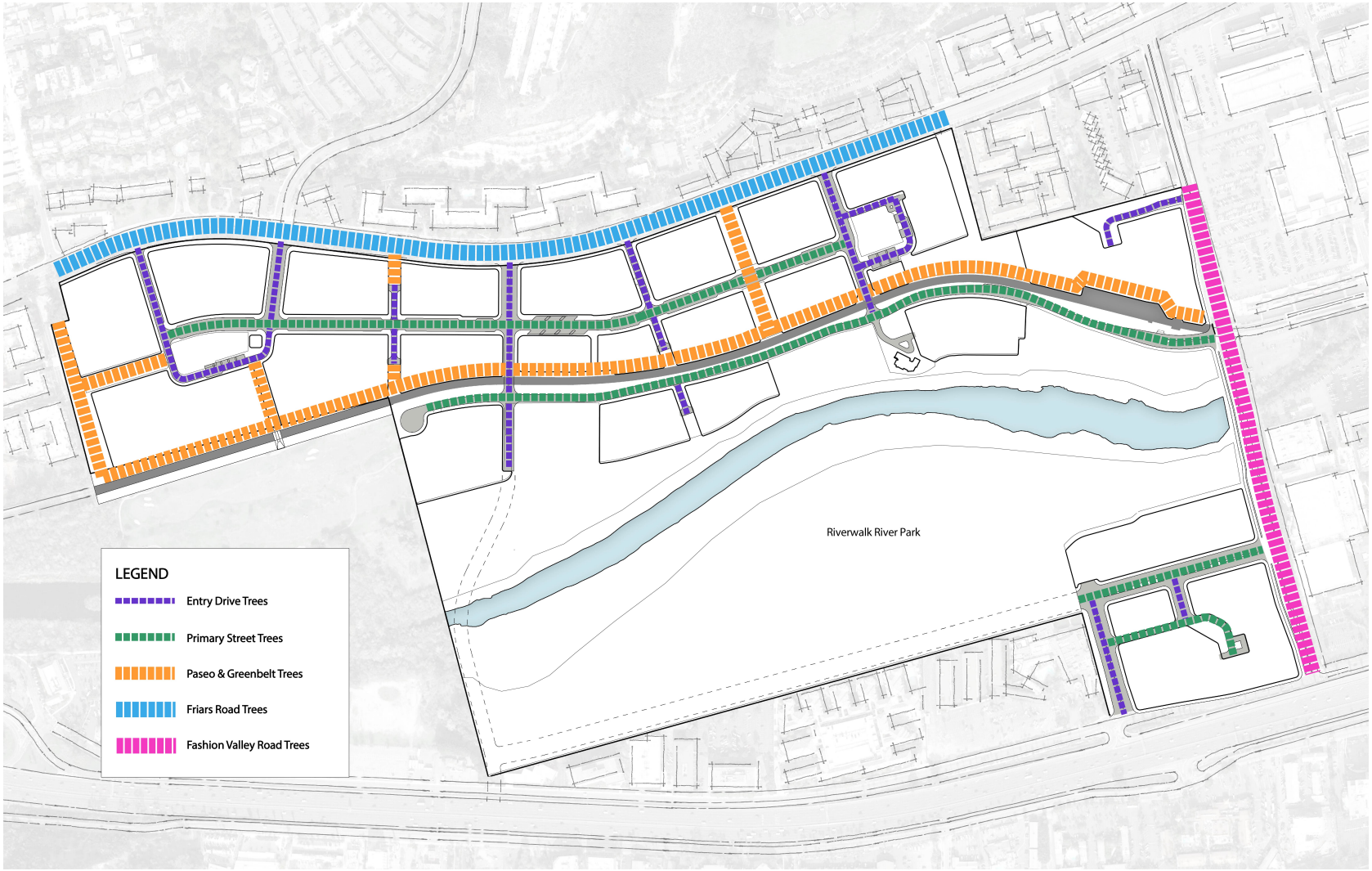
cross, and raised crosswalks to match the level of the connecting sidewalk.	the River Corridor Area, which may incorporate such articulation elements as differentiated paving/color, bulb-outs, count-down signals, and/or raised crosswalks.
DG-90 Architecture. Along the River Influence Area, vary buildings in form and façade and avoid repetition in order to create visual interest and to help define view corridors. There should also be variety through roof form, recesses or extensions of the façade form, window and curtain wall patterns, shading devices, balconies, material changes, color variation, and surface pattern and texture changes.	Section 6.5.17, *River Influence Area*, of the Riverwalk Specific Plan includes specifications relative to massing and building façades and entrances within the River Influence Area. Window treatments, balconies, ground activation, and entrances would provide for variety along the River Influence Area.
DG-91 Transparency. Design building facades above the ground floor that front the River Corridor Area or a street that abuts and runs parallel to the area to be a minimum of 25 percent transparent. This includes glass windows, display windows, or windows affording views into customer services, offices, galleries, cafes, lobby spaces, or pedestrian entrances.	Section 6.5.17, *River Influence Area*, of the Riverwalk Specific Plan includes the following regulation relative to building transparency: *For building facades facing the San Diego River on buildings within the River Influence Area, oversized windows or balconies shall be provided for each residential unit. Ground floor activation, through resident amenities, retail, cafés, restaurants, resident entrances, building lobbies, or similar uses shall be provided along at least one building façade.*
DG-92 River-Adjacent Landscaping. Include sustainably grown wood products and 'green' materials with post-consumer recycled content in landscaping materials. This includes, but is not limited to, fencing, trellises, and hardscapes. Plant materials should frame and enhance views of the River Corridor Area.	River-adjacent landscaping would include native and native-friendly materials. Because the river-adjacent landscaping would line the river channel, it would frame and enhance views along and to the San Diego River. Fencing within the River Corridor Area that would prevent intrusion into the river channel may be sustainably grown wood products or made from green materials.
DG-107 Site Planning. In plans for large sites, locate taller buildings so that they act as buffers between residential uses and the freeway.	The Riverwalk Specific Plan limits building heights in the North and Central District to seven stories not to exceed 85 feet in height from the highest adjacent finished grade (five stories not to exceed 65 feet in height from the highest adjacent finished grade adjacent to The Courtyards and Mission Greens condominiums). Taller buildings may be located w~~W~~ithin the South District, adjacent to I-8,- consistent with the CC-3-9 zone~~building heights may be up to 200 feet in height, which would buffer internal uses from the freeway~~.
DG-108 Freeway-Adjacent Landscaping (Buffers). Install ample landscaping adjacent to the freeway. This should include understory vegetation as well as trees.	As shown in Figure 3-5, *Conceptual Landscape Plan*, of this EIR, landscaping would be integrated into the South District, including along the southern boundary facing Hotel Circle North and I-8. Additionally, as described in Chapter 3.0 of this EIR, the north side of Hotel Circle North would be widened with the project

Mission Valley Community Plan Design Guideline	Riverwalk Specific Plan Application.
	by approximately 10 feet to accommodate a cycle track, parkway, and sidewalk. This space would allow for Hotel Circle North improvements to be implemented per the vision of the Mission Valley Community Plan, which would include a seven-foot landscaped parkway, providing further buffering.
DG-109 Noise Attenuation. Buffer residential development from noise with setbacks or elevation differences. Use noise-absorbing building materials and install double-paned windows. Incorporate landscaping materials, landscaped berms, and structural forms in wall design. Consider installation of sound walls where appropriate.	Residential development may occur within the South District, adjacent to I-8. Specific Plan Reg-195 prohibits residential balconies fronting I-8 where noise levels exceed 70 dBA CNEL; Reg-197 and Reg-199 provide buffers and setbacks, respectively, for residential development adjacent to I-8. Projects shall submit an acoustic report that demonstrates ~~Interior noise would need to demonstrate~~ meeting General Plan requirements ~~as individual buildings come online~~relative to noise.

FOR ILLUSTRATIVE CONCEPT PURPOSES ONLY

Figure 5.3-1. *Riverwalk Specific Plan Retail Activation Interface*



Note: Trees shall be planted outside of the sewer and water easement.

Figure 5.3-2. *Riverwalk Greenbelt and Street Trees*

FOR ILLUSTRATIVE CONCEPT PURPOSES ONLY

Figure 5.3-3. *Riverwalk Specific Plan Street Activation Interface*

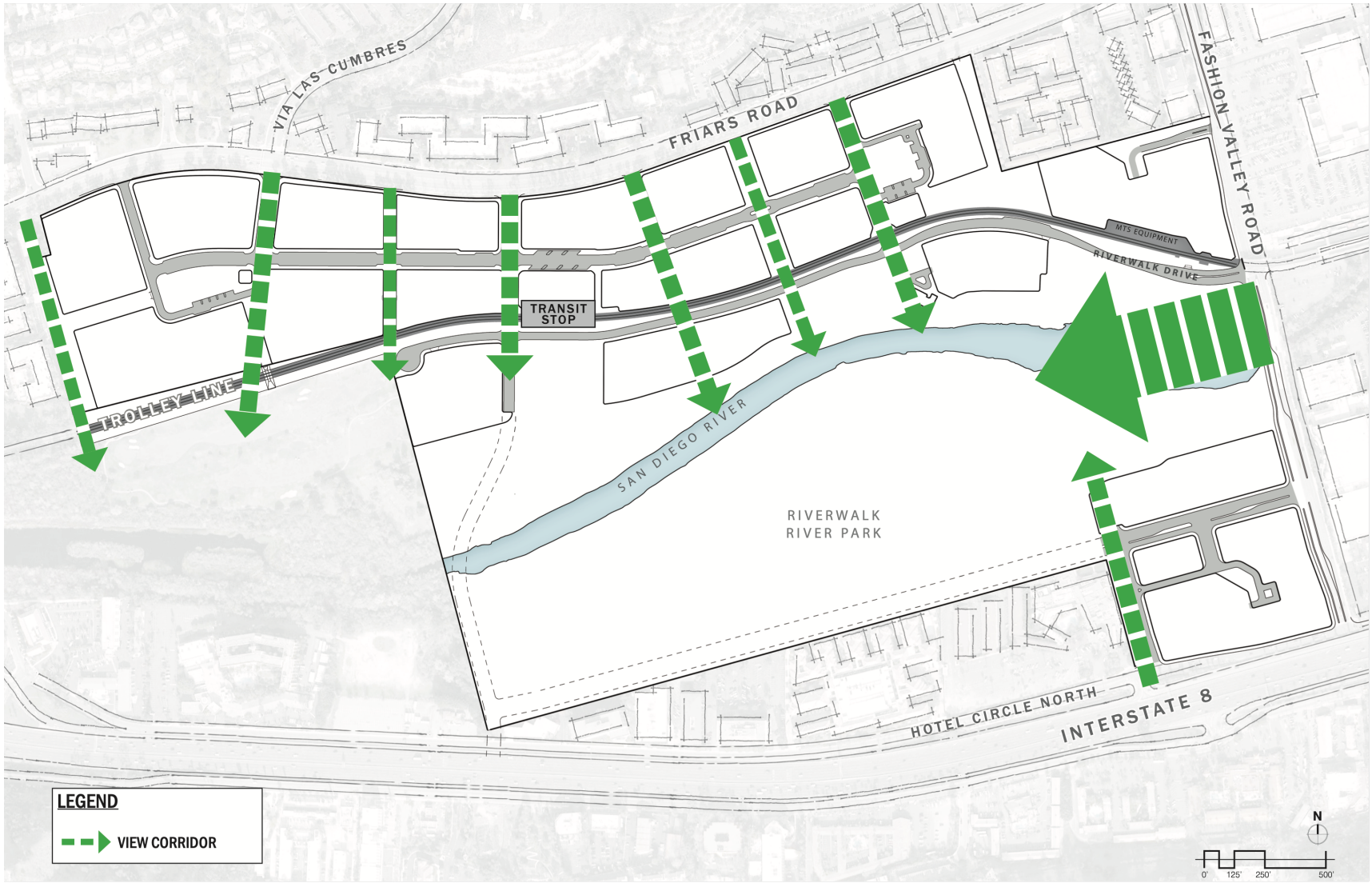


Figure 5.3-4. *Riverwalk View Corridors*

5.4 Biological Resources

This section evaluates the potential biological resources impacts associated with the Riverwalk project. The following discussion is based on the *Biological Technical Report*, prepared by Alden Environmental, Inc. (February 19, 2020), included as Appendix E of this EIR.

5.4.1 Existing Conditions

5.4.1.1 Physical Characteristics

The project site is dominated by the relatively flat topography of the existing Riverwalk Golf Course, with a slightly undulating landscape associated with the fairways, greens, and other associated golf course amenities. In addition, the site supports other urban land uses, including the trolley line, golf course clubhouse, maintenance facilities, and associated parking lot. The San Diego River passes through the site and is its only naturally occurring feature. The project site is located within the San Diego River Watershed and approximately half of the site is within the FEMA 100-year Flood Hazard Zone. Elevations on-site range from approximately 40 feet AMSL at the northeast portion of the site adjacent to Friars Road to approximately 20 feet AMSL at the central portion of the site along the San Diego River. Soils on-site consist (in approximately descending order of area) of Tujunga Sand (zero to five percent slopes), Riverwash, Heurhuero-Urban Land Complex (two to nine percent slopes), Grangeville Fine Sandy Loam (zero to two percent slopes), Quarries, Olivenhain-Urban Land Complex (two to nine percent slopes), Reiff Fine Sandy Loam (five to nine percent slopes), and Heurhuero-Urban Land Complex (nine to 30 percent slopes).

5.4.1.2 Multi-Habitat Planning Area

The MHPA was developed by the City in cooperation with the USFWS, CDFW, property owners, developers, and environmental groups using the Preserve Design Criteria contained in the MSCP Plan, and the City Council-adopted criteria for the creation of the MHPA. MHPA lands are large blocks of native habitat that have the ability to support a diversity of plant and animal life and, therefore, have been included within the City's Subarea Plan for conservation. The MHPA also delineates core biological resource areas and corridors targeted for conservation as these lands have been determined to provide the necessary habitat quality, quantity, and connectivity to sustain the unique biodiversity of the San Diego region. While MHPA lands are considered by the City to be a sensitive biological resource and intended to be mostly void of development activities, development is allowed in the MHPA subject to the requirements of the MSCP Subarea.

According to the City's MSCP Subarea Plan, the project site is an urban habitat area that includes the San Diego River in the MHPA (see Figure 5.4-1, *City of San Diego MHPA and Regional Corridor*). The Subarea Plan lists MHPA Guidelines for the San Diego River that are required to be implemented for take authorization of Covered Species. Guideline B15 is required to be met by the project and states: *Native*

vegetation shall be restored as a condition of future development proposals along this portion of the San Diego River Corridor.

5.4.1.3 Vegetation Communities

Nine vegetation communities/land cover types were mapped on the project site: southern cottonwood-willow riparian forest, disturbed southern cottonwood-willow riparian forest, southern willow scrub, disturbed southern willow scrub, coastal and valley freshwater marsh, emergent wetland, open water, disturbed land, and urban/developed land. The acreages of these communities are provided in Table 5.4-1, *Existing Vegetation Communities and Land Cover Types*, along with the upland habitat tiers, as defined by the City's Biology Guidelines (2018). Wetland/riparian communities are not assigned a tier. [Note: Jurisdictional areas (i.e. Basins A, B, and C) are shown in Figure 5.4-2, *Riverwalk Jurisdictional Areas*.]

Table 5.4-1. *Existing Vegetation Community and Land Cover Types*

Vegetation Community/Land Cover Type		Tier	Acreage
Wetland/ Riparian	Southern cottonwood-willow riparian forest	NA	4.45
	Disturbed southern cottonwood-willow riparian forest	NA	1.37
	Southern willow scrub	NA	3.37
	Disturbed southern willow scrub	NA	0.17
	Coastal and valley freshwater marsh	NA	3.08
	Emergent wetland[2]	NA	0.14
	Open water	NA	0.89
Other Uplands	Disturbed Land	IV	6.95
Land Cover	Urban/Developed[2]	NA	174.62
		TOTAL	**195.04**

[1]Wetland/riparian acreages rounded to the nearest 0.01.
[2]Includes vegetation in Drainage A established within man made (constructed) and maintained stormwater drainage feature.

Southern Cottonwood-willow Riparian Forest (including disturbed)

Southern cottonwood-willow riparian forest is a tall, predominantly deciduous, riparian forest that typically has an open canopy dominated by Fremont's cottonwood (*Populus fremontii*), black cottonwood (*P. trichocarpa*), various willow species (*Salix spp*.), and a dense understory dominated by scrubby willows and other shrubs. This vegetation community is found at low elevations along rivers and streams where the water table is high and/or where there is year-round water flow.

Southern cottonwood-willow riparian forest occurs along the San Diego River in the eastern and western portions of the project site. On-site, the southern cottonwood-willow riparian forest canopy is dominated by California sycamore (*Platanus racemosa*), western cottonwood (*Populus fremontii ssp. fremontii*), narrow-leaf willow (*Salix exigua var. exigua*), black willow (*Salix gooddingii*), red willow (*S. laevigata*), and arroyo willow (*S. lasiolepis*). The understory is composed of a mix of native and non-native species, including curly dock (*Rumex crispus*), western ragweed (*Ambrosia psilostachya*), cocklebur, and California bulrush (*Schoenoplectus americanus*).

Disturbed southern cottonwood-willow riparian forest is similar to southern cottonwood-willow riparian forest as described above; however, it has been physically disturbed by previous human activity so that it

still functions as southern cottonwood-willow riparian forest but normally does not provide as high habitat value as the undisturbed southern cottonwood-willow riparian forest.

On-site, disturbed southern cottonwood-willow riparian forest supports a few cottonwoods and willows; however, it is dominated by Canary Island date palm, Mexican fan palm, Brazilian pepper tree (*Schinus terebinthifolius*), and white alder (*Alnus rhombifolia*) with an understory that is dominated by poison hemlock (*Conium maculatum*), annual saltmarsh aster (*Symphyotrichum subulatum*), cocklebur, spear oracle (*Atriplex patula*), castor bean, California wild rose (*Rosa californica*), Himalayan blackberry (*Rubus armeniacus*), and wild grape (*Vitis girdiana*).

Southern Willow Scrub (including disturbed)

Southern willow scrub is a dense, broad-leaved, riparian scrub community that typically grows on loose, sandy, or fine gravelly alluvium deposited near stream channels during floods. The canopy of this vegetation community is usually dominated by several willow species with scattered, emergent cottonwood and western sycamore. Most southern willow scrub stands are too dense to allow much understory to develop.

Southern willow scrub occurs along much of the San Diego River on-site in Drainage B. The southern willow scrub is dominated by narrow-leaf willow, black willow, red willow, arroyo willow, mule fat (*Baccharis salicifolia ssp. salicifolia*), and California bulrush.

Disturbed southern willow scrub occurs in a man-made drainage that carries urban runoff in the northeastern portion of the site (Drainage A). The habitat is considered disturbed because it is dominated by non-native plant species (i.e., Brazilian pepper tree and acacia) along with native arroyo willow. Furthermore, it is considered to have low habitat value because it is surrounded by golf course and is of very limited extent. Disturbed southern willow scrub also occurs in Drainage C in the southwestern portion of the site where it has been previously disturbed by human activity potentially due to adjacent golf course activities. While dominated by native plant species, non-native species are also present.

Coastal and Valley Freshwater Marsh

Coastal and valley freshwater marsh is dominated by perennial, emergent monocots measuring about five to eight feet in height and often forming a closed canopy. This vegetation community occurs in wetlands that are permanently flooded by standing fresh water.

Coastal and valley freshwater marsh occurs along much of the San Diego River on-site. Coastal and valley freshwater marsh on-site is dominated by alkali bulrush (*Bolboschoenus maritimus*), California bulrush, six-petal water primrose (*Ludwigia hexapetala*), herb of grace (*Bacopa monnieri*), narrow-leaf cattail (*Typha domingensis*), and broad-leaf cattail (*T. latifolia*).

Emergent Wetland

Emergent wetlands are typically persistent freshwater or alkali wetlands that are dominated by low growing, perennial species such sedges (*Carex spp., Eleocharis spp*.), rushes (*Juncus spp*.), docks and sorrels

(*Rumex spp*.), breadfruit bur reed (*Sparganium eurycarpum*), and many other species. This vegetation community is typically found in channels, seeps and springs, floodplains, margins of lakes and rivers, and various basins such as pools and ponds. In San Diego, emergent wetlands often occur in previously disturbed areas where this wetland community is emerging but has not yet established much species diversity; however, this vegetation community also occurs in undisturbed areas as well.

On-site, emergent wetland is dominated by alkali bulrush, celery (*Apium graveolens*), tall flatsedge (*Cyperus eragrostis*), fragrant flatsedge (*C. odoratus*), needle spike rush (*Eleocharis acicularis*), slender willow herb (*Epilobium ciliatum*), knotgrass (*Paspalum distichum*), and curly dock. Emergent wetland occurs in a man-made drainage (Drainage A) surrounded by golf course in the northeastern portion of the site. It is of limited extent and is isolated from the San Diego River. Emergent wetland also occurs in the southwestern portion of the site, where it is adjacent to wetland/riparian habitat connected to the San Diego River (Drainage C).

Open Water

Open water includes reservoirs, lakes, ponds, and relatively large sloughs, channels, and rivers or streambeds that contain water throughout the year. Open water occurs in scattered patches along the San Diego River.

Disturbed Land

Disturbed land includes areas that retain a soil substrate but have been physically disturbed by previous human activity. These areas are no longer recognizable as a native or naturalized vegetation association. Vegetation, if present, is typically composed of predominately non-native species introduced and established through human action. These areas are not typically artificially irrigated but receive water from precipitation and run-off.

Disturbed land primarily occurs in the northeastern portion of the project site, including a large vacant lot but also occurs in several other scattered locations along the San Diego River. On-site, this other upland is dominated by non-native species that tend to colonize disturbed land such as fennel (*Foeniculum vulgare*), crown daisy (*Glebionis coronaria*), bristly ox-tongue (*Helminthotheca echioides*), cocklebur (*Xanthium strumarium*), black mustard (*Brassica nigra*), Russian thistle (*Sa/sola tragus*), castor bean (*Ricinus communis*), and tree tobacco (*Nicotiana glauca*).

Urban/Developed

Urban/developed areas have been constructed upon, or are otherwise physically altered to the extent that no naturally occurring, native vegetation is supported. These areas contain permanent or semi-permanent structures, pavement or hardscape, and landscaped areas that typically require irrigation.

Urban/developed areas occupy the majority of the project site and include the golf course greens, existing clubhouse, parking lot, and MTS right-of-way with trolley tracks. On-site, urban/developed land also includes associated landscaping that supports oleander (*Nerium oleander*), Mexican fan palm (*Washingtonia robusta*), acacia, eucalyptus, and other various ornamental trees and shrubs. Golf course

water features are also developed features on-site because they are man-made, concrete-lined, artificial features constructed as water hazards for the golf course.

5.4.1.4 Plants

A total of 101 plant species have been observed on-site (see Appendix C of the BTR, *Plant Species Observed)*. Of these, 44 species (44 percent) are considered native, and 57 species (56 percent) are considered non-native and/or naturalized.

5.4.1.5 Zoology

A total of 103 animal species have been observed or detected on-site (or off-site to the west). Animal species observed or detected include five butterflies, two fish, one amphibian, two reptiles, 93 birds, and two mammals. Eleven of these species are considered sensitive.

5.4.1.6 Sensitive Biological Resources

According to City Municipal Code (Chapter 11, Article 3, Division 1) and the City's Biology Guidelines (City 2018), sensitive biological resources refers to upland and/or wetland areas that meet any one of the following criteria:

(a) Lands that have been included in the City's MSCP Preserve (i.e., the MHPA);
(b) Wetlands;
(c) Lands outside the MHPA that contain Tier I, Tier II, Tier IIIA, or Tier IIIB habitats;
(d) Lands supporting species or subspecies listed as rare, endangered, or threatened under Section 670.2 or 670.5, Title 14, California Code of Regulations, or the federal Endangered Species Act, Title 50, Code of Federal Regulations, Section 17.11 or 17.12, or candidate species under the California Code of Regulations;
(e) Lands containing habitats with MSCP Narrow Endemic species as listed in the Biology Guidelines (City 2018); or
(f) Lands containing habitats of MSCP Covered Species as listed in the Biology Guidelines (City 2018).

Sensitive Vegetation Communities

In addition to City Municipal Code (Chapter 11, Article 3, Division 1) and the City's Biology Guidelines (City 2018) discussed above, sensitive vegetation communities are those considered rare within the region or sensitive by CDFW (Holland 1986) and/or the City. These communities, in any form (e.g., disturbed), are considered sensitive because they have been historically depleted, are naturally uncommon, or support sensitive species. The project site supports seven sensitive vegetation communities: southern cottonwood-willow riparian forest (including disturbed), southern willow scrub (including disturbed), coastal and valley freshwater marsh, emergent wetland, and open water.

Sensitive Plant and Wildlife Species

Sensitive plant species are those that are considered Federal, State, or California Native Plant Society (CNPS) rare, threatened, or endangered; MSCP Covered Species; or MSCP Narrow Endemic species. Sensitive animal species are those that are considered Federal or State threatened or endangered; MSCP Covered Species; or MSCP Narrow Endemic species. More specifically, if a species is designated with any of the following statuses (a-c below), it is considered sensitive per City Municipal Code (Chapter 11, Article 3, Division 1):

(a) A species or subspecies is listed as rare, endangered, or threatened under Section 670.2 or 670.5, Title 14, California Code of Regulations, or the ESA, Title 50, Code of Federal Regulations, Section 17.11 or 17.12, or candidate species under the California Code of Regulations;
(b) A species is a Narrow Endemic as listed in the Biology Guidelines in the Land Development Manual (City 2018); and/or
(c) A species is a Covered Species as listed in the Biology Guidelines in the Land Development Manual (City 2018).

A plant species may also be considered sensitive if it is included in the CNPS Inventory of Rare and Endangered Plants (CNPS 2017). California Rare Plant Rank 1 includes plants that are rare, threatened or endangered in California. California Rare Plant Rank 2 includes plants that are rare, threatened or endangered in California but more common elsewhere. California Rare Plant Rank 3 includes plants that are eligible for State listing as rare, threatened or endangered. California Rare Plant Rank 4 plants are locally significant but few, if any, are eligible for State listing. A wildlife species may also be considered sensitive if it is included on the CDFW's Special Animals List (CDFW 2017) as a State Species of Special Concern, State Watch List species, State Fully Protected species, or Federal Bird of Conservation Concern.

No sensitive plant species have been observed on-site. However, sensitive plant species have the potential to occur on-site, including Narrow Endemic species. Narrow Endemic species are a subset of MSCP Covered Species and also have the potential to occur on-site. The City specifies additional conservation measures to ensure impacts to Narrow Endemic species are avoided.

Eleven sensitive animal species were found on-site or off-site to the west: Cooper's hawk (*Accipiter cooperii*), Vaux's swift (*Chaetura vauxi*), Clark's marsh wren (*Cistothorus palustris clarkae*), willow flycatcher (*Empidonax traillii*), yellow-breasted chat (*Icteria virens*), osprey (*Pandion haliaetus*), double-crested cormorant (*Phalacrocorax auritus*), light-footed Ridgway's rail (*Rallus obsoletus levipes*), yellow warbler (*Setophaga petechia*), western bluebird (*Sialia mexicana*), and least Bell's vireo (*Vireo bellii pusillus*). These species are described in further detail below.

Cooper's hawk (Accipiter cooperii)

Sensitivity: State Watch List; MSCP Covered Species.

Habitat(s): Lowland riparian areas and oak woodlands in proximity to suitable foraging areas such as scrubland or fields.

Presence on-site: Cooper's hawk was observed on-site in 2018 in disturbed southern cottonwood-willow riparian forest.

Vaux's swift (*Chaetura vauxi*)

Sensitivity: State Species of Special Concern.

Habitat(s): Nests in coniferous or mixed forest. Forages in forest openings, especially above streams.

Presence on-site: Observed off site to the west during the 2018 least Bell's vireo and southwestern willow flycatcher survey.

Clark's marsh wren (*Cistothorus palustris clarkae*)

Sensitivity: State Species of Special Concern.

Habitat(s): Freshwater and brackish marshes.

Presence on-site: Detected in three locations in coastal and valley freshwater marsh along the San Diego River in the central portion of the site in 2018.

Willow flycatcher (*Empidonax traillii*)

Sensitivity: Federal Bird of Conservation Concern; State Endangered. The southwestern subspecies (*E. t. extimus*) is Federal Endangered, State Endangered, and an MSCP Covered Species.

Habitat(s): Willow flycatcher breeding habitat in California is typically moist meadows with perennial streams; lowland riparian woodlands dominated by willows, primarily in tree form; and cottonwoods; or smaller spring-fed or boggy areas with willow or alders (*Alnus* spp.; Craig and Williams 1998). The southwestern subspecies is a riparian obligate species restricted to dense stream-side vegetation composed of dense mixtures of native broadleaf trees and shrubs often interspersed with small openings, open water, or shorter vegetation, creating a mosaic that is not uniformly dense (Craig and Williams 1998).

Presence on-site: Two willow flycatchers were detected during the first (of five) site visits of the southwestern willow flycatcher survey on May 22, 2015 along the San Diego River on-site. These birds were not relocated during the second site visit on June 2, 2015. One willow flycatcher was detected during the third site visit on June 13, 2015 in the same location as one of the individuals detected on May 22. It was determined that all of these individuals were migrants based on the lack of willow flycatcher detection after the third site visit (the fourth and fifth site visits were made on June 25 and July 6, 2015). During the 2018 protocol survey for the southwestern willow flycatcher, one willow flycatcher was detected by its call along the San Diego River in the central portion of the site on May 17. Due to the sound of its call (that of a northwestern willow flycatcher subspecies) and the fact that it was only detected once, it was determined to be a migrant willow flycatcher. The southwestern subspecies of willow flycatcher was, therefore, not detected on-site.

Yellow-breasted chat (*Icteria virens*)

Sensitivity: State Species of Special Concern.

Habitat(s): Dense riparian habitats.

Presence on-site: The yellow-breasted chat was observed on-site during the 2015 least Bell's vireo and southwestern willow flycatcher survey and was again detected in southern cottonwood-willow riparian forest on-site during this survey in 2018.

Osprey (*Pandion haliaetus*)

Sensitivity: State Watch List.

Habitat(s): Rivers, bays, lakes, or seacoasts.

Presence on-site: Observed over open water in the San Diego River off site to the west during the 2018 least Bell's vireo and southwestern willow flycatcher survey.

Double-crested cormorant (*Phalacrocorax auritus*)

Sensitivity: State Watch List.

Habitat(s): Fresh and salt water habitats.

Presence on-site: The double-crested cormorant was observed on-site during the 2015 least Bell's vireo and southwestern willow flycatcher survey and was observed again in coastal and valley freshwater marsh along the San Diego River on-site during this survey in 2018.

Light-footed Ridgway's rail (*Rallus obsoletus levipes*)

Sensitivity: Federal Endangered; State Endangered, State Fully Protected; MSCP Covered.

Habitat(s): According to the USFWS (2009 and references therein):

The light-footed clapper [Ridgway's] rail uses coastal salt marshes, lagoons, and their maritime environs (Zembal 1994, pp. 1-2). Nesting habitat includes tall, dense cordgrass (*Spartina foliosa*) and occasionally in pickleweed (*Salicornia virginica*) in the low littoral zone, wrack deposits in the low marsh zone, and hummocks of high marsh within the low marsh zone (Massey et al. 1984, p. 78). At Mugu Lagoon nesting occurs in stands of (*Juncus acutus* spp. *leopoldii*) (Zembal et al. 2007, p. 5). Fringing areas of high marsh serve as refugia during high tides (Zembal et al. 1989, p. 42). Although used infrequently, this habitat may be extremely important for reducing mortality during high tides. Although less common, light-footed clapper [Ridgway's] rails have also been observed to reside and nest in freshwater marshes (Thelander and Crabtree 1994, p. 161). Activities of the light-footed clapper [Ridgway's] rail are tide-dependent (Zembal et al. 1989, pp. 39-42). They require shallow water and mudflats for foraging, with adjacent higher vegetation for cover during high water (Zeiner et al. 1990, p. 174). They forage in all parts of the salt marsh, concentrating their efforts in the lower marsh when the tide is out, and moving into the higher marsh as the tide advances.

Presence on-site: Observed in four locations along the San Diego River on-site in coastal and valley freshwater marsh/open water during the 2018 least Bell's vireo and southwestern willow flycatcher survey.

Yellow warbler (*Setophaga petechia*)

Sensitivity: Federal Bird of Conservation Concern; State Species of Special Concern.

Habitat(s): Riparian woodland, Mojave riparian forest, mule fat scrub, and southern willow scrub.

Presence on-site: Detected along the San Diego River in 2017. It was also observed on-site during the 2015 and 2018 least Bell's vireo and southwestern willow flycatcher surveys.

Western bluebird (*Sialia mexicana*)

Sensitivity: MSCP Covered.

Habitat(s): Open woodlands, parks, farmlands, orchards.

Presence on-site: Observed on-site during the 2018 least Bell's vireo and southwestern willow flycatcher survey.

Least Bell's vireo (*Vireo bellii pusillus*)

Sensitivity: Federal Endangered; State Endangered; MSCP Covered Species.

Habitat(s): Mature riparian woodland, Mojave riparian forest, mule fat scrub, and southern willow scrub.

Presence on-site: In 2015, the least Bell's vireo was detected more than 350 feet west of the site along the San Diego River during the first five (of eight) site visits of the least Bell's vireo survey that year. The individual was not detected during the last three site visits on June 25, July 6, and July 17, 2015. In 2018, a solitary least Bell's vireo was detected in the same off-site area on July 9. Since it was only detected on that date and was tracked moving upstream, it was determined to be a transient male.

Jurisdictional Wetland Areas

Jurisdictional areas including Waters of the U.S., under the jurisdiction of the USACOE, and Waters of the State, under the jurisdiction of the CDFW, encompass wetlands and also may include ephemeral and intermittent streams that may or may not be vegetated. City jurisdiction extends only to wetlands. Generally, wetlands are lands where saturation with water is the dominant factor determining the nature of soil development and the types of plant and animal communities living in the soil and on its surface. Wetlands vary widely because of regional and local differences in soils, topography, climate, hydrology, water chemistry, vegetation, and other factors. Waters of the U.S., Waters of the State, and City wetlands are considered sensitive. Table 5.4-2, *Jurisdictional Features On-site* shows the various jurisdictional areas occurring on the project site and the area of each.

Table 5.4-2, *Jurisdictional Features On-Site*

Feature	Wetland Waters of the U.S.	Wetland Waters of the State[1]	City Wetlands
Drainage A[2]			
Emergent wetland[2]	0.00	0.00	n/a
Disturbed southern willow scrub[4]	0.00	0.00	n/a
Drainage B – San Diego River			
Coastal and valley freshwater marsh	2.97	3.10	3.10
Southern willow scrub	2.73	3.40	3.40
Southern cottonwood-willow riparian forest	3.38	4.68	4.68
Disturbed southern cottonwood-willow riparian forest	0.00	0.13	0.13
Open water	0.95	0.95	0.95
Drainage C			
Emergent wetland	0.03	0.03	0.03
Disturbed southern cottonwood-willow riparian forest	0.00	1.21	1.21
Disturbed southern willow scrub	0.00	0.12	0.12
TOTAL	**10.06**	**13.62**	**13.62**

Notes: Includes Fashion Valley Road improvement area, shown in acres. There are no non-wetland Waters of the U.S. or State on-site

[1]CDFW jurisdictional features

[2]Vegetation in Drainage A established within man made (constructed) and maintained stormwater drainage feature

Waters of the U.S

Approximately 10.06 acres along the San Diego River and two of its tributaries on the project site and in the Fashion Valley Road improvements area meet the three USACOE wetland criteria. No non-wetland Waters of the U.S. exist on the project site.

Waters of the State

California Fish and Game Code (see Section 5.4.2, *Regulatory Framework)* provides specific protection for Waters of the State when an activity would alter the flow or change or use any material from the bed, channel, or bank of any perennial, intermittent, or ephemeral river, stream, and/or lake as such an activity may substantially adversely affect fish and wildlife resources conserved, protected, and managed by CDFW. Waters of the State are based on the presence of riparian vegetation or regular surface flow, and for streambeds, having at least periodic or intermittent flow through a bed or channel with banks.

Wetland Waters of the State on-site and in the Fashion Valley Road improvements area total approximately 13.62 acres and occur along the San Diego River and one of its tributaries. There are no non-wetland Waters of the State.

City Wetlands

City Wetlands are characterized as:

A. All areas persistently or periodically containing naturally occurring wetland vegetation communities;
B. Areas that have hydric soils or wetland hydrology and lack naturally occurring wetland vegetation communities; and/or
C. Areas lacking wetland vegetation communities, hydric soils, and wetland hydrology due to non-permitted filling of previously existing wetlands.

Based on these characterizations, City Wetlands on-site and in the Fashion Valley Road improvements area include approximately 13.62 acres in Drainages B (San Diego River) and C. A review of historical aerial photographs of the site from 1953 through 1996 show that historically, there was no drainage feature at the location of Drainage A. That is, Drainage A is a man-made feature in an area that was historically upland. The wetland vegetation that is present is not, therefore, naturally occurring. Therefore, Drainage A is not City Wetland, and it is not the intent of the City to regulate artificially created wetlands in historic non-wetland areas unless they have been delineated as wetlands by the Corps and/or CDFW (City 2018). At this time, State and Federal permits have not been obtained; therefore, vegetation associated with Drainage A has been presented hereafter as "emergent wetland" and "disturbed southern willow scrub" with footnotes as necessary to distinguish these man-made wetlands from naturally occurring wetlands associated with Drainages B and C.

Wetland Buffer Analysis

Presently on-site, there is no wetland buffer between the San Diego River and the golf course and its greens, cart paths, driving range, maintenance facilities, landscaping, and other active use features. These uses directly abut the river.

The project would provide a biological buffer through the establishment of a 50-foot wide no use buffer and a passive park area in Figure 5.4-3, *Development Plan/Impacts*. Boulders or deterrent vegetation, as well as peeler log fencing, would be installed at the edge of this no use buffer to deter public access. The no use buffer and passive park areas north and south of the river channel would be graded to provide flood capacity along the river and restored with native plant species appropriate within and adjacent to native wetland/riparian habitats. No uses would be allowed in the no use buffer (except proposed MSCP compliant trails attached to the two existing bridges on-site), and the passive park would only allow passive uses (i.e., walking/hiking trails and nature observation nodes). This would result in an overall buffering of the MHPA, river, and wetland habitat restoration from active park uses by a minimum of 55 feet (in the southwestern and northeastern portions of the project site) to a maximum of 590 feet (in the western portion of the project site), with an average distance of 175 feet.

Wildlife Movement Corridors

Wildlife corridors are essential to maintain healthy and genetically diverse plant and animal species populations. Wildlife corridors maintain connectivity between formerly contiguous wildlands allowing: 1) wide-ranging animals to travel, migrate, and meet mates; 2) an avenue along which plants can propagate; 3) for genetic interchange; 4) population movement; and 5) recolonization of habitats where other populations have been extirpated.

Wildlife corridors can be classified as either regional corridors or local corridors. Regional corridors are defined as those linking two or more large areas of natural open space, and local corridors are defined as those allowing resident animals to access critical resources (e.g., food, cover, water) in a smaller area that might otherwise be isolated (e.g., by urban development).

The central portion of the project site contains the MHPA along the San Diego River and provides for a regional wildlife corridor on-site. On the project site, the San Diego River provides for local and regional movement of wildlife, but movement for some species is likely impeded or limited by adjacent urbanization and uses such as the existing MTS trolley line, fences, golf course development (buildings and parking lots), and Fashion Valley Road that crosses the river at grade, as well as development that constricts the width of the river on-site. Movement to/from the site on the eastern boundary is constrained by off-site, adjacent development north and south of the San Diego River channel built close to the channel's edge.

Animals are relatively free to move through the existing river channel, although it is narrow, incised, and supports water. Adjacent to the channel on the existing golf course, animal movement is less constrained, though limited to nighttime movement as the golf course is actively used during the day.

5.4.2 Regulatory Framework

This section summarizes Federal, State, and local regulations that govern biological resources potentially impacted by the project.

5.4.2.1 Federal

Endangered Species Act

The ESA provides protections for species endangered or threatened with extinction. ESA prohibits the "take" of endangered or threatened wildlife species. "Take" is defined to include harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such conduct (ESA Section 3 [(3)(19)]). "Harm" is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns (50 CFR Section 17.3). "Harass" is defined as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns (50 CFR Section 17.3). Actions that result in take can result in civil or criminal penalties. Projects that are implemented consistent with the City of San Diego's MSCP and Biology Guidelines (City of San

Diego 2018) would be allowed to take listed species with the City of San Diego's authorization and approval.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA; 16 U.S. Code Sections 703-711) includes provisions for protection of migratory birds, including the non-permitted take of migratory birds. The MBTA regulates or prohibits taking, killing, possession of, or harm to migratory bird species listed in Title 50 Code of Federal Regulations Section 10.13. Migratory birds include geese, ducks, shorebirds, raptors, songbirds, and many others. Disturbance that causes nest abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) is considered a "take." The MBTA is an international treaty for the conservation and management of bird species that migrate through more than one country and is enforced in the United States by the USFWS. The MBTA was amended in 1972 to include protection for migratory birds of prey (raptors). As a general/standard condition, the project must comply with the MBTA.

Clean Water Act

Under Section 404 of the Clean Water Act, the USACOE is charged with regulating the discharge of dredge and fill materials into jurisdictional Waters of the U.S. The terms "Waters of the U.S." and "jurisdictional waters" have a broad meaning that includes special aquatic sites, such as wetlands. USACOE wetland boundaries are determined using three criteria (vegetation, hydrology, and soils) established for wetland delineations, as described within the Wetlands Delineation Manual (Environmental Laboratory 1987) and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Corps 2008b).

Waters of the U.S., as defined by regulation and refined by case law, include:

1. The territorial seas;
2. Coastal and inland waters, lakes, rivers, and streams that are navigable Waters of the U.S., including their adjacent wetlands;
3. Tributaries to navigable Waters of the U.S., including adjacent wetlands; and (4) interstate waters and their tributaries, including adjacent isolated wetlands and lakes, intermittent and ephemeral streams, prairie potholes, and other waters that are not a part of a tributary system to interstate waters or navigable Waters of the U.S., the degradation or destruction of which could affect interstate commerce.

Section 401 of the Clean Water Act requires that any applicant for a Federal license or permit to conduct any activity that may result in a discharge to Waters of the U.S. must obtain a Water Quality Certification, or a waiver thereof, from the state in which the discharge originates. In California, the RWQCB issues Water Quality Certifications.

5.4.2.2 State

California Environmental Quality Act

Primary environmental legislation in California is found in the CEQA and its implementing guidelines (State CEQA Guidelines), requiring that projects with potential adverse effects or impacts on the environment undergo environmental review. Adverse impacts to the environment are typically mitigated as a result of the environmental review process in accordance with existing laws and regulations.

California Endangered Species Act

The California Endangered Species Act (CESA) established that it is State policy to conserve, protect, restore, and enhance endangered species and their habitats. Under State law, plant and animal species may be formally designated rare, threatened, or endangered by official listing by the California Fish and Game Commission. CESA authorizes that private entities may "take" plant or wildlife species listed as endangered or threatened under the ESA and CESA, pursuant to a Federal Incidental Take Permit if the CDFW certifies that the incidental take is consistent with the CESA (Fish & Game Code Section 2080.1[a]). For State-only listed species, Section 2081 of the CESA authorizes the CDFW to issue an Incidental Take Permit for a State listed threatened or endangered species if specific criteria are met.

Native Plant Protection Act

Sections 1900 - 1913 of the California Fish and Game Code (CFGC) (Native Plant Protection Act) direct the CDFW to carry out the Legislature's intent to *"…preserve, protect and enhance endangered or rare native plants of this state."* The Native Plant Protection Act gives the CFGC the power to designate native plants as "endangered" or "rare" and protect endangered and rare plants from take.

California Fish and Game Code

The CFGC provides specific protection and listing for several types of biological resources. Section 1600 of California Fish and Game Code requires a Streambed Alteration Agreement for any activity that would alter the flow, change, or use any material from the bed, channel, or bank of any perennial, intermittent, or ephemeral river, stream, and/or lake.

Typical activities that require a Streambed Alteration Agreement include excavation or fill placed within a channel, vegetation clearing, structures for diversion of water, installation of culverts and bridge supports, cofferdams for construction dewatering, and bank reinforcement. Notification is required prior to any such activities, and CDFW will issue a Streambed Alteration Agreement with any necessary mitigation to ensure protection of the State's fish and wildlife resources.

Pursuant to CFGC Section 3503, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Raptors and owls and their active nests are protected by CFGC Section 3503.5, which states that it is unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird unless authorized by the CDFW. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA. These regulations could require that construction activities

(particularly vegetation removal or construction near nests) be reduced or eliminated during critical phases of the nesting cycle unless surveys by a qualified biologist demonstrate that nests, eggs, or nesting birds will not be disturbed, subject to approval by CDFW and/or USFWS. As a general/standard condition, the project must comply with California Fish and Game Code Sections 3503 and 3503.5.

Fully protected species are described in CFGC Sections 3511, 4700, 5050, and 5515. These species include certain fish, amphibian and reptile, bird, and mammal species. These statutes prohibit take or possession of fully protected species and do not provide for authorization of incidental take of fully protected species.

Porter-Cologne Water Quality Control Act Of 1970

The Porter-Cologne Water Quality Control Act of 1970 grants the State Water Resource Control Board and its regional offices power to protect water quality and is the primary vehicle for implementation of the State's responsibilities under Section 401 of the Clean Water Act. The Porter-Cologne Act grants the State Water Resource Control Board authority and responsibility to adopt plans and policies, regulate discharges to surface and groundwater, regulate waste disposal sites, and require cleanup of discharges of hazardous materials and other pollutants. Typically, the State Water Resource Control Board and RWQCB act in concert with the Corps under Section 401 of the Clean Water Act in relation to permitting fill of Waters of the U.S.

5.4.2.3 Local

Multiple Species Conservation Program

The MSCP is a comprehensive habitat conservation planning program for San Diego County. Local jurisdictions, including the City, implement their portions of the MSCP through subarea plans, which describe specific implementing mechanisms. The City's MSCP Subarea Plan, approved in March 1997, is a plan and process for the issuance of permits under the Federal and State Endangered Species Act and the California Natural Communities Conservation Planning Act of 1991. The primary goal of the MSCP Subarea Plan is to conserve viable populations of sensitive species and to conserve regional biodiversity while allowing for reasonable economic growth. In July 1997, the City signed an Implementing Agreement with the USFWS and the CDFW. The Implementing Agreement serves as a binding contract between the City, the USFWS, and the CDFW that identifies the roles and responsibilities of the parties to implement the MSCP and Subarea Plan. The agreement allows the City to issue incidental take authorizations under the provisions of the MSCP. Applicable State and Federal permits are still required for wetland and listed species that are not covered by the MSCP.

Multi-Habitat Planning Area

One of the primary objectives of the MSCP is to identify and maintain a preserve system, which allows for animals and plants to exist at both the local and regional levels. The MSCP has identified large blocks of native habitat having the ability to support a diversity of plant and animal life known as "core biological resource areas." "Linkages" between these core areas provide for wildlife movement. These lands have been determined to provide the necessary habitat quality, quantity, and connectivity to sustain the unique biodiversity of the San Diego region. Input from responsible agencies and other interested participants resulted in creation of the City's MHPA. The MHPA is the area within which the permanent MSCP preserve would be assembled and managed for its biological resources. MHPA lands are considered by the City to be sensitive biological resources. In accordance with the MSCP, for parcels located outside the MHPA, there is no limit on encroachments into sensitive biological resources, with the exception of wetlands and listed noncovered species' habitat. Regardless, impacts to sensitive biological resources are to be assessed, and mitigation, where necessary, must be provided in conformance with the City's Biology Guidelines (City of San Diego 2018).

To address the integrity of the MHPA, guidelines were developed to manage land uses adjacent to the MHPA. The adjacency guidelines are intended to be addressed on a project-by-project basis either in the planning or management stage. These guidelines address the issues of drainage, toxics, lighting, noise, invasives, brush management, access to MHPA, and grading/land development.

As described above, MHPA lands are those that have been included within the City's MSCP Subarea Plan for habitat conservation. These lands have been determined to provide the necessary habitat quality, quantity, and connectivity to sustain the unique biodiversity of the San Diego region. MHPA lands are considered by the City to be a sensitive biological resource.

Environmentally Sensitive Lands Regulations

Mitigation requirements for sensitive biological resources follow the requirements of the City's Biology Guidelines (2018) as outlined in the City's Municipal Code ESL Regulations (Chapter 14, Article 3, Division 1). Impacts to biological resources within the City's Preserve, the MHPA, must comply with the ESL Regulations, which also serve as standards for the determination of biological impacts and mitigation under CEQA in the City. ESL include sensitive biological resources, steep hillsides, coastal beaches, sensitive coastal bluffs and 100-year floodplains (San Diego Municipal Code [SDMC] 143.0110).

The purpose of the ESL Regulations is to *protect, preserve and, where damaged, restore the ESL of San Diego and the viability of the species supported by those lands* (SDMC 143.0101). Outside the Coastal Overlay Zone where the Project lies, impacts to wetlands should be avoided. Unavoidable impacts should be minimized to the maximum extent practicable. Whether or not an impact is unavoidable will be determined on a case-by-case basis. If impacts to wetlands cannot be avoided, a deviation from the ESL Regulations is required. Examples of unavoidable impacts include those necessary to allow reasonable use of a parcel entirely constrained by wetlands, roads where the only access to the developable portion of the site results in impacts to wetlands, and essential public facilities (essential roads, sewer, water lines, etc.) where no feasible alternative exists.

The project would impact wetlands and would, therefore, require deviations from the ESL Regulations. Deviations to the regulations for development located outside of the Coastal Overlay Zone (where the project lies) shall not be granted unless the development qualifies to be processed as [at least] one of three options set forth in the ESL Regulations. The project would qualify under the EPP Option for the Public Roads (i.e., Fashion Valley Road). According to SDMC (Chapter 14, Article 3, Division 1; §143.0150 Deviations from ESL Regulations), *a deviation may only be requested for an EPP where no feasible alternative exists that would avoid impacts to wetlands*. Deviations from ESL Regulations may be granted for Essential Public Projects that include:

(i) Any public project identified in an adopted land use plan or implementing document and identified on the Essential Public Projects List adopted by Resolution No. R-307377 as Appendix III to the Biology Guidelines; or
(ii) Linear infrastructure, including but not limited to major roads and land use plan circulation element roads and facilities including bike lanes, water and sewer pipelines including appurtenances, and stormwater conveyance systems including appurtenances; or
(iii) Maintenance of existing public infrastructure; or
(iv) State and federally mandated projects.

A wetland buffer shall be maintained around all wetlands as appropriate to protect the functions and values of the wetland. Section 320.4(b)(2) of the USACOE General Regulatory Policies (33CFR 320- 330) list criteria for consideration when evaluating wetland functions and values. These include wildlife habitat (spawning, nesting, rearing, and foraging), food chain productivity, water quality, ground water recharge, and areas for the protection from storm and floodwaters.

The ESL Regulations also specify development requirements inside and outside of the MHPA. Inside the MHPA, development must be located in the least sensitive portion of a given site; outside of the MHPA, development must avoid wetlands and non-MSCP Covered Species (City 2018). The ESL Regulations further require that impacts to sensitive biological resources must be assessed and mitigation provided where necessary, as required by Section III of the City's biology guidelines.

Biology Guidelines

The City's Biology Guidelines (2018) have been formulated by the Development Services Department to aid in the implementation and interpretation of the ESL Regulations. Section III of the Biology Guidelines (Biological Impact Analysis and Mitigation Procedures) also serves as standards for the determination of impact and mitigation under CEQA and the Coastal Act. The Biology Guidelines are the baseline biological standards for processing Neighborhood Development Permits, Site Development Permits, and Coastal Development Permits issued pursuant to ESL Regulations.

Mitigation requirements for sensitive biological resources follow the requirements of the City's Biology Guidelines (2018) as outlined in the City's Municipal Code ESL Regulations (Chapter 14, Article 3, Division 1). Impacts to biological resources within the City's MSCP Preserve, the MHPA, must comply with the ESL Regulations, which also serve as standards for the determination of biological impacts and mitigation

under CEQA in the City. ESL include sensitive biological resources, steep hillsides, coastal beaches, sensitive coastal bluffs and 100-year floodplains (San Diego Municipal Code [SDMC] 143.0110).

Outside the Coastal Overlay Zone (where the project lies), impacts to wetlands should be avoided. Unavoidable impacts should be minimized to the maximum extent practicable. Whether or not an impact is unavoidable is determined on a case-by-case basis. If impacts to wetlands cannot be avoided, a deviation from the ESL Regulations is required. A wetland buffer shall be maintained around all wetlands as appropriate to protect the functions and values of the wetland. ESL Regulations also specify development requirements inside and outside of the MHPA. Inside the MHPA, development must be located in the least sensitive portion of a given site; outside of the MHPA, development must avoid wetlands and non-MSCP Covered Species. The ESL Regulations further require that impacts to sensitive biological resources must be assessed and mitigation provided where necessary, as required by Section III of the City's biology guidelines.

5.4.3 Methodology

A series of field surveys were conducted on the project site to assess existing conditions, map current vegetation, and identify sensitive species. The field surveys included vegetation mapping and a jurisdictional delineation in 2014, focused surveys for the least Bell's vireo and southwestern willow flycatcher in 2015 and 2018, and sensitive plant surveys in spring 2018. The vegetation mapping was subsequently updated in 2017. The surveys for the least Bell's vireo and southern willow flycatcher were conducted in accordance with the current Least Bell's Vireo Survey Guidelines and the current Southwestern Willow Flycatcher Survey Protocol. Sensitive plant species surveys were conducted on-foot and with binoculars to search for sensitive plant species with potential to occur (based on, for example, habitat types and nearby historical records).

Vegetation mapping was conducted on-foot and with the use of a golf cart and mapped by hand onto aerial imagery. Vegetation community classifications follow Holland (1986) as modified by Oberbauer *et al* (2008). The hand-drawn vegetation community and land cover type boundaries were provided to a Geographic Information System (GIS) analyst and were digitized using GIS software.

Wetland Waters of the U.S., regulated by the USACOE, were delineated following the methods outlined by the USACOE. USACOE wetland boundaries were determined using the three criteria (vegetation, hydrology, and soils) established for wetland delineations. Waters of the State, regulated by the CDFW, were determined based on the presence of riparian vegetation or regular surface flow. City wetlands were determined based on conditions summarized in City Municipal Code (Chapter 11, Article 3, Division 1).

5.4.4 Impact Analysis

5.4.4.1 Issue 1 – Issue 4

Issue 1 *Would the project result in a substantial adverse impact, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in the MSCP or other regional plans, policies or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS)?*

Issue 2 *Would the project result in a substantial adverse impact on any Tier I Habitats, Tier II Habitats, Tier IIIA Habitats, or Tier IIIB Habitats as identified in the Biology Guidelines of the Land Development manual or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS?*

Issue 3 *Would the project result in a substantial adverse impact on wetlands (including, but not limited to, marsh, vernal pool, riparian, etc.) through direct removal, filling, hydrological interruption, or other means?*

Issue 4 *Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, including linkages identified in the MSCP Plan, or impede the use of native wildlife nursery sites?*

Impact Thresholds

In accordance with the City's Significance Determination Thresholds and LDC Biology Guidelines (2018), the project would have a significant impact if:

- *Lands containing Tier I, II, IIIa and IIIb (see Table 3 of City's Biology Guidelines) and all wetlands [see Tables 2a and/or 2b of City's Biology Guidelines] are considered* sensitive and declining habitats. *As such, impacts to these resources may be considered significant. Lands designated as Tier IV are not considered to have significant habitat value and impacts would not be considered significant.*
- *Impacts to individual sensitive species, outside of any impacts to habitat, may also be considered significant based upon the rarity and extent of impacts. Impacts to State or federally listed species and all narrow endemics should be considered significant. Certain species covered by the MSCP and VPHCP and other species not covered by the MSCP, may be considered significant on a case-by-case basis taking into consideration all pertinent information regarding distribution, rarity, and the level of habitat conservation afforded by the MSCP.*
- *Total upland impacts (Tiers I- IIIB) less than 0.1 acre are not considered significant and do not require mitigation.*
- *Impacts to non-native grasslands totaling less than 1.0 acres which are completely surrounded by existing urban developments are not considered significant and do not require mitigation. Examples may include urban infill lots.*

- *Total wetland impacts less than 0.01 acre are not considered significant and do not require mitigation. THIS DOES NOT APPLY TO VERNAL POOLS, road pools supporting listed fairy shrimp, or wetlands within the Coastal Zone.*

Analysis

Direct Impacts

Vegetation Communities

As shown on Table 5.4-3, *Direct Impacts to Vegetation Communities and Land Cover Types*, the Riverwalk project would result in direct impacts to approximately 0.57 acre of southern cottonwood-willow riparian forest, 0.05 acre of disturbed southern willow scrub, 0.01 acre of coastal and valley freshwater marsh, 0.11 acre of emergent wetland, 0.06 acre of open water, 6.72 acres of disturbed land, and 168.69 acres of urban/developed land cover associated with construction of the Riverwalk Specific Plan.

Permanent and temporary impacts to 0.64 acre of wetland/riparian vegetation communities that would result from the Fashion Valley Road improvements (southern cottonwood-willow riparian forest, coastal and valley freshwater marsh) and open water would be significant. This includes permanent and temporary impacts that overlap with Town and Country Resort Hotel restoration enhancement.

Permanent impacts to 0.16 acre of wetland/riparian vegetation communities (disturbed southern willow scrub and emergent wetland) from the mixed-use component of the project are in a constructed drainage (Drainage A). Because Drainage A is not considered City wetlands, impacts would not be significant.

Permanent impacts to 0.16 acre of wetland/riparian vegetation communities (disturbed southern willow scrub and emergent wetland) from the mixed-use component of the project are in a constructed drainage (Drainage A). Because Drainage A is not considered City wetlands, impacts would not be significant.

To accommodate the B15 requirement, the project would expand existing wetland/riparian features within and adjacent to the existing San Diego River channel. The overall restoration includes 11.54 acres of wetland habitat enhancement, 13.32 acres of creation, as well as 0.30 acre of restoration of habitat temporarily impacted by the Fashion Valley Road improvements. This activity is a requirement of MSCP guideline B15 and is, therefore, an allowable activity. No wetland impacts are anticipated from the restoration activities along the San Diego River proposed to implement B 15 of the MSCP.

Impacts to Tier IV Other Uplands (i.e., disturbed land) and impacts to urban/developed land would not meet any criterion for significance. Therefore, these impacts would be less than significant**.**

Table 5.4-3. *Direct Impacts to Vegetation Communities and Land Cover Types*[1]

Vegetation Community/ Land Cover Type	Multi-Use	Riverwalk River Park[2]	Wetland Restoration		Fashion Valley Road Improvements		Riverwalk Project Total
			Wetland Mitigation[3]	B15[4]	Permanent	Temporary	
Wetland/Riparian							
Southern cottonwood-willow riparian forest	0.00	0.00	0.00	0.00	0.34 (0.34)	0.23 (0.23)	0.57 (0.57)
Disturbed southern cottonwood-willow riparian forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Southern willow scrub	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Disturbed southern willow scrub	0.05[4]	0.00	0.00	0.00	0.00	0.00	0.05
Coastal and valley freshwater marsh	0.00	0.00	0.00	0.00	<0.01 (<0.01)	0.01 (0.01)	0.01 (0.01)
Emergent wetland	0.11[4]	0.00	0.00	0.00	0.00	0.00	0.11
Open water	0.00	0.00	0.00	0.00	0.00	0.06 (0.06)	0.06 (0.06)
Subtotal	**0.16**	**0.00**	**0.00**	**0.00**	**0.34 (0.34)**	**0.30(0.30)**	**0.80 (0.64)**
Other Uplands (Tier IV)							
Disturbed land	6.72	0.00	0.00	0.00	0.00	0.00	6.72
Land Cover							
Urban/Developed	91.83 (0.09)	62.69	0.81 (0.81)	12.69 (12.45)	0.64 (0.50)	0.03 (0.03)	168.69 (13.88)
TOTAL	**98.71 (0.09)**	**62.69**	**0.81 (0.81)**	**12.69 (12.45)**	**0.98 (0.84)**	**0.33 (0.33)**	**176.21 (14.52)**

[1]Numbers in parentheses is the acreage that is in the MHPA

[2]Includes both passive and active Riverwalk River Park areas

[3]On-site wetland habitat mitigation area for project impacts

[4]Wetland habitat re-establishment area could serve as a future wetland habitat mitigation bank; however additional approvals from wildlife agencies would be required.

Sensitive Biological Resources

Sensitive Plant Species. No sensitive plant species were observed or are expected to occur on-site; therefore, no impacts to sensitive plant species are expected.

Sensitive Animal Species. All sensitive animal species observed or detected on-site (or with moderate potential to occur there) utilize wetland/riparian habitats and were observed or detected along the San Diego River channel. The project would avoid direct impacts to the sensitive species observed or detected on-site or with moderate potential to occur including Clark's marsh wren, Cooper's hawk, double-crested cormorant, yellow warbler, yellow breasted chat, western bluebird, least Bell's vireo, southwestern willow flycatcher, willow flycatcher, least bittern, Vaux's swift, osprey, and the light-footed Ridgway's rail through pre-construction and nest avoidance measures as a part of Biological Resource Protection Measures for the project. Furthermore, impacts to sensitive animal species listed above are not anticipated because a buffer around them would be provided.

The Riverwalk River Park portion of the project includes planting of native wetland species to create native habitats adjacent to the San Diego River and the existing wetlands in the southwestern portion of the project site, which would potentially create additional habitat for these species. The native areas would not have any active park uses in them—only passive uses. Expansion and enhancement of existing wetland habitats associated with the implementation of B15 of the MSCP could also potentially increase habitat for sensitive species on-site.

Jurisdictional Wetland Areas

The proposed development of the project would result in direct impacts to approximately 0.41 acre of wetland Waters of the U.S., 0.64 acre of wetland Waters of the State, and 0.64 acre of City Wetlands.

There would be no impacts to jurisdictional waters and wetlands from the grading required for the Riverwalk River Park or the wetland restoration proposed by the project, because these activities would occur in what is presently golf course (i.e., urban/developed land). Expansion of the San Diego River channel would involve removal of fairways, tee boxes, greens, cart paths, water features, and bunkers, and the habitat creation area would be graded to create an expanded channel area that is at an elevation within two – four feet of the existing channel bottom. This grading would occur adjacent to the existing channel but would not breach the channel or encroach upon any of the existing wetland habitat. Drainage A has been determined not to be a City Wetland, and therefore a wetland deviation for the mixed-use component of the project is not required.

Impacts to City Wetlands from proposed improvements to Fashion Valley Road (0.64 acre of coastal and valley freshwater marsh, southern cottonwood-willow riparian forest, and open water) are considered significant and unavoidable. Improvements to Fashion Valley Road are necessary to reduce flooding of the current roadway during storm events that makes vehicular crossing of the San Diego River at this location impossible. Fashion Valley Road is classified as a four-lane Major and a community element roadway in the Mission Valley Community Plan. Because Fashion Valley Road is the only existing roadway that crosses

the San Diego River in the immediate vicinity, wetland impacts resulting from improvements to this roadway are unavoidable.

The City Biology Guidelines and ESL Regulations identify that impacts to wetlands should be avoided, and unavoidable impacts should be minimized to the extent practicable Therefore, a deviation from the City's ESL wetland regulations would be required. Deviations from the wetland regulations shall not be granted unless a development qualifies to be processed as one of these three options: Essential Public Projects Option, Economic Viability Option, and Biologically Superior Option.

The Fashion Valley Road improvements would qualify for a deviation under the EPP Option based on the criteria (in italic) as outlined below:

- *The project must be an EPP (i.e., circulation element road, trunk sewer, water main) that will service the community at large and not just a single development project or property.*

Fashion Valley Road connects Friars Road in the north with Hotel Circle North in the south, providing a crossing of the San Diego River, and it provides access to Fashion Valley Mall and Fashion Valley Transit Center to the east, as well as access to the project site to the west. Therefore, improvements to Fashion Valley Road as part of the project would serve the community at large and not just the project. The project proposes to widen Fashion Valley Road to a four-lane major arterial roadway, per its ultimate classification in the Mission Valley Community Plan which call for widening the road, which accounts for the majority of the impact.

- *. Alternatives must include the following: 1) a no project alternative; 2) a wetlands avoidance alternative, including an analysis of alternative sites irrespective of ownership; and 3) an appropriate range of substantive wetland impact minimization alternatives. Public review of the environmental document must occur pursuant to the provisions of CEQA.*

The following wetland alternatives for Fashion Valley Road improvements are addressed below, accordance with the ESL Regulations: No Project Alternative, Wetlands Avoidance Alternative, and Riverwalk Specific Plan project.

No Project Alternative
The No Project Alternative would result in no improvements to the Fashion Valley Road crossing of the river and would allow continued flooding of the roadway and areas upstream during heavy or prolonged rainfall events. Upstream flooding could result in soil erosion, removal of habitat, and wildlife displacement and/mortality. Therefore, a No Project alternative is considered impracticable for avoidance of impacts to biological resources.

Wetlands Avoidance Alternatives
Fashion Valley Road is the only existing roadway that crosses the river in the immediate vicinity, no alternative site exists for improvements to a roadway crossing of the San Diego River that would alleviate

the flooding impacts to the roadway and immediate environs. Therefore, there is no other location suitable for the crossing.

Avoidance of wetland impacts would be possible with a spanned bridge; however, a spanned bridge solution would require significantly raising the entire profile of the roadway, which is not feasible due to adjacent property constraints (MTS trolley track and station).

Wetland Impact Minimalization Alternatives
A traditional river crossing for the Fashion Valley Road improvements to minimize impacts would involve in-channel structural supports/culverts and would not allow for an open span of the river, nor would a soft channel bottom be left underneath. This approach would be expected to have the greatest permanent wetland impacts of all alternatives considered.

A larger Con/Span arch crossing for Fashion Valley Road improvements construction would serve as a wetland minimalization alternative. However, construction of this alternative would require a much larger footprint with deeper supports, more temporary and permanent wetland impacts, and only a marginal increase in the soft bottom channel with essentially the same flood conveyance properties over the proposed arch culvert.

Fashion Valley Road improvements
The Fashion Valley Road improvements proposes a Con/Span arch which presents the best way to meet flood conveyance goals, minimize impacts to wetlands, and provide street operations needs for Fashion Valley Road. The Con/Span arch would replace the existing pipe culverts and have the least wetland impacts when compared to the wetland alternatives considered. The arch footing would be buried beneath and adjacent to the roadway allowing the channel to be maintained with a soft bottom rather than concrete lined.

Grading for the Con/Span arch is needed to ensure the integrity of the arch structure and to protect adjacent properties should there be a major flood. Sufficient cleared workspace is needed for excavation and diverting the river so allow the contractor the ability to can get in and get out as quickly as possible in order to minimize potential construction and flooding issues, as well as time spent working in the river (estimated to be approximately seven months).

Temporary construction impacts to City Wetlands from the proposed Con/Span arch would be 0.30 acre. The arch would be buried below ground and would not be identifiable a few years after construction due to revegetation with natives. Permanent impacts (0.34 acre) would occur from retaining walls that could have buried footings and/or piles similar to the arch. It should be noted that no distinction is made between permanent and temporary impacts; mitigation for these impacts will be provided at the same ratio. This is described in greater detail in Mitigation Measure 5.4-2 below.

- *The potential impacts to wetland resources shall be minimized to the maximum extent practicable and the project shall be the least environmentally damaging practicable biological alternative considering all the technical constraints of the project (e.g., roadway geometry, slope stability,*

geotechnical hazards, etc.). Recognizing the wetland resources involved, minimization to the maximum extent practicable may include, but is not limited to, adequate buffers and/or designs that maintain full hydrologic function and wildlife movement (e.g., pipeline tunneling, bridging, Arizona crossings, arch culverts). The project applicant will solicit input from the U.S. Fish and Wildlife Service and the California Department of Fish and Game (e.g., Wildlife Agencies) prior to the first public hearing.

As previously discussed, the Con/Span arch culvert is a pre-fabricated structure that would minimize impacts associated with construction by having an overall footprint that is less than a traditionally constructed in-place bridge or larger Con/Span arch. Also, a constructed in-place feature would require central supports and not be a truly open span like a Con/Span arch. Different Con/Span options were evaluated, and the one proposed for use is the least impactful that would serve the Fashion Valley Road improvements needs. The Con/Span arch would solve current roadway flooding issues, and because the existing pipe culverts would be removed and it would span the river channel, the new roadway river crossing would improve wildlife movement in the river corridor.

Applicant met with Wildlife Agencies on June 21, 2019. Issues surrounding the project were addressed, and Wildlife Agency staff provided direction regarding how to address the Ridgeway's rail, as well as requested that measures to avoid impacts be incorporated into the project. Following the meeting, USFW staff provided standard Ridgeway's rail avoidance measures, which have been incorporated into the project.

- *All impacts shall be mitigated according to the requirements of Table 2a and the project shall not have a significant adverse impact to the MSCP.*

The project would comply with these requirements for Fashion Valley Road improvements (including the area of overlap with Town and Country Resort Hotel restoration enhancement area outside of Site Development Permit #400602 required mitigation area).

Specifically, mitigation measures MM 5.4-1, 5.4-2 and 5.4-4 would be required for the project. Mitigation provided would be in accordance with the requirements of Table 2a of the City's Biology Guidelines. The City does not distinguish between permanent and temporary impacts, all impacts to wetlands would be mitigated as permanent impacts. The Fashion Valley Road improvements would impact and area outside of the restoration enhancement obligation under Town and Country Resort Hotel. Site Development Permit No. 400602 required mitigation area. Therefore, the mitigation provided for the impacts in this area from the Fashion Valley Road improvements meet the requirements of Table 2a, and the Riverwalk Project is not required to increase its mitigation for the overlapping impacts as it is not a mitigation area.

Wildlife Movement Corridor

The project would not result in direct impacts to the MHPA that includes the San Diego River, which is a corridor for conservation to provide the necessary habitat quality, quantity, and connectivity to sustain the unique biodiversity of the San Diego region. Therefore, the project would not substantially interfere with wildlife movement or impede the use of wildlife nursery sites. Impacts would be less than significant.

The spanned crossing features for Fashion Valley Road would replace the existing pipe culverts, and the new roadway river crossing would improve wildlife movement in the river corridor. The proposed Riverwalk River Park would also facilitate wildlife movement through the creation and enhancement of native habitats along the San Diego River and the existing wetlands. Park restrictions precluding active uses adjacent to the channel also are expected to accommodate wildlife use of the river corridor.

The project would sustain wildlife use through the site by maintaining and expanding the wetland habitat area along the existing channel. Additionally, the establishment of the project's proposed 50-foot no use buffer adjacent to the wetland habitats would facilitate use of the channel by wildlife, particularly at night when the passive and active components of the park would be closed. The planting of native species along the river channel and within the passive and active parks also would provide more cover for animals than is presently provided by the golf course.

Indirect Impacts

Indirect effects listed in the City's Subarea Plan include those from drainage, toxics, lighting, noise, barriers, invasives, brush management, and grading/land development. The project site includes areas within and adjacent to the MHPA; therefore, conformance with the MSCP Adjacency Guidelines would be required to ensure that indirect impacts into the MHPA are minimized. The 50-foot no use buffer adjacent to the MHPA would facilitate the avoidance of indirect impacts through its passive uses that would not create excessive noise and through the boulders or deterrent vegetation that would be installed to deter entrance into the buffer. See Section 5.1, *Land Use*, for a detailed discussion of indirect impacts and the MHPA Adjacency Guidelines. Conformance with the MHPA LUAGs would become conditions of project approval.

Fugitive Dust

Fugitive dust produced by construction could disperse onto adjacent native vegetation (inside and outside the MHPA). A continual cover of dust may reduce the overall vigor of individual plants by reducing their photosynthetic capabilities and increasing their susceptibility to pests or disease. This, in turn, could affect animals dependent on these plants (e.g., seed-eating rodents). Fugitive dust also may make plants unsuitable as habitat for insects and birds. Construction of the project would include the use of dust control measures required in SDMC Section 142.0101 et seq. These measures could include, for example, reduced driving speeds on unpaved roads and regular watering of dirt surfaces. Therefore, project construction would result in less-than-significant impacts.

Noise

As discussed in Section 5.1, *Land Use*, and in Section 5.8, *Noise*, with the exception of potential noise impacts associated with construction, the project would not result in indirect impacts. Construction-related noise from such sources as clearing, grading, and construction vehicular traffic from the project could result in a significant temporary impact to wildlife, if species sensitive to noise are present at the time of construction. Post-construction noise impacts from active park uses on sensitive species with potential to occur are not anticipated.

Significant impacts would occur if the least Bell's vireo, southwestern willow flycatcher are present, construction occurs during the period March 15 through September 15 (May 1 and September 1 for the flycatcher), and construction noise levels exceed 60 decibels dBA hourly average (or to the ambient noise level if it already exceeds 60 dB (A) hourly average) at the edge of occupied habitat. The specific avoidance measures for the light-footed Ridgeway's rail have been identified for the project and would be included as conditions of approval for the project. Because the State Fully Protected light-footed Ridgway's rail (*Rallus obsoletus levipes*) is known to occur along the San Diego River in the MHPA on-site, and California Fish and Game Code does not allow for incidental take of Fully Protected Species, the project would implement the following measures, as applicable, to avoid direct and indirect impacts to the species.

To avoid direct impacts to the light-footed Ridgway's rail during project construction, removal of habitat that supports the rail would occur outside of the breeding season for this species (March 15 to September 15). If removal of habitat must occur during the breeding season, however, a qualified biologist (possessing a valid Endangered Species Act section 10(a)(1)(a) recovery permit) would conduct a pre-construction survey to determine the presence or absence of this species in the proposed area of disturbance. The pre-construction survey would be conducted within 10 calendar days prior to the start of construction activities (including removal of vegetation). The results of the pre-construction survey would be submitted to the City Development Services Department for review and approval prior to initiating any construction activities. If the light-footed Ridgway's rail is detected, a letter report or mitigation plan in conformance with the City's Biology Guidelines and applicable State and Federal Law (i.e. appropriate follow up surveys, monitoring schedules, construction and noise barriers/buffers, etc.) would be prepared and include proposed measures to be implemented to ensure that direct impacts to this species are avoided. The report or mitigation plan would be submitted to the City and Wildlife Agencies for review and approval and implemented to their satisfaction.

To avoid indirect impacts to the light-footed Ridgway's rail, the following measures have been incorporated into the project. These measures would be conditions of project approval in addition to the MHPA LUAGs.

> The active park facilities proposed for the Riverwalk River Park would be designed/located such that noise from their use would not be louder than the current (pre-project) ambient noise levels within the current extent of the wetland/riparian habitat of the San Diego River on-site.
>
> Additionally, the following requirements regarding the light-footed Ridgway's rail would be shown on the construction plans.
>
> No clearing, grubbing, grading, or other construction activities shall occur between March 15 and September 15, the breeding season of the light-footed Ridgway's rail, until the following requirements have been met to the satisfaction of the city manager and Wildlife Agencies (CDFW and USFWS):

A. A qualified biologist (possessing a valid endangered species act section 10(a)(1)(a) recovery permit) shall survey those wetland areas that would be subject to construction noise levels exceeding 60 decibels dBA hourly average for the presence of the light-footed Ridgway's rail. Surveys for this species shall be conducted pursuant to the protocol survey guidelines established by the U.S. Fish and Wildlife Service within the breeding season prior to the commencement of construction. If the least bell's vireo is present, then the following conditions must be met:

Between March 15 and September 15, no clearing, grubbing, or grading of occupied light-footed Ridgway's rail habitat shall be permitted. Areas restricted from such activities shall be staked or fenced under the supervision of a qualified biologist; and

1. Between March 15 and September 15, no construction activities shall occur within any portion of the site where construction activities would result in noise levels the current, pre-construction ambient hourly average at the edge of occupied light-footed Ridgway's rail habitat. An analysis showing that noise generated by construction activities would not exceed the current, pre-construction ambient hourly average at the edge of occupied habitat must be completed by a qualified acoustician (possessing current noise engineer license or registration with monitoring noise level experience with listed animal species) and approved by the City Manager at least two weeks prior to the commencement of construction activities. Prior to the commencement of any of construction activities during the breeding season, areas restricted from such activities shall be staked or fenced under the supervision of a qualified biologist; or

2. At least two weeks prior to the commencement of construction activities, under the direction of a qualified acoustician, noise attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities would not exceed the current, pre-construction ambient hourly average at the edge of habitat occupied by the light-footed Ridgway's rail. Concurrent with the commencement of construction activities and the construction of necessary noise attenuation facilities, noise monitoring* shall be conducted at the edge of the occupied habitat area to ensure that noise levels do not exceed the current, pre-construction ambient hourly average. If the noise attenuation techniques implemented are determined to be inadequate by the qualified acoustician or biologist, then the associated construction activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season (September 16).

   * Construction noise monitoring shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained at no more than the current, pre-construction ambient hourly average. If not, other measures shall be implemented in consultation with the biologist and the City Manager, as necessary, to reduce noise levels to the current, pre-construction ambient hourly average. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.

B. If the light-footed Ridgway's rail is not detected during the protocol survey, the qualified biologist shall submit substantial evidence to the City Manager and applicable resource agencies which demonstrates whether or not mitigation measures such as noise walls are necessary between March 15 and September 15 as follows:
   1. If this evidence indicates the potential is high for light-footed Ridgway's rail to be present based on historical records or site conditions, then condition a.iii shall be adhered to as specified above.
   2. If this evidence concludes that no impacts to this species are anticipated, no mitigation measures would be necessary.

Also, to further avoid indirect impacts to the light-footed Ridgway's rail, the MHPA Land Use Adjacency Guidelines would be conditions of project approval.

Avian Collisions

According to the USFWS (2016):

> *Glass reflectivity and transparency create a lethal illusion of clear airspace that birds do not see as a barrier. During the daytime, birds collide with windows because they see reflections of the landscape in the glass (e.g., clouds, sky, vegetation, or the ground); or they see through glass to perceived habitat (including potted plants or vegetation inside buildings) or to the sky on the other side…The majority of collisions with both residential and urban buildings happen during the day, as birds fly around looking for food… avian mortalities at night more frequently occur at communication towers, offshore drilling platforms and in other situations where there is a bright light source in a dark area, especially during inclement weather.*

To the extent practicable, the project would incorporate architectural design (windows/glass) and landscaping that is consistent with American Bird Conservancy Bird-Friendly Design (Sheppard and Phillips 2015) to minimize the potential for avian collisions with windows/glass and landscaping associated with the project. These architectural design measures are included in Chapter 6.0 of the Riverwalk Specific Plan. Impacts would be less-than-significant.

Significance of Impacts

The Riverwalk project would not result in significant direct impacts to sensitive plant or animal species. No impacts to the MHPA would result. However, the project would result in significant direct impacts to vegetation communities. The project would result in significant direct impacts to jurisdictional waters. The project would not interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, including linkages identified in the MSCP Plan, or impede the use of native wildlife nursery sites. The project would result in an indirect impact to sensitive wildlife species.

Mitigation Measures

MM 5.4-1: Biological Resources (Protection During Construction)
Prior to issuance of any construction permits, including but not limited to, the first Grading Permit, Demolition Plans/Permits and Building Plans/Permits, or beginning any construction-related activity on-site, but prior to the first preconstruction, for lots south of the MTS Trolley Tracks (Lots 32-40, 43-52, TT, UU, VV, WW, XX, YY, ZZ, AAA, BBB, CCC, DDD, or EEE as shown on VTM 2213361) the Development Services Department (DSD) Environmental Designee (ED) shall review and approve all construction documents (plans, specifications, details, etc.) to ensure the MMRP requirements are incorporated.

I. Prior to Construction

A. **Biologist Verification**: The owner/permittee shall provide a letter to the City's Mitigation Monitoring Coordination (MMC) section stating that a Project Biologist (Qualified Biologist) as defined in the City of San Diego's Biological Guidelines (2012), has been retained to implement the project's biological monitoring program. The letter shall include the names and contact information of all persons involved in the biological monitoring of the project.

B. **Preconstruction Meeting:** The Qualified Biologist shall attend the preconstruction meeting, discuss the project's biological monitoring program, and arrange to perform any follow up mitigation measures and reporting including site-specific monitoring, restoration or revegetation, and additional fauna/flora surveys/salvage.

C. **Biological Documents:** The Qualified Biologist shall submit all required documentation to MMC verifying that any special mitigation reports including but not limited to, maps, plans, surveys, survey timelines, or buffers are completed or scheduled per City Biology Guidelines, Multiple Species Conservation Program (MSCP), Environmentally Sensitive Lands Ordinance (ESL), project permit conditions; California Environmental Quality Act (CEQA); endangered species acts (ESAs); and/or other local, state or federal requirements.

D. **BCME:** The Qualified Biologist shall present a Biological Construction Mitigation/Monitoring Exhibit (BCME) which includes the biological documents in C above. In addition, include: restoration/revegetation plans, plant salvage/relocation requirements (e.g., coastal cactus wren plant salvage, burrowing owl exclusions, etc.), avian or other wildlife surveys/survey schedules (including general avian nesting and USFWS protocol), timing of surveys, wetland buffers, avian construction avoidance areas/noise buffers/ barriers, other impact avoidance areas, and any subsequent requirements determined by the Qualified Biologist and the City ADD/MMC. The BCME shall include a site plan, written and graphic depiction of the project's biological mitigation/monitoring program, and a schedule. The BCME shall be approved by MMC and referenced in the construction documents.

E. **Avian Protection Requirements:** To avoid any direct impacts to the Clark's marsh wren, Cooper's hawk, double-crested cormorant, yellow warbler, yellow breasted chat, western bluebird, least

Bell's vireo, southwestern willow flycatcher, least bittern, willow flycatcher, Vaux's swift, osprey and/or the light-footed Ridgway's rail, removal of habitat that supports active nests in the proposed area of disturbance should occur outside of the breeding season for these species (February 1 to September 15). If removal of habitat in the proposed area of disturbance must occur during the breeding season, the Qualified Biologist shall conduct a pre-construction survey to determine the presence or absence of nesting birds on the proposed area of disturbance. The pre-construction survey shall be conducted within 10 calendar days prior to the start of construction activities (including removal of vegetation). The survey area shall cover the limits of disturbance and 300 feet (500 feet for raptors) from the area of disturbance. The applicant shall submit the results of the pre-construction survey to City DSD for review and approval prior to initiating any construction activities. If nesting Clark's marsh wren, Cooper's hawk, double-crested cormorant, yellow warbler, yellow breasted chat, western bluebird, least Bell's vireo, southwestern willow flycatcher, willow flycatcher, least bittern, Vaux's swift, osprey and/or the light-footed Ridgway's rail are detected, a letter report or mitigation plan in conformance with the City's Biology Guidelines and applicable State and Federal Law (i.e. appropriate follow up surveys, monitoring schedules, construction and noise barriers/buffers, etc.) shall be prepared and include proposed measures to be implemented to ensure that take of birds or eggs or disturbance of breeding activities is avoided. The report or mitigation plan shall be submitted to the City for review and approval and implemented to the satisfaction of the City. The City's MMC Section and Biologist shall verify and approve that all measures identified in the report or mitigation plan are in place prior to and/or during construction.

F. **Resource Delineation:** Prior to construction activities, the Qualified Biologist shall supervise the placement of orange construction fencing or equivalent along the limits of disturbance adjacent to sensitive biological habitats and verify compliance with any other project conditions as shown on the BCME. This phase shall include flagging plant specimens and delimiting buffers to protect sensitive biological resources (e.g., habitats/flora & fauna species, including nesting birds) during construction. Appropriate steps/care should be taken to minimize attraction of nest predators to the site.

G. **Education:** Prior to commencement of construction activities, the Qualified Biologist shall meet with the owner/permittee or designee and the construction crew and conduct an on-site educational session regarding the need to avoid impacts outside of the approved construction area and to protect sensitive flora and fauna (e.g., explain the avian and wetland buffers, flag system for removal of invasive species or retention of sensitive plants, and clarify acceptable access routes/methods and staging areas, etc.).

II. During Construction

A. **Monitoring**: All construction (including access/staging areas) shall be restricted to areas previously identified, proposed for development/staging, or previously disturbed as shown on "Exhibit A" and/or the BCME. The Qualified Biologist shall monitor construction activities as needed to ensure that construction activities do not encroach into biologically sensitive areas,

or cause other similar damage, and that the work plan has been amended to accommodate any sensitive species located during the pre-construction surveys. In addition, the Qualified Biologist shall document field activity via the Consultant Site Visit Record (CSVR). The CSVR shall be e-mailed to MMC on the 1st day of monitoring, the 1st week of each month, the last day of monitoring, and immediately in the case of any undocumented condition or discovery.

B. **Subsequent Resource Identification:** The Qualified Biologist shall note/act to prevent any new disturbances to habitat, flora, and/or fauna onsite (e.g., flag plant specimens for avoidance during access, etc.). If active nests of the Clark's marsh wren, Cooper's hawk, double-crested cormorant, yellow warbler, yellow breasted chat, western bluebird, least Bell's vireo, southwestern willow flycatcher, willow flycatcher, least bittern, Vaux's swift, osprey, and/or the light-footed Ridgway's rail or other previously unknown sensitive resources are detected, all project activities that directly impact the resource shall be delayed until species specific local, state or federal regulations have been determined and applied by the Qualified Biologist.

III. Post Construction Measures

A. In the event that impacts exceed previously allowed amounts, additional impacts shall be mitigated in accordance with City Biology Guidelines, ESL and MSCP, State CEQA, and other applicable local, state and federal law. The Qualified Biologist shall submit a final BCME/report to the satisfaction of the City ADD/MMC within 30 days of construction completion.

MM 5.4-2:

Biological Resources Wetlands

Prior to issuance of any construction permits, including but not limited to, the first Grading Permit, Demolition Plans/Permits and Building Plans/Permits, but prior to the first preconstruction meeting for public improvements or impacts associated with the construction of Fashion Valley Road between Riverwalk Drive and Hotel Circle North., the Owner/Permittee shall mitigate for City wetland/riparian vegetation impacts to 0.64-acre (0.01 acre of coastal and valley freshwater marsh, 0.57 acre of southern cottonwood-willow riparian forest) and 0.06-acre of open water. Mitigation for impacts to City jurisdictional wetlands shall occur at a 3:1 mitigation-to-impact ratio in accordance with Table 2a of the City's Biology Guidelines. Accordingly, mitigation for City wetland/riparian impacts shall include a 1:1 creation component to ensure no net loss of wetlands and a 2:1 restoration/enhancement component. The Owner/Pemitee shall provide 1.92 acres of habitat and shall be achieved on-site via the following, as detailed in the *Riverwalk Project Wetland Mitigation Plan* (Alden Environmental, Inc. February 19, 2020):

- Creation of 0.21-acre of freshwater marsh riparian and 0.57-acre of southern cottonwood-willow riparian forest
- Enhancement of 1.14-acres of southern cottonwood-willow riparian forest

Biological Resources Other Resources Agency Permits

Prior to issuance of any construction permits, including but not limited to, the first Grading Permit, Demolition Plans/Permits and Building Plans/Permits, but prior to the first preconstruction meeting for public improvements or impacts associated with the construction of Fashion Valley Road between Riverwalk Drive and Hotel Circle North, whichever is applicable, the Owner/Permittee shall provide evidence of the following permits: a 404 permit from U.S. Army Corps of Engineers, 401 Certification from Regional Water Quality Control Board, and a 1602 streambed alteration agreement from the California Department of Fish and Wildlife. Evidence shall include copies of permit(s) issued, letter of resolution(s) by the responsible agency documenting compliance, or other evidence documenting compliance deemed acceptable by MSCP, DSD, and MMC.

MM 5.4-3: Biological Resources (Revegetation Plan)

Prior to issuance of any construction permits, including but not limited to, the first Grading Permit, Demolition Plans/Permits and Building Plans/Permits, but prior to the first preconstruction meeting for public improvements or impacts associated with the construction of Fashion Valley Road between Riverwalk Drive and Hotel Circle North, the Assistant Deputy Director (ADD) environmental designee of the City's Land Development Review Division (LDR) shall verify that the following statements are shown verbatim on the grading and/or construction plans as a note under the heading *Environmental Requirements*: "Riverwalk Specific Plan" is subject to Mitigation, Monitoring and Reporting Program and shall conform to the mitigation conditions as contained in the "Environmental Impact Report PTS. No. 581984 / *SCH No. 2018041028*."

Prior to Permit Issuance

A. Land Development Review (LDR) Plan Check
    1. Prior to issuance for any construction permits, including but not limited to, the first Grading Permit, Demolition Plans/Permits and Building Plans/Permits, whichever is applicable, the ADD environmental designee shall verify that the requirements for the revegetation/restoration plans and specifications, including mitigation of direct impacts to City wetland/riparian vegetation impacts to 0.64-acre (0.01 acre of coastal and valley freshwater marsh, 0.57 acre of southern cottonwood-willow riparian forest) and 0.06-acre of open water, and the remaining restoration revegetation onsite subjected to MSCP B15 requirements shall be shown and noted on the appropriate landscape construction documents. The landscape construction documents and specifications must be found to be in conformance with the *Habitat Restoration Plan*, prepared by Alden Environmental, Inc., February 19, 2020, the requirements of which are summarized below:

B. Revegetation/Restoration Plan(s) and Specifications
    1. Landscape Construction Documents (LCD) shall be prepared on D-sheets and submitted to the City of San Diego Development Services Department, Landscape Architecture Section (LAS) for review and approval. LAS shall consult with Mitigation Monitoring Coordination (MMC) and obtain concurrence prior to approval of LCD. The LCD shall consist of revegetation/restoration, planting, irrigation and erosion control plans; including all required graphics, notes, details, specifications, letters, and reports as

outlined below.

2. Landscape Revegetation/Restoration Planting and Irrigation Plans shall be prepared in accordance with the San Diego Land Development Code (LDC) Chapter 14, Article 2, Division 4, the LDC Landscape Standards submittal requirements, and Attachment "B" (General Outline for Revegetation/Restoration Plans) of the City of San Diego's LDC Biology Guidelines (2018). The Principal Qualified Biologist (PQB) shall identify and adequately document all pertinent information concerning the revegetation/restoration goals and requirements, such as but not limited to, plant/seed palettes, timing of installation, plant installation specifications, method of watering, protection of adjacent habitat, erosion and sediment control, performance/success criteria, inspection schedule by City staff, document submittals, reporting schedule, ect. The LCD shall also include comprehensive graphics and notes addressing the ongoing maintenance requirements (after final acceptance by the City).
3. The Revegetation Installation Contractor (RIC), Revegetation Maintenance Contractor (RMC), Construction Manager (CM) and Grading Contractor (GC), where applicable shall be responsible to insure that for all grading and contouring, clearing and grubbing, installation of plant materials, and any necessary maintenance activities or remedial actions required during installation and the 120-day plant establishment period are done per approved LCD. The following procedures at a minimum, but not limited to, shall be performed:
    a. The RMC shall be responsible for the maintenance of the wetland/riparian mitigation area for a minimum period of 120-days. Maintenance visits shall be conducted on a weekly basis throughout the plant establishment period.
    b. At the end of the 120-day period the PQB shall review the mitigation area to assess the completion of the short-term plant establishment period and submit a report for approval by MMC.
    c. MMC will provide approval in writing to begin the five-year long-term establishment/maintenance and monitoring program.
    d. Existing indigenous/native species shall not be pruned, thinned or cleared in the revegetation/mitigation area.
    e. The revegetation site shall not be fertilized.
    f. The RIC is responsible for reseeding (if applicable) if weeds are not removed, within one week of written recommendation by the PQB.
    g. Weed control measures shall include the following: (1) hand removal, (2) cutting, with power equipment, and (3) chemical control. Hand removal of weeds is the most desirable method of control and will be used wherever possible.
    h. Damaged areas shall be repaired immediately by the RIC/RMC. Insect infestations, plant diseases, herbivory, and other pest problems will be closely monitored throughout the five-year maintenance period. Protective mechanisms such as metal wire netting shall be used as necessary. Diseased and infected plants shall be immediately disposed of off-site in a legally acceptable manner at the discretion of the PQB or Qualified Biological Monitor (QBM) (City approved). Where possible, biological controls will be used instead of pesticides and herbicides.

4. If a Brush Management Program is required the revegetation/restoration plan shall show the dimensions of each brush management zone and notes shall be provided describing the restrictions on planting and maintenance and identify that the area is impact neutral and shall not be used for habitat mitigation/credit purposes.

C. Letters of Qualification Have Been Submitted to ADD
   1. The applicant shall submit, for approval, a letter verifying the qualifications of the biological professional to MMC. This letter shall identify the PQB, Principal Restoration Specialist (PRS), and QBM, where applicable, and the names of all other persons involved in the implementation of the revegetation/restoration plan and biological monitoring program, as they are defined in the City of San Diego Biological Review References. Resumes and the biology worksheet should be updated annually.
   2. MMC will provide a letter to the applicant confirming the qualifications of the PQB/PRS/QBM and all City Approved persons involved in the revegetation/restoration plan and biological monitoring of the project.
   3. Prior to the start of work, the applicant must obtain approval from MMC for any personnel changes associated with the revegetation/restoration plan and biological monitoring of the project.
   4. PBQ must also submit evidence to MMC that the PQB/QBM has completed Storm Water Pollution Prevention Program (SWPPP) training.

Prior to Start of Construction

A. PQB/PRS Shall Attend Preconstruction (Precon) Meetings
   1. Prior to beginning any work that requires monitoring:
      a. The owner/permittee or their authorized representative shall arrange and perform a Precon Meeting that shall include the PQB or PRS, Construction Manager (CM) and/or Grading Contractor (GC), Landscape Architect (LA), Revegetation Installation Contractor (RIC), Revegetation Maintenance Contractor (RMC), Resident Engineer (RE), Building Inspector (BI), if appropriate, and MMC.
      b. The PQB shall also attend any other grading/excavation related Precon Meetings to make comments and/or suggestions concerning the revegetation/restoration plan(s) and specifications with the RIC, CM and/or GC.
      c. If the PQB is unable to attend the Precon Meeting, the owner shall schedule a focused Precon Meeting with MMC, PQB/PRS, CM, BI, LA, RIC, RMC, RE and/or BI, if appropriate, prior to the start of any work associated with the revegetation/ restoration phase of the project, including site grading preparation.
   2. Where Revegetation/Restoration Work Will Occur
      a. Prior to the start of any work, the PQB/PRS shall also submit a revegetation/restoration monitoring exhibit (RRME) based on the appropriate reduced LCD (reduced to 11"x 17" format) to MMC, and the RE, identifying the areas to be revegetated/restored including the delineation of the limits of any disturbance/grading and any excavation.

b. PQB shall coordinate with the construction superintendent to identify appropriate Best Management Practices (BMP) on the RRME.

3. When Biological Monitoring Will Occur
   a. Prior to the start of any work, the PQB/PRS shall also submit a monitoring procedures schedule to MMC and the RE indicating when and where biological monitoring and related activities will occur.
4. PQB Shall Contact MMC to Request Modification
   a. The PQB may submit a detailed letter to MMC prior to the start of work or during construction requesting a modification to the revegetation/restoration plans and specifications. This request shall be based on relevant information (such as other sensitive species not listed by federal and/or state agencies and/or not covered by the MSCP and to which any impacts may be considered significant under CEQA) which may reduce or increase the potential for biological resources to be present.

During Construction

A. PQB or QBM Present During Construction/Grading/Planting
   1. The PQB or QBM shall be present full-time during construction activities including but not limited to, site preparation, cleaning, grading, excavation, landscape establishment in association with demolition and construction of Fashion Valley Road improvements which would result in impacts to sensitive biological resources as identified in the LCD and on the RRME. **The RIC and/or QBM are responsible for notifying the PQB/PRS of changes to any approved construction plans, procedures, and/or activities. The PQB/PRS is responsible to notify the CM, LA, RE, BI and MMC of the changes.**
   2. The PQB or QBM shall document field activity via the Consultant Site Visit Record Forms (CSVR). The CSVR's shall be faxed by the CM the first day of monitoring, the last day of monitoring, monthly, and in the event that there is a deviation from conditions identified within the LCD and/or biological monitoring program. The RE shall forward copies to MMC.
   3. The PQB or QBM shall be responsible for maintaining and submitting the CSVR at the time that CM responsibilities end (i.e., upon the completion of construction activity other than that of associated with biology).
   4. All construction activities (including staging areas) shall be restricted to the development areas as shown on the LCD. The PQB/PRS or QBM staff shall monitor construction activities as needed, with MMC concurrence on method and schedule. This is to ensure that construction activities do not encroach into biologically sensitive areas beyond the limits of disturbance as shown on the approved LCD.
   5. The PQB or QBM shall supervise the placement of orange construction fencing or City approved equivalent, along the limits of potential disturbance adjacent to (or at the edge of) all sensitive habitats including southern cottonwood-willow riparian forest, southern willow scrub, coastal and valley freshwater marsh, emergent wetland, and open water to avoid direct impacts to: Clark's marsh wren, Cooper's hawk, double-crested cormorant, yellow warbler, yellow breasted chat, western bluebird, least Bell's vireo, southwestern willow flycatcher, least bittern, Vaux's swift, and osprey, as shown on the approved LCD.

6. The PBQ shall provide a letter to MMC that limits of potential disturbance has been surveyed, staked and that the construction fencing is installed properly.
7. The PQB or QBM shall oversee implementation of BMP, such as gravel bags, straw logs, silt fences or equivalent erosion control measures, as needed to ensure prevention of any significant sediment transport. In addition, the PQB/QBM shall be responsible to verify the removal of all temporary construction BMP upon completion of construction activities. Removal of temporary construction BMP shall be verified in writing on the final construction phase CSVR.
8. PQB shall verify in writing on the CSVR's that no trash stockpiling or oil dumping, fueling of equipment, storage of hazardous wastes or construction equipment/material, parking or other construction related activities shall occur adjacent to sensitive habitat. These activities shall occur only within the designated staging area located outside the area defined as biological sensitive area.
9. The long-term establishment inspection and reporting schedule per LCD must all be approved by MMC prior to the issuance of the Notice of Completion (NOC) or any bond release.

B. Disturbance/Discovery Notification Process
   1. If unauthorized disturbances occur or sensitive biological resources are discovered that where not previously identified on the LCD and/or RRME, the PQB or QBM shall direct the contractor to temporarily divert construction in the area of disturbance or discovery and immediately notify the RE or BI, as appropriate.
   2. The PQB shall also immediately notify MMC by telephone of the disturbance and report the nature and extent of the disturbance and recommend the method of additional protection, such as fencing and appropriate Best Management Practices (BMP). After obtaining concurrence with MMC and the RE, PQB and CM shall install the approved protection and agreement on BMP.
   3. The PQB shall also submit written documentation of the disturbance to MMC within 24 hours by fax or email with photos of the resource in context (e.g., show adjacent vegetation).

C. Determination of Significance
   1. The PQB shall evaluate the significance of disturbance and/or discovered biological resource and provide a detailed analysis and recommendation in a letter report with the appropriate photo documentation to MMC to obtain concurrence and formulate a plan of action which can include fines, fees, and supplemental mitigation costs.
   2. MMC shall review this letter report and provide the RE with MMC's recommendations and procedures.

Post Construction

A. Mitigation Monitoring and Reporting Period
   1. Five-Year Mitigation Establishment/Maintenance Period
      a. The RMC shall be retained to complete maintenance monitoring activities throughout the five-year mitigation monitoring period.

b. Maintenance visits will be conducted twice per month for the first six months, once per month for the remainder of the first year, and quarterly thereafter.
c. Maintenance activities will include all items described in the LCD.
d. Plant replacement will be conducted as recommended by the PQB (note: plants shall be increased in container size relative to the time of initial installation or establishment or maintenance period may be extended to the satisfaction of MMC.

2. Five-Year Biological Monitoring
   a. All biological monitoring and reporting shall be conducted by a PQB or QBM, as appropriate, consistent with the LCD.
   b. Monitoring shall involve both qualitative horticultural monitoring and quantitative monitoring (i.e., performance/success criteria). Horticultural monitoring shall focus on soil conditions (e.g., moisture and fertility), container plant health, seed germination rates, presence of native and non-native (e.g., invasive exotic) species, any significant disease or pest problems, irrigation repair and scheduling, trash removal, illegal trespass, and any erosion problems.
   c. After plant installation is complete, qualitative monitoring surveys will occur monthly during year one and quarterly during years two through five.
   d. Upon the completion of the 120-days short-term plant establishment period, quantitative monitoring surveys shall be conducted at 0, 6, 12, 24, 36, 48 and 60 months by the PQB or QBM. The revegetation/restoration effort shall be quantitatively evaluated once per year (in spring) during years three through five, to determine compliance with the performance standards identified on the LCD. All plant material must have survived without supplemental irrigation for the last two years.
   e. Quantitative monitoring shall include the use of fixed transects and photo points to determine the vegetative cover within the revegetated habitat. Collection of fixed transect data within the revegetation/restoration site shall result in the calculation of percent cover for each plant species present, percent cover of target vegetation, tree height and diameter at breast height (if applicable) and percent cover of non-native/non-invasive vegetation. Container plants will also be counted to determine percent survivorship. The data will be used determine attainment of performance/success criteria identified within the LCD.
   f. Biological monitoring requirements may be reduced if, before the end of the fifth year, the revegetation meets the fifth-year criteria and the irrigation has been terminated for a period of the last two years.
   g. The PQB or QBM shall oversee implementation of post-construction BMP, such as gravel bags, straw logs, silt fences or equivalent erosion control measure, as needed to ensure prevention of any significant sediment transport. In addition, the PBQ/QBM shall be responsible to verify the removal of all temporary post-construction BMP upon completion of construction activities. Removal of temporary post-construction BMP shall be verified in writing on the final post-construction phase CSVR.

B. Submittal of Draft Monitoring Report

1. A draft monitoring letter report shall be prepared to document the completion of the 120-day plant establishment period. The report shall include discussion on weed control, horticultural treatments (pruning, mulching, and disease control), erosion control, trash/debris removal, replacement planting/reseeding, site protection/signage, pest management, vandalism, and irrigation maintenance. The revegetation/restoration effort shall be visually assessed at the end of 120-day period to determine mortality of individuals.
2. The PQB shall submit two copies of the Draft Monitoring Report which describes the results, analysis, and conclusions of all phases of the Biological Monitoring and Reporting Program (with appropriate graphics) to MMC for review and approval within 30 days following the completion of monitoring. Monitoring reports shall be prepared on an annual basis for a period of five years. Site progress reports shall be prepared by the PQB following each site visit and provided to the owner, RMC and RIC. Site progress reports shall review maintenance activities, qualitative and quantitative (when appropriate) monitoring results including progress of the revegetation relative to the performance/success criteria, and the need for any remedial measures.
3. Draft annual reports (three copies) summarizing the results of each progress report including quantitative monitoring results and photographs taken from permanent viewpoints shall be submitted to MMC for review and approval within 30 days following the completion of monitoring.
4. MMC shall return the Draft Monitoring Report to the PQB for revision or, for preparation of each report.
5. The PQB shall submit revised Monitoring Report to MMC (with a copy to RE) for approval within 30 days.
6. MMC will provide written acceptance of the PQB and RE of the approved report.

C. Final Monitoring Reports(s)
   1. PQB shall prepare a Final Monitoring upon achievement of the fifth-year performance/success criteria and completion of the five-year maintenance period.
      a. This report may occur before the end of the fifth year if the revegetation meets the fifth-year performance /success criteria and the irrigation has been terminated for a period of the last two years.
      b. The Final Monitoring report shall be submitted to MMC for evaluation of the success of the mitigation effort and final acceptance. A request for a pre-final inspection shall be submitted at this time, MMC will schedule after review of report.
      c. If at the end of the five years any of the revegetated area fails to meet the project's final success standards, the applicant must consult with MMC. This consultation shall take place to determine whether the revegetation effort is acceptable. The applicant understands that failure of any significant portion of the revegetation/restoration area may result in a requirement to replace or renegotiate that portion of the site and/or extend the monitoring and establishment/maintenance period until all success standards are met.

MM 5.4-4: Biological Resources – Least Bell's Vireo (State Endangered/Federally Protected)

1. Prior to issuance of any construction permits, including but not limited to, the first Grading Permit, Demolition Plans/Permits and Building Plans/Permits the City Manager (or appointed environmental designee) shall verify that the following project requirements regarding the least Bell's vireo are shown on the construction plans:

   No clearing, grubbing, grading, or other construction activities shall occur between March 15 and September 15, the breeding season of the least Bell's vireo, until the following requirements have been met to the satisfaction of the City Manager:

   A. A qualified biologist (possessing a valid endangered species act section 10(a)(1)(a) recovery permit) shall survey those wetland areas that would be subject to construction noise levels exceeding 60 decibels [dB(A)] or to the ambient noise level if it already exceeds 60 dB(A) hourly average for the presence of the least bell's vireo. Surveys for this species shall be conducted pursuant to the protocol survey guidelines established by the U.S. Fish and Wildlife Service within the breeding season prior to the commencement of construction. If the least Bell's vireo is present, then the following conditions must be met:

      I. Between March 15 and September 15, no clearing, grubbing, or grading of occupied least Bell's vireo habitat shall be permitted. Areas restricted from such activities shall be staked or fenced under the supervision of a qualified biologist; and
      II. Between March 15 and September 15, no construction activities shall occur within any portion of the site where construction activities would result in noise levels exceeding 60 dB(A) or to the ambient noise level if it already exceeds 60 dB(A) hourly average at the edge of occupied least bell's vireo or habitat. An analysis showing that noise generated by construction activities would not exceed 60 dB(A) hourly average at the edge of occupied habitat must be completed by a qualified acoustician (possessing current noise engineer license or registration with monitoring noise level experience with listed animal species) and approved by the city manager at least two weeks prior to the commencement of construction activities. Prior to the commencement of any of construction activities during the breeding season, areas restricted from such activities shall be staked or fenced under the supervision of a qualified biologist; or
      III. At least two weeks prior to the commencement of construction activities, under the direction of a qualified acoustician, noise attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities will not exceed 60 dB(A) or to the ambient noise level if it already exceeds 60 dB(A) hourly average hourly average at the edge of habitat occupied by the least Bell's vireo. Concurrent with the commencement of construction activities and the construction of necessary noise attenuation facilities, noise monitoring* shall be conducted at the edge of the occupied habitat area to ensure that noise levels do not exceed 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. If the noise attenuation techniques implemented are determined to be inadequate by the qualified acoustician or biologist, then the associated construction activities shall cease

until such time that adequate noise attenuation is achieved or until the end of the breeding season (September 16).

* Construction noise monitoring shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. If not, other measures shall be implemented in consultation with the biologist and the City Manager, as necessary, to reduce noise levels to below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.

B. If least Bell's vireo are not detected during the protocol survey, the qualified biologist shall submit substantial evidence to the City Manager and applicable resource agencies which demonstrates whether or not mitigation measures such as noise walls are necessary between March 15 and September 15 as follows:
   I. If this evidence indicates the potential is high for least Bell's vireo to be present based on historical records or site conditions, then condition A.III shall be adhered to as specified above.
   II. If this evidence concludes that no impacts to this species are anticipated, no mitigation measures would be necessary.

MM 5.4-5: Biological Resources – Southwestern Willow Flycatcher (Federally Endangered)

1. Prior to issuance of any construction permits, including but not limited to, the first Grading Permit, Demolition Plans/Permits and Building Plans/Permits the City Manager (or appointed environmental designee) shall verify that the following project requirements regarding the southwestern willow flycatcher are shown on the construction plans: No clearing, grubbing, grading, or other construction activities shall occur between May 1 and September 1, the breeding season of the southwestern willow Flycatcher, until the following requirements have been met to the satisfaction of the City Manager:

   A. A qualified biologist (possessing a valid endangered species act section 10(a)(1)(a) recovery permit) shall survey those wetland areas that would be subject to construction noise levels exceeding 60 decibels [db(A)] hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average for the presence of the southwestern willow flycatcher. Surveys for this species shall be conducted pursuant to the protocol survey guidelines established by the U.S. Fish and Wildlife Service within the breeding season prior to the commencement of any construction. If the southwestern willow flycatcher is present, then the following conditions must be met:

      I. Between May 1 and September 1, no clearing, grubbing, or grading of occupied southwestern willow flycatcher habitat shall be permitted. Areas restricted from such activities shall be staked or fenced under the supervision of a qualified biologist; and
      II. Between May 1 and September 1, no construction activities shall occur within any portion

of the site where construction activities would result in noise levels exceeding 60 dB(A) hourly average at the edge of occupied southwestern Willow flycatcher habitat or to the ambient noise level if it already exceeds 60 dB(A) hourly average. An analysis showing that noise generated by construction activities would not exceed 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average at the edge of occupied habitat must be completed by a qualified acoustician (possessing current noise engineer license or registration with monitoring noise level experience with listed animal species) and approved by the City Manager at least two weeks prior to the commencement of construction activities. Prior to the commencement of construction activities during the breeding season, areas restricted from such activities shall be staked or fenced under the supervision of a qualified biologist; or

III. At least two weeks prior to the commencement of construction activities, under the direction of a qualified acoustician, noise attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities will not exceed 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average at the edge of habitat occupied by the southwestern willow flycatcher. Concurrent with the commencement of construction activities and the construction of necessary noise attenuation facilities, noise monitoring* shall be conducted at the edge of the occupied habitat area to ensure that noise levels do not exceed 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. If the noise attenuation techniques implemented are determined to be inadequate by the qualified acoustician or biologist, then the associated construction activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season (September 1).

    * Construction noise monitoring shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB (A) hourly average. If not, other measures shall be implemented in consultation with the biologist and the City Manager, as necessary, to reduce noise levels to below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.

B. If southwestern willow flycatcher are not detected during the protocol survey, the qualified biologist shall submit substantial evidence to the City Manager and applicable resource agencies which demonstrates whether or not mitigation measures such as noise walls are necessary between May 1 and September 1as follows:
   I. If this evidence indicates the potential is high for southwestern willow flycatcher to be present based on historical records or site conditions, then condition A.III shall be adhered to as specified above.
   II. If this evidence concludes that no impacts to this species are anticipated, no mitigation measures would be necessary.

Significance of Impacts Following Implementation of Mitigation Measures

Mitigation measure MM 5.4-1, MM 5.4-2, and MM 5.4-3 would fully mitigate project impacts to vegetation communities to below a level of significance. Mitigation measures MM 5.4-4 and MM 5.4-5 would fully mitigate indirect impacts to sensitive animal species.

5.4.4.2 Issue 5, Issue 6, and Issue 7

Issue 5 *Would the project conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Conservation Community Plan (NCCP) or other approved local, regional or state habitat conservation plan, either within the MSCP plan area or in the surrounding region?*

Issue 6 *Would the project introduce a land use within an area adjacent to the Multiple Habitat Planning Area (MHPA) that would result in adverse edge effects?*

Issue 7 *Would the proposal result in the introduction of invasive species of plants into natural open space areas?*

Impact Thresholds

In accordance with the City's Significance Determination Thresholds and LDC Biology Guidelines (2018), the project would have a significant impact if it would:

- Result in *[a] conflict with the provisions of an adopted* HCP, NCCP, *or other approved local, regional, or state habitat conservation plan, either within the MSCP plan area or in the surrounding region;*
- Introduce *land use within an area adjacent to the MHPA that would result in adverse edge effects.*
- *Introduction of invasive species of plants into natural open space areas*

Analysis

According to the City's MSCP Subarea Plan, land uses planned or existing adjacent to the MHPA include single- and multiple-family residential, active recreation, commercial, industrial, agricultural, landfills, and extractive uses. The land uses adjacent to the MHPA are analyzed to ensure minimal impacts to the MHPA.

As described in Section 5.1, *Land Use*, the Riverwalk River Park would be developed in compliance with the San Diego River Park Master Plan where adjacent to the MHPA. Uses within the Riverwalk River Park would include sports fields, picnic areas, dog parks, water features, a ranger station, a recreation center, restroom facilities, parking, and/or other amenities. The active park uses are located on the north and south ends of the park, between 50 and 550 feet from the San Diego River corridor and the MHPA**.** Uses nearer to the channel and partially within the MHPA would be passive in nature and would include walking/hiking trails and nature observation nodes with educational kiosks. Per the City's Subarea Plan, passive recreation is compatible with the biological objectives of the MSCP and is, therefore, allowed in

the MHPA. The project would comply with all MHPA LUAGs; therefore, it would not result in adverse edge effects to the MHPA.

The 60 dBA noise contour resulting from construction activities for the project would occur approximately 500 feet from the river channel. See Figure 5.8-3, *60 dBA Construction Noise Contours*. The 60 dBA noise contour for any proposed use would occur at a minimum of approximately 150 feet and a maximum of approximately 520 feet and would include passive park, the 50-foot no-use buffer, and habitat restoration areas. Conditions would be implemented to ensure that indirect impacts associated with construction noise do not occur.

In addition, the project would comply with City landscape standards and MHPA LUAGs for invasive species. The landscape plans would not include any invasive plant species. Riverwalk River Park plantings would be comprised of native species. The MHPA area also would be restored to native conditions. As such, the project would not introduce invasive species of plants into natural open space.

The project would comply with MHPA Guideline B15 for the San Diego River and would otherwise avoid impacts to the MHPA. Additionally, the project would incorporate measures (such as Area-Specific Management Directives) for protection of MSCP Covered Species, as outlined in the City's Subarea Plan. Therefore, the project would not conflict with the MSCP.

The habitat restoration area created on-site, along the existing river channel and within the MHPA, would include 11.54 acres of wetland habitat enhancement, 13.32 acres of creation, and 0.30 acre of restoration of habitat temporarily impacted by the Fashion Valley Road improvements. The restoration is intended to create and enhance the native habitats along the San Diego River, within and adjacent to the MHPA, and is in excess of Guideline B15 in the City's MSCP Subarea Plan. The project would comply with all MHPA requirements. The surplus (acreage not needed for project mitigation) habitat area could serve as a future wetland habitat mitigation bank and would require additional effort to obtain mitigation banking approvals from wildlife agencies.

Conditions for Coverage

Appendix A of the City's MSCP Subarea Plan (City 1997) includes conditions of coverage for species covered by the plan, including Area Specific Management Directives (ADMDs). Four species covered by the Subarea Plan occur on-site: least Bell's vireo, light-footed Ridgway's rail, Cooper's hawk, and western bluebird. The southwestern willow flycatcher, which is also a covered species in the Subarea Plan, has moderate potential to occur on-site but was not found during focused biology surveys conducted in 2015 and 2018. Conditions of coverage for these species are provided in Appendix A of the City's MSCP Subarea Plan. The project's conformance with conditions of coverage for these species is outlined below.

Least Bell's Vireo and Southwestern Willow Flycatcher

According to the conditions of coverage for least Bell's vireo and southwestern willow flycatcher, jurisdictions require surveys (using appropriate protocols) during the CEQA review process in suitable habitat proposed to be impacted and require incorporation of mitigation measures consistent with the Clean Water Act Section

404(b)1 guidelines to demonstrate compliance with the Clean Water Act. Participating jurisdictions' guidelines and ordinances, and State and Federal wetland regulations will provide additional habitat protection resulting in no net loss of wetlands. Jurisdictions must require new developments adjacent to preserve areas that create conditions attractive to brown-headed cowbirds to monitor and control cowbirds. Area specific management directives must include measures to provide appropriate successional habitat, upland buffers for known populations, cowbird control, and specific measures to protect against detrimental edge effects. Any clearing of occupied habitat must occur between September 16 and March 14 (i.e., outside of the nesting season).

The site was surveyed in 2015 and 2018 for presence of least Bell's vireo and southwestern willow flycatcher. The least Bell's vireo was found to be present, although the observations were of solitary, transient males. The southwestern willow flycatcher was not detected during surveys for the subspecies in 2015 and 2018 but is considered to have moderate potential to occur due to the presence of potentially suitable riparian breeding habitat. The least Bell's vireo was observed more than 350 feet outside the project site.

The project would restore, enhance, and protect all existing riparian habitat on-site in a manner that increases the quality of the habitat from existing conditions. The project would establish a 50-foot no use buffer adjacent to the MHPA and restored/enhanced/ preserved wetland habitats. Uses nearer to the no use buffer and the MHPA would be passive in nature and would include walking/hiking trails and nature observation nodes with educational kiosks, which would provide additional buffer between the habitats and the active park uses. The wetland buffers and establishment of the Riverwalk River Park would allow for creation and enhancement of native upland transition habitat surrounding the wetlands. Only passive uses would be allowed in these areas. The buffers would include native plantings (following grading). Furthermore, the project would comply with the MHPA LUAGs to protect the wetlands in the MHPA from adverse indirect impacts.

The brown-headed cowbird (*Molothrus ater*), a nest parasite, has been observed on-site and would likely continue to occupy the site following implementation of the project. Because cowbird presence is part of the existing conditions on-site, the project would conduct cowbird monitoring and control during the maintenance and monitoring period of the wetland habitat restoration. Any further cowbird control would be the responsibility of the land management entity. Future land uses allowed in the Specific Plan area would not include land uses attractive to cow birds (such as agricultural fields, and pastured cattle and horses). Construction activities shall be restricted during the nesting season (i.e., March 15–September 15).

Light-footed Ridgway's Rail

According to the conditions of coverage for the light-footed Ridgway's rail contained in Appendix A of the City's MSCP Subarea Plan, this species would be covered by the MSCP because 93 percent of its habitat would be conserved. Furthermore, participating jurisdictions' guidelines and ordinances, and state and federal wetland regulations will provide additional habitat protection resulting in no net loss of wetlands. ASMDs for the species must include active management of wetlands to ensure a healthy tidal saltmarsh

environment, and specific measures to protect against detrimental edge effects to this species. Furthermore, the project has incorporated measure to avoid direct and indirect impacts to this species.

The Riverwalk River Park portion of the project includes grading and planting of native wetland species to create native habitats adjacent to the San Diego River and the existing wetlands in the southwestern portion of the project site. The goal is to create a mosaic of site-appropriate wetland/riparian associated habitats similar to those on-site through the installation of a broad species mix. The habitat restoration could create appropriate habitat for this species on-site. Additionally, the transitional upland/wetland habitat to be planted in the buffer between the river and proposed development to the north and the MHPA/wetland buffer to the south, as well as compliance with the MHPA LUAGs and avoidance of noise impacts, would provide protection against detrimental edge effects to this species. Post-construction noise levels would be less than 60 dBA at the edge of occupied habitat by adherence to specific distances determined in the Noise Study prepared for the project (Birdseye Planning, April 2020).

Cooper's Hawk

In the design of future projects within the Metro-Lakeside-Jamul segment, design of preserve areas shall conserve patches of oak woodland and oak riparian forest of adequate size for nesting and foraging habitat. Area specific management directives must include 300-foot impact avoidance areas around the active nests, and minimization of disturbance in oak woodlands and oak riparian forests.

The project is not located within the Metro-Lakeside-Jamul segment. Therefore, this Area Specific Management Directive is not applicable to the project.

Significance of Impacts

The project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional or state habitat conservation plan, within the MSCP plan area or in the surrounding region. The project would also not introduce a land use within an area adjacent to the MHPA that would result in adverse edge effects nor introduce invasive species of plants into natural open space areas. Impacts would be less than significant.

Mitigation Measures

No mitigation measures would be required.

5.4.4.3 Issue 8

Issue 8 *Would the project result in a conflict with any local policies or ordinances protecting biological resources?*

Impact Threshold

In accordance with the City's Significance Determination Thresholds and LDC Biology Guidelines (2018), the project would have a significant impact if it would:

- Result in *[a] conflict with any local policies or ordinances protecting biological resources*.

Analysis

The City's ESL Regulations require avoidance of MHPA lands, wetlands, vernal pools in naturally occurring complexes, MSCP Covered Species, and MSCP Narrow Endemics. The project is subject to the City's ESL Regulations. To avoid a conflict with ESL Regulations, the project would require a deviation from ESL Regulations given that impacts to wetlands are expected to occur. The City's Biology Guidelines outline the deviation request process. As detailed above the project meets the requirements for a deviation under the Essential Public Project. Further, the project would mitigate wetlands to offset project impacts in accordance with Biology Guidelines to ensure no-net-loss of wetlands is achieved see (MM 5.4-1 and MM 5.4-4.). Refer to Land Use, Section 5.1, for additional information on ESL Regulations.

Significance of Impacts

The project meets the criteria under the Essential Public Project for a deviation from wetlands regulations. Therefore, the project would not result in a conflict with any local policies or ordinances protecting biological resources. Impacts would be less than significant.

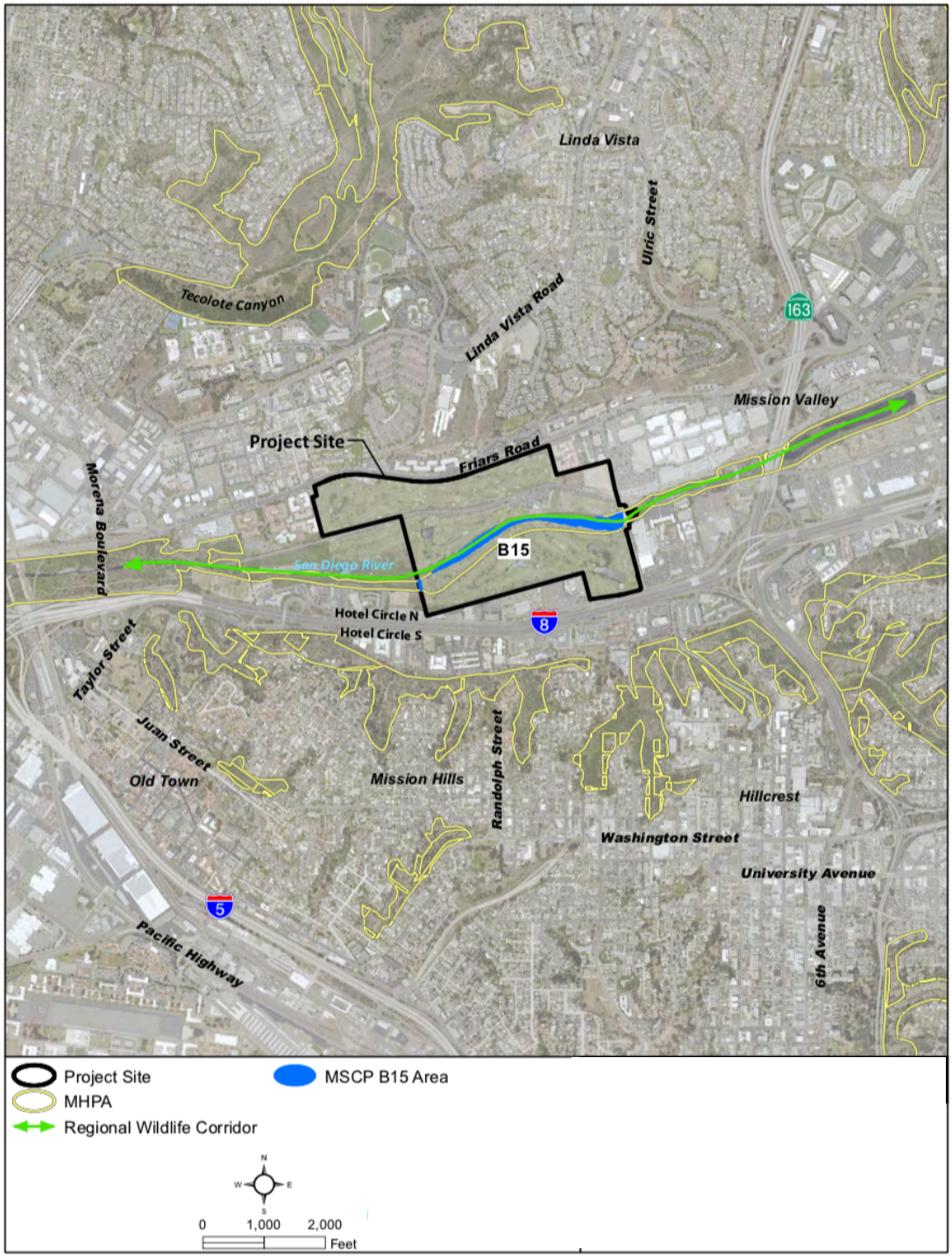


Figure 5.4-1. ***City of San Diego MHPA and Regional Corridor***

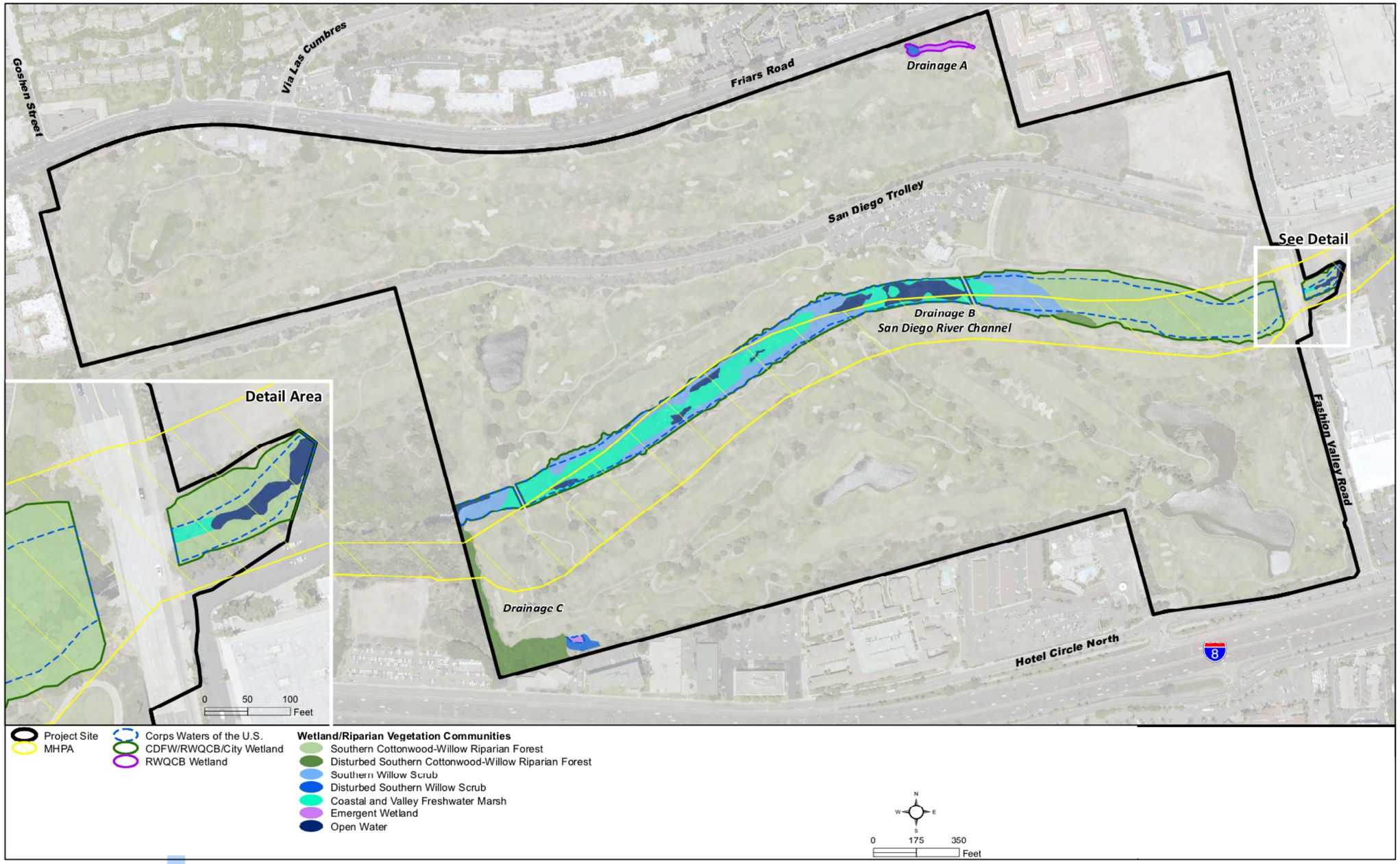


Figure 5.4-2. *Riverwalk Jurisdictional Areas*

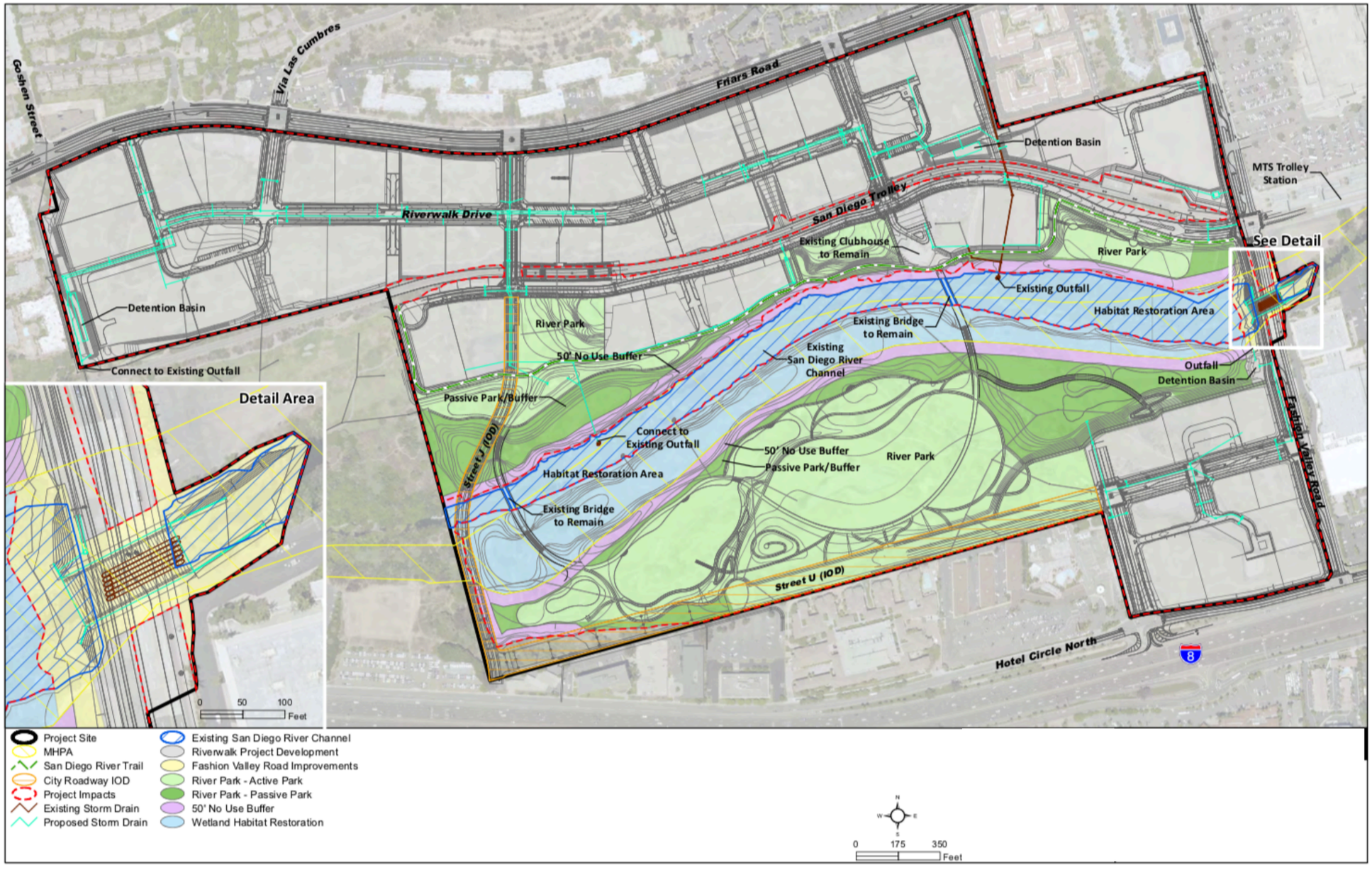


Figure 5.4-3. ***Development Plan/Impacts***

WETLAND SEED MIX[1]	
SPECIES	**POUNDS/ACRE**
Yerba mansa (*Anemopsis californica*)	3
Spiny rush (*Juncus acutus*)	4
Pale spikerush (*Eleocharis macrostachya*)	4
Mugwort (*Artemisia douglasiana*)	4
Saltmarsh fleabane (*Pluchea odorata*)	3
Creeping wild rye (*Leymus triticoides*)	5
San Diego sagewort (*Artemisia palmeri*)	4
Mulefat (*Baccharis salicifolia*) Tarragon (*Artemisia dracunculus*)	4 6
Western ragweed (*Ambrosia psilostachya*)	6
California deergrass (*Muhlenbergia rigens*)	4
Red willow (*Salix laevigata*)	3
Arroyo willow (*Salix lastolepis*)	3
Elderberry (*Sambucus nigra*)	3
TOTAL	62

[1]Applied within re-establishment area and as needed in enhancement area

WETLAND CONTAINER STOCK[1]	
SPECIES	**NUMBER PER ACRE[2]**
Yerba mansa (*Anemopsis californica*)	200
Spiny rush (*Juncus acutus*)	200
Mexican rush (*Juncus mexicanus*)	200
San Diego marsh elder (*Iva hayesiana*)	200
Freemont's cottonwood (*Populus fremontii*)	100
Creeping wild rye (*Leymus triticoides*)	50
Fuchsia-flowered gooseberry (*Ribes speciosum*)	100
Mulefat (*Baccharis salicifolia*)	200
California deergrass (*Muhlenbergia rigens*)	50
Black willow (*Salix exigua*)	100
Arroyo willow (*Salix lastolepis*)	100
Elderberry (*Sambucus nigra*)	100
TOTAL	1,600

[1]Applied within wetland re-establishment area
[2]All container stock is 1 gallon in size

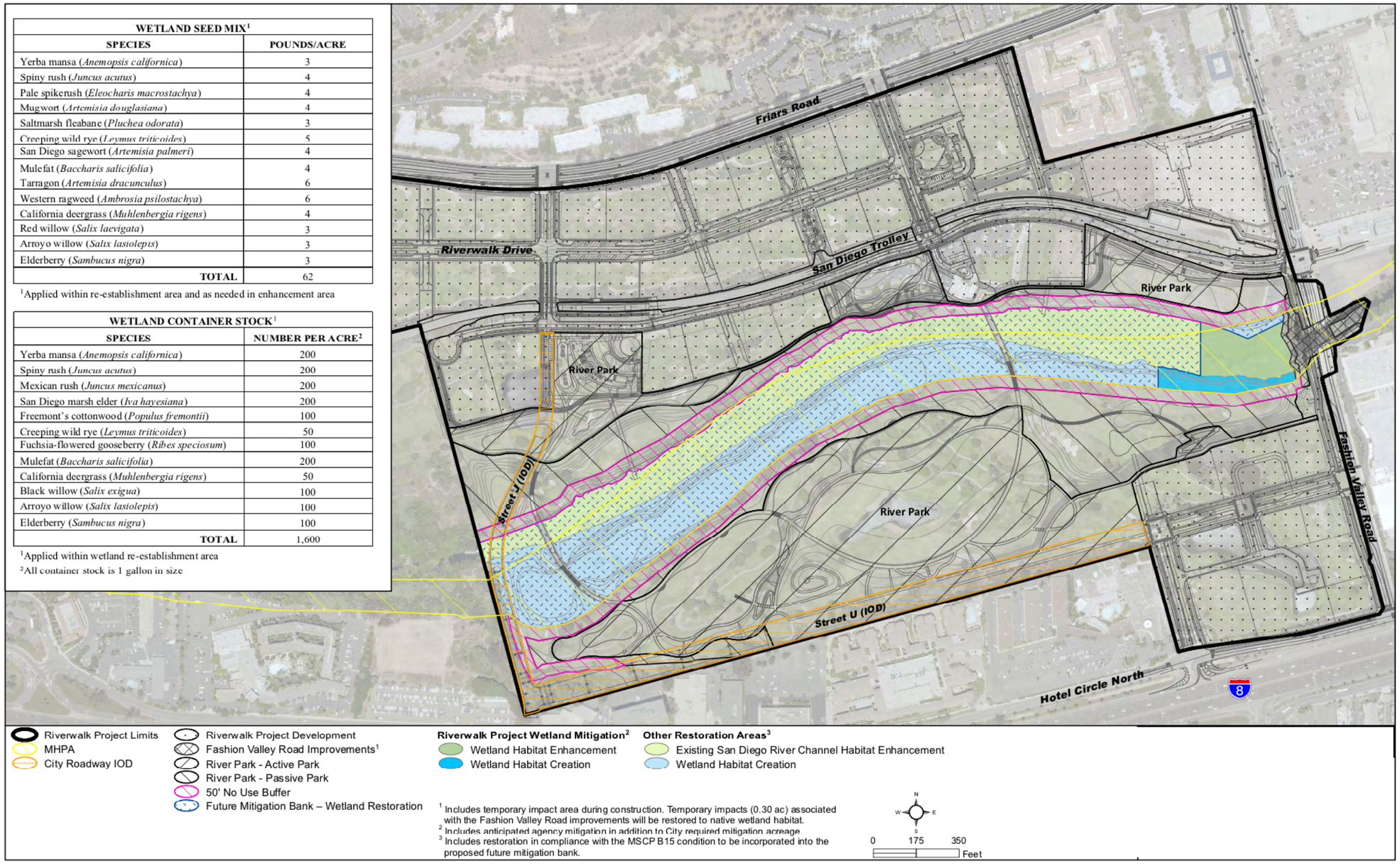


Figure 5.4-4. *Habitat Restoration Area*

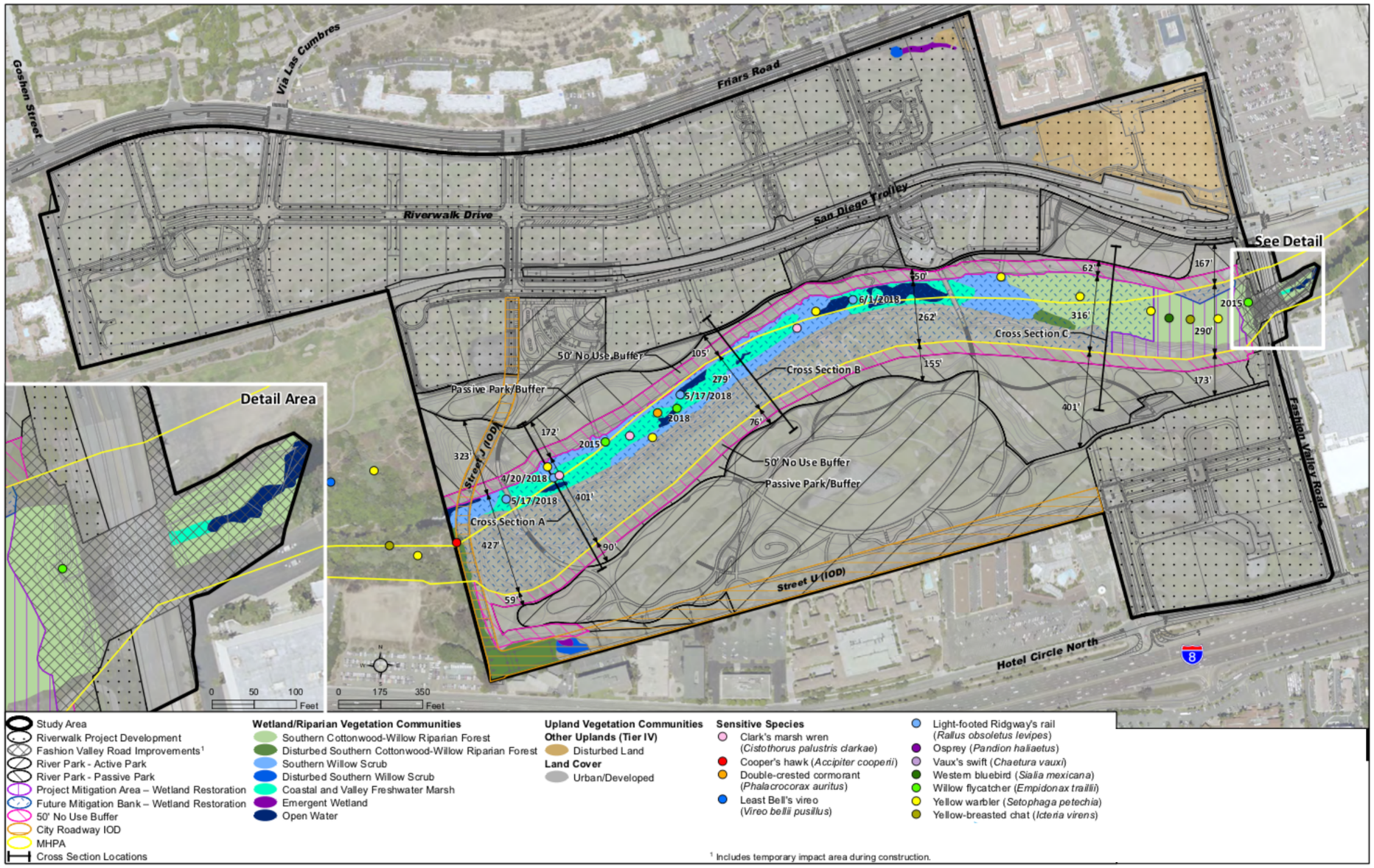


Figure 5.4-5. *Impacts to Biological Resources*

5.5 Air Quality

This section evaluates potential short-term (construction) and operational air quality and odor impacts associated with the project. -The following discussion is based on the *Air Quality Study* prepared for the project by Birdseye Planning Group, dated September 2020, included as Appendix F. A *Construction and Highway Health Risk Assessment* (HRA), dated August 2020, was prepared by AECOM Technical Services, Inc. to evaluate health risks associated with construction. Additionally, because the project could locate residential uses proximate to the I-8 freeway, the HRA also evaluates the potential for health risks associated with operational emissions from traffic on I-8. The HRA is included in Appendix EE.

5.5.1 Existing Conditions

5.5.1.1 Regional Climate and Meteorology

The weather of San Diego County is profoundly influenced by the Pacific Ocean and its semi-permanent high-pressure systems that result in dry, warm summers and mild, occasionally wet winters. The average minimum temperature for January ranges from the mid-40s to the high-50s degrees Fahrenheit (four to 15 degrees Celsius) across the county. July maximum temperatures average in the mid-80s to the high-90s degrees Fahrenheit (high-20s to the high-30s degrees Celsius). Most of the county's precipitation falls from November to April, with infrequent (approximately 10 percent) precipitation during the summer. The average seasonal precipitation along the coast is approximately 10 inches (254 millimeters); the amount increases with elevations as moist air is lifted over the mountains.

The weather of San Diego County, including the San Diego Air Basin (SDAB), is dominated by a semi-permanent high-pressure cell located over the Pacific Ocean. The interaction of ocean, land, and the Pacific High-Pressure Zone maintains clear skies for much of the year and drives the prevailing winds. Local terrain is often the dominant factor inland and winds in inland mountainous areas tend to blow upwards in the valleys during the day and down the hills and valleys at night.

In conjunction with the onshore/offshore wind patterns, there are two types of temperature inversions (reversals of the normal decrease of temperature with height) that occur within the region that affect atmospheric dispersive capability and that act to degrade local air quality. In the summer, an inversion at about 1,100 to 2,500 feet (335 to 765 meters) is formed over the entire coastal plain when the warm air mass over land is undercut by a shallow layer of cool marine air flowing onshore. The prevailing sunny days in the region further exacerbate the smog problem by inducing additional adverse photochemical reactions. During the winter, a nightly shallow inversion layer (usually at about 800 feet or 243 meters) forms between the cooled air at the ground and the warmer air above, which can trap vehicular pollutants. The days of highest carbon monoxide (CO) concentrations occur during the winter months. The predominant onshore/offshore wind pattern is sometimes interrupted by so-called Santa Ana conditions, when high pressure over the Nevada-Utah region overcomes the prevailing westerly wind direction. This draws strong, steady, hot, and dry winds from the east over the mountains and out to sea. Strong Santa Ana winds tend to blow pollutants out over the ocean, producing clear days. However, at the

onset or breakdown of these conditions or if the Santa Ana is weak, prevailing northwesterly winds are reestablished which send polluted air from the Los Angeles basin ashore in the SDAB. Smog transport from the South Coast Air Basin (the metropolitan areas of Los Angeles, Orange, San Bernardino, and Riverside counties) is a key factor on more than half the days San Diego exceeds clean air standards.

Pollutants of Concern

Criteria pollutants are defined by State and Federal law as a risk to the health and welfare of the general public. In general, air pollutants include ozone, reactive organic gases (ROG), CO, particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), nitrogen dioxide (NO_2) sulfur dioxide (SO_2), and lead. These compounds are described below.

Ozone

Ozone is produced by a photochemical reaction (triggered by sunlight) between NOx and ROG. Nitrogen oxides are formed during the combustion of fuels, while reactive organic compounds are formed during combustion and evaporation of organic solvents. Because ozone requires sunlight to form, it mostly occurs in concentrations considered serious between the months of April and October. Ozone is a pungent, colorless, toxic gas with direct health effects on humans including respiratory and eye irritation and possible changes in lung functions. Groups most sensitive to ozone include children, the elderly, people with respiratory disorders, and people who exercise strenuously outdoors.

Reactive Organic Gases

ROGs (also known as VOCs) are compounds composed primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of ROGs. Other sources of ROGs include evaporative emissions from paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. Adverse effects on human health are not caused directly by ROGs, but rather by reactions of ROGs to form secondary pollutants such as ozone.

Carbon Monoxide

CO is a local pollutant that is found in high concentrations only near the source. The major source of carbon monoxide, a colorless, odorless, poisonous gas, is automobile exhaust. Elevated CO concentrations; therefore, are usually only found near areas of high traffic volumes operating in congested conditions. Health effects from CO are related to blood hemoglobin. At high concentrations, carbon monoxide reduces the amount of oxygen in the blood, causing heart difficulties in people with chronic diseases, reduced lung capacity and impaired mental abilities.

Particulate Matter and Fine Particulate Matter

PM_{10} is particulate matter measuring no more than 10 microns in diameter, while $PM_{2.5}$ is fine particulate matter measuring no more than 2.5 microns in diameter. Suspended particulates are mostly dust particles, nitrates and sulfates. Both PM_{10} and $PM_{2.5}$ are by-products of fuel combustion and wind erosion of soil and unpaved roads and are directly emitted into the atmosphere through these processes. Suspended particulates are also created in the atmosphere through chemical reactions. The characteristics, sources,

and potential health effects associated with the small particulates (those between 2.5 and 10 microns in diameter, or PM_{10}) and fine particulates ($PM_{2.5}$) can be very different. The small particulates generally come from windblown dust and dust kicked up from mobile sources. The fine particulates are generally associated with combustion processes as well as being formed in the atmosphere as a secondary pollutant through chemical reactions. Fine particulate matter is more likely to penetrate deeply into the lungs and poses a health threat to all groups, but particularly to the elderly, children, and those with respiratory problems. More than half of the small and fine particulate matter that is inhaled into the lungs remains there. These materials can damage health by interfering with the body's mechanisms for clearing the respiratory tract or by acting as carriers of an absorbed toxic substance.

Nitrogen Dioxide

NO_2 is a by-product of fuel combustion, with the primary source being motor vehicles and industrial boilers and furnaces. The principal form of nitrogen oxide produced by combustion is nitric oxide (NO), but NO reacts rapidly to form NO_2, creating the mixture of NO and NO_2 commonly called NOx. Nitrogen dioxide is an acute irritant. A relationship between NO_2 and chronic pulmonary fibrosis may exist and an increase in bronchitis in young children at concentrations below 0.3 parts per million (ppm) may occur. Nitrogen dioxide absorbs blue light and causes a reddish-brown cast to the atmosphere and reduced visibility. It can also contribute to the formation of PM_{10} and acid rain.

Sulfur Dioxide

SO_2 is a colorless, reactive gas that is produced from the burning of sulfur-containing fuels such as coal and oil and by other industrial processes. Generally, the highest concentrations of SO_2 are found near large industrial sources. SO_2 is a respiratory irritant that can cause narrowing of the airways leading to wheezing and shortness of breath. Long-term exposure to SO_2 can cause respiratory illness and aggravate existing cardiovascular disease.

Lead

Lead in the atmosphere occurs as particulate matter. With the phase-out of leaded gasoline, large manufacturing facilities are the sources of the largest amounts of lead emissions. Lead has the potential to cause gastrointestinal, central nervous system, kidney, and blood diseases upon prolonged exposure. Lead is also classified as a probable human carcinogen. Because emissions of lead are found only in projects that are permitted by the local air district and are generally large manufacturing facilities, lead is not an air quality concern for the project.

Toxic Air Contaminants/Diesel Particulate Matter

Hazardous air pollutants, also known as toxic air pollutants (TACs) or air toxics, are those pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects. Examples of toxic air pollutants include:

- benzene, which is found in gasoline;
- perchloroethylene, which is emitted from some dry-cleaning facilities; and
- methylene chloride, which is used as a solvent.

Transportation-related emissions are focused on particulate matter constituents within diesel exhaust and TAC constituents that comprise a portion of total organic gas (TOG) emissions from both diesel and gasoline fueled vehicles. Diesel engine emissions are comprised of exhaust particulate matter and TOGs, which are collectively defined as Diesel Particulate Matter (DPM). DPM and TOG emissions from both diesel and gasoline fueled vehicles are typically composed of carbon particles and carcinogenic substances including polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene. Diesel exhaust also contains gaseous pollutants, including volatile organic compounds and NOx.

5.5.1.2 San Diego Air Basin Attainment Status

The San Diego Air Pollution Control District (SDAPCD) is required to monitor air pollutant levels to ensure that air quality standards are met and, if they are not met, to develop strategies to meet the standards. Depending on whether the standards are met or exceeded, the local air basin is classified as being in "attainment" or "non-attainment." San Diego County is listed as a Federal non-attainment area for ozone (eight hour) and a State non-attainment area for ozone (one hour and eight-hour standards), PM_{10}, and $PM_{2.5}$. As shown in Table 5.5-1, *San Diego County Attainment Status*, the SDAB is in attainment for the State and Federal standards for NO_2, CO, SO_2, and lead.

5.5.1.3 Monitored Air Quality

The SDAPCD monitors air quality conditions at locations throughout the SDAB. For this analysis, data from the San Diego Kearny Villa Road monitoring station located east of the site were used to characterize existing ozone and $PM_{2.5}$ conditions in the vicinity of the project site. A summary of the data recorded at the Kearny Villa Road monitoring station from 2015 through 2017 is presented in Table 5.5-2, *Ambient Air Quality Data*.

Odors

The California Health and Safety Code (CHSC) Sections 41700 and 41705 and SDAPCD Rule 51 (commonly referred to as public nuisance law) prohibit emissions from any source whatsoever in such quantities of air contaminants or other material, which cause injury, detriment, nuisance, or annoyance to the public health or damage to property. The provisions of these regulations do not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals. It is generally accepted that the considerable number of persons requirement in Rule 51 is normally satisfied when 10 different individuals/households have made separate complaints within 90 days. Odor complaints from a "considerable" number of persons or businesses in the area would be considered to constitute a significant, adverse odor impact.

Table 5.5-1. *San Diego County Attainment Status*

Criteria Pollutant	*Federal Designation*	*State Designation*
Ozone (one hour)	Attainment*	Non- Attainment
Ozone (eight hour)	Non- Attainment	Non- Attainment
Carbon Monoxide	Attainment	Attainment
PM_{10}	Unclassifiable**	Non- Attainment
$PM_{2.5}$	Attainment	Non- Attainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	No Federal Standard	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Visibility	No Federal Standard	Unclassified

**The Federal 1-hour standard of 12 ppm was in effect from 1979 through June 1, 2005. The revoked standard is referenced here because it was used for such a long period and because this benchmark is addressed in SIPs.*

***At the time of designation, if the available data does not support a designation of attainment or non-attainment, the area is designated as unclassifiable.*

Source: San Diego Air Pollution Control District, June 2016.

Table 5.5-2. *Ambient Air Quality Data*

Pollutant	*2015*	*2016*	*2017*
Ozone, ppm – Worst 8-Hour Average	0.070	0.075	0.082
Number of days of State 1-hour exceedances (>0.070 ppm)	0	3	6
Number of days of Federal exceedances (>0.070 ppm)[1]	0	3	6
Particulate Matter < 10 microns, $\mu g/m^3$ Worst 24 Hours*	39	39	46
Number of samples of State exceedances (>50 $\mu g/m^3$)	0	*	0
Number of samples of Federal exceedances (>150 $\mu g/m^3$)	0	0	0
Particulate Matter < 2.5 microns, $\mu g/m^3$ Worst 24 Hours	25.7	19.4	27.5
Number of samples of State exceedances (no standard)	N/A	N/A	N/A
Number of samples of Federal exceedances (>150 $\mu g/m^3$)	0	0	0

[1]Federal O3 standard reduced from 75 ppm to 70 ppm in October 2015

**Insufficient data to determine number of exceedances*

Data from the San Diego Kearny Villa Road, 6125 A Kearny Villa Road Station in San Diego.

Source: California Air Resources Board, 2014, 2015, 2016 Air Quality Data Summaries.

The SDMC also addresses odor impacts in Chapter 14, Article 2, Division 7 Section 142.0710, "Air Contaminant Regulations," which states: Air contaminants including smoke, charred paper, dust, soot, grime, carbon, noxious acids, toxic fumes, gases, odors, and particulate matter, or any emissions that endanger human health, cause damage to vegetation or property, or cause soiling shall not be permitted to emanate beyond the boundaries of the premises upon which the use emitting the contaminants is located.

Sensitive Receptors

Land uses considered to be sensitive receptors include residential, schools, childcare centers, acute care hospitals, and long-term health care facilities. Sensitive receptors are determined based upon special factors which may include the age of the users or occupants, the frequency and duration of the use or occupancy, continued exposure to hazardous substances as defined by Federal and State regulations, and the user's ability to evacuate a specific site in the event of a hazardous incident. Ambient air quality standards have been established to represent the levels of air quality considered sufficient, with an adequate margin of safety, to protect public health and welfare. They are designed to protect that segment of the public most susceptible to respiratory distress, such as children; the elderly; persons engaged in strenuous work or exercise and people with cardiovascular and chronic respiratory diseases.

Recreational uses can be considered moderately sensitive to air pollution. Exercise can place a high demand on respiratory functions, which can be impaired by air pollution even though exposure periods during exercise are generally short. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial and commercial areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, as the majority of workers tend to stay indoors most of the time.

The nearest sensitive receptors are multi-family residences located adjacent to the northeast and northwest corners of the project site. Multi-family residences are located adjacent to the northern site boundary on the north side of Friars Road. Additionally, multi-family residences are located along the southern site boundary on the north side of Hotel Circle North. New residential development will occur at the Town and Country Hotel and Union Tribute properties, both located east of the project site. The project would contain sensitive receptors as residential uses are developed within Riverwalk.

5.5.2 Regulatory Framework

Air pollutants are regulated at the national, State, and air basin level; each agency has a different degree of control. The United States Environmental Protection Agency (EPA) regulates at the national level; the CARB regulates at the State level; and the SDAPCD regulates air quality in San Diego County.

5.5.2.1 Federal

Clean Air Act

Air quality is defined by ambient air concentrations of specific pollutants identified by the EPA to be of concern with respect to health and welfare of the general public. The USEPA is responsible for enforcing the Federal CAA of 1970 and its 1977 and 1990 Amendments. The CAA required the USEPA to establish the National Ambient Air Quality Standards (NAAQS), which identify concentrations of pollutants in the ambient air below which no adverse effects on the public health and welfare are anticipated. Both State and Federal standards are summarized in Table 5.5-3, *Current Federal and State Ambient Air Quality Standards*. The Federal "primary" standards have been established to protect the public health. The Federal "secondary" standards are intended to protect the nation's welfare and account for air pollutant effects on soil, water, visibility, materials, vegetation, and other aspects of the general welfare.

5.5.2.2 State

California Air Resources Board

CARB, which became part of the California EPA (CalEPA) in 1991, is responsible for ensuring implementation of the California Clean Air Act (CCAA), meeting State requirements of the Federal Clean Air Act and establishing California Ambient Air Quality Standards (CAAQSs). It is also responsible for setting emission standards for vehicles sold in California and for other emission sources such as consumer products and certain off-road equipment. CARB also established passenger vehicle fuel specifications and oversees the functions of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional and county level. The CCAA is administered by CARB at the State level and by the Air Quality Management Districts at the regional level. State standards are also included in Table 5.5-3.

State Implementation Plan/Air Quality Management Plan/Regional Air Quality Strategy

The Federal Clean Air Act Amendments (CAAA) mandate that states submit and implement a State Implementation Plan (SIP) for areas not meeting air quality standards. SIPs are comprehensive plans that describe how an area will attain national and State ambient air quality standards. SIPs are a compilation of new and previously submitted plans, programs (i.e., monitoring, modeling and permitting programs), district rules, State regulations, and Federal controls and include pollution control measures that demonstrate how the standards will be met through those measures.

State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB forwards SIP revisions to the EPA for approval and publication in the Federal Register. Thus, the RAQS and Air Quality Management Plan (AQMP) prepared by SDAPCD and referenced herein become part of the SIP as the material relates to efforts ongoing in San Diego to achieve the national and State ambient air quality standards. The most recent SIP element for San Diego County was submitted in December 2016. The

document identifies control measures and associated emission reductions necessary to demonstrate attainment of the 2008 Federal eight-hour ozone standard by July 20, 2018.

Table 5.5-3. *Current Federal and State Ambient Air Quality Standards*

Pollutant	*Average Time*	*Federal Primary Standards*	*California Standard*
Ozone	1-hour	--	0.09 ppm
	8-hour	0.070 μg/m^3	0.070 μg/m^3
PM_{10}	24-Hour	150 μg/m^3	50 μg/m^3
	Annual	--	20 μg/m^3
$PM_{2.5}$	24-Hour	35 μg/m^3	--
	Annual	12 μg/m^3	12 μg/m^3
Carbon Monoxide	8-Hour	9.0 ppm	9.0 ppm
	1-Hour	35.0 ppm	20.0 ppm
Nitrogen Dioxide	Annual	0.053 ppm	0.030 ppm
	1-Hour	0.100 ppm	0.18 ppm
Sulfur Dioxide	24-Hour	--	0.04 ppm
	3-Hour	0.5 ppm (secondary)	--
	1-Hour	0.075 ppm (primary)	0.25 ppm
Lead	30-day Average	--	1.5 μg/m^3
	3-Month Average	0.15 μg/m^3	--

ppm = parts per million
μg/m^3 = micrograms per cubic meter
Source: California Air Resources Board

The San Diego RAQS was developed pursuant to CCAA requirements. The RAQS was initially adopted in 1991 and was updated in 1995, 1998, 2001, 2004, 2009, and 2016. The RAQS identifies feasible emission control measures to provide progress in San Diego County toward attaining the State ozone standard. The pollutants addressed in the RAQS are VOC and NOx, precursors to the photochemical formation of ozone (the primary component of smog). The RAQS was initially adopted by the San Diego County Air Pollution Control Board on June 30, 1992, and amended on March 2, 1993, in response to ARB comments. At present, no attainment plan for PM_{10} or $PM_{2.5}$ is required by the State regulations; however, SDAPCD has adopted measures to reduce particulate matter in San Diego County. These measures range from regulation against open burning to incentive programs that introduce cleaner technology.

The RAQS relies on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in the County, to estimate future emissions and then determine strategies necessary for the reduction of emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends as well as land use plans developed by the cities and the County as part of the development of the individual General Plans. As such, projects that propose development consistent with the growth anticipated by the general plans would be consistent with the RAQS. In the event that a project would propose development which is less dense than anticipated within the General Plan, the project would likewise be consistent with the RAQS. If a project proposes development that is greater than that

anticipated in the General Plan and SANDAG's growth projections, the project might conflict with the RAQS and SIP; and thus, have a potentially significant impact on air quality.

Under State law, the SDAPCD is required to prepare an AQMP for pollutants for which the SDAB is designated non-attainment. Each iteration of the SDAPCD's AQMP is an update of the previous plan and has a 20-year horizon. Currently the SDAPCD has implemented a 2012 eight-hour National Ozone Implementation/Maintenance Plan, a 2007 eight-hour Ozone Plan, and a 2004 Carbon Monoxide Plan. The SDAPCD adopted the 2008 eight-hour Ozone Attainment Plan for San Diego County on December 16, 2016. CARB adopted the ozone plan as a revision to the California SIP on March 23, 2017. The ozone plan was submitted to the EPA for review on April 12, 2017.

5.5.2.3 Local

San Diego Air Pollution Control District

The SDAPCD was created to protect the public from the harmful effects of air pollution, achieve and maintain air quality standards, foster community involvement and develop and implement cost-effective programs that meet State and Federal mandates while considering environmental and economic impacts.

Specifically, the SDAPCD is responsible for monitoring air quality and planning, implementing, and enforcing programs designed to attain and maintain State and Federal ambient air quality standards in the district. Programs developed include air quality rules and regulations that regulate stationary source emissions, including area sources, point sources, and certain mobile source emissions. The SDAPCD is also responsible for establishing permitting requirements for stationary sources and ensuring that new, modified or relocated stationary sources do not create net emissions increases; and thus, are consistent with the region's air quality goals. The SDAPCD provides significance thresholds in Regulation II, Rule 20.2, Table 20-2-1, "*Air Quality Impact Assessment (AQIA) Trigger Levels*." These trigger levels were established for stationary sources of air pollution and are commonly used for environmental evaluations. The SDAPCD enforces air quality rules and regulations through a variety of means, including inspections, educational or training programs, or fines, when necessary.

5.5.3 Impact Analysis

5.5.3.1 Issue 1

Issue 1 Would the project conflict with or obstruct implementation of the applicable air quality plan?

Impact Threshold

The SDAPCD is required, pursuant to the Federal CAA, to reduce emissions of criteria pollutants for which the SDAB is in nonattainment. Strategies to achieve these emissions reductions are developed in the RAQS and SIP, prepared by the APCD for the region.

The CARB mobile source emission projections and SANDAG growth projections that are used to develop the RAQS and SIP are based on population and vehicle trends and land use plans developed by the cities and by the County. As such, projects that propose development that is consistent with or propose less density than the growth anticipated by local community or general plans would be consistent with the RAQS. If a project proposes development that is greater than that anticipated in the local plan and SANDAG's growth projections upon which the RAQS is based, the project would be in conflict with the RAQS and SIP and may have a potentially significant impact on air quality. This situation would warrant further analysis to determine if the project and the surrounding projects exceed the growth projections used in the RAQS for the specific subregional area.

Analysis

Conformance with the RAQS and SIP determines whether a project will conflict with or obstruct implementation of the applicable air quality plans. The RAQS relies on information from CARB and SANDAG, including projected growth in the County, mobile, area, and all other source emissions to project future emissions and determine from that the strategies necessary for the reduction of stationary source emissions through regulatory controls. Projects that propose development that is consistent with the growth anticipated by the General Plan is consistent with the SIP, AQMP, and RAQS.

The Riverwalk Specific Plan area is zoned CC-3-9 (Commercial—Community) in the central, northeastern, and southeastern portions of the site; RM-4-10 (Residential—Multiple Unit) in the northwestern and northeastern portions of the site; OP-1-1 (Open Space—Park) in the central portion of the site, and OC-1-1 (Open Space – Conservation) in the central portion of the site. The project would rezone portions of the Specific Plan area to implement the proposed land uses, as shown on Figure 3-12, *Proposed Zoning*. No new base zones would be introduced. As proposed, development areas within Riverwalk would be zoned CC-3-9 and RM-4-10. Park and open space elements along and around the San Diego River would be zoned OC-1-1 (for the river channel within the MHPA and 50-foot no use buffer) and OP-1-1 (for the park elements). Additionally, the proposed CPA would remove the CPIOZ mentioned above from the project site. The Mission Valley Community Plan designates the project site as Riverwalk Specific Plan, with land uses of Residential (high-density) in the northeastern and northwestern portions of the site, Office and Visitor Commercial in the northcentral, northeastern, and southeastern portions of the site, and Potential Park/Open Space in the central portion of the site. The project site is designated Multiple Use;

Commercial Employment, Retail, and Services; and Parks, Open Space, and Recreation in the General Plan. The project is consistent with both the Mission Valley Community Plan and General Plan.

Projects that propose development that is consistent with the growth anticipated by the General Plan are considered consistent with the SIP~~, AQMP,~~ and RAQS. While the project would, at full buildout, result in cumulatively significant air quality impacts associated with ROG, CO, and PM_{10} emissions generated by Phases I, II, and III, the emissions would be less than what has been approved for the site and would be consistent with what has been approved in the General Plan and the Mission Valley Community Plan. However, it is understood that in general, the SDAB is used as the geographic scope for evaluating cumulative air quality impacts. It is appropriate to consider the entire air basin as air emissions can travel substantial distances and are not confined by jurisdictional boundaries. Rather, they are influenced by large-scale climatic and topographic features. While some air emissions can be localized, such as a CO hotspots or odor, the overall consideration of cumulative air quality is typically more regional. By its very nature, air pollution is largely a cumulative impact.

The project and the other development projects in the SDAB would emit criteria air pollutants and ozone precursors (ROG and NOx) during the same (short-term) period of construction. Thresholds are designed to identify those projects that would result in significant levels of air pollution, and to assist the region in attaining the applicable ambient air quality standards. The thresholds represent levels above which a project's individual emissions would result in a comparatively considerable contribution. As described in more detail below, construction of the proposed project would not exceed the thresholds of significance and would not violate air quality standards or contribute substantially to an existing or projected air quality violation.

Emissions associated with project operation would exceed the daily and annual ROG, CO, and PM_{10} standards. Based on the size and scope of the project, there are no feasible mitigation measures that can be implemented to reduce operational emissions that exceed SDAPCD thresholds to below the thresholds and still meet project objectives. Further, the project's design and location incorporates~~s~~ the CAPCOA recommended measures for reducing criteria air pollutant emissions from mobile sources, such as increasing density, increasing the diversity of developments, increasing location efficiency and destination and transit accessibility, which have been incorporated and accounted for in the vehicular travel demand estimates used in the analysis.

The proposed project was included in the build-out scenario evaluated in the Mission Valley Community Plan Update (CPU) Program EIR. The Mission Valley CPU Program EIR found that cumulative air quality impacts resulting from operational emissions would be significant and unmitigable because the City lacks control over SDAPCD's timeline to update the RAQS and SIP.

The project would not generate impacts that were not previously anticipated or greater than what was previously approved for the site as part of the Levi Cushman Specific Plan. Further, the project is consistent with the City of San Diego General Plan and the CPU Program EIR. As such, the project would not cause or contribute to a conflict with the AQMP, RAQS or SIP and, therefore, would not obstruct implementation of these air quality plans.

Significance of Impacts

The project would be consistent with the SIP, AQMP, and RAQS. Therefore, the project would not conflict with or obstruct implementation of any applicable air quality plans. Impacts would be less than significant.

Mitigation Measures

Mitigation would not be required.

5.5.3.2 Issue 2 and Issue 3

Issue 2 *Would the project result in a violation of any air quality standard or contribute substantially to an existing or projected air quality violation?*

Issue 3 *Would the project exceed 100 pounds per day of Particulate Matter (dust)?*

Impact Threshold

As stated in Appendix G of the CEQA Guidelines, *significance established by the applicable air quality management or air pollution control district may be relied upon.* The City's air quality Significance Determination Thresholds are established by the SDAPCD. The SDAPCD sets forth quantitative emission thresholds for stationary sources. Project-related air quality impacts would be considered significant if any of the applicable significance thresholds presented herein are exceeded. For CEQA purposes, these screening criteria can be used as numeric methods to demonstrate that a project's total emissions would not result in a significant impact to air quality. Significance thresholds are listed in Table 5.5-4, *San Diego Air Pollution Control District Pollutant Operational Thresholds*.

Table 5.5-4. *San Diego Air Pollution Control District Pollutant Operational Thresholds*

Pollutant	Emission Rate (Lbs/hour)	Emission Rate (Lbs/Day)	Emission Rate (~~Lbs~~tons/~~Day~~year)
Carbon Monoxide (CO)	100	550	100
Oxides of Nitrogen (NOx)	25	250	40
Particulate Matter (PM_{10})	--	100	15
Sulfur Oxides (SOx)	25	250	40
Lead and Lead Compounds	--	3.2	0.6
Particulate Matter ($PM_{2.5}$)	--	55	--
Volatile Organic Compounds (VOCs)	--	137	15

Analysis

Construction Emissions

Construction activities would include demolition of existing asphalt concrete parking lots, buildings, vegetation removal, grading, construction of the buildings/utilities, related improvements, and paving driveways and parking areas. Construction activities would require the use of equipment that would generate criteria air pollutant emissions. ~~The project would be graded in a phased manner restricted by City rules, regulations and ordinances; agency limitations; and testing for archaeological/cultural resources; as well as the RWQCB.~~ For purposes of the analysis of air quality impacts, three general construction phases have been assumed, with Phase I (western portion of North District) completed in 2025, Phase II (eastern portion of North District and Central District) completed in 2030 and Phase III (South District) completed in 2035. The three anticipated phases represent the best estimate for the order and duration of project buildout based on expert advice considering site constraints and the scale of development. It is not anticipated that phasing could occur substantially faster than planned; however, the anticipated phasing is not required under the City regulations or the project entitlements. The necessary on-site and off-site infrastructure must be in place to service development as it is constructed, which is assured through conditions of the project and the Riverwalk Development Agreement.

As detailed in the Air Quality Study prepared for the project and included in Appendix F, the project's construction emissions were estimated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2. CalEEMod allows the user to enter project-specific construction information, such as types and number of construction equipment, duration of construction subphases, and number of off-site motor vehicle trips. Project-specific input and modifications to CalEEMod defaults were based on the project as described in Chapter 3.0, as well as material import/export quantities, construction equipment types and quantities, and phasing of construction subphases (e.g., demolition, site preparation, grading, building construction, architectural coating) based on information provided by licensed construction contractor. As described below, the emission estimates included the use of low-VOC coatings and relevant dust control measures in accordance with SDAPCD Rule 67 and Rule 55, respectively. In addition, per Reg-132 of the Riverwalk Specific Plan, it was assumed all off-road equipment over 50 horsepower would be Tier 3 and equipped with Level 3 Diesel Particulate Filters. Additional details of phasing, selection of construction equipment, and other input parameters, including CalEEMod outputs, are included in Appendix F.

Project construction would generate temporary air pollutant emissions. These impacts are associated with fugitive dust (PM_{10} and $PM_{2.5}$) from soil disturbance and exhaust emissions (NO_X and CO) from heavy construction vehicles. ~~For the purpose of estimating emissions, it was assumed that the approximately 10 acres would be disturbed (graded) daily during the construction of each general grading phase. This would vary from day-to-day depending on construction requirements; however, based on the size of the construction area, a 10-acre area reasonably approximates the area where site preparation and grading emissions would be concentrated.~~ Construction emissions associated with development of the project were quantified by estimating the types of equipment, including the number of individual pieces of equipment, that would be used on-site during each of the construction phases as well for as off-site haul trips to remove demolition debris and import fill material. Emissions associated with fill import were

calculated for each development phase and were assumed to be delivered to the site during the site preparation and grading construction phases. Emissions associated with demolition activities are estimated based on the quantity of demolition debris and haul trips required to remove demolition debris. The number of haul trips to remove demolition debris ~~was estimated~~ was projected based on ~~tonnage~~estimated square feet of surface area and converted to cubic yards with haul trips assigned for Phases I, II, and III. Emissions associated with the application of architectural coating (i.e., painting) were calculated for exterior and interior surfaces. Construction emissions are analyzed using the regional thresholds established by the SDAPCD and published under Rule 20-2 and as recommended by the City of San Diego Significance Determination Thresholds.

Construction would generally consist of construction/demolition waste, vegetation removal, site preparation, construction of the buildings, paving and the application of architectural coating (painting interior and exterior surfaces ~~only~~). ~~Exterior surfaces were assumed to be glass, stone, brick, or other surfaces that would not require painting.~~ For the purpose of estimating daily emissions, the various steps in the construction process were ~~overlapped to approximate the completion timeline for the residential and commercial uses~~modeled to coincide with the construction duration for each of the three phases. Construction emissions related to demolition, site preparation, and grading of future phases are overlapped with construction of the previous phase to be conservative. The architectural coating is also overlapped with a portion of the building construction phase rather than occur sequentially at the completion of all building construction. This approach is realistic relative to how the work would be performed during the construction process.

Site preparation and grading would involve the greatest concentration of heavy equipment use and the highest potential for fugitive dust emissions. The project would be required to comply with SDAPCD Rules 51, 52, and 54, which identify measures to reduce fugitive dust, and ~~is~~ are required to be implemented at all construction sites located within the SDAB. Therefore, the following conditions, which are required to reduce fugitive dust in compliance with SDAPCD Rules 52 and 54, were included in emissions modeling for site preparation and grading phases of construction:

1. **Minimization of Disturbance.** Construction contractors should minimize the area disturbed by clearing, grading, earth moving, or excavation operations to prevent excessive amounts of dust.
2. **Soil Treatment.** Construction contractors should treat all graded and excavated material, exposed soil areas and active portions of the construction site, including unpaved on-site roadways to minimize fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally safe soil stabilization materials, and/or roll compaction as appropriate. Watering shall be done as often as necessary, and at least twice daily, preferably in the late morning and after work is done for the day.
3. **Soil Stabilization.** Construction contractors should monitor all graded and/or excavated inactive areas of the construction site at least weekly for dust stabilization. Soil stabilization methods, such as water and roll compaction, and environmentally safe dust control materials shall be applied to portions of the construction site that are inactive for over four days. If no further grading or excavation operations are planned for the area, the area shall be seeded

and watered until landscape growth is evident, or periodically treated with environmentally safe dust suppressants, to prevent excessive fugitive dust.

4. **No Grading During High Winds.** Construction contractors should stop all clearing, grading, earth moving, and excavation operations during periods of high winds (20 miles per hour or greater, as measured continuously over a one-hour period).
5. **Street Sweeping.** Construction contractors should sweep all on-site driveways and adjacent streets and roads at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads.

Project construction would involve three general phases. Phase I construction is assumed to begin in 2021 and be completed in 2025 ~~2025 with residual painting occurring in early 2026~~. Phase I would include roughly the western half of the North District and would involve the construction of 1,910 multi-family units; 110,300 square feet commercial retail space; construction of the Riverwalk trolley/transit station; 65,000 square feet office and non-retail commercial space; and 4.71 acres of developed park. Phase II construction would begin in ~~2026~~ 2024 and be completed by 2030. Phase II would include roughly the eastern half of the North District, the entire Central District, and the entire Park District. This phase would involve the construction of 2,390 multi-family units; 13,100 square feet commercial retail space; ~~construction of the Riverwalk trolley station;~~ and 79.75 acres of developed park (including the River Park). Phase III construction would begin in ~~2031~~ 2030 and be completed by ~~2035~~2034. Phase III would include the South District and would involve the construction of 28,600 square feet commercial retail space; 935,000 square feet office and non-retail commercial space; and 2.2 acres of undeveloped park. The North and Central Districts would be developed with a mix of residential and retail commercial uses while the South District would be developed with office and non-retail commercial uses. However, the mix of uses would be allowed in any of the three Districts.

To ensure health risks associated with construction emissions to both onsite and offsite sensitive receptors were fully analyzed, a Sequential Phasing scenario was also studied, which does not overlap demolition, site preparation and grading of future phases. -Under the Sequential Phasing scenario Phase I occurs from 2021-2025; Phase II occurs from 2026-2030; and Phase III occurs from 2031-2035. In addition to SDAPCD Rules 52 and 54 requirements to be implemented during all construction phases, emissions modeling also accounts for the use of low-VOC paint [100 grams per liter (g/L) for non-flat coatings] as required by SDAPCD Rule 67. All equipment over 50 horsepower was assumed to be Tier 3 and equipped with Level 3 Diesel Particulate Filters, which would be required, pursuant to Reg-132 of the Riverwalk Specific Plan.

Table 5.5-5*, Estimated Maximum Construction Emissions by Project Phase,* summarizes the estimated maximum daily emissions of pollutants occurring during the construction period for each of the general grading/construction phases. As shown in Table 5.5-5, the daily, hourly and annual standards would not be exceeded during any phase of project construction. Construction impacts to air quality would be less than significant.

~~To minimize daily ROG emissions associated with painting during all phases, the painting phase would extend over an 11-month period generally beginning in June 2024 with residual painting occurring~~

~~through May 2026. By overlapping the painting phase of the project with the Phase I building construction phase and early site preparation work associated with Phase II, daily emissions relative to ROG would be reduced to below the significance threshold.~~

Operational Emissions

Operational emissions include emissions from electricity consumption (energy sources), vehicle trips (mobile sources), area sources, landscape equipment, and evaporative emissions as the structures are repainted over the life of the project. Operational emissions were also estimated using CalEEMod, version 2016.3.2. The majority of operational emissions are associated with vehicle trips to and from the project site and area emissions associated with operation of the residential buildings, use of consumer products and landscaping equipment. The emissions are based on known factors and may be less with improved efficiencies in vehicle and maintenance equipment emissions. Project vehicle trips as calculated by the Riverwalk Transportation Impact Analysis (May 2020) were utilized to analyze vehicle-related operational emissions. Vehicle trips were calculated based on the trip generation rates in the City of San Diego Trip Generation Manual (May 2003). The trips were then reduced by applying the SANDAG MXD methodology. Further, existing trips associated with the Riverwalk Golf Course were subtracted from the total. Finally, project design features incorporate applicable California Air Pollution Control Officer's Association (CAPCOA) Vehicle Miles Traveled (VMT) Reduction Mitigation Measures to reduce passenger vehicle ~~trips~~VMT and related mobile source air pollutant emissions. The operational analysis also assumed reapplication of architectural coatings would use low-VOC paint (100 g/L for non-flat coatings) as required by SDAPCD Rule 67.

Table 5.5-6, Estimated Operational Emissions, summarizes daily, hourly, and annual emissions associated with the operation of the project. As shown in Table 5.5-6, the total emissions under Phases I, II, and III would not exceed the daily, hourly, or annual thresholds for pollutants modeled. The ~~cumulative~~ combined total for all phases would not exceed the daily standards for NOx, SOx, ~~and~~or PM2.5. However, the daily ROG, CO, and PM_{10} would be exceeded as would the tons/year threshold for ROG, CO, and PM_{10}. The majority of the emissions are associated with operation of vehicles by residents, commercial tenants, and retail customers as well as energy, consumer products, and landscaping equipment emissions-associated operation and maintenance of buildings. Thus, the ~~project's regional air quality impacts (including impacts related to criteria pollutants, sensitive receptors, and violations of air quality standards) would be significant. The~~ project would ~~also~~ result in a cumulatively considerable and significant net increase in CO, PM_{10}, and ROG~~ozone precursor~~ emissions.

Table 5.5-6. *Estimated Operational Emissions*

	Estimated Emissions (lbs/day)					
	ROG	**NOx**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Phase I						
Area	~~56.9~~57.1	~~1.8~~3.4	~~157.8~~158.0	<0.01	1.0~~.8~~	1.0~~.8~~
Energy	0.4	4.2	2.0	0.02	0.3	0.3
Mobile	~~16.0~~12.8	~~56.4~~64.8	~~131.4~~139.8	0.4~~6~~	~~39.7~~48.5	~~10.8~~13.3
Maximum lbs/day	**~~73~~70.4**	**~~62.4~~72.5**	**~~291.2~~300.3**	**0.46**	**~~40~~49.9**	**~~12.0~~14.7**
Phase II						
Area	~~64.3~~66.6	~~2~~4.2	197.8	<0.01	1.~~1~~2	1.~~1~~2
Energy	0.5	4.4	1.9	0.02	0.3	0.3
Mobile	~~12.1~~10.0	~~48.1~~51.8	~~101.2~~110.6	0.3~~5~~	~~37.6~~47.1	~~10.2~~128
Maximum lbs/day	**~~76.9~~77.2**	**~~54.9~~60.5**	**~~300.2~~310.4**	**0.45**	**~~39.1~~48.7**	**~~11.6~~14.4**
Phase III						
Area	~~27.4~~23.6	<0.01	0.~~3~~4	<0.01	<0.01	<0.01
Energy	0.5	5.~~0~~1	4.2	0.03	0.3	0.3
Mobile	~~9.7~~6.3	~~43.8~~32.4	~~104.6~~69.4	0.4~~3~~	~~50.9~~33.5	~~13.7~~9.1
Maximum lbs/day	**~~37.7~~30.6**	**~~48.9~~37.5**	**~~109.2~~74.1**	**0.43**	**~~51.3~~33.9**	**~~14.1~~9.5**
Cumulative Total	**~~188~~178.2**	**~~166.2~~170.4**	**~~701.3~~684.8**	**1.~~2~~45**	**~~131.3~~132.5**	**~~37.7~~38.6**
SDAPCD Thresholds	*137*	*250*	*550*	*250*	*100*	*67*
Maximum lbs/hour	--	~~6.9~~7.1	~~29.2~~28.5	0.~~05~~1	--	--
SDAPCD Thresholds	--	*25*	*100*	*25*	--	--
Maximum tons/annually	~~34.3~~32.5	~~30.3~~31.1	~~128~~125.0	0.~~25~~3	~~23.9~~24.2	--
SDAPCD Thresholds	*15*	*40*	*100*	*40*	*15*	--
Threshold Exceeded?	***Yes***	***No***	***Yes***	***No***	***Yes***	***No***

Note – Hourly emissions were calculated by dividing daily emissions by 24. Annual emissions were calculated by multiplying daily emissions by 365 and dividing by 2,000.

Table 5.5-7, *Combined Construction and Operational Emissions*, shows the combined emissions associated with operation of Phase I and the highest daily construction emissions during Phase II and the combined highest daily Phase I and Phase II operation emissions during construction of Phase III. As shown, the combined construction and operational emissions would exceed the ROG, CO and PM_{10} thresholds during overlapping Phase I operational activities and Phase II construction activities as well as overlapping Phases I and II operational activities and Phase III construction activities. Thus, project related emissions would exceed the SDAPCD and City of San Diego thresholds during overlapping construction and operational activities. Individually, the project phases would not exceed the operational thresholds for ROG, CO and PM_{10}. However, cumulatively, both daily and annual thresholds for ROG, CO, and PM_{10} would be exceeded. Therefore, overlapping construction and operations emissions result in the same cumulative impacts associated with build out of the project.

To the extent feasible and applicable, the project includes recommended measures identified by CAPCOA for reducing air emissions such as increasing density from existing conditions, location efficiency, diversity of uses, destination accessibility, and transit accessibility (see Table 5.5-8, *Examples of Measures for Reducing Mobile Source Air Quality Emissions*). Nonetheless, ~~Because~~ because of the size and scope of the

proposed development, there are no feasible methods for reducing all cumulative emissions to meet daily and annual SDAPCD standards for ROG, CO, and PM_{10} ~~and the annual standard for PM_{10}~~. Therefore, operational impacts to air quality would be regarded as cumulatively significant.

Significance of Impacts

The project would not result in significant ~~direct~~ air quality impacts ~~during~~ from construction. However, the project would result in cumulatively significant air quality impacts associated with project operations at buildout. These impacts are unavoidable and cannot be mitigated to below a level of significance.

Mitigation Measures

Based on the size and scope of development, there are no feasible methods for reducing all cumulative emissions to meet daily and annual SDAPCD standards for ROG, CO, and PM_{10} ~~and the annual standard for PM_{10}~~ due to the projected increase in traffic associated with project buildout. Further, the project design incorporates the CAPCOA recommended measures for reducing criteria air pollutant emissions from mobile sources, such as increasing density, increasing the diversity of developments, increasing location efficiency and destination and transit accessibility, which have been incorporated and accounted for in the vehicle miles traveled used in the analysis. Therefore, operational impacts remain significant and unmitigable.

Table 5.5-7. *Combined Construction and Operational Emissions*

	Estimated Emissions (lbs/day)					
	ROG	**NOx**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Phase I Operational Emissions						
Maximum lbs/day	70.4	72.5	300.3	0.6	49.9	14.7
Phase II Construction Emissions						
Maximum Daily	71.7	108.9	118.3	0.5	45.0	12.4
Combined Total Maximum lbs/day	**142.1**	**181.4**	**418.6**	**1.1**	**94.9**	**27.1**
City of San Diego Screening Thresholds	*137*	*250*	*550*	*250*	*100*	*67*
Threshold Exceeded?	***Yes***	***No***	***No***	***No***	***No***	***No***
Phases I/II Operational Emissions						
Phase I	70.4	72.5	300.3	0.6	49.9	14.7
Phase II	77.2	60.5	310.4	0.5	48.7	14.4
Phase III Construction Emissions						
Maximum Daily	29.3	50.4	51.1	0.2	10.1	2.9
Combined Total Maximum lbs/day	**176.9**	**183.4**	**661.8**	**1.3**	**108.7**	**32.0**
City of San Diego Screening Thresholds	*137*	*250*	*550*	*250*	*100*	*67*
Threshold Exceeded?	***Yes***	***No***	***Yes***	***No***	***Yes***	***No***

Note – Combined Total maximum lbs/day calculated by adding the operational emissions to the highest annual daily construction emissions for each pollutant.

5.3.3.3 Issue 4

Issue 4 *Would the* project create *objectionable odors affecting a substantial number of people?*

Impact Threshold

Per the City's CEQA Significance Determination Thresholds (City of San Diego 2016), *determining the significance of potential odor impacts should be based on what is known about the quantity of the odor compound(s) that would result from the project's proposed use(s), the types of neighboring uses potentially affected, the distance(s) between the project's point source(s) and the neighboring uses such as sensitive receptors, and the resultant concentration(s) at receptors.*

For a project proposing placement of sensitive receptors near an existing odor source, a significant odor impact will be identified if the project site is closer to the odor source than any existing sensitive receptor where there has been more than one confirmed or three confirmed complaints per year (averaged over a three week period) about the odor source. Projects proposing placement of sensitive receptors near a source of odors where there is currently no nearby existing receptors, the determination of significance should be based on the distance and frequency at which odor complaints from the public have occurred in the vicinity of a similar odor source at another location.

Analysis

Construction

The Riverwalk project would involve the use of diesel-powered construction equipment. The project could produce odors during the construction activities resulting from construction equipment exhaust, application of asphalt, and/or the application of architectural coatings; however, standard construction practices would minimize the odor emissions and their associated impacts. Furthermore, odors emitted during construction would be temporary, short-term, and intermittent in nature, and would cease upon the completion of construction.

Operation

The project does not include industrial or agricultural uses that are typically associated with objectionable odors. The project would include filtered HVAC systems throughout the building(s) and ventilation filters/hoods for the kitchen areas to avoid or minimize odors associated with food preparation within the commercial/retail buildings.

Significance of Impacts

The project would not result in significant air quality impacts associated with odors.

Mitigation Measures

Mitigation would not be required.

5.3.3.4 Issue 5

Issue 5 Would the project result in exposing sensitive receptors to substantial pollutant concentrations?

Impact Threshold

Based on the City's CEQA Significance Determination Threshold, a project would have a potentially significant air quality environmental impact if it would:

- *Expose sensitive receptors to substantial pollutant concentrations including air toxics such as diesel particulates.*
- *Result in a CO hotspot.*

Analysis

Toxic Air Contaminants

The largest potential for toxic air contaminant (TAC) emissions would be related to diesel particulate emissions associated with heavy equipment operations during construction of the proposed project. According to South Coast Air Quality Management District (SCAQMD) methodology, health effects from carcinogenic air toxics are usually described in terms of "individual cancer risk". The California Office of Environmental Health Hazard Assessment (OEHHA) health risk guidance states that a residential receptor should be evaluated based on a 30-year exposure period. "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of toxic air contaminants over a 70-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. Given the short-term construction schedule, project would not result in a long-term (i.e., 30- or 70-year) exposure to a substantial source of toxic air contaminant emissions; and thus, would not be exposed to the related individual cancer risk. Further, a detailed HRA has been conducted to evaluate the health risks due to construction emissions at nearby, Phase I and Phase II residences; and health risks due to highway emissions at new residences developed as part of the project that will be located within 1,000 feet of I-8.

Construction-related health impacts were based on the amount of on-site emissions generated by off-road (i.e., construction) equipment and on-road equipment (i.e., hauling, vendor, and worker trips) generated within ¼-mile of the project site. Both EPA and the State of California have set emissions standards for new off-road equipment engines, ranging from Tier 1 to Tier 4.

As previously stated, the project will be developed in phases which could be sequential or more likely overlapping, where the sitework of Phase II begins as construction finalizes in Phase I and the construction of Phase III begins as construction finalizes in Phase II. Both scenarios, sequential and overlapping, were analyzed in the HRA. Construction would generate emissions of TACs, such as diesel particulate matter, from a variety of sources including off-road construction equipment and on-road vehicles. The emissions summarized in the Air Quality Report were used to conduct the HRA to assess cancer risk and chronic non-cancer hazard index from diesel particulate matter. For the purpose of estimating emissions, it was assumed that all construction equipment used would be diesel-powered. To reduce health risks

associated with diesel particulate matter, the Riverwalk Specific Plan includes a requirement (Specific Plan Regulation Reg-132) that Tier 3 construction equipment larger than 50 horsepower be equipped with Diesel Particulate Filters (DPF). With implementation of Riverwalk Specific Plan Reg132, the cancer risk associated with construction of the proposed project was determined to range between 0.4 per 1,000,000 to 3.8 per 1,000,000, which is less than the 10 cases per 1,000,000 threshold as recommended by SDAPCD. In addition, the non-cancer hazard index was determined to be less than 0.01, less than the 1.0 threshold recommended by SDAPCD. Therefore, no significant short-term toxic air contaminant impacts would occur during construction of the project.

Other significant sources of emissions in proximity to the project area are associated with operation of I-8, Friars Road, Fashion Valley Road, and Hotel Circle North. CARB recommends siting new sensitive uses more than 500 feet from a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day. Per the project-specific TIA, for urban roads surrounding the project, the highest segment volumes on Friars Road and Fashion Valley Road under 2035 conditions would be 28,500 vehicles per day. The highest volumes on Hotel Circle North would be 11,890 vehicles per day. The urban road volumes would not exceed 100,000 vehicles per day. Therefore, CARB's recommendation that residential uses be located more than 500 feet from an urban road carrying more than 100,000 vehicles would not apply.

The North and Central Districts, located approximately 2,000 feet north of I-8, are planned as mixed-use neighborhoods with predominantly residential development and retail commercial space. The South District is planned for employment uses, predominantly office space with some retail commercial use. However, the Riverwalk Specific Plan allows for flexibility in the amount and location of land uses. Therefore, future residential development could also occur in the South District.
I-8 is located immediately south of and parallel to Hotel Circle North. ~~As mentioned above~~While not planned, residential uses ~~could occur~~are allowed by the zone in the South District as part of future mixed-use development, which would be within 500 feet from a freeway. Localized vehicular emissions from traffic on I-8 have the potential to create particulate matter at levels that could affect sensitive receptors, such as residential units closest to the freeway, should such uses occur within the South District. The HRA analyzes the potential for health risks that could occur if multi-family uses are constructed in the South District during Phase III.

The HRA concludes that the maximum cancer risk levels for the new ~~r~~sensitive receptors in the South District would exceed 10 per 1,000,000 because of existing and future traffic volumes from I-8. The exceedances would occur on the first four floors of any residential building within 735 feet of I-8 on the project site as measured from the edge of the closest lane of I-8.

The North and Central Districts are not located proximate to a freeway or urban roadway that carries more than 100,000 trips. Therefore, exposure of sensitive receptors (i.e., residents) in the North and Central Districts to potential increased health risk would not occur. However, the project could expose sensitive receptors in the South District to substantial pollutant concentrations from highway emissions that would result in a health risk. To minimize exposure of sensitive receptors to diesel particulate matter and other emissions associated with traffic operating on I-8, the Riverwalk Specific Plan includes the following

design features that would be ~~implemented as part of future residential development that could occur in the South District:~~ required if residences were constructed within 735 feet of I-8, assuming there are no non-residential buildings acting as a barrier between I-8 and the potential residences. Alternately, if residences were constructed beyond this distance, the cancer risk levels would be below the 10 per 1,000,000 threshold; additional design guidelines would not be required.

Riverwalk Specific Plan Reg-~~195~~196. ~~For any residential uses occurring in the South District, the project applicant shall i~~Install air filtration devices rated minimum efficiency reporting value (MERV-13) 13 or higher in the intake of ventilation systems for Lots 46 through 52. Heating, air conditioning, and ventilation (HVAC) systems shall be installed with a fan unit designed to force air through the MERV filter. Prior to issuance of building permits, the project applicant shall submit evidence to the City of San Diego to ensure compliance with this measure. To ensure long-term maintenance and replacement of the MERV filters in the individual residential units, the owner/property manager of residential units shall maintain and replace MERV filters in accordance with the manufacturer's recommendations. The owner/property manager shall keep a record of activities related to maintenance of the filters. ~~Install air filtration devices rated minimum efficiency reporting value (MERV-13) or higher in the intake of ventilation systems for residences constructed in the South District. HVAC systems shall be installed with a fan unit designed to force air through the MERV filter. Prior to issuance of building permits, the project applicant shall submit evidence to the City of San Diego to ensure compliance with this measure. To ensure long-term maintenance and replacement of the MERV filters in the individual residential units, the owner/property manager of residential units shall maintain and replace MERV filters in accordance with the manufacturer's recommendations. The owner/property manager of residential units shall keep a record of activities related to maintenance of the filters.~~**~~Riverwalk Specific Plan Reg-196.~~** ~~For any residential uses occurring in the South District, design residential buildings so that the air intakes do not occur on the southern side of buildings and away from I-8, to the extent feasible.~~

Riverwalk Specific Plan Reg-197. If residential buildings are proposed adjacent to Hotel Circle North, a 10-foot landscape buffer shall be provided on the southern border of the property adjacent to Hotel Circle North.

Riverwalk Specific Plan Reg-198. Design residential buildings so that the air intakes do not occur on the southern side of buildings.

Riverwalk Specific Plan Reg-199. Residential units shall be set back a minimum of 100 feet from I-8 travel lanes (i.e., not including offramps).

With implementation of these Specific Plan policies, health risks associated with particulate matter from vehicular emissions generated by traffic on I-8 would be reduced to below a level of significance.

Carbon Monoxide Hotspots

Carbon monoxide is a colorless, odorless, poisonous gas that may be found in high concentrations near areas of high traffic volumes. CO emissions are a function of vehicle idling time, meteorological conditions, and traffic flow. The SDAB is in attainment of State and Federal CO standards; thus, CO data is no longer collected and not all monitoring stations have CP data available. The 1110 Beardsley Street monitoring station in the Barrio Logan community is the closest monitoring station to the project site that provides CO data. The maximum eight-hour average CO level recorded in 2012 (the last year data were recorded) was 1.81 ppm. Concentrations are below the nine-ppm State and Federal eight-hour standard.

Although CO is not a regional air quality concern in SDAB, elevated CO levels can occur at or near intersections that experience severe traffic congestion. A localized air quality impact is considered significant if the additional CO emissions resulting from the project create a "hot spot" where the California one-hour standard of 20.0 ppm or the eight-hour standard of nine ppm is exceeded. This can occur at severely congested intersections during cold winter temperatures.

Because of more stringent requirements for cleaner vehicles, equipment, and fuels, CO levels across California have dropped substantially. All air basins are attainment or maintenance areas for CO. Therefore, recent screening procedures based on current methodologies have been developed. The Sacramento Metropolitan Air Quality Management District (SMAQMD) developed a screening threshold in 2011, which states that any project involving an intersection with 31,600 vehicles per hour or more will require detailed analysis. In 2010, the Bay Area Air Quality Management District developed a screening threshold that states that any project affecting an intersection with 44,000 vehicles per hour would require detailed analysis, Sacramento and San Diego have the same Federal and State CO attainment designations; and thus, experience similar concentrations of CO. Screening volumes are appropriate for evaluating CO impacts in the SDAB. This analysis conservatively assesses potential CO hot spots using the lower SMAQMD screening threshold of 31,600 vehicles per hour. This screening volume has also been utilized by the South Coast Air Quality Management District, which also has the same CO designation.

The project was evaluated for CO hotspots under full buildout conditions in the year 2035. The threshold of 31,600 vehicles per hour referenced would not be met at the any of the intersections evaluated in the project study area. Therefore, the project would not result in CO hot spots. No further evaluation with respect to CO hotspots is required.

Significance of Impacts

Project construction would not result in long-term exposure to a substantial source of toxic air contaminant emissions and related individual cancer risk. As concluded by the HRA, the cancer risk for on-site and off-site receptors associated with construction of the project would not exceed the SDAPCD threshold. The project would not result in CO hot spots. Future residential development that could occur in the South District would be located within 500 feet of I-8. Residents of the South District could be exposed to levels of particulate matter from vehicular emissions associated with traffic on I-8. To preclude the potential for significant health risks to sensitive receptors, specific ~~policies~~ regulations, as described above in the Analysis section, are included in the Riverwalk Specific Plan that ~~would~~ shall apply to future residential development in the South District. Project impacts are less than significant.

Mitigation Measures

Mitigation would not be required.

Table 5.5-5. *Estimated Maximum Construction Emissions by Project Phase*

Construction Phase	Maximum Emissions (lbs/day)					
	ROG	NOx	CO	SO_X	PM_{10}	$PM_{2.5}$
Phase I						
2021 Maximum lbs/day	13.6~~17.2~~	~~199.5~~153.2	~~136.5~~171.0	0.6~~5~~	~~33.3~~28.5	~~11.9~~8.7
2022 Maximum lbs/day	~~10~~13.0	~~67.8~~148.3	~~80.6~~166.2	0.3~~5~~	~~21.7~~31.2	~~6.5~~9.3
2023 Maximum lbs/day	8.9~~.1~~	~~56.0~~67.2	~~75.7~~92.2	0.3	21.5~~1~~	~~6.3~~5.9
~~.~~	~~8.7~~	~~54.2~~	~~72.2~~	~~0.3~~	~~21.4~~	~~6.2~~
~~2025~~2024 Maximum lbs/day	~~116.5~~75.1	~~2.8~~131.5	~~94.0~~145.2	0.3~~5~~	~~25.4~~78.7	~~7.6~~21.0
~~2026~~2025 Maximum lbs/day	~~108.0~~75.2	~~10.3~~122.1	~~24.6~~159.0	0.0~~5~~4	~~4.0~~30.1	~~1.4~~9.2
City of San Diego Screening Thresholds	*137*	*250*	*550*	*250*	*100*	*67*
2021 Maximum lbs/hour	--	~~24.9~~19.2	~~17.0~~21.3	0.~~075~~06	--	--
2022 Maximum lbs/hour	--	~~8.4~~18.5	~~10.1~~20.8	0.0~~3~~06	--	--
2023 Maximum lbs/hour	--	~~7.0~~8.4	~~9.4~~11.5	0.03	--	--
2024 Maximum lbs/hour	--	~~6.7~~16.4	~~9.0~~18.2	0.0~~3~~06	--	--
2025 Maximum lbs/hour	--	15.2~~7.9~~	~~11~~19.8	0.3~~0~~5	--	--
~~2026 Maximum lbs/hour~~	~~--~~	~~1.2~~	~~3.0~~	~~0.0063~~	~~--~~	~~--~~
City of San Diego Screening Thresholds	--	*25*	*100*	*25*	--	--
2021 Maximum lbs/year	~~2.2~~1.7	~~25.9~~20.1	~~17.8~~22.4	0.0~~7~~06	~~4.~~3.74	--
2022 Maximum lbs/year	1.3~~7~~	~~8.8~~19.4	~~10.5~~21.8	0.0~~4~~06	~~2.8~~4.1	--
2023 Maximum tons/year	1.~~1~~2	~~7.3~~8.8	~~9.8~~12.0	0.04	2.8~~7~~	--
2024 Maximum tons/year	~~1.13~~9.8	17.2~~7.1~~	~~9.4~~19.0	0.0~~4~~06	~~2.8~~10.3	--
2025 Maximum tons/year	9.8~~15.2~~	~~8.1~~16.0	~~12.2~~20.9	0.0~~4~~05	3.3~~9~~	--
~~2026 Maximum lbs/year~~	~~14.1~~	~~1.3~~	~~3.2~~	~~0.007~~	~~0.5~~	~~--~~
City of San Diego Screening Thresholds	*15*	*40*	*100*	*40*	*15*	--
Threshold Exceeded 2021	**No**	**No**	**No**	**No**	**No**	**No**
Threshold Exceeded 2022	**No**	**No**	**No**	**No**	**No**	**No**
Threshold Exceeded 2023	**No**	**No**	**No**	**No**	**No**	**No**
Threshold Exceeded 2024	**No**	**No**	**No**	**No**	**No**	**No**
Threshold Exceeded 2025	**No**	**No**	**No**	**No**	**No**	**No**
~~**Threshold Exceeded 2026**~~	~~**No**~~	~~**No**~~	~~**No**~~	~~**No**~~	~~**No**~~	~~**No**~~
Phase II						
2026 Maximum lbs/day	~~3.3~~13.0	~~41.6~~96.7	~~32.3~~111.9	0.1~~5~~	~~11.0~~38.8	~~5.9~~10.7
2027 Maximum lbs/day	~~13.1~~12.5	~~93.9~~95.3	~~105~~107.6	0.5	~~39.1~~38.3	~~11.0~~10.7
2028 Maximum lbs/day	12.6~~1~~	~~92.7~~94.1	~~102~~104.0	0.5	~~39.1~~38.8	~~11.0~~10.7
2029 Maximum lbs/day	~~12.1~~71.7	~~91.4~~95.1	~~98.6~~114.5	0.5	45.0~~39.1~~	12.4~~11.0~~
2030 Maximum lbs/day	~~117.4~~65.0	~~87.5~~108.9	~~108.7~~118.3	0.5~~3~~	27.6.~~2~~	11.2~~12.4~~
~~2031 Maximum lbs/day~~	~~105.8~~	~~1.6~~	~~12.6~~	~~0.04~~	~~45.0~~	~~1.6~~
City of San Diego Screening Thresholds	*137*	*250*	*550*	*250*	*100*	*67*
2026 Maximum lbs/hour	--	~~5.2~~12.1	~~4.0~~13.9	0.0~~2~~06	--	--
2027 Maximum lbs/hour	--	11.7~~9~~	13.2~~5~~	0.06	--	--
2028 Maximum lbs/hour	--	11.5~~7~~	~~12.8~~13.0	0.06	--	--

Construction Phase	Maximum Emissions (lbs/day)					
	ROG	NOx	CO	SO_X	PM_{10}	$PM_{2.5}$
2029 Maximum lbs/hour	--	~~11.4~~13.0	~~12~~14.3	0.06	--	--
2030 Maximum lbs/hour	--	~~10.9~~13.6	~~13.5~~14.7	0.~~06~~03	--	--
~~2031 Maximum lbs/hour~~	~~--~~	~~0.2~~	~~1.6~~	~~0.005~~	~~--~~	~~--~~
City of San Diego Screening Thresholds	--	*25*	*100*	*25*	--	--
2026 Maximum tons/year	~~0.43~~1.7	~~5.4~~12.7	~~4.2~~14.7	0.~~013~~06	1.4	--
2027 Maximum tons/year	1.~~7~~6	12.~~2~~5	~~13.7~~14.0	0.06	~~5.~~1.4	--
2028 Maximum tons/year	1.6	12.~~1~~3	13.~~3~~6	0.06	~~5.~~1.4	--
2029 Maximum tons/year	~~1.6~~9.4	~~11.9~~12.5	15.1~~12.8~~	0.06	~~5.~~1.6	--
2030 Maximum tons/year	~~15.2~~8.5	~~11.4~~14.2	~~14.1~~15.5	0.~~06~~04	~~0.8~~1.5	--
~~2031 Maximum lbs/year~~	~~13.8~~	~~0.2~~	~~1.6~~	~~0.0006~~	~~5.9~~	~~--~~
City of San Diego Screening Thresholds	*15*	*40*	*100*	*40*	*15*	--
Threshold Exceeded 2026	**No**	**No**	**No**	**No**	**No**	**No**
Threshold Exceeded 2027	**No**	**No**	**No**	**No**	**No**	**No**
Threshold Exceeded 2028	**No**	**No**	**No**	**No**	**No**	**No**
Threshold Exceeded 2029	**No**	**No**	**No**	**No**	**No**	**No**
Threshold Exceeded 2030	**No**	**No**	**No**	**No**	**No**	**No**
~~**Threshold Exceeded 2031**~~	~~**No**~~	~~**No**~~	~~**No**~~	~~**No**~~	~~**No**~~	~~**No**~~
Phase III						
~~2031~~2030 Maximum lbs/day	3.~~8~~7	~~35.0~~50.4	~~36.6~~51.1	0.2	10.~~8~~1	~~5.5~~2.9
~~2032~~2031 Maximum lbs/day	3.~~6~~0	~~34.7~~50.1	~~36.0~~50.4	0.~~2~~1	10.~~0~~1	2.~~8~~9
~~2033~~2032 Maximum lbs/day	3.5	~~34.5~~49.8	~~35.5~~49.8	0.~~2~~1	10.~~0~~1	2.~~8~~9
~~2034~~2033 Maximum lbs/day	29.~~3.4~~	~~34.3~~49.6	~~35.0~~49.3	0.~~2~~1	10.~~04~~1	2.~~8~~9
~~2035 Maximum lbs/day~~	~~94.4~~	~~33.3~~	~~34.5~~	~~0.2~~	~~9.9~~	~~2.8~~
~~2036~~2034 Maximum lbs/day	~~94.4~~29.3	12.8~~0.9~~	~~3.9~~21.5	0.~~01~~04	1.~~4~~6	0.~~4~~5
City of San Diego Screening Thresholds	*137*	*250*	*550*	*250*	*100*	*67*
~~2031~~2030 Maximum lbs/hour	--	~~4~~6.3	~~4.5~~6.3	0.025	--	--
~~2032~~2031 Maximum lbs/hour	--	~~4.3~~6.2	~~4.5~~6.3	0.~~025~~012	--	--
~~2033~~2032 Maximum lbs/hour	--	~~4.3~~6.2	~~4.5~~6.2	0.~~025~~012	--	--
~~2034~~2033 Maximum lbs/hour	--	~~4.3~~6.2	~~4.5~~6.2	0.~~025~~012	--	--
~~2035 Maximum lbs/hour~~	~~--~~	~~4.3~~	~~4.3~~	~~0.025~~	~~--~~	~~--~~
~~2036~~2034 Maximum lbs/hour	--	~~0.~~1.6	~~0.48~~2.6	0.~~000~~~~100~~ 5	--	--
City of San Diego Screening Thresholds	--	*25*	*100*	*25*	--	--
~~2031 Maximum tons/year~~	~~0.49~~	~~4.5~~	~~4.7~~	~~0.02~~	~~1.4~~	~~--~~
~~2032~~2030 Maximum tons/year	0.~~5~~48	~~4.5~~6.6	~~4~~6.7	0.02	1.3	--
~~2033~~2031 Maximum tons/year	0.~~5~~47	~~4.5~~6.6	~~4.7~~6.6	0.~~02~~01	1.3	--
~~2034~~2032 Maximum tons/year	0.~~5~~46	~~4~~6.5	~~4~~6.5	0.~~02~~01	1.3	--
~~2035~~2033 Maximum tons/year	~~12.~~3.9	~~4.3~~6.5	4~~6~~.5	0.2~~0~~1	1.3	--

Construction Phase	Maximum Emissions (lbs/day)					
	ROG	NOx	CO	SO_X	PM_{10}	$PM_{2.5}$
~~2036~~2034 Maximum ~~lbs~~tons/year	~~12.~~3.9	~~0.11~~1.7	~~0.5~~2.8	0.~~001~~000 5	0.~~18~~21	--
City of San Diego Screening Thresholds	*15*	*40*	*100*	*40*	*15*	--
Threshold Exceeded 2030	**No**	**No**	**No**	**No**	**No**	**No**
Threshold Exceeded 2031	**No**	**No**	**No**	**No**	**No**	**No**
Threshold Exceeded 2032	**No**	**No**	**No**	**No**	**No**	**No**
Threshold Exceeded 2033	**No**	**No**	**No**	**No**	**No**	**No**
Threshold Exceeded 2034	**No**	**No**	**No**	**No**	**No**	**No**
~~**Threshold Exceeded 2035**~~	~~**No**~~	~~**No**~~	~~**No**~~	~~**No**~~	~~**No**~~	~~**No**~~
~~**Threshold Exceeded 2036**~~	~~**No**~~	~~**No**~~	~~**No**~~	~~**No**~~	~~**No**~~	~~**No**~~

Note – Hourly emissions were calculated by dividing daily emissions by 8 (assuming an 8-hour workday).
Phase I annual emissions were calculated by multiplying daily emissions by 261 (assuming 261 total workdays annually) and dividing by 2,000. The annual ROG emissions for painting calculated for 11-month duration in 2024 with residual painting occurring through 2026.
Phase II annual emissions were calculated by multiplying daily emissions by 261 (assuming 261 total workdays annually) and dividing by 2,000. The annual ROG emissions for painting calculated for 6-month duration in 2029 and one month in 2030.
Phase III annual emissions were calculated by multiplying daily emissions by 365 and dividing by 2,000.

Table 5.5-8. Examples of Measures for Reducing Mobile Source Air Quality Emissions

Measure Number	Strategy	Measure Description	Measure Applicability	Project Incorporation	Notes
Land Use/Location					
LUT-1	Increase Density	Designing the Project with increased densities, where allowed by the General Plan and/or Zoning Ordinance reduces GHG emissions associated with traffic in several ways. Density is usually measured in terms of persons, jobs, or dwellings per unit area. Increased densities affect the distance people travel and provide greater options for the mode of travel they choose. This strategy also provides a foundation for implementation of many other strategies which would benefit from increased densities. For example, transit ridership increases with density, which justifies enhanced transit service.	• Urban and suburban context • Appropriate for residential, retail, office, industrial, and mixed-use projects	✓	Project is designed with increased densities, as allowed by the Community Plan and underlying zone, and would replace the existing non-residential uses. Additionally, the project would result in an increase in jobs.
LUT-2	Increase Location Efficiency	The location of the Project relative to the type of urban landscape such as being located in an urban area, infill, or suburban center influences the amount of VMT compared to the statewide average. This is referred to as the location of efficiency since there are synergistic benefits to these urban landscapes.	• Urban and suburban context • Appropriate for residential, retail, office, industrial and mixed-use projects	✓	The Riverwalk Specific Plan creates an infill, urban village area, as identified in the Mission Valley Community Plan. Synergistic benefits would be facilitated between existing and proposed uses via compatible and complementary uses and the circulation network connecting them.
LUT-3	Increase Diversity of Urban and Suburban Developments (Mixed Use)	Urban: The urban project will be predominantly characterized by properties on which various uses, such as office, commercial, institutional, and residential, are combined in a single building or on a single site in an integrated development project with functional interrelationships and a coherent physical design. The mixed-use development should encourage walking and other non-auto modes of transport from residential to	• Urban and suburban context • Appropriate for mixed-use projects	✓	Project includes a mix of uses, including office, commercial, and residential on a single site in an integrated development project with functional interrelationships and a coherent physical design (which minimizes external trips), implemented through the Riverwalk Specific Plan. The project has an interconnected, integrated network of pedestrian

Measure Number	Strategy	Measure Description	Measure Applicability	Project Incorporation	Notes
		office/commercial/institutional locations (and vice versa). The residential units should be within 1/4-mile of parks, schools, or other civic uses. The project should minimize the need for external trips by including services/facilities for day care, banking/ATM, restaurants, vehicle refueling, and shopping.			and bicycle facilities that would link the uses within the Specific Plan, as well as to off-site uses. Residential units would be in proximity to required on-site common open space, as well as Riverwalk's park network.
LUT-4	Incr. Destination Accessibility	The project will be located in an area with high accessibility to destinations. Destination accessibility is measured in terms of the number of jobs or other attractions reachable within a given travel time, which tends to be highest at central locations and lowest at peripheral ones. The location of the project also increases the potential for pedestrians to walk and bike to these destinations and therefore reduces the VMT.	• Urban and suburban context • Appropriate for residential, retail, office, industrial and mixed-use projects	✓	The project is both located in an area of high accessibility to destinations (such as regional shopping and various employers) and creates an area of high accessibility to destinations through the provided land uses. The project has an interconnected, integrated network of pedestrian and bicycle facilities that would link the uses within the Specific Plan, as well as to off-site uses.
LUT-5	Increase Transit Accessibility	Locating a project with high density near transit will facilitate the use of transit by people traveling to or from the Project site. The use of transit results in a mode shift and therefore reduced VMT. A project with a residential/ commercial center designed around a rail or bus station, is called a transit-oriented development (TOD). The project description should include, at a minimum, the following design features: • A transit station/stop with high-quality, high-frequency bus service located within a 5-10 minute walk (or roughly 1/4 mile from stop to edge of development), and/or ○ A rail station located within a 20 minute walk (or roughly 1/2 mile from station to edge of development) • Fast, frequent, and reliable transit service connecting to a high percentage of regional destinations	• Urban and suburban context • Appropriate in a rural context if development site is adjacent to a commuter rail station with convenient rail service to a major employment center • Appropriate for residential, retail, office, industrial, and mixed-use projects	✓	Project includes a new Green Line Trolley stop, increasing accessibility to this high-performing transit line with access to regional destinations. The various districts and Specific Plan as whole have been designed for walking and bicycling.

Measure Number	Strategy	Measure Description	Measure Applicability	Project Incorporation	Notes
		• Neighborhood designed for walking and cycling			
LUT-6	Integrate Affordable and Below Market Rate Housing	Income has a statistically significant effect on the probability that a commuter will take transit or walk to work [4]. BMR housing provides greater opportunity for lower income families to live closer to jobs centers and achieve jobs/housing match near transit. It also addresses to some degree the risk that new transit oriented development would displace lower income families. This strategy potentially encourages building a greater percentage of smaller units that allow a greater number of families to be accommodated on infill and transit-oriented development sites within a given building footprint and height limit. Lower income families tend to have lower levels of auto ownership, allowing buildings to be designed with less parking which, in some cases, represents the difference between a project being economically viable or not.	• Urban and suburban context • Negligible impact in a rural context unless transit availability and proximity to jobs/services are existing characteristics • Appropriate for residential and mixed-use projects	✓	Riverwalk Specific Plan provides for 10 percent affordable housing units on-site.
LUT-7	Orient Project Toward Non-Auto Corridor	A project that is designed around an existing or planned transit, bicycle, or pedestrian corridor encourages alternative mode use. For this measure, the project is oriented towards a planned or existing transit, bicycle, or pedestrian corridor. Setback distance is minimized.	• Urban or suburban context; may be applicable in a master-planned rural community • Appropriate for residential, retail, office, industrial, and mixed-use projects	✓	The project has been designed around the incorporated Green Line Trolley stop and an integrated network of pedestrian and bicycle facilities. The project is oriented toward public transit and active transportation. Interior to the Specific Plan, setback distances would be minimized.
LUT-8	Locate Project near Bike Path/Bike Lane	A Project that is designed around an existing or planned bicycle facility encourages alternative mode use. The project will be located within 1/2 mile of an existing Class I path or Class II bike lane. The project design should include a comparable network that connects the project uses to the existing offsite facilities.	• Urban or suburban context; may be applicable in a rural master planned community • Appropriate for residential, retail, office, industrial, and mixed-use projects	✓	Friars Road, which forms the project's northern boundary, includes a Class IV two-way cycle track and Class II bike lanes. The project would integrate with the existing bicycle network, as well as implementing bicycle facilities of the Mission Valley Community Plan.

Measure Number	Strategy	Measure Description	Measure Applicability	Project Incorporation	Notes
LUT-9	Improve Design of Development	The project will include improved design elements to enhance walkability and connectivity. Improved street network characteristics within a neighborhood include street accessibility, usually measured in terms of average block size, proportion of four- way intersections, or number of intersections per square mile. Design is also measured in terms of sidewalk coverage, building setbacks, street widths, pedestrian crossings, presence of street trees, and a host of other physical variables that differentiate pedestrian-oriented environments from auto-oriented environments.	• Urban and suburban context • Appropriate for residential, retail, office, industrial and mixed-use projects	✓	The Specific Plan includes walkable, grid-like streets, primarily with non-contiguous sidewalks. Project includes a schedule of street and greenbelt trees. Pedestrian crossings would be accentuated and articulated.
Neighborhood/Site Design					
SDT-1	Provide Pedestrian Network Improvements	Providing a pedestrian access network to link areas of the Project site encourages people to walk instead of drive. This mode shift results in people driving less and thus a reduction in VMT. The project will provide a pedestrian access network that internally links all uses and connects to all existing or planned external streets and pedestrian facilities contiguous with the project site. The project will minimize barriers to pedestrian access and interconnectivity. Physical barriers such as walls, landscaping, and slopes that impede pedestrian circulation will be eliminated.	• Urban, suburban, and rural context • Appropriate for residential, retail, office, industrial and mixed-use projects • Reduction benefit only occurs if the project has both pedestrian network improvements on site and connections to the larger off-site network.	✓	The project has an interconnected, integrated network of pedestrian and bicycle facilities that would link the uses within the Specific Plan, as well as to off-site uses. The project's pedestrian network would connect to existing off-site pedestrian facilities.
SDT-2	Traffic Calming Measures	Providing traffic calming measures encourages people to walk or bike instead of using a vehicle. This mode shift will result in a decrease in VMT. Project design will include pedestrian/bicycle safety and traffic calming measures in excess of jurisdiction requirements. Roadways will be designed to reduce motor vehicle speeds and encourage pedestrian and bicycle trips with traffic calming features. Traffic calming features may include: marked crosswalks, count-down signal timers, curb extensions, speed tables, raised crosswalks,	• Urban, suburban, and rural context • Appropriate for residential, retail, office, industrial and mixed-use projects	✓	Project pedestrian/bicycle safety and traffic calming measures incorporated into the Specific Plan are not in excess of jurisdiction requirements.

Measure Number	Strategy	Measure Description	Measure Applicability	Project Incorporation	Notes
		raised intersections, median islands, tight corner radii, roundabouts or mini-circles, on-street parking, planter strips with street trees, chicanes/chokers, and others.			
SDT-5	Incorporate Bike Lane Street Design (on-site)	The project will incorporate bicycle lanes, routes, and shared-use paths into street systems, new subdivisions, and large developments. These on-street bike accommodations will be created to provide a continuous network of routes, facilitated with markings and signage. These improvements can help reduce peak-hour vehicle trips by making commuting by bike easier and more convenient for more people. In addition, improved bicycle facilities can increase access to and from transit hubs, thereby expanding the "catchment area" of the transit stop or station and increasing ridership. Bicycle access can also reduce parking pressure on heavily-used and/or heavily-subsidized feeder bus lines and auto-oriented park-and-ride facilities.	• Urban and suburban context • Appropriate for residential, retail, office, industrial, and mixed-use projects	✓	Project includes an integrated network of on-street and off-street bicycle facilities that would provide connectivity to various project land uses, transit, and off-site circulation.
SDT-6	Provide Bike Parking in Non-Residential Projects	A non-residential project will provide short-term and long-term bicycle parking facilities to meet peak season maximum demand. Refer to Improve Design of Development (LUT-9) strategy for overall effectiveness ranges. Bike Parking in Non-Residential Projects has minimal impacts as a standalone strategy and should be grouped with the Improve Design of Development strategy to encourage bicycling by providing strengthened street network characteristics and bicycle facilities.	• Urban, suburban, and rural contexts • Appropriate for retail, office, industrial, and mixed-use projects	✓	Bicycle parking for non-residential developments would be provided as required by the SDMC and CAP.
SDT-7	Provide Bike Parking in Multi-Unit Residential Projects	Long-term bicycle parking will be provided at apartment complexes or condominiums without garages. Refer to Improve Design of Development (LUT-9) strategy for effectiveness ranges in this category. The benefits of Bike Parking with Multi-Unit Residential Projects have no quantified impacts and should be	• Urban, suburban, or rural contexts • Appropriate for residential projects	✓	Bicycle parking for residential developments would be provided as required by the SDMC.

Measure Number	Strategy	Measure Description	Measure Applicability	Project Incorporation	Notes
		grouped with the Improve Design of Development strategy to encourage bicycling by providing strengthened street network characteristics and bicycle facilities.			
SDT-8	Provide EV Parking	This project will implement accessible electric vehicle parking. The project will provide conductive/inductive electric vehicle charging stations and signage prohibiting parking for non-electric vehicles. Refer to Neighborhood Electric Vehicle Network (SDT-3) strategy for effectiveness ranges in this category. The benefits of Electric Vehicle Parking may be quantified when grouped with the use of electric vehicles and or Neighborhood Electric Vehicle Network.	• Urban or suburban contexts • Appropriate for residential, retail, office, mixed use, and industrial projects	✓	EV parking for developments would be provided as required by the SDMC and CAP.
SDT-9	Dedicate Land for Bike Trails	Larger projects may be required to provide for, contribute to, or dedicate land for the provision of off-site bicycle trails linking the project to designated bicycle commuting routes in accordance with an adopted citywide or countywide bikeway plan.	• Urban, suburban, or rural contexts • Appropriate for large residential, retail, office, mixed use, and industrial projects	✓	Trails that would accommodate bicycles are part of the bicycle and pedestrian circulation network and would be located within Riverwalk River Park.
Parking Policy/Pricing					
PDT-1	Limit Parking Supply	The project will change parking requirements and types of supply within the project site to encourage "smart growth" development and alternative transportation choices by project residents and employees. This will be accomplished in a multi-faceted strategy: • Elimination (or reduction) of minimum parking requirements • Creation of maximum parking requirements • Provision of shared parking	• Urban and suburban context • Appropriate for residential, retail, office, industrial and mixed-use projects • Reduction can be counted only if spillover parking is controlled (via residential permits and on-street market rate parking) [See PPT-5 and PPT-7]	✓	Consistent with the "provision of shared parking" strategy of this policy, the Specific Plan encourages the provision of shared parking and allows for reduced parking if SDMC requirements change as project builds out.
PDT-2	Unbundle Parking Costs from Property Costs	This project will unbundle parking costs from property costs. Unbundling separates parking from property costs, requiring those who wish to purchase parking spaces to do so at an additional cost from the property cost. This removes the burden from those who do not	• Urban and suburban context • Appropriate for residential, retail, office, industrial and mixed-use projects	✓	Unbundled parking is a component of the project's TDM.

Measure Number	Strategy	Measure Description	Measure Applicability	Project Incorporation	Notes
		wish to utilize a parking space. Parking will be priced separately from home rents/purchase prices or office leases. An assumption is made that the parking costs are passed through to the vehicle owners/drivers utilizing the parking spaces.	• Complementary strategy includes Workplace Parking Pricing. Though not required, implementing workplace parking pricing ensures the market signal from unbundling parking is transferred to the employee.		
PDT-3	Implement Market Price Public Parking (On-Street)	This project and city in which it is located will implement a pricing strategy for parking by pricing all central business district/employment center/retail center on-street parking. It will be priced to encourage "park once" behavior. The benefit of this measure above that of paid parking at the project only is that it deters parking spillover from project- supplied parking to other public parking nearby, which undermine the vehicle miles traveled (VMT) benefits of project pricing. It may also generate sufficient area-wide mode shifts to justify increased transit service to the area.	• Urban and suburban context • Appropriate for retail, office, and mixed-use projects • Applicable in a specific or general plan context only • Reduction can be counted only if spillover parking is controlled (via residential permits) • Study conducted in a downtown area, and thus should be applied carefully if project is not in a central business/activity center	✓	As part of the project's TDM, the project will implement paid parking for retail uses and visitors to residential. Parking may be on-street or within structures.
Trip Reduction Programs					
TRT-1	Implement Voluntary CTR Programs	The project will implement a voluntary Commute Trip Reduction (CTR) program with employers to discourage single-occupancy vehicle trips and encourage alternative modes of transportation such as carpooling, taking transit, walking, and biking. The main difference between a voluntary and a required program is: • Monitoring and reporting is not required • No established performance standards (i.e. no trip reduction requirements) The CTR program will provide employees with assistance in using alternative modes of travel, and provide both "carrots" and "sticks" to encourage employees. The CTR program should	• Urban and suburban context • Negligible in a rural context, unless large employers exist, and suite of strategies implemented are relevant in rural settings • Appropriate for retail, office, industrial and mixed-use projects	✓	The project's TDM incorporates transit subsidies (for employees and residents), a transit stop with associated mobility hub, a last mile transportation option, active transportation facilities, marketing of various transit and rideshare programs, and on-site ride-/car-bike-sharing.

Measure Number	Strategy	Measure Description	Measure Applicability	Project Incorporation	Notes
		include all of the following to apply the effectiveness reported by the literature: • Carpooling encouragement • Ride-matching assistance • Preferential carpool parking • Flexible work schedules for carpools • Half time transportation coordinator • Vanpool assistance • Bicycle end-trip facilities (parking, showers and lockers) Other strategies may also be included as part of a voluntary CTR program, though they are not included in the reductions estimation and thus are not incorporated in the estimated VMT reductions. These include: new employee orientation of trip reduction and alternative mode options, event promotions and publications, flexible work schedule for all employees, transit subsidies, parking cash-out or priced parking, shuttles, emergency ride home, and improved on-site amenities.			
TRT-3	Provide Ride-Sharing Programs	Increasing the vehicle occupancy by ride sharing will result in fewer cars driving the same trip, and thus a decrease in VMT. The project will include a ride-sharing program as well as a permanent transportation management association membership and funding requirement. Funding may be provided by Community Facilities, District, or County Service Area, or other non-revocable funding mechanism. The project will promote ride-sharing programs through a multi-faceted approach such as: • Designating a certain percentage of parking spaces for ride sharing vehicles	• Urban and suburban context • Negligible impact in many rural contexts, but can be effective when a large employer in a rural area draws from a workforce in an urban or suburban area, such as when a major employer moves from an urban location to a rural location. • Appropriate for residential, retail, office, industrial, and mixed-use projects	✓	Per the project TDM, the project will coordinate with ride-sharing services such as Uber, Lyft; car-sharing service providers such as Zip Car, Car2Go etc. and other providers for bike and scooter sharing on the project site and incentivize their use. The project will incorporate pick-up/drop-off zones into the site design to accommodate these ride-sharing services.

Measure Number	Strategy	Measure Description	Measure Applicability	Project Incorporation	Notes
		• Designating adequate passenger loading and unloading and waiting areas for ride-sharing vehicles • Providing a web site or message board for coordinating rides			
TRT-4	Implement Subsidized or Discounted Transit Prog.	This project will provide subsidized/discounted daily or monthly public transit passes. The project may also provide free transfers between all shuttles and transit to participants. These passes can be partially or wholly subsidized by the employer, school, or development. Many entities use revenue from parking to offset the cost of such a project.	• Urban and suburban context • Appropriate for residential, retail, office, industrial, and mixed-use projects	✓	Per the project TDM, the project will provide transit subsidies to both residents and employees. For residents, the project will provide a 25 percent subsidy. The subsidy value will be limited to the equivalent value of 25 percent of the cost of an MTS "Regional Adult Monthly/30-Day Pass" (currently $72 for a subsidy value of $18 per month). Subsidies will be available on a per unit basis to residential tenants and will be offered from the completion of the first dwelling unit until ten years after the opening of the Riverwalk Transit Station. The subsidy will be required of office and retail tenant employees as a lease condition.
TRT-5	Provide End of Trip Facilities	Non-residential projects will provide "end-of-trip" facilities for bicycle riders including showers, secure bicycle lockers, and changing spaces. End-of-trip facilities encourage the use of bicycling as a viable form of travel to destinations, especially to work. End-of- trip facilities provide the added convenience and security needed to encourage bicycle commuting. End-of-trip facilities have minimal impacts when implemented alone. This strategy's effectiveness in reducing vehicle miles traveled (VMT)	• Urban, suburban, and rural context • Appropriate for retail, office, industrial, and mixed-use projects	✓	Bicycle lockers will be provided as required by the SDMC. Employer shower facilities will be provided in accordance with the CAP.

Measure Number	Strategy	Measure Description	Measure Applicability	Project Incorporation	Notes
		depends heavily on the suite of other transit, pedestrian/bicycle, and demand management measures offered. End-of- trip facilities should be grouped with Commute Trip Reduction (CTR) Programs (TRT-1 through TRT-2).			
TRT-7	Implement Commute Trip Reduction Marketing	The project will implement marketing strategies to reduce commute trips. Information sharing and marketing are important components to successful commute trip reduction strategies. Implementing commute trip reduction strategies without a complementary marketing strategy will result in lower VMT reductions. Marketing strategies may include: • New employee orientation of trip reduction and alternative mode options • Event promotions • Publications CTR marketing is often part of a CTR program, voluntary or mandatory. CTR marketing is discussed separately here to emphasis the importance of not only providing employees with the options and monetary incentives to use alternative forms of transportation, but to clearly and deliberately promote and educate employees of the various options. This will greatly improve the impact of the implemented trip reduction strategies.	• Urban and suburban context • Appropriate for residential, retail, office, industrial and mixed-use projects	✓	Commute trip reduction marketing, per the project TDM, includes: • Installation of Transit Boards in the office and residential lobbies • Participation in the SANDAG iCommute Program (to be • implemented through a lease provision) • Provision of SANDAG/MTS Information at Leasing Centers
TRT-8	Implement Preferential Parking Permit Program	The project will provide preferential parking in convenient locations (such as near public transportation or building front doors) in terms of free or reduced parking fees, priority parking, or reserved parking for commuters who carpool, vanpool, ride-share or use alternatively fueled vehicles. The project will provide wide parking spaces to accommodate vanpool vehicles.	• Urban, suburban context • Appropriate for residential, retail, office, mixed use, and industrial projects	✓	Preferential parking will be provided per the CAP. Parking will include designated parking for a combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles within non-residential developments.
TRT-9	Implement Car-Sharing Program	This project will implement a car-sharing project to allow people to have on-demand access to a	• Urban and suburban context	--	Although the Specific Plan will facilitate car-sharing, the project

Measure Number	Strategy	Measure Description	Measure Applicability	Project Incorporation	Notes
		shared fleet of vehicles on an as-needed basis. User costs are typically determined through mileage or hourly rates, with deposits and/or annual membership fees. The car-sharing program could be created through a local partnership or through one of many existing car-share companies. Car-sharing programs may be grouped into three general categories: residential- or citywide-based, employer-based, and transit station-based. Transit station-based programs focus on providing the "last-mile" solution and link transit with commuters' final destinations. Residential-based programs work to substitute entire household based trips. Employer-based programs provide a means for business/day trips for alternative mode commuters and provide a guaranteed ride home option.	• Appropriate for residential, retail, office, industrial, and mixed-use projects		will not implement a car-sharing program.
TRT-12	Implement Bike-Sharing Program	This project will establish a bike sharing program. Stations should be at regular intervals throughout the project site. The number of bike-share kiosks throughout the project area should vary depending on the density of the project and surrounding area. Paris' bike- share program places a station every few blocks throughout the city (approximately 28 bike stations/square mile). Bike-station density should increase around commercial and transit hubs.	• Urban and suburban-center context only • Appropriate for residential, retail, office, industrial, and mixed-use projects	✓	Per the project TDM, the project will coordinate with ride-sharing services such as Uber, Lyft; car-sharing service providers such as Zip Car, Car2Go etc. and other providers for bike and scooter sharing on the project site and incentivize their use. The project will incorporate pick-up/drop-off zones into the site design to accommodate these ride-sharing services. Additionally, the project will construct a Mobility Hub in conjunction with the new Riverwalk Trolley Station. The hub will provide for multi-modal connectivity with space for private vehicle drop-off, rideshare services, dockless bike and scooter

Measure Number	Strategy	Measure Description	Measure Applicability	Project Incorporation	Notes
					sharing and intra-project shuttle services. The community serving retail use proposed within the Mixed-Use Core will be conveniently located within walking distance to the Mobility Hub patrons. A bike repair station is also proposed as a part of Mobility Hub.
TRT-14	Price Workplace Parking	The project will implement workplace parking pricing at its employment centers. This may include: explicitly charging for parking for its employees, implementing above market rate pricing, validating parking only for invited guests, not providing employee parking and transportation allowances, and educating employees about available alternatives. Though similar to the Employee Parking "Cash-Out" strategy, this strategy focuses on implementing market rate and above market rate pricing to provide a price signal for employees to consider alternative modes for their work commute.	• Urban and suburban context • Appropriate for retail, office, industrial, and mixed-use projects • Reductions applied only if complementary strategies are in place: ○ Residential permits and market rate public on-street parking - to prevent spill-over parking ○ Unbundled parking - is not required but provides a market signal to employers to transfer over the, now explicit, cost of parking to the employees. In addition, unbundling parking provides a price with which employers can utilize as a means of establishing workplace parking prices.	--	Project does not include price workplace parking.
TRT-15	Implement Employee Parking "Cash-Out"	The project will require employers to offer employee parking "cash-out." The term "cash-out" is used to describe the employer providing employees with a choice of forgoing their current subsidized/free parking for a cash payment equivalent to the cost of the parking space to the employer.	• Urban and suburban context • Appropriate for retail, office, industrial, and mixed-use projects • Reductions applied only if complementary strategies are in place: ○ Residential parking permits and market rate public on-street parking -to prevent spill-over parking ○ Unbundled parking - is not required but provides a market signal to employers to forgo paying for	--	Project does not implement employee parking "cash out"

Measure Number	Strategy	Measure Description	Measure Applicability	Project Incorporation	Notes
			parking spaces and "cash-out" the employee instead. In addition, unbundling parking provides a price with which employers can utilize as a means of establishing "cash-out" prices.		
Transit System Improvements					
TST-1	Provide a Bus Rapid Transit System	The project will provide a Bus Rapid Transit (BRT) system with design features for high quality and cost-effective transit service. These include: • Grade-separated right-of-way, including bus only lanes (for buses, emergency vehicles, and sometimes taxis), and other Transit Priority measures. Some systems use guideways which automatically steer the bus on portions of the route. • Frequent, high-capacity service • High-quality vehicles that are easy to board, quiet, clean, and comfortable to ride. • Pre-paid fare collection to minimize boarding delays. • Integrated fare systems, allowing free or discounted transfers between routes and modes. • Convenient user information and marketing programs. • High quality bus stations with Transit Oriented Development in nearby areas. • Modal integration, with BRT service coordinated with walking and cycling facilities, taxi services, intercity bus, rail transit, and other transportation services. BRT systems vary significantly in the level of travel efficiency offered above and beyond "identity" features and BRT branding. The	• Urban and suburban context • Appropriate for specific or general plans	✓	No BRT exists in the project area at this time. The project would improve access to light rail transit (LRT) through the provision of a new Green Line Trolley stop. This trolley line is grade-separate and provides frequent, high capacity service in high quality vehicles. Fares are pre-paid and integrated. As such, the project's provided transit would meet the intention of BRT.

Measure Number	Strategy	Measure Description	Measure Applicability	Project Incorporation	Notes
		following effectiveness ranges represent general guidelines. Each proposed BRT should be evaluated specifically based on its characteristics in terms of time savings, cost, efficiency, and way-finding advantages. These types of features encourage people to use public transit and therefore reduce VMT.			
TST-2	Implement Transit Access Improvements	This project will improve access to transit facilities through sidewalk/ crosswalk safety enhancements and bus shelter improvements. The benefits of Transit Access Improvements alone have not been quantified and should be grouped with Transit Network Expansion (TST-3) and Transit Service Frequency and Speed (TST-4).	• Urban, suburban context • Appropriate for residential, retail, office, mixed use, and industrial projects	✓	Project provides a new Green Line Trolley stop and safe, convenient pedestrian and bicycle access to the transit stop. The transit stop will include an enhanced trolley plaza with a mix of uses and rider-serving facilities.
TST-3	Expand Transit Network	The project will expand the local transit network by adding or modifying existing transit service to enhance the service near the project site. This will encourage the use of transit and therefore reduce VMT.	• Urban and suburban context • Appropriate for specific or general plans	✓	The project does not expend local transit, as no such expansion is identified, but would improve access to existing transit.
TST-5	Provide Bike Parking Near Transit	Provide short-term and long-term bicycle parking near rail stations, transit stops, and freeway access points. The benefits of Station Bike Parking have no quantified impacts as a standalone strategy and should be grouped with Transit Network Expansion (TST- 3) and Increase Transit Service Frequency and Speed (TST-4) to encourage multi- modal use in the area and provide ease of access to nearby transit for bicyclists.	• Urban, suburban context • Appropriate for large residential, retail, office, mixed use, and industrial projects	✓	Bicycle parking would be integrated into the transit stop.
TST-6	Provide Local Shuttles	The project will provide local shuttle service through coordination with the local transit operator or private contractor. The local shuttles will provide service to transit hubs, commercial centers, and residential areas. The benefits of Local Shuttles alone have not been quantified and should be grouped with Transit Network Expansion (TST-4) and Transit Service Frequency and Speed (TST-5) to solve the "first mile/last	• Urban, suburban context • Appropriate for large residential, retail, office, mixed use, and industrial projects	✓	Local shuttle service is an option identified in the project's TDM for last mile transportation.

Measure Number	Strategy	Measure Description	Measure Applicability	Project Incorporation	Notes
		mile" problem. In addition, many of the CommuteTrip Reduction Programs (Section 2.4, TRP 1-13) also included local shuttles.			
Road Pricing/Management					
RPT-2	Improve Traffic Flow	The project will implement improvements to smooth traffic flow, reduce idling, eliminate bottlenecks, and management speed. Strategies may include signalization improvements to reduce delay, incident management to increase response time to breakdowns and collisions, Intelligent Transportation Systems (ITS) to provide real-time information regarding road conditions and directions, and speed management to reduce high free-flow speeds.	Urban, suburban, and rural context	✓	Project TIP includes ITS and other improvements to improve traffic flow.
RPT-3	Require Project Contributions to Transportation Infrastructure Improvement Projects	The project should contribute to traffic-flow improvements or other multi-modal infrastructure projects that reduce emissions and are not considered as substantially growth inducing. The local transportation agency should be consulted for specific needs. Larger projects may be required to contribute a proportionate share to the development and/or continuation of a regional transit system. Contributions may consist of dedicated right-of-way, capital improvements, easements, etc. The local transportation agency should be consulted for specific needs.	• Urban, suburban, and rural context • Appropriate for residential, retail, office, mixed use, and industrial projects	✓	Project TIP includes fair-share contribution to appropriate facilities, as well as monetary contribution to various transportation improvement studies.
Vehicles					
VT-2	Utilize Alternative Fueled Vehicles	When construction equipment is powered by alternative fuels such as biodiesel (B20), liquefied natural gas (LNG), or compressed natural gas (CNG) rather than conventional petroleum diesel or gasoline, GHG emissions from fuel combustion may be reduced.	Vehicles	✓	The project would use Tier 3 equipment with diesel particulate filters.

5.6 Historical Resources

This section evaluates potential impacts to historical resources associated with the project. The following discussion is based on the *Cultural Resources Inventory Report for the Riverwalk Project*, prepared by Spindrift Archaeological Consulting (October 2017), the *Addendum to the Class III Cultural Resource Inventory for the Riverwalk Project*, prepared by ASM Affiliates, Inc. (~~December 8, 2019~~July 29, 2020), the *Historical Resources Technical Report,* prepared by ASM Affiliates, Inc. (December 2019) and the *Archaeological Research and Data Recovery Program for the Riverwalk Redevelopment Project* prepared by ASM Affiliates, Inc. (~~February~~ July 2020), included as Appendices G, H, I, and X respectively.

5.6.1 Existing Conditions

The project site is located within Mission Valley in central San Diego along the San Diego River which is a defining feature of the community. The valley sits at the crossroads of a regional freeway system, taking access from I-5, I-8, I-15, I-805, and SR 163. Mission Valley is a regional center of offices, hotels, retail businesses, and residential developments, as well as a major regional visitor center, with a concentration of hotels located in proximity to tourist attractions, including Mission Bay Park, Sea World, and Balboa Park.

The Specific Plan area slopes gently towards the river, which curves through the central portion of the site. The site has been previously graded and is developed with the Riverwalk Golf Course, comprised of three nine-hole golf courses, driving range, clubhouse building, maintenance facilities, surface parking, access roadways, and golf cart paths/bridges.

5.6.1.1 Prehistoric, Ethnohistoric and Historical Context

Historical resources are physical features, both natural and constructed, that reflect past human existence and are of historical, archaeological, scientific, educational, cultural, architectural, aesthetic, or traditional significance. These resources may include such physical objects and features as archaeological sites and artifacts, buildings, groups of buildings, structures, districts, street furniture, signs, cultural properties, and landscapes. Historical resources in the San Diego region span a timeframe of at least the last 10,000 years and include both the prehistoric and historic periods. For purposes of this EIR, historical resources consist of archaeological sites and built environment resources determined as significant under CEQA.

Archaeological resources include prehistoric and historic locations or sites where human actions have resulted in detectable changes to the area. This can include changes in the soil, as well as the presence of physical cultural remains. Archaeological resources can have a surface component, a subsurface component, or both. Historic archaeological resources are those originating after European contact. Those resources may include subsurface features such as wells, cisterns, or privies. Other historic archaeological remains include artifact concentrations, building foundations, or remnants of structures.

Prehistoric

Exactly when the First People appeared in what is now San Diego County is uncertain. Ipai and Kumeyaay creation stories and travel songs tell of a gradual migration from the northeast from a place known as Wikamee. This magical, mystical place is probably near Needles, California close to the nourishing waters of the Colorado River. This region is the homeland for many Yuman-speaking tribes of Alta and Baja California including the Mojave, Quechan, Pai Pai, and Cocopah. To the native people who live in San Diego County today they strongly believe that they have always been here and that the categories and constructs developed by archaeologists are useful only to those persons who need such divisions. Therefore, the prehistoric cultural constructs used by archaeologists and historians are generally thought of as three basic periods: Paleoindian, locally characterized by the San Dieguito complex; Archaic, characterized by the cobble and core technology of the La Jollan and Pauma complexes; and Late Prehistoric, marked by the appearance of ceramics, small arrow points, and cremation burial practices. Late Prehistoric materials in southern San Diego County, known as Yuman I and Yuman II, are believed to represent the ancestral Kumeyaay, (also known as the Ipay/Tipay).

The early people, labeled by many archaeologists as the San Dieguito and by others as those people who lived in the Early Archaic Period were largely hunters and gatherers. Most of the artifacts from 10,000 to 8,000 years ago are stone knives, spear points, small scrapers, and tools associated with chopping and cutting. The best evidence for the culture and technology of the San Dieguito comes from archaeological sites less than ten miles west of San Pasqual Valley and below Lake Hodges on the south bank of the San Dieguito River. Few artifacts from this era have been discovered in the Lakeside/El Cajon area. These early people were ancient master craftsmen of stone tools. Their spear points and knife blades rival those of ancient Europe. Faunal remains that would tell us what they ate and how they butchered their game are rare. Based on analogies to other hunters of the same time period, they probably hunted game such as antelope and ground sloths. Archaeologists have not yet discovered even fragmentary human remains with artifacts specifically from the San Dieguito pattern. We know nothing of their physical characteristics, or burial patterns. Similarly, beyond their stone tool-making capabilities, we know little of their technology.

By 8,000 years ago the ancient people responded to drastic environmental changes. Called the La Jolla pattern by some scholars and as occupants of the Middle Archaic by others, burial switched to inhumation (placement of the body in an excavated grave) with grave goods, probably dependent on class or wealth. Ornamentation, often found within burials, includes beads made from clams, olivella shells, and stone. Trade with the Channel Islands (Canaliño) tribes included importation of a soapstone unique to those islands and a variety of pipes, sucking tubes, effigies, and stone knife blades made by Canaliño. Trade with tribes far to the north included glassy obsidian stone from the Coso region near present-day Ridgecrest, California. On the coast, shellfish, fish, rabbits, and marine life from the bays were intensively hunted and collected. These people made and used either balsa rafts or canoes and extended their fishing into the deeper waters off San Diego's coast. Further inland, including the Lakeside and Santee area rabbits, hares, pond turtles, and wood rats provided meat. Plants were collected and processed especially seeds and berries such as chia, buckwheat, holly-leafed cherry, chokecherry, and elderberry.

The Late Prehistoric Era of the Kumeyaay is thought to begin around 2,000-2,500 years before present

(ybp) in San Diego. This era is typified by cremation of the dead, pottery manufacturing (Tizon Brown Ware), use of the bow and arrow, sedentary villages like the one at *Kosaii* at the foot of Presidio Hill, or *Apti* also known as Las Chollas located near 28th Street and Indian Point along the edge of San Diego Bay. A wider exploitation of the coast, inland valleys, and mountains, a dramatically increased population, and extensive use of acorns typified this era.

Cremation gradually came into the county sometime around 1,000 years ago with the introduction of pottery. Two other traits typify this period: the use of the bow and arrow and extensive exploitation of acorns. Acorn processing is labor intensive and includes cracking the acorn open, pulverizing the nut in a mortar, milling the pulverized pieces on a metate or bedrock milling basin/slick, winnowing, and leaching.

The Ipai/Tipai (Kumeyaay) of the immediate region often lived in bipolar rancherías with one village serving as a summer home in the mountains and one being occupied at the lower elevations in the winter. The San Diego River, which historically would occasionally turn and run into what is now Old Town near the project site, was a main source of water, travel, and resources.

The 10,000 years of Indian occupation in San Diego County is rarely matched anywhere else in the United States. The descendants of these ancient people, the various bands of Mission Indians can proudly point to their deep and enduring roots in southern California.

Specific to the project area twelve archaeological sites have been recorded within the project's boundaries. These sites have been recorded and evaluated by various archaeologists and consist of; lithic scatters, shell scatters, shell midden, and habitation sites. There was also a multi-component site that contained historic refuse along with prehistoric lithics and shell.

Ethnohistoric

The Ethnohistoric Period, sometimes referred to as the ethnographic present, commences with the earliest European arrival in what is now San Diego and continued through the Spanish and Mexican periods and into the American period. The founding of Mission San Diego de Alcalá in 1769 brought about profound changes in the lives of the Kumeyaay. The coastal Kumeyaay died from introduced diseases or were brought into the mission system. Earliest accounts of Native American life in what is now San Diego were recorded as a means to salvage scientific knowledge of native lifeways. The Kumeyaay are the identified Most Likely Descendants for all Native American human remains found in the City.

As described in the Mission Valley Community Plan EIR, *[b]y the time Spanish colonists began to settle in Alta California in 1769, the areas that are now part of the adjacent community of Old Town were within the territory of the Kumeyaay people, a cultural group comprised of exogamous, nontotemic territorial bands with patrilineal descent. The Kumeyaay had a hunting and gathering economy based primarily on various plant resources. Grass seeds were a staple food resource second only to acorns in the Late Prehistoric native diet, supplemented by other seeds and nuts. Small game such as rabbits, jackrabbits, and rodents were important to the prehistoric diet; deer were somewhat less significant for food, but were an important source of leather, bone, and antlers. Coastal bands ate a great deal of fish, taking them with lines, nets, and bows and arrows. Balsas or reed boats were used. Shellfish and other littoral resources were important to coastal*

people too. Settlements were moved seasonally to areas where wild foods were in season. Villages and campsites were generally located in areas where water was readily available, preferably on a year-round basis. The San Diego River, which bisects the area, provided an important resource not only as a reliable source of water, but as a major transportation corridor through the region. Major coastal villages were known to have existed along the San Diego River, including the village of Kosaii (also known as Cosoy or Kosa'aay) near the mouth of the San Diego River (Gallegos et al. 1998; Kroeber 1925), which took its name from the Kumeyaay word for drying place or dry place (Dumas 2011). This ranchería appears in the earliest of Spanish travelogues for the area, and was the village closest to the Presidio. Although the actual location of the village is unknown, it has been described as being near the mouth of the San Diego River, and also reported by Bancroft in 1884, that a site called Cosoy/Kosaii/Kosa'aay by the Native Americans was in the vicinity of Presidio Hill and Old Town.

Several additional large villages have been documented along the San Diego River through ethnographic accounts and archaeological investigations in the area. These include Nipaquay, located near present-day Mission San Diego de Alcalá (Kyle 1996); El Corral, located near present-day Mission Gorge; Santee Greens, located in present-day eastern Santee (Berryman 1981); and El Capitan, located approximately 25 miles upstream from the CPU, now covered by the El Capitan Reservoir (Pourade 1961). To the north was onap, a ranchería of a large settlement located in Rose Canyon; west of the I-5 was a large village known as hamo, jamo or Rinconada de Jamo, in present-day Pacific Beach; and further to the north was a prominent ranchería located in present-day Sorrento Valley known as Ystagua or istagua, a Spanish gloss of istaawah or istawah, and means worm's (larvae) house.

Historic

San Diego's historical context can be divided into three periods: the Spanish, Mexican, and American periods.

Spanish Period (AD 1769-1822)

In spite of Juan Cabrillo's earlier landfall on Point Loma in 1542, the Spanish colonization of Alta California did not begin until 1769. Concerns over Russian and English interests in California motivated the Spanish government to send an expedition of soldiers, settlers, and missionaries to occupy and secure the northwestern borderlands of New Spain. This was to be accomplished through the establishment and cooperative inter-relationship of three institutions: the Presidio, Mission, and Pueblo. In 1769, a land expedition led by Gaspár de Portola reached San Diego Bay, where they met those who had survived the trip by sea on the San Antonio and the San Carlos. Initially camp was made on the shore of the bay in the area that is now downtown San Diego. Lack of water at this location, however, led to moving the camp on May 14, 1769 to a small hill closer to the San Diego River and near the Kumyaay village of Cosoy. Father Junípero Serra arrived in July of the same year to find the Presidio serving mostly as a hospital. The Spanish built a primitive mission and presidio structure on the hill near the river. The first chapel was built of wooden stakes and had a roof made of tule reeds. Brush huts and temporary shelters were also built.

Bad feelings soon developed between the native Kumeyaay and the soldiers, resulting in construction of a stockade whose wall was made from sticks and reeds. By 1772, the stockade included barracks for the soldiers, a storehouse for supplies, a house for the missionaries and the chapel, which had been improved.

The log and brush huts were gradually replaced with buildings made of adobe bricks. Flat earthen roofs were eventually replaced by pitched roofs with rounded roof tiles and clay floors were eventually lined with fired-brick.

In August 1774, the Spanish missionaries moved the Mission San Diego de Alcalá to its present location six miles up the San Diego River valley (modern Mission Valley), near the Kumeyaay village of Nipaguay. What started as a thatched jacal chapel and compound built of willow poles, logs and tules, the new Mission was sacked and burned in the Kumeyaay uprising of November 5, 1775. The first abode chapel was completed in October 1776, and the present church was built the following year. A succession of building programs through 1813 resulted in the final rectilinear plan that included the church, bell tower, sacristy, courtyard, residential complex, workshops, corrals, gardens, and cemetery. Orchards, reservoirs, and other agricultural installations were built to the south on the lower San Diego River alluvial terrace and were irrigated by a dam and aqueduct system.

In 1798, the Spanish constructed the Mission San Luis Rey de Francia in northern San Diego County. They also established three smaller mission outposts (asistencias) at Santa Ysabel, Pala, and Las Flores. The mission system had a great effect on all Native American groups from the coast to the inland areas and was a dominant force in San Diego County.

Mexican Period (AD 1822-1846)

In 1822 the political situation changed. Mexico won its independence from Spain, and San Diego became part of the Mexican Republic. The Mexican government opened California to foreign ships, and a healthy trade soon developed, exchanging the fine California cattle hides for the manufactured goods of Europe and the eastern United States. Several of these American trading companies erected rough sawn wood-plank sheds at La Playa on the bay side of Point Loma. The merchants used these "hide-houses" for storing the hides before transport to the east coast. As the hide trade grew, so did the need for more grazing lands. Thus, the Mexican government secularized in 1833. The mission system, however, had begun to decline when the Mission Indians became eligible for Mexican citizenship, and refused to work in the mission fields. The ranchos dominated California life until the American takeover in 1846. The Mexican Period brought about the continued displacement and acculturation of the native populations.

American Period (AD 1846-PRESENT)

When United States military forces occupied San Diego in July 1846, the town's residents split on their course of action. Many of the town's leaders sided with the Americans, while other prominent families opposed the United States invasion. A group of Californios under Andres Pico, the brother of the Governor Pio Pico, harassed the occupying forces in Los Angeles and San Diego during 1846. In December 1846, Pico's Californios engaged U.S. Army forces under General Stephen Kearney at the Battle of San Pasqual and inflicted many casualties. However, the Californios resistance was defeated in two small battles near Los Angeles and effected ended by January 1847.

The Americans raised the United States flag in San Diego in 1846 and assumed formal control with the Treaty of Guadalupe-Hidalgo in 1848. In the quarter of a century following 1848, the Americans transformed the Hispanic community into a thoroughly Anglo-American one, introducing Anglo culture

and society, American political institutions, and especially American entrepreneurial commerce. By 1872, the center of the city and community was relocated to a new location that was more accessible to the bay and to commerce. Expansion of trade brought an increase in the availability of building materials. Wood buildings gradually replaced adobe structures. Some of the earliest buildings to be erected in the American Period were "pre-fab" houses, which were built on the east coast of the United States and shipped in sections around Cape Horn and reassembled in San Diego.

In 1850, the Americanization of San Diego began to develop rapidly. On February 18, 1850, the California State Legislature formally organized San Diego County. The first elections were held at San Diego and La Playa on April 1, 1850 for County officials. San Diego grew slowly during the next decade. San Diegans attempted to develop the town's interests through a transcontinental railroad plan and the development of a new town closer to the bay. The failure of these plans, added to a severe drought that crippled ranching, as well as the onset of the Civil War in the eastern United States, left San Diego as a remote frontier town. The troubles led to an actual drop in the town's population from 650 in 1850 to 539 in 1860. Not until land speculator and developer Alonzo Horton arrived in 1867 did San Diego begin to develop fully into an active American town.

Alonzo Horton's development of a New San Diego (modern downtown) in 1867 began to swing the community focus away from Old Town. After the County seat was moved in 1871 and a fire destroyed a major portion of the business block in April 1872, Old Town rapidly declined in importance.

There was farming and ranching in Mission Valley until the middle portion of the Twentieth Century, when the land uses were converted to commercial and residential. Dairy farms and chicken ranches were located along the San Diego River where now are motels, restaurants, office complexes, regional shopping malls, and residential developments. In, 1947 the site was designed and developed as a golf course by Lawrence M. Hughes. It was redesigned by Ted Robinson, Sr., in 1998 as the Riverwalk Golf Course.

5.6.1.2 Built Environment

The Riverwalk golf course is a 27-hole golf course strategically squeezed into an urban setting with undulating hills that partner with bunkers to guard tees against seasoned golfers. The original 1947 course was designed by Lawrence M. Hughes without a clubhouse, only a shack for drinks and sandwiches. The 1998 complete redesign by Ted G. Robinson, Sr. included a clubhouse. Today, the golf course includes a clubhouse, two maintenance sheds, and ancillary supporting buildings including restroom buildings, two bridges, two MTS-constructed tunnels through the MTS berm for Friars course access, pump/lift stations, and a driving range. The golf course was constructed around the San Diego River. When it was reconstructed in 1998, the river was incorporated into the course play.

5.6.2 Regulatory Framework

As described in the City of San Diego's *California Environmental Quality Act Significance Determination Thresholds* (2016), Federal, State, and local criteria have been established for the determination of historical resource significance. The criteria for determining a resource's significance generally focus on a

resource's integrity and uniqueness, its relationship to similar resources, and its potential to contribute important information to scholarly research. Some resources that do not meet Federal significance criteria may be considered significant under State or local criteria.

5.6.2.1 Federal

National Historic Preservation Act

The National Historic Preservation Act (NHPA) establishes the Federal government policy on historic preservation and the programs – including the National Register of Historic Places (NRHP) – through which this policy is implemented. Under the NHPA, significant cultural resources, referred to as historic properties, include any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the NRHP. Historic properties also include resources determined to be National Historic Landmarks (NHL). NHLs are national significant historic places designated by the Secretary of the Interior (SOI) because they possess exceptional value or quality in illustrating or interpreting United States heritage. A property is considered historically significant if it meets one of the NRHP criteria and retains sufficient historic integrity to convey its significance. This act also established the Advisory Council on Historic Preservation (ACHP), an independent agency responsible for implementing Section 106 of NHPA by developing procedures to protect cultural resources included on, or eligible for inclusion, on the NRHP. Regulations are published in 36 CFR Part 60 and 63, and 36 CFR, Part 800. A property is considered historically significant if it meets one of the NRHP criteria listed below and retains sufficient historic integrity to convey its significance.

A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
B. That are associated with the lives of persons significant in our past; or
C. That embody the distinctive characteristics of a type, period, or method of construction. Or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
D. That have yielded, or may be likely to yield, information important in prehistory or history.

Ordinarily cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register. However, such properties will qualify individually if they fall within the following categories:

A. A religious property deriving primary significance from architectural or artistic distinction or historical importance; or
B. A building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or
C. A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building directly associated with his productive life; or

D. A cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or
E. A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or
F. A property primarily commemorative in intent, if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or
G. A property achieving significance within the past 50 years if it is of exceptional importance.

5.6.2.2 State

California Register of Historic Resources and CEQA

The CRHR was established in 1992. Similar to the NRHP, the CRHR program encourages public recognition and protection of resources of architectural, historical, archaeological, and cultural significance; identifies resources for planning purposes; determines eligibility of state historic grant funding; and provides certain protections under CEQA. A property is eligible for listing on the state register if it meets one of the following designation criteria.

1. Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States.
2. Associated with the lives of persons important to local, California or national history.
3. Embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values.
4. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.

CEQA was amended in 1992 to define "historical resources" as a resource listed in or determined eligible for listing on the California Register, a resource included in a local register of historical resources or identified as significant in a historical resource survey that meets certain requirements, and any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be significant. Some resources that do not meet these criteria may still be historically significant for the purposes of CEQA.

CEQA sections 15064.5 and 21083.2(g) define the criteria for determining the significance of historical resources. Archaeological resources are considered "historical resources" for the purposes of CEQA. Most archaeological sites which qualify for the CRHR do so under criterion 4 (i.e., research potential). Since resources that are not listed or determined eligible for the State or local registers may still be historically significant, their significance shall be determined if they are affected by a project.

California Public Resources Code

Sections 5097–5097.6 of the PRC outline the requirements for cultural resource analysis prior to the commencement of any construction project on State lands. The State agency proposing the project may conduct the cultural resource analysis or they may contract with the State Department of Parks and Recreation. In addition, this section stipulates that the unauthorized disturbance or removal of archaeological, historical, or paleontological resources located on public lands is a misdemeanor. It prohibits the knowing destruction of objects of antiquity without a permit (expressed permission) on public lands and provides for criminal sanctions. This section was amended in 1987 to require consultation with the California Native American Heritage Commission (NAHC) whenever Native American graves are found. Violations for the taking or possessing of remains or artifacts are felonies.

California Health and Safety Code

Section 7052 of the California Health and Safety Code (H&SC) makes the willful mutilation, disinterment, or removal of human remains a felony. Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If determined to be Native American, the coroner must contact the NAHC. H&SC Section 8010-8030 constitutes the California Native American Graves Protection and Repatriation Act of 2001 (CALNAGPRA). CALNAGPRA, like the Federal act, ensures that Native American human remains and cultural items are treated with respect and dignity during all phases of the archaeological evaluation process in accordance with CEQA and any applicable local regulations. The code provides a process and requirements for the identification and repatriation of collections of human remains or cultural items to the appropriate tribes from any State agency or museum that receives State funding.

California Government Code Section 65040.2(g)

California Government Code Section 65040.2(g) provides guidelines for consulting with Native American tribes for the following: (1) the preservation of, or the mitigation of impacts to places, features, and objects described in sections 5097.9 and 5097.993 of the Public Resources Code; (2) procedures for identifying through the NAHC the appropriate California Native American tribes; (3) procedures for continuing to protect the confidentiality of information concerning the specific identity, location, character, and use of those places, features, and objects; and (4) procedures to facilitate voluntary landowner participation to preserve and protect the specific identity, location, character, and use of those places, features, and objects.

Native American Burials (PRC Section 5097 et seq.)

State law addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and designates the NAHC to resolve disputes regarding the disposition of such remains. The Native American Historic Resource Protection Act (PRC sections 5097.993 - 5097.994) makes it a misdemeanor punishable by up to a year in jail to deface or destroy an Indian historic or cultural site that is listed or may be eligible for listing in the CRHR. In 2006, Assembly Bill (AB) 2641 (Coto) amended the PRC to provide for the protection of human remains when discovered, as well as conferral with descendants to make

recommendations or preferences for treatment of human remains. A landowner, upon discovery of human remains, is required to ensure that the immediate vicinity, as described, is not damaged or disturbed, until specific conditions are met, including discussing and conferring, as defined, with the descendants regarding their preferences for treatment. The amended PRC, along with the California Native American Graves and Repatriation Act [NAGPRA] of 2001 [Health and Safety Code 8010-8011]) ensures that Native American human remains and cultural items are treated with respect and dignity.

Senate Bill 18

Signed into law in September 2004, and effective March 1, 2005, Senate Bill (SB) 18 permits California Native American tribes recognized by the NAHC to hold conservation easements on terms mutually satisfactory to the tribe and the landowner. The term "California Native American tribe" is defined as "a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC." The bill also requires that, prior to the adoption or amendment of a city or county's general plan, the city or county consult with California Native American tribes for the purpose of preserving specified places, features, and objects located within the city or county's jurisdiction. SB 18 also applies to the adoption or amendment of specific plans. This bill requires the planning agency to refer to the California Native American tribes specified by the NAHC and to provide them with opportunities for involvement.

Assembly Bill 52

AB 52, which created the new category of "tribal cultural resources" that must be considered under CEQA, applies to all projects that file a notice of preparation or notice of negative declaration or mitigated negative declaration on or after July 1, 2015. AB 52 requires lead agencies to provide notice to and begin consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of a project if that tribe has requested, in writing, to be kept informed of projects by the lead agency prior to the determination whether a negative declaration, mitigated negative declaration, or environmental impact report will be prepared. If a tribe requests consultation within 30 days upon receipt of the notice, the lead agency must consult with the tribe. The bill also specifies mitigation measures that may be considered to avoid or minimize impacts on tribal cultural resources.

5.6.2.3 Local

City of San Diego General Plan

The Historical Preservation Element of the City of San Diego's *General Plan* was adopted in 2008. The stated goals of the Historic Preservation Element are:

- *Identification of the historical resources of the City.*
- *Preservation of the City's important historical resources.*
- *Integration of historic preservation planning in the larger planning process.*
- *Public education about the importance of historical resources.*
- *Provision of incentives supporting historic preservation.*
- *Cultural heritage tourism promoted to the tourist industry.*

To achieve these goals, the Historic Preservation Element provides nine policies to guide historical resources management activities. Among these are the following:

- *HP-A.1 Strengthen historic preservation planning.*
- *HP-A.2 Fully integrate the consideration of historical and cultural resources in the larger land use planning process.*
- *HP-A.3 Foster government-to-government relationships with the Kumeyaay/Diegueño tribes of San Diego.*
- *HP-A.4 Actively pursue a program to identify, document, and evaluate the historical and cultural resources in the City of San Diego.*
- *HP-A.5 Designate and preserve significant historical and cultural resources for current and future generations.*
- *HP-B.1 Foster greater public participation and education in historical and cultural resources.*
- *HP-B.2 Promote the maintenance, restoration, and rehabilitation of historical resources through a variety of financial and development incentives. Continue to use existing programs and develop new approaches as needed. Encourage continued private ownership and utilization of historic structures through a variety of incentives.*
- *HP-B.3. Develop a historic preservation sponsorship program.*
- *HP-B.4 Increase opportunities for cultural heritage tourism.*

Historical Resources Regulations

The purpose and intent of the City's Historical Resources Regulations of the LDC (Chapter 14, Division 3, and Article 2) is to protect, preserve and, where damaged, restore the historical resources of San Diego, which include historical buildings, historical structures or historical objects, important archaeological sites, historical districts, historical landscapes, and traditional cultural properties. These regulations are intended to ensure that development occurs in a manner that protects the overall quality of historical resources. The Historic Resources Regulations require that development affecting designated historical resources or historical districts shall provide full mitigation for the impact to the resource, in accordance with the Historical Resources Guidelines of the Land Development Manual (LDM), as a condition of approval. If development cannot, to the maximum extent feasible, comply with the development regulations for historical resources, then a project would require a Site Development Permit.

Historical Resources Guidelines (HRG) of the Land Development Manual

The HRG, located in the City's Land Development Manual, provides property owners, the development community, consultants, and the general public explicit guidance for the management of historical resources located within the City's jurisdiction. These guidelines are designed to implement the historical resources regulations and guide the development review process. The guidelines also address the need for a survey and how impacts are to be assessed, available mitigation strategies, and reporting requirements. They also include appropriate methodologies for treating historical resources located in the City.

City of San Diego Historical Resources Register

The City of San Diego also maintains a Historical Resources Register. Per the City, any improvement, building, structure, sign, interior element and fixture, feature, site, place, district, area, or object may be designated as historic by the City of San Diego Historical Resources Board if it meets any of the following criteria:

a. Exemplifies or reflects special elements of the City's, a community's, or a neighborhood's historical, archaeological, cultural, social, economic, political, aesthetic, engineering, landscaping, or architectural development;
b. Is identified with persons or events significant in local, State, or national history;
c. Embodies distinctive characteristics of a style, type, period, or method of construction or is a valuable example of the use of indigenous materials or craftsmanship;
d. Is representative of the notable work of a master builder, designer, architect, engineer, landscape architect, interior designer, artist, or craftsman;
e. Is listed or has been determined eligible by National Park Service for listing on the National Register of Historic Places or is listed or has been determined eligible by the State Historic Preservation Office (SHPO) for listing on the State Register of Historical Resources; or
f. Is a finite group of resources related to one another in a clearly distinguishable way or is a geographically definable area or neighborhood containing improvements which have a special character, historical interest, or aesthetic value or which represent one or more architectural periods or styles in the history and development of the City.

5.6.3 Methodology

Archaeology

In order to determine if the project would result in impacts to historical resources, a record search, background research, and literature review of previous fieldwork was conducted. The records search for the project site was completed by the San Diego Museum of Man on September 25, 2017, and an in-house records search was completed at the South Coastal Information Center (SCIC) of the California Historical Resources Information System (CHRIS) at San Diego State University on September 20, 2017. The purpose of the records search was to determine the extent of previous surveys within a one-mile (1600-meter) radius of the project location, and whether previously documented prehistoric or historic archaeological sites, architectural resources, or traditional cultural properties exist within the project site. In addition to the official records and maps for archaeological sites and surveys in San Diego County, the following historic references were also reviewed: Historic Property Data File for San Diego County: The National Register Information System website; California Historical Landmarks; and California Points of Historical.

Built Environment

As no original or as-built drawings were available for the 1947 Hughes-designed golf course, historical aerials and oblique aerials were used to assess the terrain of the golf course and changes made prior to the redesign by Ted Robinson Sr./Jr. in 1998. The golf course layout was overlaid onto historic aerials from

1953, 1964, 1980, 1989, 1994, 1994, and 2002 in determine if the 1998 Robinson redesign was a complete redesign of the 1947 course. An attempt was made to acquire building records at the San Diego County Assessor's Office; however, no records exist for this property. Research was conducted at San Diego State University, San Diego History Center, and other repositories; and newspaper and golf magazine articles regarding the golf course were reviewed. Archival research was used to develop a National, state, and regional golf and architectural design context; to develop a brief history of the development of the course and changes made to the course; and to review portfolios for Lawrence M. Hughes and Ted Robinson, Sr. The American Society of Golf Course Architects' was contacted for information on Ted Robinson, Sr., and a personal interview with Ted Robinson, Jr. was conducted.

A historic resource field survey was conducted on June 12, 2018, via golf cart and on foot. Multiple photographs were taken during the survey of the golf course including the grounds, holes, landscape features, viewshed, pump lift stations, two tunnels, concrete cart foot paths, and buildings including club house, two maintenance sheds, and small restroom buildings. Layout, flow, playability, condition, landscape architecture features (tees, fairways, rough, greens, bunkers, and hazards), and historical integrity were noted. In order to determine if the Riverwalk Golf Course might be a historic district, particular attention was paid to the similarities and differences between the three courses, as well as the relationship and age of the remaining buildings.

5.6.4 Impact Analysis

5.6.4.1 Issue 1

Issue 1 *Would the proposal result in an alteration, including adverse physical or aesthetic effects, and/or the destruction of a prehistoric or historic building (including an architecturally significant building, structure, object, or site)?*

Impact Thresholds

Based on the current City of San Diego's Significance Determination Thresholds, historical resource impacts may be significant if the project would affect any of the following:

- A resource listed in, eligible, or potentially eligible for listing in the NRHP.
- A resource list<u>ed</u>~~ing~~ in, eligible, or determined to be eligible, by the State Historical Resources Commission, for listing in the CRHR (PRC Section 5024.1).
- A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the PRC, or identified as significant in an historical resource resources survey meeting the requirements of Section 5024.1(g) of the PRC.
- Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically

significant" if the resource meets the criteria for listing in the CRHR (PRC Section 5024.1).

- An archaeological site consisting of at least three associated artifacts/ecofacts (within a 40-square-meter area) or a single feature.
- A "traditional cultural property." A site would be considered to possess ethnic significance if it is associated with a burial or cemetery; religious, social, or transitional activities of a discrete ethnic population; an important person or event as defined by a discrete ethnic population; or the belief system of a discrete ethnic population.

The determination of significance of impacts on historical and unique archaeological resources is based on criteria found in Section 15064.5 of the State CEQA Guidelines. Section 15064.5 clarifies the definition of a substantial adverse change in the significance of a historical resources as *physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resources would be materially impaired.*

Analysis

Archaeology

As presented in the *Cultural Resources Inventory Report for the Riverwalk Project*, prepared by Spindrift Archaeological Consulting (October 2017), the records search results indicated that 393 previous cultural resources studies have been conducted within a one-mile radius of the Specific Plan area, and 141 cultural resources have previously been recorded within a one-mile radius of the Specific Plan area. The previous studies were conducted between 1974 and 2014.

Eleven ~~archaeological~~ prehistoric sites, two of which contain a historic period component, and one prehistoric isolate were identified within the project APE (See Table 5.6-1, *Summary of Archaeological Sites.*) Sites SDI-11767 and SDI-12220 were evaluated and recommended eligible for listing in the National Register of Historic Places (NRHP) and significant under CEQA and City of San Diego guidelines. A data recovery was later conducted at SDI-11767 to mitigate impacts to the site in association with the Mission Valley West Light Rail Transit (LRT) project. Site SDI-12126 was tested and determined significant under City of San Diego guidelines and CEQA criteria. Sites SDI-11722/H, SDI-11766/H, SDI-12127, SDI-12128, SDI-12129, SDI-12132, and SDI-12862 were all tested and identified as not significant cultural resources under City of San Diego guidelines and CEQA criteria. The isolate (P-31-014936) was a quartzite flake tool and has been collected. Isolates are considered de facto not significant and no further archaeological work is required for that resource. Based on available records, SDI-4675 has not been evaluated, but only a portion of the site intersects the project area and would not be impacted as it is in an open space area. (See Table 5.6-1, *Summary of Archaeological Sites.*)

Table 5.6-1. *Summary of Archaeological Sites*

Site	Site Type	Area Intersecting Project Area (m^2)	Evaluation Status	Summation
P-37-0~~SDI-~~14963	Isolate quartzite flake tool (collected)	0	Isolates are not considered significant under CEQA	No further work
SDI-4675	Lithic scatter	381.9	Tested, not significant under CEQA	No further work
SDI-11722/H	Prehistoric temporary camp and historic trash scatter	2,110.9	Tested, not significant under CEQA	Monitoring
SDI-11766/H	Lithic and shell scatter and historic refuse scatter	2,162.2	Tested, not significant under CEQA	Monitoring
SDI-12127	Shell scatter	1,394.5	Tested, not significant under CEQA	Monitoring
SDI-12128	Shell midden	3,655	Tested as part of SDI-11767, not a contributing element to the significance of SDI-11767 under CEQA	Monitoring
SDI-12129	Shell scatter	312.2	Tested, not significant under CEQA	Monitoring
SDI-12132	Shell scatter	5,413.7	Tested, not significant under CEQA	Monitoring
SDI-12862	Shell scatter	1,670.6	Tested, not significant under CEQA	Monitoring
SDI-11767	Habitation site with burials	55,251.6	Evaluated, recommended eligible for NRHP and considered significant under CEQA	Monitoring of remedial grading of fill. Data recovery of areas not previously subjected to data recovery prior to grading beneath fill.
SDI-12220	Habitation site or temporary camp (1991); downgraded to shell scatter (1992)	312.3	Evaluated, recommended eligible for NRHP and considered significant under CEQA	Monitoring of remedial grading of fill. Data recovery prior to grading beneath fill.
SDI-12126	Shell scatter	3173.1	Tested, considered significant under CEQA	Monitoring of remedial grading of fill. Data recovery prior to grading beneath fill.

The project includes IODs that would allow for the future construction of public Streets 'J' and 'U' through the project site. Funding and timing for these roadways are unknown at this time. The future public Street 'J' would connect Riverwalk Drive in the north and Hotel Circle North in the south of the project area, which would likely intersect site SDI-4675. Should it be determined that construction of public Street 'J' would result in ground disturbance of the purported location of SDI-4675, an evaluation of SDI-4675 should be conducted to determine if any portion of the site remains intact, and whether it is significant pursuant to CEQA, City of San Diego regulations, and, if applicable, NHPA.

It should also be noted, that four of the previously recorded sites – SDI-11767, SDI-12220, SDI-12128, SDI-11766/H – were suggested to represent a single large habitation site by Gallegos and Associates in 1995. Revisions of these site boundaries and the site boundaries of SDI-12126 identified during a literature review of previous work has been provided to the SCIC and were used to develop the Archaeological Research and Design Program.

As mentioned above sites SDI-11767 and SDI-12220 and SDI-12126 have been evaluated and determined to be significant. These sites are in an area that would require grading and would thus be impacted by the project. Site SDI-11767 is predominately covered by approximately two to four feet of fill as identified on a historic cut/fill map for the realignment of the Stardust Golf Course. SDI-12126 is located directly within the footprint of a proposed building and would also be impacted.

Sites SDI-11722/H, SDI-11766/H, SDI-12128, SDI-12132, and SDI-12862 have all been evaluated and were identified as not significant pursuant to City of San Diego and CEQA guidelines. However, they are still within the project APE and intersect proposed building footprints. These sites would likely be directly impacted during remedial grading but are not considered significant.

Sites SDI-4675, SDI-12127, and SDI-12129 are in areas designated as open space and would not be impacted by the proposed project. SDI-4675 has not yet been evaluated. SDI-12127, and SDI-12129 have been evaluated and have been identified as not significant.

As the project would result in direct impacts to the three significant archaeological sites (SDI-11767, SDI-12220, and SDI-12126), a significant impact would occur. However, the direct impacts would be mitigated through the implementation of a *Mitigation Monitoring and Reporting Program* presented in Chapter 11.0 of this EIR. The MMRP would include the requirements for archaeological and Native American monitoring as well as an Archaeological Research Data Recovery Program (ARDRP). (The *Archaeological Research and Data Recovery Program for the Riverwalk Redevelopment Project* is included as Appendix X.)

Given that the significant archaeological sites, SDI-11767, SDI-12220, and SDI-12126, are located beneath an indeterminate amount of fill, controlled excavation of cap fill soil would occur under supervision of archaeological and Native American monitors prior to the ARDRP implementation. Monitors would ensure that removal of the fill and cap do not disturb any buried cultural deposits beneath. Additionally, full-time archaeological and Native American monitoring is recommended during all soil disturbing and grading/excavation/trenching activities that could result in impacts to known or previously unidentified archaeological resources. The depth of fill will first be estimated using interpolations created in ArcGIS

using cut/fill data from the Golf Course Realignment Project. Ground penetrating radar surveys of the areas of significance will also be used in conjunction with hand augers to better identify the depth of the fill. Maps of these combined data will be supplied to the archaeological and Native American monitors as well as the machine operators prior to the removal of the caps for each site. Additionally, the archaeological monitors will have digital versions of these maps loaded on tablets with ESRI's *Collector* application and connected to Trimble R1 GPS receivers with submeter accuracy to help guide machinery operators with an estimated depth of fill in any given location. The use of skid steer loaders and compact wheel loaders should be light enough to minimize compaction, especially to intact deposits below the upper stratum disturbed by previous agricultural practices. With the knowledge of the depths of fill identified, the loaders may then be used to incrementally scrape fill from the previously reported site boundaries until the geofabric or fill gravel covering the site surfaces is reached.

Additionally, the number of archaeological and Native American monitors on site at any given time may need to be increased if work is taking place at multiple locations across the project site. For example, should the data recovery be conducted while grading in other portions of the project area is also taking place, a Native American monitor will be required at the site of the data recovery alongside the archaeological data recovery team, and additional Native American and archaeological monitors will also be needed at each location of grading operations. The determination of the number of monitors will be at the discretion of the archaeological principal investigator and the Native American monitoring coordinator for the Tribal organization conducting the monitoring.

Built Environment

Based on the documentation and evaluation of Riverwalk conducted as part of the Historic Resources Technical Report prepared for the project (ASM 2019) for the Riverwalk Golf Course and careful consideration of its ability to reflect the historic contexts with which it is associated, the golf course and the four buildings individually evaluated were recommended not eligible for two potential periods of significance of 1947-1968 and 1998-2018 under the themes of Recreation and Architecture for NRHP Criteria A and C, CRHR Criteria 1 and 3, and San Diego Register Criteria A, C, and D. The golf course and the four individually evaluated buildings were determined to be ineligible for designation under National, State, or Local criteria and should not be considered historical resources for the purposes of CEQA compliance.

Significance of Impacts

Archaeology

Three significant archaeological sites have been recorded on the site and the project has the potential to impact those sites through grading and construction. Impacts to historical resources would be potentially significant.

Built Environment

The Riverwalk Golf Course and the four individually evaluated buildings are recommended not eligible for the National, State, or local registers and should not be considered historical resources for the purposes

of CEQA compliance. Therefore, no potentially significant structures are present on the property. No impact would result to the built environment.

Mitigation Measures

MM 5.6-1: Historical Resources Archaeological Data Recovery Program

1. Prior to issuance of any construction permits, including but not limited to, the first Grading Permit, Demolition Plans/Permits and Building Plans/Permits, but prior to the first preconstruction meeting, whichever is applicable, the Owner/Permittee shall ensure that the following mitigation measures are outline verbatim on appropriate construction plans.
2. The project requires implementation of an Archaeological Data Recovery Program (ADRP) to mitigate impacts to archaeological site (SDI-11767, SDI-12220, and SDI-12126) prior to the issuance of ANY construction permits or the start of ANY construction if no permits are required. The ADRP with Native American participation consists of a Statistical Sample and shall be implemented as described below after consultation with DSD ED in accordance with the Cultural Resources Report prepared by (*Riverwalk Redevelopment Project Archaeological Research and Data Recovery Program* (ASM Affiliates Inc., February 2020).
    a. A sampling strategy shall be conducted in accordance with the Methods Section of the *Riverwalk Redevelopment Project Archaeological Research and Data Recovery Program* (ASM Affiliates Inc., February 2020). Additional test units can be added in consultation with DSD EAS, project archaeologist, and Native American Monitor.
    b. Laboratory Analysis in the form of specialized studies shall be conducted in accordance with the ADRP.
    c. Curation of all materials recovered during the ADRP with the exception of human remains and any associated burial goods, shall be prepared in compliance local, state and federal standards and be permanently curated at an approved facility that meets City standards.
    d. ADRP provision for the discovery of human remains shall be invoked in accordance with the California Public Resources Code, the Health and Safety Code. In the event human remains are encountered during the ADRP, soil shall only be exported from the project site after it has been cleared by the Most Likely Descendant (MLD) and the Project Archaeologist.
    e. Archaeological and Native American Monitoring shall be conducted during the remaining grading activities after completion of the ADRP and acceptance of a draft progress report for the program. The detailed Mitigation Monitoring and Reporting Program is identified in below.
    f. Upon completion of the ADRP and prior to issuance of grading permits, the qualified archaeologist and Native American Monitor shall attend a second preconstruction meeting to make comments and/or suggestions concerning the proposed grading process.

Discovery of Human Remains During Data Recovery

A. The Archaeological Data Recovery Plan (ADRP) provisions for the discovery of human remains shall be invoked in accordance with the California Public Resources Code and the Health and Safety Code. In the event that human remains are encountered during the ADRP, soil shall only be

exported from the project site after it has been cleared by the MLD and the project archaeologist. Any potential human remains recovered during the ADRP shall be directly repatriated to the MLD or MLD Representative at the location of the discovery.

B. If the MLD does not make a recommendation within 48 hours of notification, or if the recommendations are not acceptable to the landowner following extended discussions and mediation between the City of San Diego and the MLD, the landowner shall reinter the remains and burial items with appropriate dignity on the property in a location not subject to further subsurface disturbance. The location of reinternment shall be protected by recording the location with the NAHC and the South Coastal Information Center.

1. There shall be no further excavation or disturbance in that portion of the site or any nearby area reasonably suspected to overlie adjacent human remains until the San Diego County Medical Examiner is contacted and the discovery location shall be mapped by the monitoring archaeologist and protected and secured from further disturbance whenever possible.
2. The monitoring archaeologist shall notify the Principal Investigator, the City Mitigation Monitoring Coordinator, and will contact the San Diego County Medical Examiner. The Medical Examiner shall make a determination as to the origins of the human remains.
3. If the remains are recognized as or suspected to be Native American by the Medical Examiner or an authorized representative, the Medical Examiner shall contact the California Native American Heritage Commission (NAHC) within 24 hours of the discovery.
4. The NAHC designates and contacts the Most Likely Descendant (MLD).
5. The MLD shall make a recommendation for treatment of the remains and associated burial items within 48 hours of notification. Possible options for treatment may include:
    a. Preservation in place and avoidance.
    b. Reburial of the remains on the property in an area to remain undisturbed by the landowner
    c. Transport of the remains off-site.
6. The landowner shall discuss with the Most Likely Descendant all reasonable options regarding the descendant's preferences for the treatment of human remains and any associated grave goods, as provided in PRC Section 5097.98.
7. ADRP provisions for the discovery of human remains shall be invoked in accordance with the California PRC and the Health and Safety Code. In the event that human remains are encountered during the ADRP, soil shall only be exported from the project site after it has been cleared by the MLD and the project archaeologist. Any potential human remains recovered during the ADRP shall be directly repatriated to the MLD or MLD Representative at the location of the discovery.

MM 5.6-2: Historical Resources (Archaeological and Native American Monitoring)

I. Prior to Permit Issuance

A. Entitlements Plan Check

1. Prior to issuance of any construction permits, including but not limited to, the first Grading Permit, Demolition Plans/Permits and Building Plans/Permits or a Notice to Proceed for Subdivisions, but prior to the first preconstruction meeting, whichever is applicable, the Assistant Deputy Director (ADD) Environmental designee shall verify that the requirements for Archaeological Monitoring and Native American monitoring have been noted on the applicable construction documents through the plan check process.

B. Letters of Qualification have been submitted to ADD

1. The applicant shall submit a letter of verification to Mitigation Monitoring Coordination (MMC) identifying the Principal Investigator (PI) for the project and the names of all persons involved in the archaeological monitoring program, as defined in the City of San Diego Historical Resources Guidelines (HRG). If applicable, individuals involved in the archaeological monitoring program must have completed the 40-hour HAZWOPER training with certification documentation.
2. MMC will provide a letter to the applicant confirming the qualifications of the PI and all persons involved in the archaeological monitoring of the project meet the qualifications established in the HRG.
3. Prior to the start of work, the applicant must obtain written approval from MMC for any personnel changes associated with the monitoring program.

II. Prior to Start of Construction

A. Verification of Records Search

1. The PI shall provide verification to MMC that a site-specific records search (1/4 mile radius) has been completed. Verification includes, but is not limited to a copy of a confirmation letter from South Coastal Information Center, or, if the search was in-house, a letter of verification from the PI stating that the search was completed.
2. The letter shall introduce any pertinent information concerning expectations and probabilities of discovery during trenching and/or grading activities.
3. The PI may submit a detailed letter to MMC requesting a reduction to the ¼ mile radius.

B. PI Shall Attend Precon Meetings

1. Prior to beginning any work that requires monitoring; the Applicant shall arrange a Precon Meeting that shall include the PI, Native American consultant/monitor (where Native American resources may be impacted), Construction Manager (CM) and/or Grading Contractor, Resident Engineer (RE), Building Inspector (BI), if appropriate, and MMC. The qualified Archaeologist and Native American Monitor shall attend any grading/excavation related Precon Meetings to make comments and/or suggestions concerning the Archaeological Monitoring program with the Construction Manager and/or Grading Contractor.
    a. If the PI is unable to attend the Precon Meeting, the Applicant shall schedule a focused Precon Meeting with MMC, the PI, RE, CM or BI, if appropriate, prior to the

start of any work that requires monitoring.

2. Identify Areas to be Monitored
   a. Prior to the start of any work that requires monitoring, the PI shall submit an Archaeological Monitoring Exhibit (AME) (with verification that the AME has been reviewed and approved by the Native American consultant/monitor when Native American resources may be impacted) based on the appropriate construction documents (reduced to 11x17) to MMC identifying the areas to be monitored including the delineation of grading/excavation limits.
   b. The AME shall be based on the results of a site-specific records search as well as information regarding existing known soil conditions (native or formation).
3. When Monitoring Will Occur
   a. Prior to the start of any work, the PI shall also submit a construction schedule to MMC through the RE indicating when and where monitoring will occur.
   b. The PI may submit a detailed letter to MMC prior to the start of work or during construction requesting a modification to the monitoring program. This request shall be based on relevant information such as review of final construction documents which indicate site conditions such as depth of excavation and/or site graded to bedrock, etc., which may reduce or increase the potential for resources to be present.

III. During Construction

A. Monitor(s) Shall be Present During Grading/Excavation/Trenching
   1. The Archaeological Monitor shall be present full-time during all soil disturbing and grading/excavation/trenching activities which could result in impacts to archaeological resources as identified on the AME. The Construction Manager is responsible for notifying the RE, PI, and MMC of changes to any construction activities such as in the case of a potential safety concern within the area being monitored. In certain circumstances OSHA safety requirements may necessitate modification of the AME.
   2. The Native American consultant/monitor shall determine the extent of their presence during soil disturbing and grading/excavation/trenching activities based on the AME and provide that information to the PI and MMC. If prehistoric resources are encountered during the Native American consultant/monitor's absence, work shall stop and the Discovery Notification Process detailed in Section III.B-C and IV.A-D shall commence.
   3. The PI may submit a detailed letter to MMC during construction requesting a modification to the monitoring program when a field condition such as modern disturbance post-dating the previous grading/trenching activities, presence of fossil formations, or when native soils are encountered that may reduce or increase the potential for resources to be present.
   4. The archaeological and Native American consultant/monitor shall document field activity via the Consultant Site Visit Record (CSVR). The CSVR's shall be faxed by the CM to the RE the first day of monitoring, the last day of monitoring, monthly (Notification of Monitoring Completion), and in the case of ANY discoveries. The RE shall forward copies to MMC.

B. Discovery Notification Process

1. In the event of a discovery, the Archaeological Monitor shall direct the contractor to temporarily divert all soil disturbing activities, including but not limited to digging, trenching, excavating or grading activities in the area of discovery and in the area reasonably suspected to overlay adjacent resources and immediately notify the RE or BI, as appropriate.
2. The Monitor shall immediately notify the PI (unless Monitor is the PI) of the discovery.
3. The PI shall immediately notify MMC by phone of the discovery, and shall also submit written documentation to MMC within 24 hours by fax or email with photos of the resource in context, if possible.
4. No soil shall be exported off-site until a determination can be made regarding the significance of the resource specifically if Native American resources are encountered.

C. Determination of Significance
   1. The PI and Native American consultant/monitor, where Native American resources are discovered shall evaluate the significance of the resource. If Human Remains are involved, follow protocol in Section IV below.
      a. The PI shall immediately notify MMC by phone to discuss significance determination and shall also submit a letter to MMC indicating whether additional mitigation is required.
      b. If the resource is significant, the PI shall submit an Archaeological Data Recovery Program (ADRP) which has been reviewed by the Native American consultant/monitor, and obtain written approval from MMC. Impacts to significant resources must be mitigated before ground disturbing activities in the area of discovery will be allowed to resume. Note: If a unique archaeological site is also an historical resource as defined in CEQA, then the limits on the amount(s) that a project applicant may be required to pay to cover mitigation costs as indicated in CEQA Section 21083.2 shall not apply.
      c. If the resource is not significant, the PI shall submit a letter to MMC indicating that artifacts will be collected, curated, and documented in the Final Monitoring Report. The letter shall also indicate that that no further work is required.

IV. Discovery of Human Remains

If human remains are discovered, work shall halt in that area and no soil shall be exported off-site until a determination can be made regarding the provenance of the human remains; and the following procedures as set forth in CEQA Section 15064.5(e), the California Public Resources Code (Sec. 5097.98) and State Health and Safety Code (Sec. 7050.5) shall be undertaken:

A. Notification
   1. Archaeological Monitor shall notify the RE or BI as appropriate, MMC, and the PI, if the Monitor is not qualified as a PI. MMC will notify the appropriate Senior Planner in the Environmental Analysis Section (EAS) of the Development Services Department to assist with the discovery notification process.
   2. The PI shall notify the Medical Examiner after consultation with the RE, either in person or via telephone.

B. Isolate discovery site

1. Work shall be directed away from the location of the discovery and any nearby area reasonably suspected to overlay adjacent human remains until a determination can be made by the Medical Examiner in consultation with the PI concerning the provenance of the remains.
2. The Medical Examiner, in consultation with the PI, will determine the need for a field examination to determine the provenance.
3. If a field examination is not warranted, the Medical Examiner will determine with input from the PI, if the remains are or are most likely to be of Native American origin.

C. If Human Remains ARE determined to be Native American
1. The Medical Examiner will notify the Native American Heritage Commission (NAHC) within 24 hours. By law, ONLY the Medical Examiner can make this call.
2. NAHC will immediately identify the person or persons determined to be the Most Likely Descendent (MLD) and provide contact information.
3. The MLD will contact the PI within 24 hours or sooner after the Medical Examiner has completed coordination, to begin the consultation process in accordance with CEQA Section 15064.5(e), the California Public Resources and Health & Safety Codes.
4. The MLD will have 48 hours to make recommendations to the property owner or representative, for the treatment or disposition with proper dignity, of the human remains and associated grave goods.
5. Disposition of Native American Human Remains will be determined between the MLD and the PI, and, if:
   a. The NAHC is unable to identify the MLD, OR the MLD failed to make a recommendation within 48 hours after being granted access to the site, OR;
   b. The landowner or authorized representative rejects the recommendation of the MLD and mediation in accordance with PRC 5097.94 (k) by the NAHC fails to provide measures acceptable to the landowner, the landowner shall reinter the human remains and items associated with Native American human remains with appropriate dignity on the property in a location not subject to further and future subsurface disturbance, THEN
   c. To protect these sites, the landowner shall do one or more of the following:
      (1) Record the site with the NAHC;
      (2) Record an open space or conservation easement; or
      (3) Record a document with the County. The document shall be titled "Notice of Reinternment of Native American Remains" and shall include a legal description of the property, the name of the property owner, and the owner's acknowledged signature, in addition to any other information required by PRC 5097.98. The document shall be indexed as a notice under the name of the owner.

V. Night and/or Weekend Work

A. If night and/or weekend work is included in the contract
1. When night and/or weekend work is included in the contract package, the extent and timing shall be presented and discussed at the precon meeting.
2. The following procedures shall be followed.

a. No Discoveries
In the event that no discoveries were encountered during night and/or weekend work, the PI shall record the information on the CSVR and submit to MMC via fax by 8AM of the next business day.
b. Discoveries
All discoveries shall be processed and documented using the existing procedures detailed in Sections III - During Construction, and IV – Discovery of Human Remains. Discovery of human remains shall always be treated as a significant discovery.
c. Potentially Significant Discoveries
If the PI determines that a potentially significant discovery has been made, the procedures detailed under Section III - During Construction and IV-Discovery of Human Remains shall be followed.
d. The PI shall immediately contact MMC, or by 8AM of the next business day to report and discuss the findings as indicated in Section III-B, unless other specific arrangements have been made.

B. If night and/or weekend work becomes necessary during the course of construction
1. The Construction Manager shall notify the RE, or BI, as appropriate, a minimum of 24 hours before the work is to begin.
2. The RE, or BI, as appropriate, shall notify MMC immediately.

C. All other procedures described above shall apply, as appropriate.

VI. Post Construction

A. Preparation and Submittal of Draft Monitoring Report
1. The PI shall submit two copies of the Draft Monitoring Report (even if negative), prepared in accordance with the Historical Resources Guidelines (Appendix C/D) which describes the results, analysis, and conclusions of all phases of the Archaeological Monitoring Program (with appropriate graphics) to MMC for review and approval within 90 days following the completion of monitoring. It should be noted that if the PI is unable to submit the Draft Monitoring Report within the allotted 90-day timeframe resulting from delays with analysis, special study results or other complex issues, a schedule shall be submitted to MMC establishing agreed due dates and the provision for submittal of monthly status reports until this measure can be met.
a. For significant archaeological resources encountered during monitoring, the Archaeological Data Recovery Program shall be included in the Draft Monitoring Report.
b. Recording Sites with State of California Department of Parks and Recreation
The PI shall be responsible for recording (on the appropriate State of California Department of Park and Recreation forms-DPR 523 A/B) any significant or potentially significant resources encountered during the Archaeological Monitoring Program in accordance with the City's Historical Resources Guidelines, and submittal of such forms to the South Coastal Information Center with the Final Monitoring Report.
2. MMC shall return the Draft Monitoring Report to the PI for revision or, for preparation of the Final Report.

3. The PI shall submit revised Draft Monitoring Report to MMC for approval.
4. MMC shall provide written verification to the PI of the approved report.
5. MMC shall notify the RE or BI, as appropriate, of receipt of all Draft Monitoring Report submittals and approvals.

B. Handling of Artifacts
1. The PI shall be responsible for ensuring that all cultural remains collected are cleaned and catalogued
2. The PI shall be responsible for ensuring that all artifacts are analyzed to identify function and chronology as they relate to the history of the area; that faunal material is identified as to species; and that specialty studies are completed, as appropriate.
3. The cost for curation is the responsibility of the property owner.

C. Curation of artifacts: Accession Agreement and Acceptance Verification
1. The PI shall be responsible for ensuring that all artifacts associated with the survey, testing and/or data recovery for this project are permanently curated with an appropriate institution. This shall be completed in consultation with MMC and the Native American representative, as applicable.
2. The PI shall include the Acceptance Verification from the curation institution in the Final Monitoring Report submitted to the RE or BI and MMC.
3. When applicable to the situation, the PI shall include written verification from the Native American consultant/monitor indicating that Native American resources were treated in accordance with state law and/or applicable agreements. If the resources were reinterred, verification shall be provided to show what protective measures were taken to ensure no further disturbance occurs in accordance with Section IV – Discovery of Human Remains, Subsection 5.

D. Final Monitoring Report(s)
1. The PI shall submit one copy of the approved Final Monitoring Report to the RE or BI as appropriate, and one copy to MMC (even if negative), within 90 days after notification from MMC that the draft report has been approved.
2. The RE shall, in no case, issue the Notice of Completion and/or release of the Performance Bond for grading until receiving a copy of the approved Final Monitoring Report from MMC which includes the Acceptance Verification from the curation institution.

Significance of Impacts Following Implementation of Mitigation Measures

With implementation of mitigation measure MM 5.6-1 and 5.6-2, impacts to archaeological resources would be reduced to below a level of significance.

5.6.4.2 Issue 2

Issue 2 Would the proposal result in any impact to existing religious or sacred uses within the potential impact area?

Impact Thresholds

- A religious property deriving primary significance from architectural or artistic distinction or historical importance.
- A site associated with a burial or cemetery; religious, social, or traditional activities of a discrete ethnic population; an important person or event as defined by a discrete ethnic population; or the belief system of a discrete ethnic population.

Analysis

The SCIC records search did not identify any existing religious or sacred uses within the project site. Additionally, the NAHC Sacred Lands File did not identify sacred lands within project site. Because of the lack of existing religions or sacred uses, the project would not result in impacts under this category.

Significance of Impacts

No existing religious or sacred uses are located on the project site. As a result, no impacts to religious or sacred uses would occur.

Mitigation Measures

Mitigation would not be required.

5.6.4.3 Issue 3

Issue 3 Would the proposal result in the disturbance of any human remains, including those interred outside formal cemeteries?

Impact Threshold

- Discovery of human remains shall always be treated as a significant discovery.

Analysis

As previously identified, the project site is located within a high sensitivity level for archaeological resources. Human remains have been recovered during previous investigations at SDI-11767, suggesting the possibility of additional prehistoric inhumations or cremations. Should human remains be discovered during construction of the project, work would be required to halt until a determination could be made regarding the provenance of the human remains via the County Coroner and Native American representative, as required. The project would be required to treat human remains uncovered during construction in accordance with the California Public Resources Code (Sec. 5097.98) and State Health and

Safety Code (Sec. 7050.5). Additionally, mitigation measure MM 5.6-1 has specific measures to address the discovery of human remains.

Significance of Impacts

Impacts to human remains are potentially significant.

Mitigation Measures

Implementation of MM 5.6-1 and MM 5.6-2 would be required to mitigate impacts associated with human remains.

Significance of Impacts following Implementation of Mitigation Measures

With implementation of mitigation measures MM 5.6-1 and MM 5.6-2, impacts to human remains would be reduced to below a level of significance.

5.7 Energy

This section provides an evaluation of existing energy production/consumption conditions and potential energy use and related impacts from the project. The following discussion is consistent with and fulfills the intent of CEQA Guidelines Appendix F and is based in part on information obtained from SDG&E *Letters/Responses to Service Providers*, included as Appendix J.

5.7.1 Existing Conditions

SDG&E, a subsidiary of Sempra Energy, provides natural gas and electricity service to the project site. SDG&E provides electrical services to 3.6 million customers through 1.4 million electric meters and 873,000 natural gas meters through the 4,100-square-mile service area in San Diego County and southern Orange County. SDG&E forecasts future natural gas and power consumption demand on a continual basis, primarily for installation of transmission and distribution lines. In situations where projects with large power loads are planned, this is considered together with other loads in the project vicinity, and electrical substations are upgraded as necessary. Direct impacts to electrical and natural gas facilities are addressed and mitigated by SDG&E at the time incoming development projects occur.

The project site has historically been used as a golf course since 1947. Electricity demand associated with existing development is estimated to be 193,500 kilowatt hours (kWh) per year. Natural Gas demand associated with existing development is estimated to be 871,900 thousand British thermal units (kBTU) per year. SDG&E facilities surround the project site within public streets. SDG&E has the capacity to meet the present demand for electrical service, and there are no service deficiencies in the existing distribution system (see Appendix J).

5.7.1.1 Electricity

According to the California Energy Commission's California Energy Consumption Database, California used approximately 282,896 gigawatt hours (2,829 trillion kilowatt hours) of electricity in 2015, which is the most recent year of data available. Electricity usage in California for different land uses varies substantially by the type(s) of uses in a building, type(s) of construction materials used in a building, and the efficiency of all electricity-consuming devices within a building. Due to the State's energy efficiency standards and efficiency and conversion programs, California's per capita electricity use had remained stable for more than 30 years, which the national average has steadily increased.

The State of California produces approximately 82 percent of its electricity and imports the remaining 18 percent. The California Independent System Operator (ISO) governs the transmission of electricity from power plants to utilities. Electricity to San Diego County is transferred via 138 kilo volts (kV) lines at Camp Pendleton, and a 500 kV line near Jacumba. Additionally, there are two operating power plants within San Diego County: Encina (Cabrillo Power) - 965 megawatt (MW), and the Palomar Energy Power Plant, Escondido (SDG&E) - 550 MW, which began operating in the summer of 2006.

SDG&E receives electric power from a variety of sources. According to the California Public Utilities Commission's 2016 Biennial Renewables Portfolio Standard Program Update, 36.4 percent of SDG&E's power came from eligible renewable sources in 2014, including biomass/waste, geothermal, small hydroelectric, solar, and wind sources. This is an improvement from the 15.7 percent renewable energy portfolio that SDG&E achieved in 2011. Electricity distribution lines in the project area are located underground. Each year, SDG&E allocates capital funds for the purposes of converting overhead electric distribution lines. Under provisions of Rule 20A established by the California Public Utilities commission, the City may designate major streets for undergrounding the overhead lines. In general, all new commercial, industrial, and residential developments are required to accept the underground service.

In addition, a variety of energy conservation programs are provided by SDG&E to City residents and businesses. These programs include:

- Conducting surveys to determine energy use and recommending energy efficiency measures to reduce energy use;
- Providing discounts for retrofitting lighting, refrigeration, and mechanical equipment with energy efficient technologies; and
- Incentives for using energy during non-peak hours to reduce peak-hours demand.

Title 24 of the California Administrative Code sets efficiency standards for new construction, regulating energy consumed for heating, cooling, ventilations, water heating, and lighting. These building efficiency standards are enforced through the City's building permit process.

5.7.1.2 Natural Gas

Natural gas sources for the California include in-state sources (16 percent), Canada (28 percent), the Rockies (10 percent), and the Southwest (46 percent). Gas from outside sources enter the state through large high-pressure gas lines. These transmission lines feed natural gas storage areas located in Orange and northern Los Angeles counties, which serve all of southern California. From these storage facilities, high-pressure gas transmission lines enter San Diego County from the north inland area (Rainbow area). A 30-inch transmission line veers to the coast, and a 16-inch line continues inland.

5.7.1.3 Petroleum

There are more than 27 million registered vehicles in California, and those vehicles consumed an estimated 18.5 billion gallons of petroleum and diesel in 2014, according to the California Energy Commission. Gasoline and other vehicle fuels are commercially provided commodities, and would be available to the project via commercial outlets.

Petroleum accounts for approximately 92 percent of California's transportation energy sources. Technological advances, market trends, consumer behavior, and government policies could result in significant changes to fuel consumption by type and total. At the Federal and State levels, various policies, rules, and regulations have been enacted to improve vehicle fuel efficiency, promote the development and use of alternative fuels, reduce transportation-source air pollutants and GHG emissions, and reduce VMT. Market forces have driven the price of petroleum products steadily upward, and technological advances have made use of other energy resources or alternative transportation modes increasingly feasible.

5.7.2 Regulatory Framework

5.7.2.1 Federal

Federal Energy Regulatory Commission

The Federal Energy Regulatory Commission is an independent agency that regulates the transmission and sales of electricity, natural gas, and oil in interstate commerce, licensing of hydroelectric projects, and oversight of related environmental matters. The setting and enforcing of interstate transmission sales is also regulated by Federal Energy Regulatory Commission.

Federal Energy Policy and Conservation Act

In 1975, Congress enacted the Federal Energy Policy and Conservation Act to serve the nation's energy demands and promote feasibly attainable conservation methods. This act established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, the National Highway Traffic Safety Administration is responsible for establishing additional vehicle standards. In 2012, new fuel economy standards were approved for model year 2017 passenger cars and light trucks at 54.5 miles per gallon. Fuel economy is determined based on each manufacturer's average fuel economy for the fleet of vehicles available for sale in the United States.

Intermodal Surface Transportation Efficiency Act of 1991

The Intermodal Surface Transportation Efficiency Acts of 1991 (ISTEA) promoted the development of intermodal transportation systems to maximize mobility, as well as address national and local interests in air quality and energy. ISTEA contained factors that metropolitan planning organizations were to address in development transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, metropolitan planning organizations adopted explicit policies defining the social, economic, energy, and environmental values guiding transportation decisions.

Energy Policy Act of 2005

The Energy Policy Act of 2005 addresses energy production in the United States, including (1) energy efficiency; (2) renewable energy; (3) oil and gas; (4) coal; (5) tribal energy; (6) nuclear matters and security; (7) vehicles and motor fuels, including ethanol; (8) hydrogen; (9) electricity; (10) energy tax incentives; (11) hydropower and geothermal energy; and (12) climate change technology. The act includes provisions such as increasing the amount of biofuel that must be mixed with gasoline sold in the United States and loan guarantees for entities that develop or use innovative technologies that avoid the by-production of GHGs.

Energy Independence and Security Act of 2007

On December 19, 2007, the Energy Independence and Security Act of 2007 (EISA) was signed into law. In addition to setting increased Corporate Average Fuel Economy standards for motor vehicles, the EISA includes other provisions related to energy efficiency:

- Renewable Fuel Standard (Section 202)
- Appliance and Lighting Efficiency Standard (Sections 301-325)
- Building Energy Efficiency (Sections 411-441)

This Federal legislation requires ever-increasing levels of renewable fuels – the RFS – to replace petroleum. The EPA is responsible for developing and implementing regulations to ensure that transportation fuel sold in the United States contains a minimum volume of renewable fuel. The RFS program regulations were developed in collaboration with refiners, renewable fuel producers, and many other stakeholders.

The RFS program was created under the Environmental Policy Act of 2005 and established the first renewable fuel volume mandate in the United States. As required under the Act, the original RFS program (RFS1) required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. Under the EISA, the RFS program was expanded in several key ways that lay the foundation for achieving significant reductions of GHG emissions from the use of renewable fuels, for reducing imported petroleum, and encouraging the development and expansion of the nation's renewable fuels sector. The updated program is referred to as RFS2 and includes the following:

- EISA expanded the RFS program to include diesel, in addition to gasoline.
- EISA increased the volume of renewable fuel required to be blended into transportation fuel from nine billion gallons in 2008 to 36 billion gallons by 2022.
- EISA established new categories of renewable fuel and set separate volume requirements for each one.
- EISA required the EPA to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel is replaces.

Additional provisions of the EISA address energy savings in government and public institutions, promoting research for alternative energy, additional research in carbon capture, international energy programs, and the creation of "green" jobs.

5.7.2.2 State

California Code of Regulations, Title 24, Part 6: California Energy Code

Title 24 of the CCR, *Energy Efficient Standards for Residential and Nonresidential Buildings,* was adopted in 1978 by the California Energy Commission (CEC) in response to a legislative mandate to reduce California's energy consumption. New buildings in California are required to conform to energy conservation standards specified in Title 24 of the CCR. The standards apply only to residential and non-residential buildings for human occupancy.

Title 24 of the CCR comprises the State Building Standards Code. Part 6 of Title 24 is the California Energy Code, which includes the building energy efficiency standards. The standards include provisions applicable to all buildings, residential and non-residential, describing requirements for documentation and certification that the building meets the standards. These provisions include mandatory requirements for efficiency and design of the following types of systems, equipment, and appliances:

- Air conditioning systems
- Heat pumps
- Water chillers
- Gas- and oil-fired boilers
- Cooling equipment
- Water heaters and equipment
- Pool and spa heaters and equipment
- Insulation and cool roofs
- Lighting and control devices
- Windows and exterior doors
- Joints and other building structure openings ("envelope")
- Gas-fired equipment including furnaces and stoves/ovens

The standards include additional mandatory requirements for space conditioning (cooling and heating), water heating, and indoor and outdoor lighting systems and equipment in non-residential, high-rise residential, and hotel or motel buildings.

California Code of Regulations, Title 24, Part 11

Title 24, Part 11 of the CCR consists of the CALGreen Building Standards for residential, commercial, and public building construction. The guidelines are intended to reduce the amount of water and sewer service needed to serve future development. Use of recycled water is also encouraged in the standards.

California Energy Plan

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the fewest environmental and energy costs. To further this policy, the plan identifies a number of strategies, including providing assistance to public agencies and fleet operators.

5.7.2.3 Local

SANDAG Regional Energy Strategy

The Regional Energy Strategy (RES) serves as the energy policy blueprint for the San Diego region though 2050. It established long-term goals in 11 topic areas including energy efficiency, renewable energy, distributed generation, transportation fuels, land use and transportation planning, border energy issues, and the green economy. Using the strategic guiding principles, and taking into consideration the myriad of policy measures recommended across the energy topics, the following six early actions were identified for SANDAG and local governments to focus on in the near term:

1. Pursue a comprehensive building retrofit program to improve efficiency and install renewable energy systems.
2. Create financing programs to pay for projects and improvements that save energy.
3. Utilize the SANDAG-SDG&E Local Government Partnership to help local governments identify opportunities and implement energy savings at government facilities and throughout their communities.
4. Support land use and transportation planning strategies that reduce energy use and GHG emissions.
5. Support planning of electric charging stations and alternative fueling infrastructure.
6. Support use of existing unused reclaimed water to decrease the amount of energy needed to meet the water needs of the San Diego region.

In 2014, a technical update of the RES was completed in order to inform development of San Diego Forward: The Regional Plan. This technical update demonstrates progress toward attaining the RES goals, updates existing conditions and future projects data, and recommends priorities for moving forward. Concurrent with the update, summary reports were prepared for each of the RES goals.

SDG&E Long-Term Resource Plan

In 2004, SDG&E filed a long-term energy resource plan (LTRP) with the CPUC, which identifies how SDG&E will meet the future energy needs of customers in the service area. The LTRP identifies several energy demand reduction (i.e., conservation) targets, as well as goals for increasing renewable energy supplies, new local power generation, and increased transmission capacity.

The LTRP set a standard for acquiring 20 percent of SDG&E's energy mix from renewables by 2010 and 33 percent by 2020. The LTRP also calls for greater use of in-region energy supplies, including renewable energy installations. By 2020, the LTRP states that SDG&E intends to achieve and maintain the capacity to generate 75 percent of summer peak demand with in-county generation. The LTRP also identifies the procurement of 44 percent of its renewables to be generated and distributed in-region by 2020.

General Plan

The City of San Diego adopted an updated General Plan in 2008. The following policies contained in the Conservation Element of the General Plan are applicable to the project:

- CE-A.2. Reduce the City's carbon footprint. Develop and adopt new or amended regulations, programs, and incentives as appropriate to implement the goals and policies set forth in the General Plan to:
    - Create sustainable and efficient land use patterns to reduce vehicular trips and preserve open space;
    - Reduce fuel emission levels by encouraging alternative modes of transportation and increasing fuel efficiency;
    - Improve energy efficiency, especially in the transportation sector and buildings and appliances;
    - Reduce the Urban Heat Island effect through sustainable design and building practices;
    - Reduce waste by improving management and recycling programs.
- CE-A.5. Employ sustainable or "green" building techniques for the construction and operation of buildings.
    - Develop and implement sustainable building standards for new and significant remodels of residential and commercial buildings to maximize energy efficiency, and to achieve overall net zero energy consumption by 2020 for new residential buildings and 2030 for new commercial buildings.

Climate Action Plan

The City of San Diego adopted a CAP in December 2015 (City of San Diego 2015). The CAP quantifies GHG emissions, establishes citywide reduction targets for 2020 and 2035, identifies strategies and measures to reduce GHG levels, and provides guidance for monitoring progress on an annual basis. The City of San Diego CAP identifies a comprehensive set of goals and actions, including ordinances, policies, resolutions, programs, and incentives, that the City can use to reduce GHG emissions.

5.7.3 Impact Analysis

5.7.3.1 Issue 1

Issue 1 *Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

Impact Threshold:

Consistent with CEQA Guidelines Appendix G, a project could result in a significant impact to energy if it would:

- *Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.*

Analysis

Pursuant to State CEQA Guidelines Appendix F, energy conservation impacts were analyzed by estimating project energy requirements by amount and type, then evaluating project compliance with regulatory requirements. These data were used to evaluate the project's effects on energy resources and the degree to which the project would comply with existing energy standards.

The analysis included in this section utilizes the CalEEMod Version 2016.3.2 results from the project's air quality analysis to evaluate energy impacts (refer to Appendix F, *Air Quality Study*, of this EIR).

Electricity

Construction

Temporary electrical power for as-necessary lighting and electronic equipment, such as computers inside temporary construction trailers, would be provided by SDG&E. The amount of electricity used during construction would be minimal because typical demand stems from the use of several construction trailers that are used by managerial staff during the hours of construction activities in addition to electrically-powered hand tools. Most energy used during construction would be from petroleum. The electricity used for such activities would be temporary and negligible.

Operation

SDG&E has indicated that the current energy system would be sufficient to service the project, and that SDG&E would serve the project. A letter from SDG&E states gas and electric services can be made available for the project (see Appendix J). No adverse effects to non-renewable energy resources are anticipated with development of the project site as proposed by the project. Furthermore, the project would not result in the use of excessive amounts of electricity and would not result in the need to develop additional sources of energy.

The California Energy Commission reported SDG&E electrical demand for residential uses in 2016 was 6,692.28 million kWh. The project would generate the demand for approximately 10,060,490 kWh of electricity use for Phase I of the project, 9,736,316 kWh for Phase II, and 12,925,616 kWh for Phase III. This equals approximately 0.1 percent of the total energy demand reported by SDG&E for residential uses in 2016. Electricity use at the project would not be excessive, would be commensurate with the proposed use, and would not result in a substantial increase in consumption. Additionally, the project would not cause large amounts of electricity to be used in a manner that is wasteful or otherwise inconsistent with adopted plans or policies. The project would adhere to Title 24 requirements and the CAP and would incorporate several measures directed at minimizing energy use. These include:

- High-efficiency windows and kitchen appliances
- Energy Efficient Air Conditioning and Heating
- 3rd Party Performance Testing and Inspections of Design and Equipment
- Energy Efficient LED Lighting
- Programmable Thermostats
- Electric Vehicle charging stations

Natural Gas

Construction

Natural gas is not anticipated to be required during construction of the project. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed under the "petroleum" subsection, below. Any minor amounts of natural gas that may be consumed as a result of project construction would be temporary and negligible and would not have an adverse effect.

Operation

Natural gas would be directly consumed throughout the operation of the project, primarily through building heating, water heating, and cooking. Natural gas consumption was estimated for each of the project's land uses based on the CalEEMod default values, and the California Energy Commission reported natural gas demand in 2016 for SDG&E to be 269 million therms. Based on these calculations, the project is estimated to consume approximately 16,536,969 kBTU of natural gas per year during operation during Phase I, 17,783,913 kBTU consumption for Phase II, and 18,941,478 kBTU consumption for Phase III. This represents approximately 0.19 percent of total consumption of natural gas by SDG&E for residential uses in 2016.

As such, the project's long-term increase in demand for natural gas would be commensurate with the proposed use, would not be substantial, and would not cause the use of large amounts of natural gas in a manner that is wasteful or otherwise inconsistent with adopted plans or policies. However, the project would be designed to comply with Title 24, Part 6, of the CCR, as well as the CAP.

Due to the size and scale of the project, natural gas consumption would be appropriate and not place a significant burden on SDG&E's services. energy consumption relative to electricity and natural gas use would not be considered excessive, inefficient, or unnecessary.

Petroleum

Construction

Petroleum would be consumed throughout construction of the project. Fuel consumed by construction equipment would be the primarily energy resource expended over the course of construction, while VMT associated with the transportation of construction materials and construction worker commutes would also result in petroleum consumption. Heavy-duty equipment used for project construction would rely on diesel fuel, as would haul trucks involved in off-hauling materials from demolition and excavation. Construction workers would travel to and from the project site throughout the duration of construction. It is assumed that construction workers would travel to and from the project site in gasoline-powered passenger vehicles. There are no unusual project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities or use of equipment that would not conform to current emissions standards (and related fuel efficiencies).

Heavy-duty construction equipment of various types would be used during each phase of construction. CalEEMod was used to estimate construction equipment usage. Fuel consumption from construction equipment was estimated by converting the total CO_2 emissions from each construction phase to gallons using the conversion factors shown in the tables included below. Table 5.7-1, *Construction Worker Gasoline Demand by Phase*, illustrates the demand of gasoline for construction worker trips to and from the site for the various construction phases. Construction worker demand equals a total of 306,122 gallons of gasoline for Phase I, 476,450 gallons of gasoline for Phase II, and 124,624 gallons of gasoline for Phase III.

Table 5.7-2, *Construction Vendor Diesel Fuel Demand by Phase*, illustrates the demand of diesel fuel for construction vendor trips to and from the site. These trips are associated with the delivery of construction materials during the construction phase. Construction vendor demand equals a total of 198,919 gallons of diesel fuel for Phase I, 474,754 gallons of diesel fuel for Phase II, and 76,522 gallons of diesel fuel for Phase III.

Table 5.7-3, *Construction Equipment Diesel Fuel Demand by Phase*, illustrates the demand of diesel fuel for construction vehicles on-site during the various construction phases. Construction equipment diesel demand equals a total of 93,599 gallons of diesel fuel in Phase I, 108,851 gallons of diesel fuel in Phase II, and 88,604 gallons of diesel fuel in Phase III.

Table 5.7-1. *Construction Worker Gasoline Demand by Phase*

Phase I			
Phase I – 2023	**CO_2E MT**	**Kg CO_2E**	**Gallons**
Demolition	2.4	2,400	171
Site Preparation	1.7	1,700	192
Grading	4.8	4,800	541
Building Construction	517	517,000	58,286
Phase I – 2024	**CO_2E MT**	**Kg CO_2E**	**Gallons**
Building Construction	1,241	1,241,000	139,910
Phase I – 2025	**CO_2E MT**	**Kg CO_2E**	**Gallons**
Building Construction	891	891,000	100,450
Paving	2.4	2,400	271
Arch. Coating	55	55,000	6,201
TOTAL			**306,122**
Phase II			
Phase II – 2028	**CO_2E MT**	**Kg CO_2E**	**Gallons**
Demolition	2.4	2,400	271
Site Preparation	2.9	2,900	327
Grading	6.4	6,400	722
Building Construction	181	181,000	20,406
Phase II – 2029	**CO_2E MT**	**Kg CO_2E**	**Gallons**
Building Construction	2,184	2,184,000	246,223
Phase II – 2030	**CO_2E MT**	**Kg CO_2E**	**Gallons**
Building Construction	1,599	1,599,000	180,271
Paving	2.4	2,400	271
Arch. Coating	248	248,000	27,959
TOTAL			**476,450**
Phase III			
Phase III – 2033	**CO_2E MT**	**Kg CO_2E**	**Gallons**
Demolition	1.4	1,400	158
Site Preparation	1.7	1,700	192
Grading	4.3	4,300	485
Building Construction	265	265,000	29,876
Phase III – 2034	**CO_2E MT**	**Kg CO_2E**	**Gallons**
Building Construction	762	762,000	85,908
Phase III – 2035	**CO_2E MT**	**Kg CO_2E**	**Gallons**
Building Construction	58	58,000	6,539
Paving	0.7	700	79
Arch. Coating	12.3	12,300	1,387
TOTAL			**124,624**

NOTE: The project would be graded in a phased manner restricted by City rules, regulations, and ordinances; agency limitations; and testing for archaeological/cultural resources; as well as the Regional Water Quality Control Board.

Table 5.7-2. *Construction Vendor Diesel Fuel Demand by Phase*

Phase I			
Phase I – 2023	**CO_2E MT**	**Kg CO_2E**	**Gallons**
Building Construction	354	354,000	34,774
Phase I – 2024	**CO_2E MT**	**Kg CO_2E**	**Gallons**
Building Construction	879	879,000	86,346
Phase I – 2025	**CO_2E MT**	**Kg CO_2E**	**Gallons**
Building Construction	653	653,000	64,145
Arch. Coating	139	139,000	13,654
TOTAL			**198,919**
Phase II			
Phase II – 2028	**CO_2E MT**	**Kg CO_2E**	**Gallons**
Building Construction	214	214,000	21,022
Phase II – 2029	**CO_2E MT**	**Kg CO_2E**	**Gallons**
Building Construction	2,642	2,642,000	259,528
Phase II – 2030	**CO_2E MT**	**Kg CO_2E**	**Gallons**
Building Construction	1,977	1,977,000	194,204
TOTAL			**474,754**
Phase III			
Phase III – 2033	**CO_2E MT**	**Kg CO_2E**	**Gallons**
Building Construction	190	190,000	18,664
Phase III – 2034	**CO_2E MT**	**Kg CO_2E**	**Gallons**
Building Construction	547	547,000	53,733
Phase III – 2035	**CO_2E MT**	**Kg CO_2E**	**Gallons**
Building Construction	42	42,000	4,125
TOTAL			**76,522**

NOTE: The project would be graded in a phased manner restricted by City rules, regulations, and ordinances; agency limitations; and testing for archaeological/cultural resources; as well as the Regional Water Quality Control Board.

Table 5.7-3. *Construction Equipment Diesel Demand by Phase*

Phase I			
Phase I – 2023	**CO_2E MT**	**Kg CO_2E**	**Gallons**
Demolition	86	8,600	845
Site Preparation	52	5,200	511
Grading	206	206,000	20,336
Building Construction	122	122,000	11,984
Phase I – 2024	**CO_2E MT**	**Kg CO_2E**	**Gallons**
Building Construction	306	306,000	30,060
Phase I – 2025	**CO_2E MT**	**Kg CO_2E**	**Gallons**
Building Construction	229	229,000	22,495
Paving	55	55,000	5,403
Arch. Coating	20	20,000	1,965
TOTAL			**93,599**
Phase II			
Phase II – 2028	**CO_2E MT**	**Kg CO_2E**	**Gallons**
Demolition	103	103,000	10,118
Site Preparation	101	101,000	9,921
Grading	330	330,000	32,417
Building Construction	24	2,400	236
Phase II – 2029	**CO_2E MT**	**Kg CO_2E**	**Gallons**
Building Construction	304	304,000	29,862
Phase II – 2030	**CO_2E MT**	**Kg CO_2E**	**Gallons**
Building Construction	258	258,000	25,344
Paving	78	7,800	766
Arch. Coating	19	1,900	187
TOTAL			**108,851**
Phase III			
Phase III – 2033	**CO_2E MT**	**Kg CO_2E**	**Gallons**
Demolition	79	7,900	7,760
Site Preparation	80	8,000	786
Grading	295	295,000	28,978
Building Construction	118	118,000	11,591
Phase III – 2034	**CO_2E MT**	**Kg CO_2E**	**Gallons**
Building Construction	342	342,000	33,595
Phase III – 2035	**CO_2E MT**	**Kg CO_2E**	**Gallons**
Building Construction	26	26,000	2,554
Paving	24	24,000	2,358
Arch. Coating	10	10,000	982
TOTAL			**88,604**

NOTE: The project would be graded in a phased manner restricted by City rules, regulations, and ordinances; agency limitations; and testing for archaeological/cultural resources; as well as the Regional Water Quality Control Board.

Petroleum use is necessary to operate construction equipment, and construction equipment would employ Tier 3 engines or higher (and thus would be newer off-road equipment units). Additionally, energy used during construction of the project would be limited to the construction period, and would not involve long-term petroleum use. As such, energy consumption during construction activities would not be considered excessive, inefficient, or unnecessary. Demand for jobs in the project vicinity demonstrates that the proposed construction would not be considered unnecessary.

Operation

In order to estimate petroleum consumption from occupancy of the project, an estimate of VMT was calculated. CalEEMod calculations, the current CARB model used to calculate air quality and GHG emissions, were used to estimate total VMT. Table 5.7-4, *Operational Fuel Demand,* shows the project's estimated VMT and fuel demand over the three phases. CalEEMod assumes 92.5 percent of VMT burns gasoline while the remaining 7.5 percent burn diesel. Thus, of the 16,484 MT (16,484,000 kg) of mobile emissions, 15,247.7 MT is generated by gasoline combustion and 1,236.3 MT from diesel combustion. The project would have a gasoline demand of 1,719,019 gallons and an annual diesel demand of 128,078 gallons.

Table 5.7-4. *Operational Fuel Demand*

Energy Demand	VMT	MT CO_2E	Kilograms CO_2E	Gasoline (gallons)	Diesel (gallons)
Phase I	15,887,090	6,098	6,098,000	635,924	51,561
Phase II	14,090,037	4,786	4,786,000	499,104	35,260
Phase III	18,408,876	5,600	5,600,000	583,991	41,257
TOTAL	**48,386,003**	**16,484**	**16,484,000**	**1,719,019**	**128,078**

Over the lifetime of the project, the fuel efficiency of vehicles in use is expected to increase, as older vehicles are replaced with newer, more efficient models. Thus, the amount of petroleum consumed as a result of vehicle trips to and from the project site during operation would decrease over time. There are numerous regulations in place that require and/or encourage increased fuel efficiency. For example, CARB has adopted a new approach to passenger vehicles by combining the control for smog-causing pollutants and GHG emissions into a single coordinated package of standards. The new approach also includes efforts to support and accelerate the numbers of plug-in hybrids and zero-emissions vehicles in California. As such, operation of the project is expected to use decreasing amounts of petroleum over time, due to advances in fuel economy.

In summary, although the project would result in an increase in petroleum use during construction and operation compared to the existing conditions, the project would implement measures required under the CAP Checklist regarding VMT reduction through the implementation of a TDM program, as well as provision of a new trolley stop. Additionally, project-specific petroleum use would be expected to diminish over time as fuel efficiency improves and due to the project's walkability and proximity to transit and active transportation networks. Given these considerations, petroleum consumption associated with the project operation would not be considered excessive.

Significance of Impacts

The project would increase demand for energy in the project area and SDG&E's service area. However, no adverse effects on non-renewable resources are anticipated. The project would follow UBC and Title 24 requirements for energy efficiency and would incorporate sustainable design features directed at reducing energy consumption**.** As such, the project would not result wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. No significant impacts would result.

Mitigation Measures

Mitigation would not be required.

5.7.3.2 Issue 2

Issue 2 *Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

Impact Threshold

Consistent with CEQA Guidelines Appendix G, a project could result in a significant impact to energy if it would:

- *Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.*

Analysis

The regulatory plans and policies discussed in Section 5.7.2 aim to reduce energy demand; impose emission caps on energy providers; establish minimum building energy and green building standards; transition to renewable non-fossil fuels; incentivize homeowners and builders; fully recover landfill gas for energy; and expand research and development. In accordance with CARB's Scoping Plan, the Specific Plan includes sustainable building practices, designing buildings to reduce heat gain, and promoting solar access. Additionally, the project is required to include all mandatory green building measures under CALGreen, as specified in the CAP Consistency Checklist prepared for the project (see Appendix C). Therefore, the project would be consistent with the Scoping Plan measures through incorporation of stricter building and appliance standards. The project would be consistent with the goals of SANDAG's San Diego Forward: the Regional Plan as it would develop a mixed-use, compact, walkable, and bicycle-friendly communities close to transit connections and consistent with smart growth principles. The project would also improve transit for the community and City with the construction of a new Green Line Trolley stop.

The project would support the type of mixed-use development envisioned by the General Plan City of Villages strategy. The project is consistent with General Plan concepts such as increased walkability, enhanced pedestrian and bicycle networks, and improved connections to transit. The project is consistent with the General Plan's Mobility Element and the City of Villages strategy and results in development at densities that would support nearby transit and promote transit use. The project also promotes walkability

and connectivity through the construction a pedestrian-scaled streetscape environment, promoting internal walkability as well as connectivity, and provides bicycle facilities that support continuous and safe bicycle facilities. As demonstrated in Section 5.2, *Transportation and Circulation*, the promotes an effective land use that reduces VMT and would improve alternative transportation. The project would result in greater transit opportunities and a reduction in VMT and associated energy consumption. The project would implement a Waste Management Plan directed at diverting solid waste, supporting the use of recycled materials, and promoting on-site recycling in accordance with Citywide ordinances.

As presented in Section 5.9, *Greenhouse Gas Emissions*, the project is consistent with the CAP. through implementation of the project's CAP Consistently Checklist strategies, including sustainable development and green building practices. As established by the project's CAP Consistency Checklist, the project would implement CAP strategies relative to *Energy & Water Efficient Buildings* and *Clean & Renewable Energy*.

Thus, the project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. No significant adverse environmental effects would result from the adoption of the project in terms of plan consistency or conflicts.

Significance of Impacts

The project the project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. No significant adverse environmental effects would result from the adoption of the project in terms of plan consistency or conflicts.

Mitigation Measures

Mitigation would not be required.

5.8 Noise

This section evaluates potential noise impacts associated with the project. The following discussion is based on the *Noise Study* prepared by Birdseye Planning Group (~~March~~ August 2020) and included as Appendix K. For analysis related to land use-based impacts associated with the Noise Element of the General Plan, refer to Section 5.1, *Land Use*.

5.8.1 Existing Conditions

Existing noise sources in the project area are dominated by vehicular noise from motor vehicles (e.g., automobiles, trucks, and buses) on I-8, Fashion Valley Road, Hotel Circle North, and Friars Road. Additional noise sources are associated with transit operations in the project area, including the Green Line trolley and MTS buses. The Green Line Trolley traverses the project site, connecting downtown San Diego and Santee on 15-minute headways in both directions. MTS bus stops are located along the project frontage on Hotel Circle North, Fashion Valley Road and Friars Road. Generally, the bus routes within the project vicinity operate every 10 to 15 minutes on weekdays and weekends. Both vehicular noise and noise from transit operations create noise levels in the project area that affect existing and future urban development, as well as sensitive biological resources associated with habitats along the San Diego River corridor.

5.8.1.1 Overview of Sound Measurement

Noise level (or volume) is generally measured in dB (decibels) using the dBA. The A-weighting scale is an adjustment to the actual sound pressure levels to be consistent with that of human hearing response, which is most sensitive to frequencies around 4,000 Hertz (about the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz). Sound pressure level is measured on a logarithmic scale with the zero-dB level based on the lowest detectable sound pressure level that people can perceive (an audible sound that is not zero sound pressure level). Based on the logarithmic scale, a doubling of sound energy is equivalent to an increase of three dBA, and a sound that is 10 dBA less than the ambient sound level has no effect on ambient noise. Because of the nature of the human ear, a sound must be about 10 dBA greater than the reference sound to be judged as twice as loud. In general, a three dBA change in community noise levels is noticeable, while one to two dB changes generally are not perceived. Quiet suburban areas typically have noise levels in the range of 40 to 50 dBA, while arterial streets are in the 50 to 60+ dBA range. Normal conversational levels are in the 60 to 65 dBA range, and ambient noise levels greater than 65 dBA can interrupt conversations.

Noise levels typically attenuate (or drop off) at a rate of six dBA per doubling of distance from point sources (i.e., industrial machinery). Noise from lightly traveled roads typically attenuates at a rate of about 4.5 dBA per doubling of distance. Noise from heavily traveled roads typically attenuates at about three dBA per doubling of distance. Noise levels may also be reduced by intervening structures; generally, a single row of buildings between the receptor and the noise source reduces the noise level by about five dBA, while a solid wall or berm reduces noise levels by five to 10 dBA. The manner in which older homes

in California were constructed (approximately 30 years old or older) generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows. The exterior-to-interior reduction of newer residential units and office buildings construction to California Energy Code standards is generally 30 dBA or more.

In addition to the actual instantaneous measurement of sound levels, the duration of sound is important since sounds that occur over a long period of time are more likely to be an annoyance or cause direct physical damage or environmental stress. One of the most frequently used noise metrics that considers both duration and sound power level is the equivalent noise level (Leq). The Leq is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time (essentially, the average noise level). Typically, Leq is summed over a one-hour period. The maximum noise level (Lmax) is the highest RMS (root mean squared) sound pressure level within the measuring period, and the minimum noise level (Lmin) is the lowest RMS sound pressure level within the measuring period.

The time period in which noise occurs is also important since noise that occurs at night tends to be more disturbing than that which occurs during the day. Community noise is usually measured using Day-Night Average Level (Ldn), which is the 24-hour average noise level with a 10-dBA penalty for noise occurring during nighttime (10 p.m. to 7 a.m.) hours, or CNEL, which is the 24-hour average noise level with a five dBA penalty for noise occurring from 7 p.m. to 10 p.m. and a 10 dBA penalty for noise occurring from 10 p.m. to 7 a.m. Noise levels described by Ldn and CNEL usually do not differ by more than one dB. Daytime Leq levels are louder than Ldn or CNEL levels; thus, if the Leq meets noise standards, the Ldn and CNEL are also met. Table 5.8-1, *Sound Levels of Typical Noise Sources and Noise Environments* shows sounds levels of typical noise sources in Leq.

5.8.1.2 Sensitive Receptors

Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with each of these uses. Urban areas contain a variety of land use and development types that are noise sensitive. Land uses considered to be sensitive receptors include residential, school, childcare centers, acute care hospitals, and long-term health care facilities. Sensitive receptors are determined based upon special factors which may include the age of the users or occupants, the frequency and duration of the use or occupancy, continued exposure to hazardous substances as defined by Federal and State regulations, and the user's ability to evacuate a specific site in the event of a hazardous incident. Existing nearby sensitive receptors include the Presidio View Apartments located along the southern project boundary, various multi-family residences located along Friars Road north of the site, and The Courtyards multi-family residential building located at the northwest corner of the site. Future residential development would occur as part of the mixed-use redevelopment of the Town and Country Hotel site, located east of the project site. The project would include sensitive receptors at completion, as residential uses would be allowed in all planning Districts.

Table 5.8-1. *Sound Levels of Typical Noise Sources and Noise Environments*

Noise Source (at Given Distance)	Noise Environment	A-Weighted Sound Level	Human Judgment of Noise Loudness (Relative to Reference Loudness of 70 Decibels*)
Military Jet Takeoff with Afterburner (50 ft)	Carrier Flight Deck	140 Decibels	128 times as loud
Civil Defense Siren (100 ft)		130	64 times as loud
Commercial Jet Take-off (200 ft)		120	32 times as loud **Threshold of Pain**
Pile Driver (50 ft)	Rock Music Concert Inside Subway Station (New York)	110	16 times as loud
Ambulance Siren (100 ft) Newspaper Press (5 ft) Gas Lawn Mower (3 ft)		100	8 times as loud **Very Loud**
Food Blender (3 ft) Propeller Plane Flyover (1,000 ft) Diesel Truck (150 ft)	Boiler Room Printing Press Plant	90	4 times as loud
Garbage Disposal (3 ft)	Noisy Urban Daytime	80	2 times as loud
Passenger Car, 65 mph (25 ft) Living Room Stereo (15 ft) Vacuum Cleaner (10 ft)	Commercial Areas	70	Reference Loudness **Moderately Loud**
Normal Speech (5 ft) Air Conditioning Unit (100 ft)	Data Processing Center Department Store	60	1/2 as loud
Light Traffic (100 ft)	Large Business Office Quiet Urban Daytime	50	1/4 as loud
Bird Calls (distant)	Quiet Urban Nighttime	40	1/8 as loud Quiet
Soft Whisper (5 ft)	Library and Bedroom at Night Quiet Rural Nighttime	30	1/16 as loud
	Broadcast and Recording Studio	20	1/32 as loud **Just Audible**
		0	1/64 as loud **Threshold of Hearing**

Source: Compiled by dBF Associates, Inc., 2016

Construction noise can also affect biological resources, particularly during nesting season for avian species. Special-status species are plant and wildlife species that are protected or recognized as sensitive resources by Federal, State, or local resource agencies or organizations. Special-status species typically have relatively limited distribution and may require specialized habitat conditions. Special-status bird species (including the light-footed Ridgeway's rail, least Bell's vireo, and willow flycatcher) have been observed and/or have moderate to high potential to occur within the sensitive MHPA, which bisects the project site east/west. For this reason, nesting bird species are considered noise-sensitive resources.

5.8.1.3 Noise Monitoring

To gather data on the general noise environment at the project site, four weekday morning 15-minute noise measurements were taken on May 14, 2019, and March 3, 2020. Site 1 was located along Fashion Valley Road adjacent to the Riverwalk Golf Course driving range parking lot mid-way between Friars Road and Hotel Circle North. Site 2 was located at the northeast corner of the Friars Road and Via Las Cumbres intersection. Site 3 was located at the Center Pointe Apartments along the north side of Friars Road west of Fashion Valley Road. Site 4 was located in the common area of the commercial building located at 1650 Hotel Circle North. ~~Site 5 is located along the western property boundary in proximity to the San Diego River corridor. Two~~ Additionally, two five-minute spot measurements were taken at the southern project property line north of the building at 1650 Hotel Circle North and in the parking lot of the Riverwalk Golf Course near the existing clubhouse. ~~An~~ A third spot ~~additional~~ measurement was taken on March 3, 2020 at the southeast corner of The Courtyards complex along the western site boundary. The spot measurements were taken to characterize noise levels in proximity to the San Diego River corridor. Traffic noise was audible as background noise; however, no traffic was visible from these locations. Monitoring locations are shown in Figure 5.8-2, *Noise Monitoring Locations*, and are intended to represent baseline conditions at the project site, as well as noise-sensitive uses located in proximity to the site. The measurements were taken using an ANSI Type II integrating sound level meter. The predominant noise source was traffic. The temperature during monitoring was 65 degrees Fahrenheit with no cloud cover or perceptible wind.

During monitoring, 143 cars/light trucks, eight medium (two-axles and six wheels) trucks, and one heavy (18-wheel) truck passed Site 1. A total of 256 cars/light trucks, five medium trucks, and one heavy truck passed Site 2. A total of 301 cars/light trucks, zero medium trucks, and zero heavy trucks passed Site 3. A total of 96 cars/light trucks, two medium trucks, and zero heavy trucks passed Site 4. As referenced, spot measurements were taken at three locations to collect representative data at the southern property line and within the project site. These locations are not located in proximity to road corridors; thus, no traffic counts were performed.

Measured noise is representative of noise levels occurring at the project site during a typical daytime scenario. Table 5.8-2, *Noise Monitoring Results* identifies the noise measurement locations and measured noise levels. As shown, the measured Leq was 65.3 dBA at Site 1, 69.3 dBA at Sites 2 and 3, and 73.0 dBA at Site 4. With the exception of Site 1, ambient noise levels currently exceed the 65-dBA standard for residential receivers. As referenced, three spot measurements were taken: one along the southern site boundary (S1), one at the golf course club house (S2), and the third at the southeast corner of The Courtyards complex located adjacent to the western site boundary. These locations are representative of the San Diego River corridor and conditions within the center of the project site. Baseline noise levels ~~at both locations are 60 dBA~~were 60.0 dBA at Site 1, 60.2 dBA at Site 2, and 60.6 dBA at Site 3.

Table 5.8-2. *Noise Monitoring Results*

Measurement Location	Primary Noise Source	Sample Time	Leq (dBA)
1. Common are located south of Riverwalk Drive adjacent to golf course driving range	Traffic, bus, and trolley activity	Weekday morning	65.3
2. Northeast of Friars Road and Via Las Cumbres intersection	Traffic	Weekday morning	69.3
3. Centre Pointe Apartments on north side of Friars Road west of Fashion Valley Road	Traffic/Interstate 8	Weekday morning	73.0[1]
S1. Southern property line north of 1650 Hotel Circle North	Traffic/Interstate 8	Weekday morning	60.0[2]
S2. Riverwalk Golf Course Club House parking lot	Pedestrian activity and trolley operation	Weekday morning	60.2[3]
S3. Adjacent to project site at southeast corner of The Courtyards site – western property boundary	MTS Trolley/distant traffic	Weekday morning	60.6[4]

Source: Field visit using ANSI Type II integrating sound level meter.
[1]Ambient noise levels dominated by traffic on Interstate 8.
[2]Commercial buildings screen noise from Interstate 8 along sections of southern property line.
[3]MTS Trolley operation contributes to background noise levels at this location.
[4]MTS Trolley is the dominant noise source in this location.

5.8.2 Regulatory Framework

5.8.2.1 Federal

Noise

~~The Federal Noise Control Act (1972) addressed the issue of noise as a threat to human health and welfare.~~ The Noise Control Act of 1972 was established to formalize a national policy to promote an environment free from noise that jeopardizes health and welfare. Primary responsibility for control of noise rests with State and local governments; however, Federal action is essential to address noise sources associated with commerce, control of which requires nationwide consistency with respect to treatment of noise. To implement the Federal Noise Control Act, the EPA undertook a number of studies related to community noise in the 1970s. The EPA found that 24-hour averaged noise levels less than 70 dBA would avoid measurable hearing loss, levels of less than 55 dBA outdoors and 45 dBA indoors would prevent activity interference and annoyance.

The U.S. Department of Housing and Urban Development (HUD) published a Noise Guidebook for use in implementing the Department's noise policy. In general, HUD's goal is exterior noise levels that are less than or equal to ~~55~~ 65 dBA Ldn. The goal for interior noise levels is 45 dBA Ldn. HUD suggests that attenuation be employed to achieve this level, where feasible, with a special focus on sensitive areas of homes, such as bedrooms.

Vibration

Vibration is a unique form of noise as the energy is transmitted through buildings, structures and the ground whereas audible noise energy is transmitted through the air. Thus, vibration is generally felt rather than heard. The ground motion caused by vibration is measured as peak particle velocity in inches per second (PPV inches/second) and is referenced as vibration decibels (VdB). The vibration velocity level threshold of perception for humans is approximately 65 VdB (PPV 0.04 inches/second). A vibration velocity of 75 VdB (PPV 0.25 inches/second) is the approximate dividing line between barely perceptible and distinctly perceptible levels.

The Federal Transit Administration's (FTA) Transit Noise and Vibration Impact Assessment Manual (September 2018) and Caltrans, Transportation and Construction Vibration Guidance Manual (September 2013) uses the same thresholds but different descriptors for the purpose of determining vibration impacts: FTA uses VdB, while Caltrans uses PPV. A threshold of of 65 VdB (PPV 0.04) is used for buildings where low ambient vibration is essential for interior operations. These buildings include hospitals and recording studios. A threshold of 72 VdB (PPV 0.25) is used for residences and buildings where people normally sleep (i.e., hotels and rest homes); therefore, the threshold used for the purpose of determining vibration impacts associated with the project is 72 VdB (PPV 0.25).

5.8.2.2 State

Title 24 of the CCR establishes standards governing interior noise levels that apply to all new single-family and multi-family residential units in California. These standards require that acoustical studies be performed before construction at building locations where the existing Ldn exceeds 60 dBA. Such acoustical studies are required to establish mitigation measures that will limit maximum Ldn levels to 45 dBA in any habitable room. Although there are no generally applicable interior noise standards pertinent to all uses, many communities in California have adopted an Ldn of 45 as an upper limit on interior noise in all residential units.

5.8.2.3 Local

Municipal Code

Operational Noise

The City's Noise Ordinance is contained in SDMC, Chapter 5, Article 9.5, Noise Abatement and Control. The noise ordinance regulates noise generated by on-site sources associated with project operation, such as HVAC units. The noise limits of the City Noise Ordinance for various land uses by time of day are shown in Table 5.8-3, *City of San Diego Applicable Limits, Property Line Noise Limits by Land Use and Time of Day*. Section 59.5.0701 of the City's Noise Ordinance requires that multi-family dwellings conform to the provisions of Section T25-28 Noise Insulation Standards, of Article 4, Subchapter 1, Chapter 1, Division T25, Part 6, Title 24, California Administrative Code.

Table 5.8-3. *City of San Diego Applicable Limits Property Line Noise Limits by Land Use and Time of Day*

Land Use	Time of Day	One-Hour Average Sound Level (decibels)[1]
1. Single Family Residential	7 AM to 7 PM	50
	7 PM to 10 PM	45
	10 PM to 7 AM	40
2. Multi-Family Residential (up to a maximum density of 1/2000)	7 AM to 7 PM	55
	7 PM to 10 PM	50
	10 PM to 7 AM	45
3. All other Residential	7 AM to 7 PM	60
	7 PM to 10 PM	55
	10 PM to 7 AM	50
4. Commercial	7 AM to 7 PM	65
	7 PM to 10 PM	60
	10 PM to 7 AM	60
5. Industrial or Agricultural	any time	75

Source: City of San Diego Municipal Code Section 59.5.0401, 2010

[1]The sound level limit at a location on a boundary between two zoning districts is the arithmetic mean of the respective limits for the two districts.

Construction Noise

Section 59.5.0404 of the SDMC limits construction noise to between 7:00 a.m. and 7:00 p.m. from Monday to Saturday, excluding legal holidays, except in the case of an emergency or under other special permit granted by the Noise Abatement and Control Administrator. When allowed, construction noise shall not be "disturbing, excessive, or offensive" unless a permit has been obtained from the City Noise Abatement and Control Administrator. In addition, construction noise is limited to an average sound level of 75 dBA at a residentially zoned property line during the 12-hour period from 7:00 a.m. to 7:00 p.m.

Multi-Species Habitat Conservation Plan

The City of San Diego MSCP Subarea Plan and associated guidelines produced by the U.S. Fish and Wildlife Service requires that noise be limited to a level not to exceed an hourly limit of 60 dBA Leq or the average ambient noise, whichever is greater, at the edge of the MHPA and occupied habitat during the breeding season (i.e., February 1 through September 15) for sensitive species potentially affected by construction and operation of a project.

5.8.3 Impact Analysis

5.8.3.1 Issue 1

Issue 1 *Would the project result or create a significant increase in the existing ambient noise levels* which exceed the City's adopted ordinance or thresholds?

Impact Threshold

Based on the City's CEQA Significance Determination Threshold, a project would have a potentially significant noise impact if it would result in:

- Exposure of people to noise levels that exceed the City's adopted Noise Ordinance, San Diego Municipal Code, Section 59.5.0404 (i.e., 75db(A) Leq[12-hour]).
- Exposure of people to noise levels that exceed the City's adopted Noise Ordinance, San Diego Municipal Code, Section 59.5.0401 as identified in Table 5.8-3; or,
- Exposure of people to transportation noise levels that exceed the sound level limits as presented in Table K-2 of the City's Significance Determination Thresholds and as identified in Table 5.8-4, *Traffic Noise Significance Thresholds*.

Table 5.8-4. *Traffic Noise Significance Thresholds (dBA CNEL)*

Structure or Proposed Use That Would Be Impacted By Traffic Noise	Interior Space	Exterior Useable Space[1]
Single-family detached	45 dB	65 dB
Multi-family, schools, libraries, hospitals, daycare, hotels, motels, parks, convalescent homes	Development Services Department (DSD) ensures 45 dB pursuant to Title 24	65 dB
Offices, churches, business, professional use	N/A	70 dB
Commercial, retail, industrial, outdoor spectator sports uses	N/A	75 dB

Source: City of San Diego Traffic Noise Significance Thresholds, 2016

[1]If a project is currently at or exceeds the significance thresholds for traffic noise described above and noise levels would result in less than a 3-dB increase, then the impact is not considered significant.

Analysis

Construction Noise

Construction noise estimates are based upon noise levels reported by the FTA, Office of Planning and Environment, and the distance to nearby sensitive receptors. Reference noise levels established by the FTA were used to estimate noise levels at nearby sensitive receptors based on a standard noise attenuation rate of six dB per doubling of distance (line-of-sight method of sound attenuation).

While a mix of residential and retail commercial uses is anticipated to be focused in the North and Central Districts, with office and non-retail commercial uses concentrated in the South District, the mix of residential, retail commercial, and office and non-retail commercial land uses would be allowed in any of

Riverwalk's three developable planning Districts. Fashion Valley Road improvements would occur during implementation of Phases II and III.

Demolition Noise Levels

As part of Phase I (North District) and Phase II (North and Central Districts), demolition of existing road asphalt, parking areas and ancillary outdoor improvements associated with the golf course and clubhouse would be required. No demolition is anticipated for Phase III (South District). Construction equipment would not operate continuously during a 12-hour workday which, for the purposes of avoiding temporary construction noise impacts, is presumed to occur between 7:00 a.m. and 7:00 p.m. per San Diego Municipal Code Section 59.5.0404. Equipment would be used on an as-needed basis depending on the activity. For example, jackhammers and loaders may be used to break up asphalt areas and load material into trucks for off-site transport. Noise levels from the demolition activities can reach short-term peak levels exceeding of 90 dBA but would be periodic rather than constant. Based on empirical data referenced from other noise studies, the worst case hourly construction noise level was found to be 80.8 dBA Leq at an average distance of 25 feet. The daily 12-hour average was measured to be 76 dBA at a distance of 25 feet. This results from periodic rather than constant use of equipment. Assuming a reference level of 76 dBA at 25 feet and a six dBA decrease per doubling of distance, the average noise level over a 12-hour period would attenuate to below the 75 dBA limit required by the City of San Diego Municipal Code. No significant noise impacts would result from demolition activities.

Temporary Construction Noise Levels

The project proposes construction of a mixed-use neighborhood to include 4,300 multi-family residential dwelling units; adaptive reuse of the existing golf clubhouse into a common amenity; 152,000 square feet of commercial retail space; 1,000,000 square feet of office and non-retail commercial; and approximately 97 acres of developed park, open space, and trails, located generally along the San Diego River within the Park District and separating the North and Central Districts from the South District. The project would include adaptive reuse of the existing golf clubhouse into a community amenity and would add a new MTS Green Line Trolley stop/transit center within the development. The project would be graded in a phased manner restricted by City rules, regulations and ordinances; agency limitations; and testing for archaeological and cultural resources; as well as the RWQCB. Grading activities would occur within the entire project site, including within the 50-foot no use buffer area, to allow for construction of mixed-use development as proposed by the Specific Plan, as well as development of the Riverwalk River Park. Grading would also be required for proposed improvements to Fashion Valley Road, which crosses the MHPA. Three general construction phases have been assumed, with Phase I (North District) being completed in 2025, Phase II (North, Central, and Park District) completed in 2030, and Phase III (South District) completed in 2035. Temporary construction noise impacts would be associated with the operation of heavy construction equipment on existing sensitive receptors located in proximity to the project site. During the construction of Phases II and III, it is assumed that multi-family residences constructed during Phases I and II would be occupied.

Table 5.8-5, *Typical Construction Equipment Noise Levels,* shows the typical noise levels associated with heavy construction equipment. As shown, noise levels associated with the use of heavy equipment at construction sites can range from about 81 to 95 dBA at 25 feet from the source, depending upon the

types of equipment in operation at any given time and phase of construction. Construction-related noise varies considerably depending on the location of operating equipment relative to the location of sensitive properties and the number of individual pieces of equipment operating in proximity to one another.

Table 5.8-5. *Typical Construction Equipment Noise Levels*

Equipment Onsite	Typical Level (dBA) 25 feet from the source	Typical Level (dBA) 50 feet from the source	Typical Level (dBA) 100 feet from the source
Air Compressor	84	78	64
Backhoe	84	78	64
Bobcat Tractor	84	78	64
Concrete Mixer	85	79	73
Bulldozer	88	82	76
Jack Hammer	95	89	83
Pavement Roller	86	80	74
Street Sweeper	88	82	76
Man Lift	81	75	69
Dump Truck	82	76	70
Compactor	88	82	76
Grader	91	85	79
Paver	95	89	83
Loader	91	85	79

As referenced above, the City of San Diego limits the average sound level from construction noise to 75 decibels at any property zoned residential during the 12-hour period from 7:00 a.m. to 7:00 p.m. Nearby sensitive receptors include the Presidio View Apartments located along the southern project boundary, residential uses that would occur with active redevelopment of the Town and Country Resort Hotel to the east of the project site, and various multi-family residences located along Friars Road north of the site. The Courtyards multi-family residential building is located at the northwest corner of the site; Mission Greens multi-family residential buildings are located at the northeast corner of the site. At the completion of Phase I (North District), the project would include on-site sensitive receptors (residential development). Additionally, Phase II (in the eastern portion of the North District and in the Central District) would include on-site sensitive receptors (residential development and parks). Phase III (South District) has the potential to include sensitive receptors, if future residential uses occur within the South District.

With a few exceptions, the sensitive properties are separated from the project site by four-lane streets (i.e., Fashion Valley Road and Friars Road). Traffic noise would, in part, mask construction noise at existing sensitive receptors. The nearest receptors adjacent to areas that would be graded are located at the northeast corner of the site (i.e., Mission Greens) and adjacent to the western boundary (i.e., The Courtyards). Future sensitive receptors would be included in the Town and Country Hotel site redevelopment, east of the South District. That project includes a mix of urban uses that would include residential. Areas north of and adjacent to the existing MTS trolley line would be developed with a mix of primarily residential and retail commercial uses. Areas south of the MTS trolley would be comprised of both active and passive park uses, as well as improvements to Fashion Valley Road and development of the South district as predominantly office use, with residential allowed. The overall amount of grading and

construction activity needed for park improvements is less than what would be required for areas where structures would be developed.

Based on EPA noise emissions, empirical data, and the amount of equipment needed for construction of the project, worst-case noise levels from the construction equipment would occur during demolition and grading activities. The anticipated equipment used on-site would vary and would include ~~a bulldozer~~scrapers, excavators, backhoes/tractors, graders, bore rigs, -rollers, and trucks. Each project phase would include multiple acres; thus, equipment would likely be dispersed throughout the construction area. Where construction is projected to occur in proximity (i.e., within 100 feet) of existing sensitive properties, noise levels ~~may~~ would be audible at these locations.

Construction Noise Levels – Phase I (North District)
Each general phase of construction would disturb multiple acres; thus, equipment would likely be spread out over the construction area. However, if during site preparation and grading, a grader (85 dBA), a backhoe (78 dBA), and a dump truck (82 dBA) were working simultaneously in the center of the site over a 12-hour work day, the 12-hour Leq would be approximately 87 dBA at 50 feet. Noise levels associated with the above construction scenario are shown at varying distances in Table 5.8-6, *Typical Maximum Construction Noise Levels at Various Distances from Project Construction*. The nearest sensitive receptors to the east and west are approximately 50 to 100 feet from the property line. Noise levels at this distance would range from 87 to 81 dBA during active construction. At 250 feet, noise would attenuate to 73 dBA. Noise levels at 500 feet would attenuate to 67 dBA.

Table 5.8-6. *Typical Maximum Construction Noise Levels at Various Distances from Project Construction*

Distance from Construction	Maximum Noise Level at Receptor (dBA)
25 feet	93
50 feet	87
100 feet	81
250 feet	73
500 feet	67
1,000 feet	61

Construction noise would not be continuous in one location over a 12-hour workday such that the 75-dBA standard would be exceeded. Thus, no significant temporary construction noise impacts to existing residences would occur. However, it is possible that construction equipment and associated noise could periodically exceed 75 dBA at neighboring residential properties without constituting a violation of the 12-hour average threshold, including those located along Friars Road and the northern portion of Fashion Valley Road, adjacent to the North and Central District, as well as residences constructed and occupied as part of the project as phases as being completed. While no significant construction noise impacts would occur, construction activities would include the following best management practices to minimize nuisance level noise to the extent possible:

Construction Equipment. Electrical power shall be used to run air compressors and similar power tools where feasible. Internal combustion engines should be equipped with a muffler of a type recommended by the manufacturer and in good repair. All diesel equipment should be operated with closed engine doors and should be equipped with factory-recommended mufflers. Construction equipment that continues to generate substantial noise at the project boundaries should be shielded with temporary noise barriers, such as barriers that meet a sound transmission class (STC) rating of 25, sound absorptive panels, or sound blankets on individual pieces of construction equipment. Stationary noise-generating equipment, such as generators and compressors, should be located as far as practically possible from the nearest residential property lines.

Neighbor Notification. Provide notification to residential occupants adjacent to the project site at least 24 hours prior to initiation of construction activities that could result in substantial noise levels at outdoor or indoor living areas. This notification should include the anticipated hours and duration of construction and a description of noise reduction measures being implemented at the project site. The notification should include a telephone number for local residents to call to submit complaints associated with construction noise.

Noise Control Plan. Construction contractors shall develop and implement a noise control plan that includes a noise control monitoring program to ensure sustained construction noise levels do not exceed 75 decibels over a 12-hour period at the nearest sensitive receivers. The plan may include the following requirements:

- Contractor shall turn off idling equipment while not being used for operations or after idling for five minutes.
- Contractor shall perform noisier operation during the times least sensitive to receptors.
- All diesel equipment shall be operated with closed engine doors and shall be equipped with factory-recommended mufflers.
- Electrical power shall be used to run air compressors and similar power tools and to power any temporary structures, such as construction trailers or security staff facilities, where practical.

As shown in Table 5.8-6, noise levels at 250 feet or more from the active construction site would attenuate to below the 75-dBA threshold. Construction activities would occur during daytime hours which would minimize sleep disturbance. Thus, construction-related noise impacts would be less than significant.

Construction Noise Levels – Phases II (North, Central, and Park District) and III (South District)
Construction activities occurring during Phases II (North, Central, and Park District) and III (South District) would include residential, MTS trolley infrastructure, retail, and both active and passive recreational features. Construction activities associated with each component constructed as part of Phases II and III have the potential to generate noise levels similar to those estimated for Phase I (North District). Because multifamily units would be constructed during Phase I (North District) and Phase II (North, Central, and Park District), these units are expected to be occupied during construction of subsequent phases with all

properties occupied during construction of Phase III (South District). Multi-family residential units may also be developed as a component of Phase III (South District).

Noise levels at on-site properties would vary depending on the type of activity with the highest noise levels ranging from 93 to 87 dBA at 25 to 50 feet from sensitive properties. Use of heavy equipment and trucks would generate transient noise events associated with minor grading, loading and material delivery. As construction transitions from the use of heavy equipment to hand tools, noise levels would be typical of those occurring within the surrounding environment. The use of heavy equipment south of the MTS trolley tracks for construction of the Riverwalk River Park and open space improvements would be less audible at receivers located north of the tracks, given the distance and screening that would occur from project buildings and masking from roadway noise and trolley operation. Construction of the park uses would be completed prior to construction of Phase III (South District).

As referenced above, construction noise not would be continuous in one location over a 12-hour workday such that the 75-dBA standard would be exceeded. However, it is possible that construction noise could periodically (in compliance with the 12-hour weighted average) exceed 75 dBA at on-site sensitive properties during construction activities. Implementation of the best management practices presented above would minimize temporary construction noise at both on- and off-site sensitive receptors during all phases of construction.

Construction Noise Impacts to MHPA

The Biological Technical Report (Alden Environmental, Inc., February 2020) identified the potential for special-status bird species to occur on the project site and within the MHPA area. All sensitive animal species observed or detected on site utilize wetland/riparian habitats and were observed or detected along the San Diego River. These species include the following:

- Cooper's hawk;
- Clark's marsh wren;
- Willow flycatcher;
- Yellow-breasted chat;
- Double-crested cormorant;
- Yellow warbler;
- Light-footed Ridgway's rail; and
- Western bluebird.

The Riverwalk River Park element of the project includes planting native wetland species to create native habitats adjacent to the San Diego River and the existing wetlands in the southwestern portion of the project site, which would create additional habitat for avian and other species of wildlife. No active park uses would be allowed in the native areas; thus, direct and adverse impacts to these species are not anticipated.

Construction equipment used for demolition, construction of Fashion Valley Road improvements, vegetation clearing, and earthwork would generate noise levels as high as 87 dBA Leq at 50 feet from the

equipment. Noise levels would vary depending on the equipment used and the duration of activity within specific areas. Grading activities could occur up to the MHPA boundary and habitat areas to construct passive park improvements, as well as improvements to Fashion Valley Road. While grading activities could occur adjacent to the MHPA and habitat areas, equipment use would primarily be transient rather than occurring on one location for extended periods of time.

Grading activities during each phase of construction could exceed the City's 60 dBA Leq threshold along the San Diego River corridor where sensitive bird species are known to occur. While work along the corridor would be concentrated during Phase II within the Park District with construction of Riverwalk River Park and Fashion Valley Road improvements, construction noise along the corridor would be audible during construction of Phases I, II, and III. Figure 5.8-3, *60 dBA Construction Noise Contours,* shows the approximately 67-dBA construction noise contour when measured from the San Diego River corridor using a reference level of 87 dBA at 50 feet as shown in Table 5.8-6. This contour is depicted because 67 dBA is the approximate point where construction noise would be partially masked by traffic on Friars Road, Fashion Valley Road, Hotel Circle North, and I-8 and mitigation would not be required. For construction purposes, the 67-dBA contour line represents the 60-dBA contour line or area within which construction mitigation would be required to avoid or minimize impacts to sensitive species. As noted, noise is expected to be transitory as grading equipment passes throughout this area. Thus, temporary, indirect impacts would occur from construction-generated noise and result in indirect noise impacts to sensitive bird species, breeding habitat, and adjacent foraging habitat.

Vibration

Activities associated with the operation of residential, retail, and office facilities are not high impact and thus, do not generate perceptible vibration. Thus, this discussion focuses on temporary vibration caused by construction. As referenced, the closest multi-family residences to the site are located to the east and west of the site along Friars Road 50 to 100 feet from the property line. Based on the information presented in Table 5.8-7, *Vibration Source Levels for Construction Equipment,* vibration levels from operation of a loaded truck or bulldozer bobcat/backhoe would attenuate to 87 VdB or less at 25 feet. As discussed above, 95 VdB is the threshold where minor damage can occur in fragile and/or historic buildings. Vibration levels are projected to be under this threshold; thus, structural damage is not expected to occur as a result of construction activities associated with the project.

As referenced, 72 VdB is the vibration threshold for residences and/or buildings where people sleep. Table 5.8-7 shows that construction equipment, with the exception of a small bulldozer, could exceed 72 VdB at varying distances across the site including the construction area along Fashion Valley Road. Construction activities would occur during daytime hours which would minimize sleep disturbance. Construction activities that cause vibration would be temporary; however, they may be perceptible at adjacent receivers. Temporary vibration impacts would be less than significant.

With respect to biological resources occurring along the San Diego River corridor, the approximate 72 VdB contour line is approximately 100 feet from the source. Vibration associated with construction work within approximately 100 feet from nests could be perceived by species within this area. Implementation of the biological mitigation measures outlined in the BTR would reduce overall vibration levels in

proximity to sensitive habitat in the San Diego River corridor to below a level of significance.

Table 5.8-7. *Vibration Source Levels for Construction Equipment*

Equipment	Approximate VdB				
	25 feet	50 feet	60 feet	75 feet	100 feet
Large Bulldozer	87	81	79	77	75
Loaded Trucks	86	80	78	76	74
Jackhammer	79	73	71	69	67
Small Bulldozer	58	52	50	48	46

Operational Noise

Exterior Traffic Noise

Traffic is the primary noise source that would be generated by the project. Existing measured noise levels in the project area exceed the 65 dBA residential standard. The highest measured noise level is 73.0 dBA along Hotel Circle North, south of the project site. Noise in this area is dominated by traffic on I-8. Existing noise levels along Friars Road between Fashion Valley Road and Fresno Street are approximately 69.3 dBA. Whether a significant noise impact would occur is based on whether project traffic, when added to the existing traffic, would cause the Leq to noticeably increase (+3 dBA) or exceed the 65 dBA exterior standard.

Traffic volumes for each of the three phases were obtained from the *Riverwalk Transportation Impact Analysis* prepared by Linscott, Law and Greenspan and Urban Systems Associates, Inc. (March 20, 2020). The three general construction phases were modeled individually with Phase III (South District) reflecting buildout conditions. Traffic-related noise impacts are addressed based on the difference in volumes between existing conditions and the proposed uses.

Evening (PM) peak hour project trips for existing conditions were modeled to determine baseline noise conditions. Project trips at buildout were then added to the baseline trips to determine whether the Leq at neighboring receivers would noticeably change or exceed 65 dBA as a result of project-related traffic. Noise levels were calculated for receivers located within the North, Central, and South Districts and at nearby sensitive receptors. The following receivers are intended to represent conditions at multiple receivers within proximity to these locations:

<u>North and Central Districts/Residential Development Along Friars Road</u>

1. Fashion Terrace Apartments – 6888 Friars Road;
2. Mission Greens Condominiums – 6717 Friars Road;
3. Centre Point Apartments – 6546 Friars Road;
4. The Bluffs Condominiums – 6406 Friars Road;
5. The Courtyards Condominiums – 5805 Friars Road;
6. Project site adjacent to and east of Receiver 5;
7. Project site south of Friars Road/Via Las Cumbres intersection;
8. Project site south of Receiver 4.

South District/Residential Development along Hotel Circle North

9. Towne and Country Hotel – 900 Fashion Valley Road;
10. Handlery Hotel – 938 Hotel Circle Drive North; and
11. Presidio View Apartments – 1436 Hotel Circle Drive.

Sites 6, 7, and 8 represent the location where apartment buildings associated with the project would be constructed. The noise levels reported are those calculated for the units closest to the adjacent roadways and, thus, representing worst-case conditions. Noise levels decrease with distance from the source and from screening associated with first tier structures. As referenced, the spot measurements taken adjacent to the southern property line and within the project site are approximately 60.0 dBA and less than the 65 dBA residential standard. As shown in Table 5.8-8, *Modeled Noise Levels*, the evening peak hour Leq exceeds the 65 dBA standard at all eight receiver locations modeled under baseline conditions.

The highest existing noise level is at Receiver ~~8~~11, which is located adjacent to and north of I-8. Because existing noise levels exceed the 65 dBA standard at all receivers modeled, to cause a significant noise impact, project related traffic would have to cause the existing Leq at one or more receivers to increase by three or more dBA. As shown in Table 5.8-8, traffic associated with Phase I (North District) of the project would have the greatest effect at Receivers 1, 3, 5, and ~~5~~6. Receivers 1 and 2 are exposed to traffic noise from both Friars Road and Fashion Valley Road. Receiver 3 is affected by volumes and related speeds on Friars Road west of Via Las Cumbres. However, the increase would ~~round to 3~~be less than three dBA. Thus, exterior traffic noise impacts would be less than significant under Phase I (North District).

Phase II (North, Central, and Park District) would not add enough traffic to noticeably increase noise levels at the receivers modeled. The largest increase is 0.8 dBA at Receivers 5 and 9, which reflects higher project volumes on Friars Road east of the project and on Fashion Valley Road south of the project. Phase III (South District) improvements would focus traffic on Fashion Valley Road and Hotel Circle North. This is reflected by the slight increase in noise levels at Receivers 9 and 11. Similarly, Phase III (South District) noise levels would change negligibly from Phase II (North, Central, and Park District) at Receivers 9-11.

Project-related traffic would have the largest noise increase during Phase I (North District) at the receivers located along Friars Road. However, this increase would be less than 3 dBA and, therefore, is not considered a significant impact. Noise levels at receivers south of the site are dominated by traffic on I-8 and Fashion Valley Road; thus, there would be no perceptible increase in noise levels in the South District. Operation of the proposed project would have no adverse impact on sound levels at existing receivers located in proximity to the site or receivers constructed as part of the project that front Friars Road.

~~Exterior Use Noise~~Stationary

The HVAC system proposed for use on the site has not been specified and noise levels vary depending on the system size. However, it is assumed that multiple HVAC compressor units would be installed on the rooftop or ground level of the proposed buildings located throughout the project. It is presumed that HVAC units would be installed in each building with systems providing heating/cooling for common areas would be installed on rooftops or within enclosures. Exterior HVAC noise levels can be expected to range from 60 to 70 dBA at five feet from the rooftop equipment and ventilation openings. Assuming HVAC

units are installed at the center of the rooftop and a reference noise level of 70 dBA, noise would attenuate to 52 dBA at 40 feet from the source. Roof-top HVAC noise would be less than the 65 dBA criteria at the project property line.

It is possible that ground-level HVAC units may be installed. The locations are not identified; however, noise levels are dependent on the size and location of these units relative to existing properties located in proximity to the project and properties developed as part of the project. If necessary, ground-level HVAC systems would be shrouded and ducted to minimize operational noise. It is unlikely that these units would cause the ambient Leq to increase by more than 3 dBA; however, because the location of these units is unknown, a project-specific evaluation cannot be performed. Mitigation measures would be required.

Active/Passive Park Uses

The project would include approximately 97 acres of park, open space, and trails, located generally along the San Diego River within the Park District and separating the North and Central Districts from the South District. The project would implement the San Diego River Park Master Plan, as modified in the Riverwalk Specific Plan, and incorporate and repurpose the existing golf course clubhouse into the project as a community amenity. The project site is within the City's MSCP Subarea Plan area. The City's MSCP Multi-Habitat Planning Area (MHPA) occurs within the central portion of the site along the San Diego River corridor. The Riverwalk River Park would be located north and south of the MHPA and inclusive of the MHPA occurring on the project site. The project includes habitat restoration and enhancement within the MHPA and the San Diego River corridor.

The active park portion of the Riverwalk River Park would encompass 40.19 acres and is located between 50 and 550 feet from the San Diego River corridor and the MHPA. Uses within the active park may include sports fields, picnic areas, fenced dog parks, playgrounds, water features, a ranger station, a recreation center, restroom facilities, ~~amphitheater,~~ walking/jogging/biking paths and trails, and other amenities. The passive park portion of the Riverwalk River Park is located adjacent to the MHPA and the San Diego River channel. Uses in this area would include walking/hiking trails and nature observation nodes with educational kiosks. Such passive recreation is compatible with the biological objectives of the City's MSCP Subarea Plan and MHPA; therefore, it is an appropriate use adjacent to the MHPA. The project also proposes a 50-foot wide no-use buffer (except proposed MSCP compliant trails attached to the two existing bridges on-site) flanking the San Diego River channel/MHPA. The passive park and no-use buffer function as a biological buffer established between the preserved/restored habitat along the San Diego River channel/MHPA and the active park and development areas.

Table 5.8-8. *Modeled Noise Levels*

Receiver	Baseline Leq	Exceed Standard?	With Project Leq	dBA Change	Significant Impact
Phase I (North District)					
Site 1	~~67.9~~67.4	Yes	~~71.0~~69.9	~~+3.1~~+2.5	No
Site 2	~~68.3~~68.4	Yes	70.0	~~+1.7~~+1.6	No
Site 3	~~68.7~~68.8	Yes	71.6	~~+2.9~~+2.8	No
Site 4	69.6	Yes	70.6	+1.0	No
Site 5	68.9	Yes	71.8	+2.~~8~~9	No
Site 6	66.7	Yes	~~67.5~~68.6	~~+0.7~~+2.1	No
Site 7	~~71.0~~67.9	Yes	~~71.9~~69.0	~~+0.9~~+1.1	No
Site 8	~~71.5~~68.1	Yes	~~72.3~~69.8	~~+0.8~~+0.7	No
Site 9	66.7	Yes	~~72.3~~67.5	+0.~~8~~7	No
Site 10	~~67.9~~71.0	Yes	~~69.0~~71.9	~~+1.1~~+0.9	No
Site 11	~~68.0~~71.5	Yes	~~69.8~~72.3	~~+1.9~~+0.8	No
Phase II (North, Central, and Park District)					
	Phase I Baseline		Phase I		
Site 1	~~71.0~~69.9	Yes	~~70.5~~70.0	~~-0.5~~+0.1	No
Site 2	70.0	Yes	~~69.8~~69.6	~~-0.2~~-0.4	No
Site 3	71.6	Yes	71.1	-0.5	No
Site 4	70.6	Yes	70.6	+/-0.0	No
Site 5	71.8	Yes	72.6	+0.8	No
Site 6	~~67.5~~68.6	Yes	~~68.3~~69.2	+0.8	No
Site 7	~~71.9~~69.0	Yes	~~72.6~~69.0	+/-0.5~~0~~	No
Site 8	~~72.3~~69.8	Yes	~~73.0~~69.4	+0.~~7~~5	No
Site 9	~~68.6~~67.5	Yes	~~69.2~~68.3	+0.6~~8~~	No
Site 10	~~69.0~~71.9	Yes	~~69.0~~72.3	~~+/-~~0.0~~4~~	No
Site 11	~~69.8~~72.3	Yes	~~69.4~~73.0	~~-0.5~~+0.7	No
Phase III (South District)					
	Phase II Baseline		Phase IIII		
Site 1	~~70.5~~70.0	Yes	~~70.5~~70.0	+/-0.0	No
Site 2	~~69.8~~69.6	Yes	69.8	+/-0.0	No
Site 3	71.1	Yes	71.1	+/-0.0	No
Site 4	70.6	Yes	70.6	+/-0.0	No
Site 5	72.6	Yes	72.6	+/-0.0	No
Site 6	~~68.3~~69.2	Yes	~~68.4~~69.2	~~+0.1~~+/-0.0	No
Site 7	~~72.6~~69.0	Yes	~~72.4~~69.0	~~-0.02~~+/-0.0	No
Site 8	~~73.0~~69.4	Yes	~~73.1~~69.4	~~+0.1~~+/-0.0	No
Site 9	~~69.2~~68.3	Yes	~~69.2~~68.3	+/-0.0	No
Site 10	~~69.0~~72.3	Yes	~~69.0~~72.6	~~+/-0.0~~+0.3	No
Site 11	~~69.4~~73.0	~~N/A~~Yes	~~69.4~~73.0	+/-0.0	No

As referenced in the Riverwalk BTR, the MSCP Land Use Adjacency Guidelines require that uses in or adjacent to the MHPA be designed to minimize noise impacts. Passive park uses located adjacent to the MHPA are not expected to generate noise levels that would adversely impact sensitive avian species occurring within the MHPA. Active park uses are evaluated herein to determine whether those facilities could generate noise levels that would exceed 60 dBA Leq, the generally accepted noise level established to determine impacts to avian sensitive species.

Reference noise levels for various active outdoor recreational uses were obtained for the purpose of evaluating potential impacts to sensitive species. The reference noise levels are summarized as follows:

- Soccer/outdoor field games – 52 dBA at 210 feet from the center of the field;
- Basketball/Sport Courts – 64 dBA Leq at 40 feet from the center of court;
- Softball fields –75 dBA at 25 feet from home plate;
- Dog park – 52 dBA at 30 feet from park boundary;
- Playground - 64 dBA at 25 feet from the main concentration of activity; and
- ~~Amphitheater - 94 dBA at 20 feet from front of amplified speakers; and~~
- Walking Trail/Picnic Area – 60 dBA at five feet.

Noise associated with the use of walking trails and picnic areas are assumed to be conversations between people using these facilities. Noise associated with ball fields and playground also could exceed the 60 dBA level if located too close to the MHPA. The proposed distance for these uses from the MHPA would reduce the noise levels within the MHPA to below 60 dBA. Walking trails, picnic areas, and dog park uses were found to have a less than 60 dBA noise level and, therefore, have no specific, noise related, distance buffer requirements from the MHPA. ~~Of the above potential uses, the amphitheater has the highest potential to produce excessive noise. As envisioned, any amphitheater would be designed to project away from the San Diego River corridor. Attenuation would be typical of a stationary noise source (i.e., six dBA per doubling of distance). The reference level at the amphitheater location would be 93 dBA at 12 feet, and noise levels would attenuate by six dBA per doubling of distance.~~ Table 5.8-9, *Active Park Noise Levels at MHPA Boundary*, shows projected noise levels at the MHPA boundary line based on the reference levels above and distance from each source.

Provided design of the active park areas are consistent with City of San Diego Council Policy 600-33 and adheres to distance guidelines shown in Table 5.8-9, noise associated with use of the active recreation areas, ~~with the exception of the amphitheater,~~ would not exceed 60 dBA at the MHPA boundary provided they are constructed beyond the 60 dBA contour line shown on Figure 5.8-3. ~~Noise levels associated with performances at the amphitheater would be approximately 66 dBA at the MHPA boundary assuming a reference level of 93 dBA at the shell front and location of the shell. Impacts to sensitive wildlife species within the San Diego River corridor could be significant and adverse without mitigation. Implementation of mitigation measure 5.8-2 would reduce impacts associated with use of the amphitheater to less than significant.~~

Table 5.8-9. *Active Park Noise Levels at MHPA Boundary*

Source	Reference Level	Approximate Distance to 60 dBA Contour	Approximate Distance to MHPA Boundary
Soccer Field[1]	52 dBA	0 feet	600 feet
Basketball/Sport Court[2]	64 dBA	80 feet	600 feet
Softball Field[2]	75 dBA	140 feet	600 feet
Dog Park[3]	52 dBA	0 feet	80 feet
Playground[4]	64 dBA	50 feet	200 feet
~~Amphitheater[5]~~	~~87 dBA to 93 (front of shell)~~	~~500 feet (using 93-dBA reference level)~~	~~500 feet~~
Walking Trails/Picnic Areas	60 dBA	0 feet	50 feet

Sources:
[1]EMC Planning Group, Inc., *Noise Assessment Study for High School Number 5, Salinas, CA.*, June 2011.
[2]Ldn Consulting, Inc. *Point Loma High School Environmental Impact Report Noise Study,* February 2016.
[3]Rincon Consultants, Beverly Hills Dog Park Project Draft Initial Study – Mitigated Negative Declaration, July 2015.
[4]Ldn Consulting, Inc. *Christian Elementary School at Faith Chapel Preliminary Noise Study*, February 2016.
~~[5]Los Angeles Unified School District, Central LA Area New High School No. 11, Environmental Impact Report, 2004.~~

~~Performances at the amphitheater would likely be audible along the western and northern boundaries of the South District. Thus, if residential units are constructed in the South District, exterior noise levels may exceed the 65 dBA standard within outdoor spaces (i.e., balconies and common areas). As discussed above, noise generated at the amphitheater shell would attenuate approximately six dBA per doubling of distance. Using a reference level of 93 dBA at the shell front, noise during performances would attenuate to approximately 65 dBA at 300 feet. As described, construction requirements and materials required per Title 24 would result in approximately a 30 dBA reduction in exterior noise levels. Provided the amphitheater shell is located 300 feet or more from residential units constructed in the South District, interior noise levels would be approximately 35 dBA with windows doors closed. Interior noise levels would be less than the 45 dBA residential interior standard.~~

There would be a minimum of approximately 150 feet and a maximum of approximately 520 feet between the 60-dBA contour (for any proposed use) and the MHPA, and that noise buffer area would include passive park, the 50-foot no-use buffer, and habitat restoration areas. Construction related noise from such sources as clearing, grading, and construction vehicular traffic, however, could be excessive temporarily during the breeding season of sensitive species, and excessive noise must be avoided or minimized.

Grading activities could exceed the City's 60 dBA Leq threshold along the San Diego River corridor where sensitive bird species are known to occur. Thus, temporary, indirect impacts are likely to arise from construction-generated noise. If unmitigated, construction noise could result in nest abandonment or avoidance of habitat. Any potential indirect noise impacts to sensitive bird species, breeding habitat, and adjacent foraging habitat would be considered a significant impact requiring mitigation.

Significance of Impacts

Construction

Construction of the project would not generate noise levels that exceed the 75-dBA threshold and thus, ~~may~~ would not have temporary adverse noise impacts. ~~The project would implement conditions directed at ameliorating nuisance level noise associated with construction.~~ While no significant construction noise impacts would occur, construction activities would include the implementation of best management practices to minimize nuisance level noise to the extent possible. However, grading activities that exceed the City's 60 dBA threshold could occur adjacent to the San Diego River Corridor, where sensitive bird species are known to occur. Construction noise could result in nest abandonment or avoidance of habitat, resulting in a potential indirect impact. Temporary impacts to sensitive bird species during construction would be considered significant.

Operation

Assuming that exterior HVAC units are installed at the center of the roof tops, a 70-dBA reference noise level would attenuate to 52-dBA at 40 feet from the source. Roof top HVAC noise would be less than the 65-dBA criteria at the project property line. Depending on the size and location of ground-level HVAC units, ambient conditions may increase by three dBA or more and impacts would be potentially significant.

Active park uses including walking trails, the sports court, soccer field, softball field, and the dog park, would not cause significant or adverse noise impacts at the MHPA boundary. ~~Noise levels during individual events at the amphitheater could exceed 80 dBA the MHPA boundary depending on the location and orientation of the amphitheater.~~ Potentially significant impacts to wildlife in the MHPA ~~could~~ would not result.

Mitigation Measures

Mitigation measure~~s~~ MM 5.8-1 ~~and MM 5.8-2~~ would reduce operational noise levels of the proposed facilities to less than significant.

MM 5.8-1: Prior to issuance of Building Permit the City shall require the design and installation of stationary noise sources for the project to include the following:

- Implement best design considerations and shielding, including installing stationary noise sources associated with HVAC systems indoors in mechanical rooms.
- Prior to the installation of equipment, the applicant or its designee shall prepare an acoustical study(s) of proposed mechanical equipment, which shall identify all noise-generating equipment, predict noise level property lines from all identified equipment, and recommended mitigation to be implemented (e.g., enclosures, barriers, site orientation), as necessary, to comply with the City of San Diego noise ordinance.

~~**MM 5.8-2:** As part of any General Development Plan for the Riverwalk River Park, if an amphitheater is included in the site plan, Owner/Permittee shall perform an acoustical evaluation of the amphitheater, to be reviewed by both DSD and MSCP, that identifies the location and orientation of the amphitheater and confirms that noise levels from the amphitheater would not exceed 60 dBA hourly average at the MHPA boundary.~~

Significance of Impacts Following Implementation of Mitigation Measures

Implementation of mitigation measure MM 5.8-1 would reduce potentially adverse impacts associated with ground-level HVAC units to below a level of significance. ~~Implementation of mitigation measure MM 5.8-2 would reduce potential impacts associated with the amphitheater to below a level of significance.~~

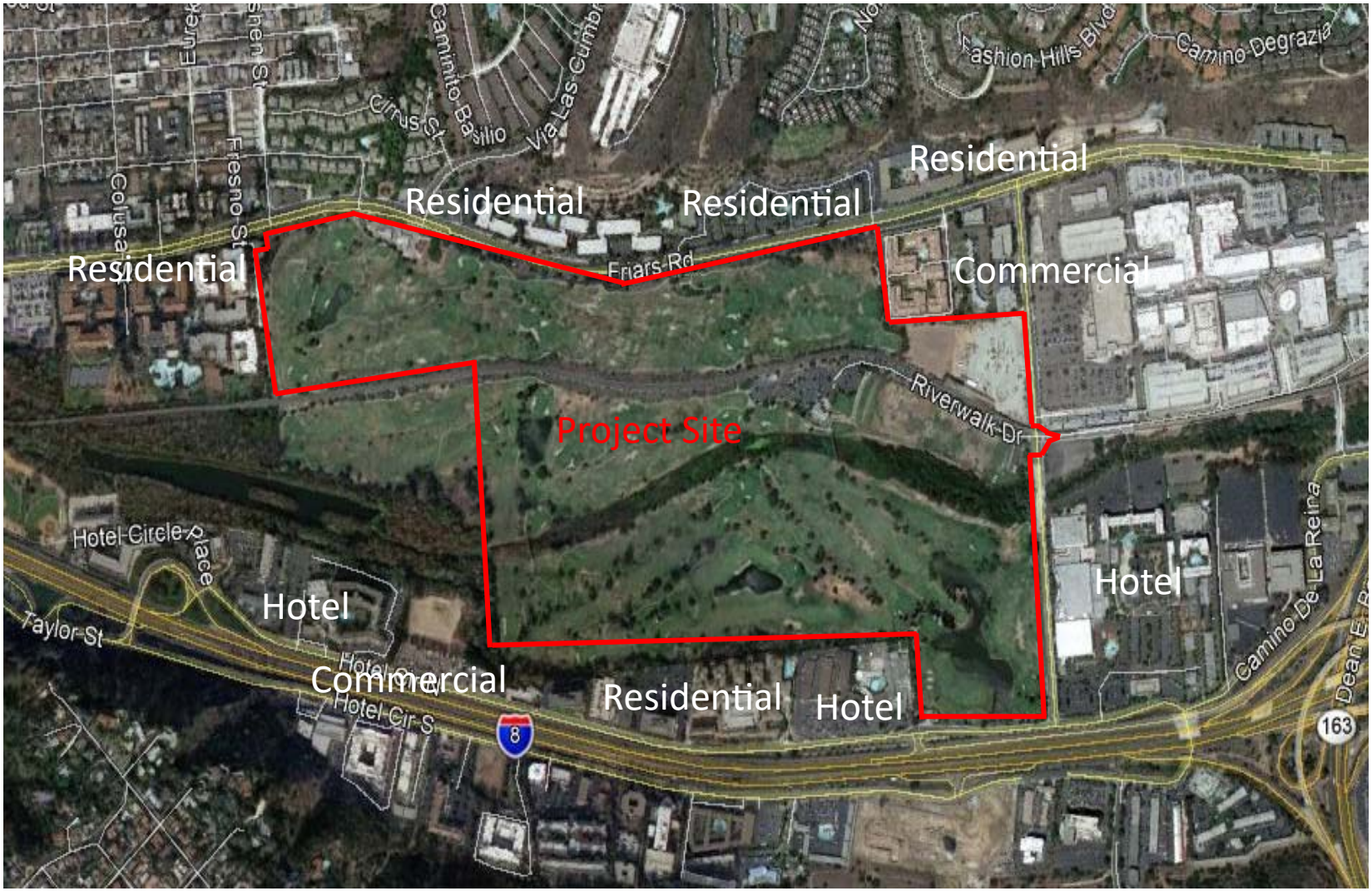


Figure 5.8-1. *Surrounding Land Uses*

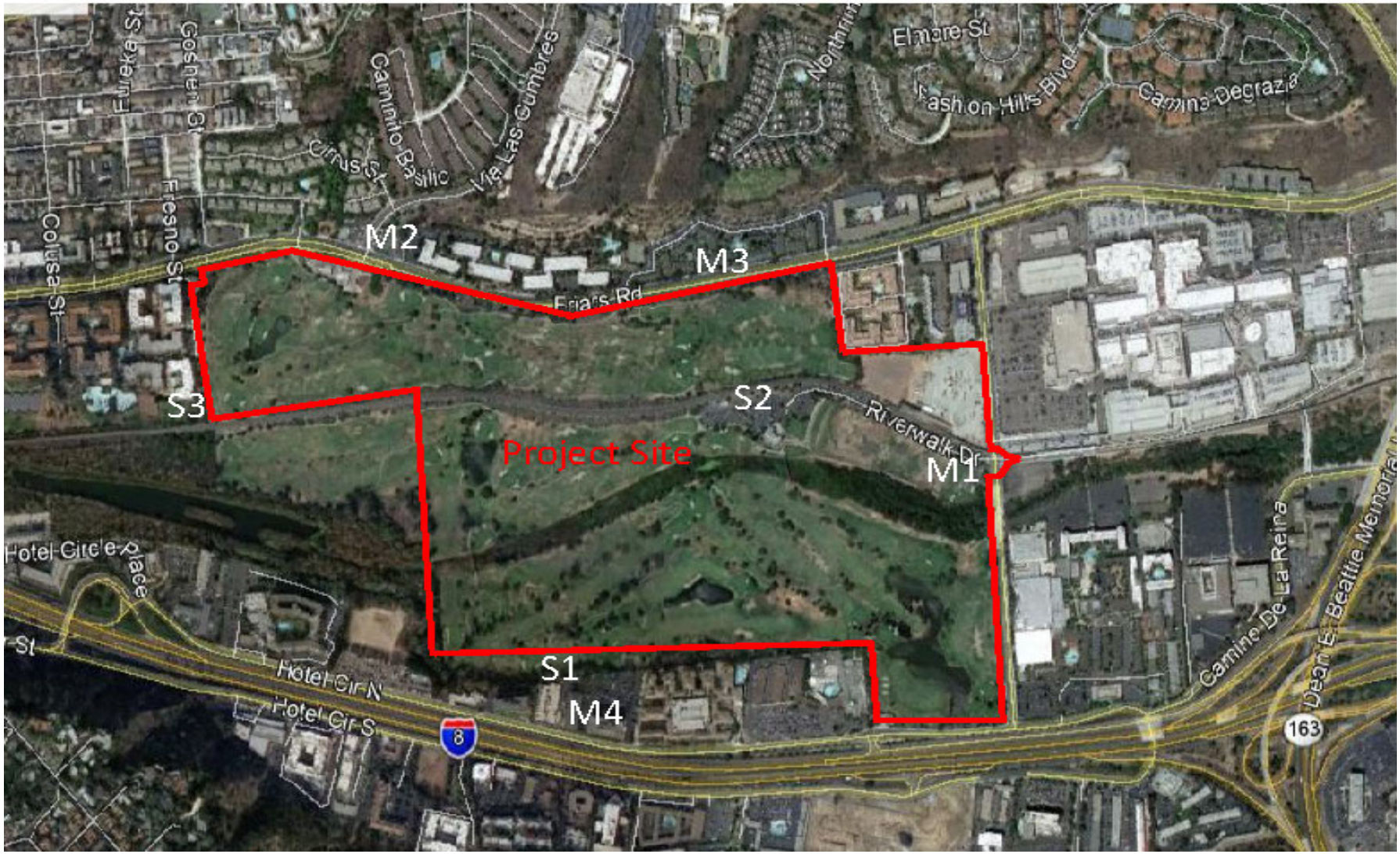


Figure 5.8-2. ***Noise Monitoring Locations***

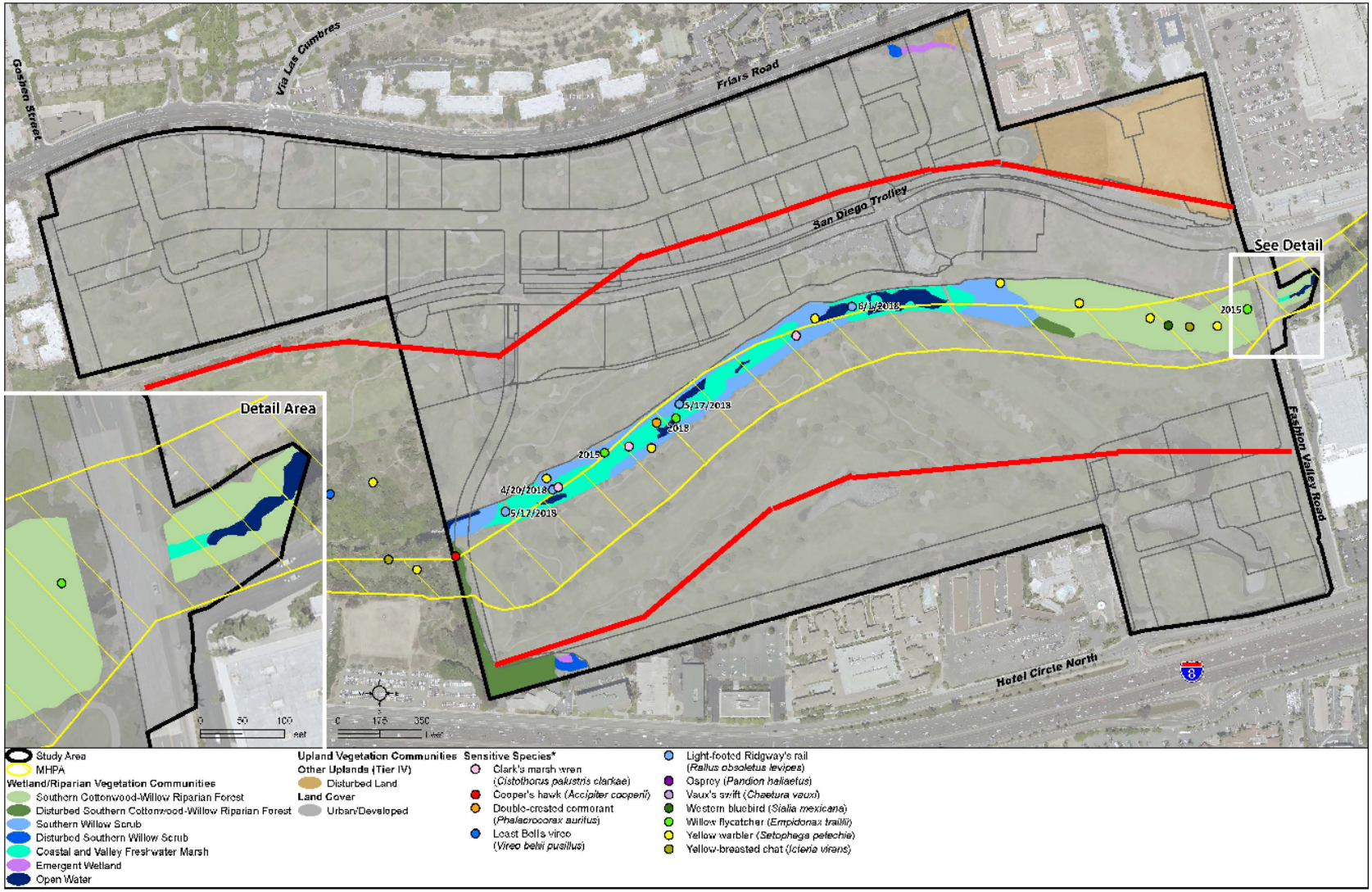


Figure 5.8-3. *60 dBA Construction Noise Contours*

5.9 Greenhouse Gas Emissions

This section evaluates potential greenhouse gas emissions-related impacts associated with the project. The following discussion is based on the *Climate Action Plan Conformance Evaluation* and *Climate Action Plan Consistency Checklist* prepared by KLR Planning (April 2020), attached as Appendix C1 and Appendix C2, respectively.

5.9.1 Existing Conditions

5.9.1.1 Background

Global Climate Change (GCC) refers to any significant change in measures of climate, such as temperature, precipitation, or wind patterns that last for an extended period of time. The earth's temperature depends on the balance between energy entering and leaving the planet's system. Many factors, both natural and human, can cause changes in earth's energy balance, including variations in the sun's energy that reaches Earth, changes in the reflectivity of Earth's atmosphere and surface, and changes in the greenhouse effect, which affects the amount of heat retained by Earth's atmosphere.

The greenhouse effect is the trapping and buildup of heat in the atmosphere (troposphere) near the earth's surface. The greenhouse effect traps heat in the troposphere through a threefold process as follows: short-wave radiation emitted by the sun is absorbed by the earth, the earth emits a portion of this energy in the form of long-wave radiation, and GHGs in the upper atmosphere absorb this long-wave radiation and emit it into space and toward earth. The greenhouse effect is a natural process that contributes to regulating the earth's temperature.

Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation absorbed before escaping into space; thus, enhancing the greenhouse effect and causing the earth's surface temperature to rise. The scientific record of the earth's climate shows that the climate system varies naturally over a wide range of time scales, and that in general, climate changes prior to the Industrial Revolution in the 1700s can be explained by natural causes, such as changes in solar energy, volcanic eruptions, and natural changes in GHG concentrations. However, recent climate changes, specifically the warming observed over the past century, cannot be explained by natural causes alone. Rather, human activity may have been the dominant cause of warming since the mid-twentieth century and are thought to be a significant driver of observed climate change. Human influence on the climate system is evident from the increasing GHG concentrations in the atmosphere, positive radiative forcing, observed warming and improved understanding of the climate system. The atmospheric concentrations of GHGs have increased primarily from fossil fuel emissions and secondarily from emissions associated with land use changes. Continued emissions of GHGs may cause further warming and changes in all components of the climate system.

GCC and GHGs have been at the center of a widely contested political, economic, and scientific debate. Although the conceptual existence of GCC is generally accepted, the extent to which GHGs generally and anthropogenic-induced GHGs contribute to it remains a source of debate. The State of California has been at the forefront of developing solutions to address GCC.

The United Nations Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. The IPCC concluded that a stabilization of GHGs at 400 to 450 ppm CO_2 equivalent concentration is required to keep global mean warming below 3.6ºFarenheight (2º Celsius), which is assumed to be necessary to avoid dangerous climate change.

State law defines greenhouse gases as any of the following compounds: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6) [California Health and Safety Code Section 38505(g)]. CO_2, followed by CH_4 and N_2O, are the most common GHGs that result from human activity.

5.9.1.2 Sources and Global Warming Potentials of GHG

Anthropogenic sources of CO_2 include combustion of fossil fuels (coal, oil, natural gas, gasoline, and wood). CH_4 is the main component of natural gas and also arises naturally from anaerobic decay of organic matter. Accordingly, anthropogenic sources of CH_4 include landfills, fermentation of manure, and cattle farming. Anthropogenic sources of N_2O include combustion of fossil fuels and industrial processes such as nylon production and production of nitric acid. Other GHGs are present in trace amounts in the atmosphere and are generated from various industrial or other uses.

GHGs have varying global warming potential (GWP). The GWP is the potential of a gas or aerosol to trap heat in the atmosphere; it is the *cumulative radiative forcing effect of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to a reference gas* (EPA 2006). The reference gas for GWP is CO_2; therefore, CO_2 has a GWP of one. The other main greenhouse gases that have been attributed to human activity include CH_4, which has a GWP of 28, and N_2O, which has a GWP of 265. Table 5.9-1, *Global Warming Potentials and Atmospheric Lifetimes of GHGs,* presents the GWP and atmospheric lifetimes of common GHGs. In order to account for each GHG's respective GWP, all types of GHG emissions are expressed in terms of CO_2 equivalents (CO_2e) and are typically quantified in metric tons (MT) or millions of metric tons (MMT).

Table 5.9-1. *Global Warming Potentials and Atmospheric Lifetimes of GHGs*

GHG	Formula	100-Year Global Warming Potential	Atmospheric Lifetime (Years)
Carbon Dioxide	CO_2	1	Variable
Methane	CH_4	28	12
Nitrous Oxide	N_2O	265	121
Sulfur Hexafluoride	SF_6	23,500	3,200
Hydrofluorocarbons	HFCs	100 to 12,000	1 to 100
Perfluorocarbons	PFCs	7,000 to 11,000	3,000 to 50,000
Nitrogen Trifluoride	NF_3	16,100	500

Source: First Update to the Climate Change Scoping Plan, ARB 2014

CARB compiled a statewide inventory of anthropogenic GHG emissions and sinks that includes estimates for CO_2, CH_4, N_2O, SF_6, HFCs, and PFCs. The current inventory covers the years 1990 to 2012, and is summarized in Table 5.9-2, *State of California GHG Emissions by Sector*. Data sources used to calculate this GHG inventory include California and federal agencies, international organizations, and industry associations. The calculation methodologies are consistent with guidance from the IPCC. The 1990 emissions level is the sum total of sources and sinks from all sectors and categories in the inventory. The inventory is divided into seven broad sectors and categories in the inventory. These sectors include: Agriculture, Commercial, Electricity Generation, Forestry, Industrial, Residential, and Transportation.

Table 5.9-2. *State of California GHG Emissions by Sector*

Sector	Total 1990 Emissions ($MMTCO_2e$)	Percent of Total 1990 Emissions	Total 2012 Emissions ($MMTCO_2e$)	Percent of Total 2012 Emissions
Agriculture	23.4	5%	37.86	8%
Commercial	14.4	3%	14.20	3%
Electricity Generation	110.6	26%	95.05	21%
Forestry (excluding sinks)	0.2	<1%	Not reported	--
Industrial	103.0	24%	89.16	19%
Residential	29.7	7%	28.09	6%
Transportation	150.7	35%	167.38	36%
Recycling and Waste	Not reported	--	8.49	2%
High GWP Gases	Not reported	--	18.41	4%
Forestry Sinks	(6.7)	--	Not reported	--

In its Climate Action Plan, the City identified the 2010 baseline for GHG emissions of 13,091,591 million metric tons equivalent CO_2 (MT CO_2e). Based on the community-wide emissions inventory, 55 percent of the baseline emissions are attributable to transportation, 23 percent are attributable to electricity use, 17 percent are attributable to natural gas use, and five percent are attributable to solid waste and wastewater handling and treatment.

5.9.1.3 Typical Adverse Effects

The Climate Scenarios Report (2006) uses a range of emissions scenarios developed by the IPCC to project a series of potential warming ranges (i.e., temperature increases) that may occur in California during the 21st Century. Three warming ranges were identified: lower warming range (3.0 °F to 5.5 °F); medium warming range (5.5 to 8.0 °F); and higher warming range (8.0 °F to 10.5 °F). The Climate Scenarios Report then presents an analysis of the future projected climate changes in California under each warming range scenario.

According to the report, substantial temperature increases would result in a variety of impacts to the people, economy, and environment of California. These impacts would result from a projected increase in extreme conditions, with the severity of the impacts depending upon actual future emissions of GHGs and associated warming. These impacts are described below.

Public Health

Higher temperatures are expected to increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to O_3 formation are projected to increase by 25 to 35 percent under the lower warming range and 75 to 85 percent under the medium warming range. In addition, if global background O_3 levels increase as is predicted in some scenarios, it may become impossible to meet local air quality standards. An increase in wildfires could also occur, and the corresponding increase in the release of pollutants including $PM_{2.5}$ could further compromise air quality. The Climate Scenarios Report indicates that large wildfires could become up to 55 percent more frequent of GHG emissions are not significantly reduced.

Potential health effects from GCC may arise from temperature increases, climate-sensitive diseases, extreme events, and air quality. There may be direct temperature effects through increases in average temperature leading to more extreme heat waves and less extreme cold spells. Those living in warmer climates are likely to experience more stress and heat-related problems (e.g., heat rash and heat stroke). In addition, climate sensitive diseases (such as malaria, dengue fever, yellow fever, and encephalitis) may increase, such as those spread by mosquitoes and other disease-carrying insects.

Water Resources

A vast network of reservoirs and aqueducts capture and transport water throughout the State from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada mountain snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages. In addition, if temperatures continue to rise more precipitation would fall as rain instead of snow, further reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. The State's water resources are also at risk from rising sea levels. An influx of seawater would degrade California's estuaries, wetlands, and groundwater aquifers.

Agriculture

Increased GHG and associated increases in temperature are expected to cause widespread changes to the agricultural industry, reducing the quantity and quality of agricultural products statewide. Significant reductions in available water supply to support agriculture would also impact production. Crop growth and development would change as would the intensity and frequency of pests and diseases.

Ecosystems/Habitats

Continued global warming would likely shift the ranges of existing invasive plants and weeds, thus altering competition patterns with native plants. Range expansion is expected in many species while range contractions are less likely in rapidly evolving species with significant populations already established. Continued global warming is also likely to increase the populations of and types of pests. Continued global warming would also affect natural ecosystems and biological habitats throughout the state.

Wildland Fires

Global warming is expected to increase the risk of wildfire and alter the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55 percent, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors including precipitation, winds, temperature, and landscape and vegetation conditions, future risks would not be uniform throughout the state.

Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures would increasingly threaten the State's coastal regions. Under the high warming scenario, sea level is anticipated to rise 22 to 35 inches by 2100. A sea level risk of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten levees and inland water systems, and disrupt wetlands and natural habitats.

Sea levels rose approximately seven inches during the last century and the State of California predicts an additional rise of 10 to 17 inches by 2050 and a rise of 31 to 69 inches by 2100, depending on the future levels of GHG emissions. If this occurs, resultant effects could include increased coastal flooding. Sea level rise adaptation strategies include strategies that involve construction of hard structures as barriers, such as seawalls and levees; soft structure strategies such as wetland enhancement, detention basins, and other natural strategies; accommodation strategies that include grade elevations, elevated structures, and other building design options; and withdrawal strategies that limit development to areas unaffected by sea level rise.

Compliance with IBMC Section 15.50.160, *Flood Hazard Reduction Standards*, would require development within coastal high hazard areas to be elevated above the base flood level and be adequately anchored to resist flotation, collapse, and lateral movement as detailed in the regulatory framework section. The project is not within the coastal high hazard area, and is therefore not subject to the standards.

5.9.2 Regulatory Framework

All levels of government have some responsibility for the protection of air quality, and each level (Federal, State, and regional/local) has specific responsibilities relating to air quality regulation. GHG emissions and the regulation of GHGs is a relatively new component of this air quality regulatory framework.

5.9.2.1 Federal

In 1988, the United Nations and the World Meteorological Organization established the IPCC to assess the scientific, technical, and socioeconomic information relevant to understanding the scientific basis for human-induced climate change, its potential impacts, and options for adaptation and mitigation. The most recent reports of the IPCC have emphasized the scientific consensus that real and measurable changes to the climate are occurring, that they are caused by human activity, and that significant adverse impacts on the environment, the economy, and human health and welfare are unavoidable.

On March 21, 1994, the United States joined a number of countries around the world in signing the United Nations Framework Convention on Climate Change. Under the Convention, governments agreed to gather and share information on GHG emissions, national policies, and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of global climate change. The U.S. Supreme Court rules in *Massachusetts v. Environmental Protection Agency*, 549 U.S. 497 (2007), that EPA has the ability to regulate GHG emissions. In addition to the national and international efforts described above, many local jurisdictions have adopted climate change policies and programs.

On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the Federal CAA:

> **Endangerment Finding:** EPA found that the current and projected concentrations of the six key well-mixed GHGs (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) in the atmosphere threaten the public health and welfare of current and future generations.
>
> **Cause or Contribute Finding:** EPA found that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution which threatens public health and welfare.

These findings do not themselves impose any requirements on industry or other entities. However, this action was a prerequisite to finalizing the EPA's proposed greenhouse gas emission standards for light-duty vehicles, which were jointly proposed by EPA and the Department of Transportation's National Highway Safety Administration (NHTSA) in two phases: Phase 1 – Model Years 2012-2016 and Phase 2 – Model Years 2017 – 2025. The proposed standards for Model Years 2017-2025 are projected to achieve 163 grams/mile of CO_2 in Model Year 2025 on an average industry fleet-wide basis, which is equivalent to

54.5 miles per gallon if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for Model Years 2017–2021, and NHTSA intends to set standards for Model Years 2022–2025 in a future rulemaking. In addition to these regulations applicable to cars and light-duty trucks, in 2011, EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for Model Years 2014–2018. The standards for CO_2 emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the EPA, this regulatory program would reduce GHG emissions and fuel consumption for the affected vehicles by six percent to 23 percent over the 2010 baselines.

In August 2016, EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program would apply to Model Years 2018–2027 vehicles for certain trailers, and Model Years 2021–2027 for semitrucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower CO_2 emissions by approximately 1.1 billion MT and reduce oil consumption by up to two billion barrels over the lifetime of the vehicles sold under the program

Mandatory GHG Reporting Rule

On March 10, 2009, in response to the fiscal year (FY) 2008 Consolidated Appropriations Act (House Resolution (H.R.) 2764; Public Law 110–161), the EPA proposed a rule that requires mandatory reporting of GHG emissions from large sources in the United States. On September 22, 2009, the Final Mandatory Reporting of Greenhouse Gases Rule was signed, and was published in the Federal Register on October 30, 2009. The rule became effective on December 29, 2009. The rule would collect accurate and comprehensive emissions data to inform future policy decisions.

The EPA requires suppliers of fossil fuels or industrial greenhouse gases, manufacturers of vehicles and engines, and facilities that emit 25,000 MT or more per year of GHG emissions to submit annual reports to EPA. The gases covered by the proposed rule are CO_2, CH_4, N_2O, HFC, PFC, SF_6, and other fluorinated gases, including nitrogen trifluoride (NF_3) and hydrofluorinated ethers (HFE).

5.9.2.2 State

The following subsections describe regulations and standards that have been adopted by the State of California to address GCC issues.

Assembly Bill 32, the California Global Warming Solutions Act of 2006

The California Global Warming Solutions Act of 2006, widely known as AB 32, requires that CARB develop and enforce regulations for the reporting and verification of statewide GHG emissions. CARB is directed to set a GHG emission limit, based on 1990 levels, to be achieved by 2020. The bill requires CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions.

Senate Bill 97

Senate Bill 97, enacted in 2007, amends the CEQA statute to clearly establish that GHG emissions and the effects of GHG emissions are appropriate subjects for CEQA analysis. It directs OPR to develop draft CEQA guidelines "for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions" by July 1, 2009, and directs the Resources Agency to certify and adopt the CEQA guidelines by January 1, 2010.

Executive Order S-3-05

On June 1, 2005, EO S-3-05 proclaimed that California is vulnerable to climate change impacts. It declared that increased temperatures could reduce snowpack in the Sierra Nevada, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. In an effort to avoid or reduce climate change impacts, Executive Order S-3-05, signed by Governor Schwarzenegger on June 1, 2005, calls for a reduction in GHG emissions to 1990 levels by 2020 and for an 80 percent reduction in GHG emissions by 2050. Executive Order S-3-05 also calls for the CalEPA to prepare biennial science reports on the potential impact of continued GCC on certain sectors of the California economy. The first of these reports, *Our Changing Climate: Assessing Risks to California*, and its supporting document *Scenarios of Climate Change in California: An Overview* were published by the California Climate Change Center in 2006.

Executive Order B-30-15

On April 29, 2015, executive Order B-30-15 established an interim GH emission reduction goal for the State of California to reduce GHG emissions to 40 percent below 1990 levels by the Year 2030. This Executive Order directs all state agencies with jurisdiction over GHG-emitting sources to implement measures designed to achieve the new interim 2030 goal, as well as the pre-existing, long-term 2050 goal identified in Executive Order S-3-05 to reduce GHG emissions to 80 percent below 1990 levels by the Year 2050. The Executive Order directs ARB to update its Scoping Plan to address the 2030 goal. It is anticipated that ARB would develop statewide inventory projection data for 2030 and commence efforts to identify reduction strategies capable of securing emission reductions that allow for achievement of the new interim goal for 2030.

Executive Order S-21-09

Executive Order S-21-09 was enacted by Governor Schwarzenegger on September 15, 2009. Executive Order S-21-09 requires that the CARB, under its AB 32 authority, adopt a regulation by July 31, 2010, that sets a 33-percent renewable energy target as established in Executive Order S-14-08. Under Executive Order S-21-09, the CARB would work with the Public Utilities Commission and California Energy Commission to encourage the creation and use of renewable energy sources, and would regulate all California utilities. The CARB would also consult with the Independent System Operator and other load balancing authorities on the impacts on reliability, renewable integration requirements, and interactions with wholesale power markets in carrying out the provisions of the Executive Order. The order requires the CARB to establish highest priority for those resources that provide the greatest environmental benefits with the least environmental costs and impacts on public health.

CARB's Scoping Plan

On December 11, 2008, CARB adopted the Scoping Plan (CARB 2008) as directed by AB 32. The Scoping Plan proposes a set of actions designed to reduce overall GHG emissions in California to the levels required by AB 32. Measures applicable to development projects include those related to energy-efficiency building and appliance standards, the use of renewable sources for electricity generation, regional transportation targets, and green building strategy. Relative to transportation, the Scoping Plan includes nine measures or recommended actions related to reducing vehicle miles traveled and vehicle GHGs through fuel and efficiency measures. These measures would be implemented statewide rather than on a project-by-project basis.

In response to EO B-30-15 and SB 32, all state agencies with jurisdiction over sources of GHG emissions were directed to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 targets. CARB was directed to update the Scoping Plan to reflect the 2030 target and is moving forward with the update process. The mid-term target is critical to help frame the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure needed to continue driving down emissions. CARB has released a second update to the Scoping Plan to reflect the 2030 target set by EO B-30-15 and codified by SB 32. The 2017 Climate Change Scoping Plan Update, Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target, was adopted December 2017.

California Code of Regulations Title 24

Although not originally intended to reduce greenhouse gas emissions, California Code of Regulations Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The GHG emission inventory was based on Title 24 standards as of October 2005; however, Title 24 has been updated as of 2008 and standards are set to be phased in beginning in January 2010. The new Title 24 standards are anticipated to increase energy efficiency by 15 percent, thereby reducing GHG emissions from energy use by 15 percent. Energy efficient buildings require less electricity, natural gas, and other fuels. Electricity production from fossil fuels and on-site fuel combustion (typically for water heating) results in greenhouse gas emissions. Therefore, increased energy efficiency results in decreased greenhouse gas emissions.

Senate Bill 1078, Senate Bill 107, and Executive Order S-14-08

SB 1078 initially set a target of 20 percent of energy to be sold from renewable sources by the Year 2017. The schedule for implementation of the RPS was accelerated in 2006 with the Governor's signing of SB 107, which accelerated the 20 percent RPS goal from 2017 to 2010. On November 17, 2008, the Governor signed Executive Order S-14-08, which requires all retail sellers of electricity to serve 33 percent of their load with renewable energy by 2020. The Governor signed Executive Order S-21-09 on September 15, 2009, which directed ARB to implement a regulation consistent with the 2020 33 percent renewable energy target by July 31, 2010. The 33 percent RPS was adopted in 2010.

State Standards Addressing Vehicular Emissions

California Assembly Bill 1493 (Pavley) enacted on July 22, 2002, required the ARB to develop and adopt regulations that reduce greenhouse gases emitted by passenger vehicles and light duty trucks. Regulations adopted by ARB would apply to 2009 and later model year vehicles. ARB estimated that the regulation would reduce climate change emissions from light duty passenger vehicle fleet by an estimated 18 percent in 2020 and by 27 percent in 2030. Once implemented, emissions from new light duty vehicles are expected to be reduced in San Diego County by up to 21 percent by 2020.

The ARB has adopted amendments to the Pavley regulations that reduce GHG emissions in new passenger vehicles from 2009 through 2016. The amendments, approved by the ARB Board on September 24, 2009, are part of California's commitment toward a nation-wide program to reduce new passenger vehicle GHGs from 2012 through 2016, and prepare California to harmonize its rules with the Federal rules for passenger vehicles.

Executive Order S-01-07

Executive Order S-01-07 was enacted by the Governor on January 18, 2007, and mandates that: 1) a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least ten percent by 2020; and 2) a LCFS for transportation fuels be established for California. According to the San Diego County Greenhouse Gas Inventory (SDCGHGI), the effects of the LCFS would be a ten percent reduction in GHG emissions from fuel use by 2020. On April 23, 2009, the ARB adopted regulations to implement the LCFS.

Senate Bill 375

SB 375 finds that GHG from autos and light trucks can be substantially reduced by new vehicle technology, but even so *it would be necessary to achieve significant additional greenhouse gas reductions from changed land use patterns and improved transportation. Without improved land use and transportation policy, California would not be able to achieve the goals of AB 32*. Therefore, SB 375 requires that regions with metropolitan planning organizations adopt sustainable communities strategies, as part of their regional transportation plans, which are designed to achieve certain goals for the reduction of GHG emissions from mobile sources.

SB 375 also includes CEQA streamlining provisions for "transit priority projects" that are consistent with an adopted sustainable communities strategy. As defined in SB 375, a "transit priority project" shall: (1) contain at least 50 percent residential use, based on total building square footage and, if the project contains between 26 and 50 percent nonresidential uses, a floor area ratio of not less than 0.75; (2) provide a maximum net density of at least 20 dwelling units per acre; and (3) be within 0.5 mile of a major transit stop or high quality transit corridor.

5.9.2.3 Local

2050 Regional Transportation Plan

The SANDAG Board of Directors adopted the Regional Plan of record and associated EIR on October 5, 2015. The current Regional Plan, San Diego Forward, consists of an RTP and, as required by SB 375, an SCS that demonstrates how the region would achieve GHG emission reduction targets for passenger vehicles set by CARB. Since SANDAG is required by law to update its RTP every four years, the 2019 Regional Plan represents the next iteration of SANDAG's blueprint of future transportation investments and forecasted regional growth and land use change across the County through 2050.

City of San Diego Climate Action Plan

In December 2015, the City of San Diego adopted its CAP. The CAP establishes a baseline for 2010, sets goals for GHG reductions for the milestone years 2020 and 2035, and details the implementation actions and phasing for achieving the goals. To implement the State's goals of reducing emissions to 15 percent below 2010 levels by 2020, and 49 percent below 2010 levels by 2035, the City would be required to implement strategies that would reduce emissions to approximately 10.6 MMT CO_2e by 2020 and to 6.4 MMT CO_2e by 2035. The CAP determined that, with implementation of the measures identified therein, the City would exceed the State's targets for 2020 and 2035. The CAP also identifies a comprehensive set of goals, policies, and actions that the City can use to reduce GHG emissions. The CAP includes five strategies: (1) water- and energy-efficient buildings; (2) clean and renewable energy; (3) bicycling, walking, transit, and land use; (4) zero-waste; and (5) climate resiliency.

City of San Diego Climate Action Plan Consistency Checklist

To provide a mechanism for CEQA tiering, the City developed a CAP Consistency Checklist to provide a streamlined review process for GHG emissions for development subject to CEQA. The checklist contains measures that are required to be implemented on a project-by-project basis to ensure that the specified emissions targets identified in the CAP are achieved. Implementation of the measures identified in the checklist would ensure that new development is consistent with the CAP's assumptions for relevant CAP strategies toward achieving identified GHG reduction targets.

City of San Diego General Plan

The City's General Plan includes various goals and policies designed to help result in a reduction in GHG emissions. As discussed in the General Plan, climate change and GHG reduction policies are addressed in multiple chapters of the General Plan. The goal and policies related to GHG emissions relevant to the project are as follows:

Goal: To reduce the City' overall carbon dioxide footprint by improving energy efficiency, increasing use of alternative modes of transportation, employing sustainable planning and design techniques, and providing environmentally-sound waste management.

Policy CE-A.5 Employ sustainable or "green" building techniques for the construction and operation of buildings.

(a) Develop and implement sustainable building standards for new and significant remodels of residential and commercial buildings to maximize energy efficiency, and to achieve overall net zero energy consumption by 2020 for new residential buildings and 2030 for new commercial buildings. This can be accomplished through factors including, but not limited to:

- *Designing mechanical and electrical systems that achieve greater energy efficiency with currently available technology;*
- *Minimizing energy use through innovative site design and building orientation that addresses factors such as sun-shade patterns, prevailing winds, landscape, and sun-screens;*
- *Employing self-generation of energy using renewable technologies;*
- *Combining energy efficient measures that have longer payback periods with measures that have shorter payback periods;*
- *Reducing levels of non-essential lighting, heating and cooling; and*
- *Using energy efficient appliances and lighting.*

Policy CE-A-7 Construct and operate buildings using materials, methods, and mechanical and electrical systems that ensure a healthful indoor air quality. Avoid contamination by carcinogens, volatile organic compounds, fungi, molds, bacteria, and other known toxins.

(a) Eliminate the use of chlorofluorocarbon-based refrigerants in newly constructed facilities and major building renovations and retrofits for all heating, ventilation, air conditioning, and refrigerant-based building systems.

(b) Reduce the quantity of indoor air contaminants that are odorous or potentially irritating to protect installers and occupants' health and comfort. Where feasible, select low-emitting adhesives, paints, coatings, carpet systems, composite wood, agrifiber products, and others.

Policy CE-A.8 Reduce construction and demolition waste in accordance with Public Facilities Element, Policy PF-I.2, or be renovating or adding on to existing buildings, rather than constructing new buildings.

Policy CE-A.9 Reuse building materials, use materials that have recycled content, or use materials that are derived from sustainable or rapidly renewable sources to the extent possible, through factors including:

- *Scheduling time for deconstruction and recycling activities to take place during project demolition and construction phases;*

Policy CE-A.10 Include features in buildings to facilitate recycling of waste generated by building occupants and associated refuse storage areas.

a. Provide permanent, adequate, and convenient space for individual building occupants to collect refuse and recyclable material.

b. Provide a recyclables collection area that serves the entire building or project. The space should allow for the separation, collection and storage of paper, glass, plastic, metals, yard waste, and other materials as needed.

Policy CE-A.11 Implement sustainable landscape design and maintenance.

a. Use integrated pest management techniques, where feasible, to delay, reduce, or eliminate dependence on the use of pesticides, herbicides, and synthetic fertilizers.
c. Decrease the amount of impervious surfaces in developments, especially where public places, plazas and amenities are proposed to serve as recreation opportunities.
d. Strategically plant deciduous shade trees, evergreen trees, and drought tolerant native vegetation, as appropriate, to contribute to sustainable development goals.
e. Reduce use of lawn types that require high levels of irrigation.
f. Strive to incorporate existing mature trees and native vegetation into site designs.
h. Implement water conservation measures in site/building design and landscaping.
i. Encourage the use of high efficiency irrigation technology, and recycled site water to reduce the use of potable water for irrigation. Use recycled water to meet the needs of development projects to the maximum extent feasible.

Policy CE-A.12 Reduce the San Diego Urban Heat Island through actions as:

- *Using cool roofing materials, such as reflective, low heat retention tiles, membranes and coatings, or vegetated eco-roofs to reduce heat build-up;*
- *Planting trees and other vegetation, to provide shade and cool air temperatures. In particular, properly position trees to shade buildings, air conditions units, and parking lots; and*
- *Reducing heat build up in parking lots through increased shading or use of cool paving materials as feasible.*

5.9.3 Impact Analysis

5.9.3.1 Issue 1

Issue 1 *Would the project generate greenhouse gas emission, either directly or indirectly, that may have a significant impact on the environment?*

Impact Threshold

According to the City's Significance Determination Thresholds, projects that are consistent with the City's CAP, as determined through the CAP Consistency Checklist, would result in a less-than-significant cumulative impact regarding GHG emissions. If a project is not consistent with the City's CAP, as determined through the CAP Consistency Checklist, potentially significant cumulative GHG impacts would occur. For project-level environmental documents, significance is determined through the CAP Consistency Checklist.

Analysis

An assessment of the Specific Plan's conformance with the CAP was conducted through the CAP Conformance Evaluation (Appendix C1); whereas future development projects were assessed through the CAP Consistency Checklist (Appendix C2). Provided below are the results of the CAP Conformance Evaluation, followed by a summary of the project's consistency with the CAP Consistency Checklist.

The CAP Conformance Evaluation determined that the Riverwalk Specific Plan would be in conformance with the CAP. The project would implement the General Plan's City of Villages Strategy in a Transit Priority Area (TPA) by increasing the capacity for transit-supportive residential and employment densities. The project's land use and zoning would provide capacity for transit-supportive residential densities within a TPA and for transit-supportive employment by creating 1,152,000 combined square feet of employment uses (1,000,000 square feet employment use and 152,000 square feet of commercial use), which would increase the number of jobs within the TPA. Development of the Riverwalk project would be consistent with an Urban Village, defined by the General Plan as a land use that [*s]erves the region with many types of uses, including housing, in a high-intensity, mixed-use setting. Integration of commercial and residential use is emphasized; larger, civic uses and facilities are a significant component. Uses include housing, business/professional office, commercial service, and retail*. Riverwalk would provide for a high-intensity, mixed-use project that integrates residential, commercial, employment, and recreational uses within a TPA, consistent with the Mission Valley Community Plan. The Riverwalk Specific Plan includes accompanying implementation regulations to facilitate achievement of the Riverwalk's densities and intensities. The Specific Plan includes targets for residential density (4,300 units at a zoning designation that allows up to 109 du/ac) and non-residential intensity (152,000 square feet of commercial use and 1,000,000 square feet of employment uses), consistent with the Mission Valley Community Plan.

The project would implement the General Plan's Mobility Element in a TPA to increase transit use and would provide a new transit stop for the Green Line Trolley, which would include a trolley stop and

mobility hub. Future bus routes may be accommodated through the site, should MTS provide service in the future, as anticipated in the Mission Valley Community Plan. Development of the Riverwalk project would include transit priority measures, incorporating transit signal priority at at-grade trolley crossings. An exclusive transit way would be provided in the form of the dedicated Green Line trolley tracks running through and incorporated into the project site.

The Specific Plan would implement pedestrian improvements in a TPA to increase walking opportunities. The Riverwalk Specific Plan includes a varied and integrated pedestrian circulation network that would connect the various land uses (including residential, commercial, employment, and recreation) to each other and the new transit stop, consistent with the Mission Valley Community Plan. The Specific Plan includes policies to reinforce the pedestrian environment, addressing pedestrian-oriented site planning, materials, form and scale, massing, and activation.

The project would also implement the City of San Diego's Bicycle Master Plan to increase bicycling opportunities. Consistent with the Mission Valley Community Plan, Riverwalk is designed to efficiently accommodate bicycle traffic, with interconnected on-street and off-street facilities, such as bike lanes and multi-modal pathways. Riverwalk's streets contain elements that prioritize bicycle travel and encourage non-vehicular movement. The San Diego River Pathway that would be located on the north side of the San Diego River would accommodate bicyclists and would connect with bicycle facilities within Riverwalk, as well as the surrounding bicycle network. The bicycle network would also utilize the existing golf cart bridges to cross the San Diego River. The Riverwalk Specific Plan includes a circulation system that fully integrates pedestrian and bicycle connectivity, as anticipated in the Mission Valley Community Plan.

The Riverwalk project would include community-specific adaptation and resource conservation measures. The Riverwalk Specific Plan includes a greenbelt and street tree plan and would provide for the preservation of existing trees. Plant material selection would be selected to minimize the excessive use of water, pesticides, and fertilizers. The Riverwalk Specific Plan includes additional specific strategies and to support citywide energy, water, and waste reduction measures in support of the CAP, and includes policies as anticipated in the Mission Valley Community Plan. In accord with the City's Conservation Element and the Mission Valley Community Plan, Riverwalk seeks to reduce its *environmental footprint* and contribution of greenhouse gas emissions through an appropriate land use plan that contains a variety of land uses in proximity with one another (for example, local serving retail would provide food and beverage options for residents and guests) and connects those land uses in an efficient manner, promoting alternative modes of transportation and a variety of mobility options. These efforts are also in accordance with the City's Climate Action Plan, supporting not only the advancement of the City of Villages concept, but also promoting active transportation options and improving accessibility.

The City's CAP Consistency Checklist focuses on operational emissions associated with planned land uses and includes a three-step process to determine project if a project would result in a greenhouse impact. Step 1 consists of an evaluation to determine the project's consistency with existing General Plan, Community Plan, and zoning designations for the site. Step 2 consists of an evaluation of the project's compliance with the CAP strategies. Step 3 is only applicable if a project is not consistent with the land use and/or zone, but results in a more intensive project in a transit priority area than assumed in the CAP.

Step 1: Land Use Consistency

Step 1 of the CAP Consistency Checklist assesses *a project's consistency with the growth projections used in development of the CAP*. To evaluate land use consistency under Step 1, a project's consistency *with the existing General Plan and Community Plan land use and zoning designations* is evaluated.

The project's proposed land uses and development intensity/density are consistent with the Mission Valley Community Plan and zones that went into effect with adoption of the update to the Mission Valley Community Plan. Specifically, the project proposes development under the RM-4-10 and CC-3-9 Citywide base zones. The Riverwalk Specific Plan requires a rezone to adjust the boundaries of the adopted zones in some areas to match the development area of the project and proposes modifications to these zones to further implement the goals and guidelines of the Mission Valley Community Plan. The areas to be rezoned include the park areas located between the San Diego River and Riverwalk Drive (OP-1-1 to CC-3-9) and the area east of Lot 40 and south of Riverwalk Drive (CC-3-9 to OP-1-1). The rezone does not result in an inconsistency with the existing zoning designation; rather it is a refinement to the zone boundaries. Because the project is consistent with the Mission Valley Community Plan, it is consistent with the General Plan.

The project includes a Community Plan Amendment to align the Mission Valley Community Plan with the Riverwalk Specific Plan (Appendix DD). This includes revisions to the Planned Land Use map (Figure 4 of the Mission Valley Community Plan) to adjust the overall site boundary and the boundaries of the existing land use designations to be consistent with the Riverwalk Specific Plan and to remove the "To be completed" reference on the Riverwalk Specific Plan area label. Furthermore, the project site will be removed from the CPIOZ map (Figure 39 of the Mission Valley Community Plan), consistent with the proposed Land Development Code amendment, and slight text changes will be made indicating that the specific plans identified in the Specific Plan Subdistrict were adopted prior to the adoption of the current Mission Valley Community Plan. The CPA does not result in an inconsistency with the Mission Valley Community Plan, as the CPA is a refinement to the land use map within the community plan to match the project's land use plan.

Although a Community Plan Amendment and rezone are being requested, the project was anticipated in the Mission Valley Community Plan land use and zoning designation applied to the Specific Plan area. Therefore, Step 1 of the CAP Consistency Checklist is answered in the affirmative under Option A (*Is the proposed project consistent with the existing General Plan and Community Plan land use and zoning designations?)*.

Step 2: CAP Strategies Consistency

After determining consistency with Step 1 of the CAP Consistency Checklist, Step 2 *is* required *to review and evaluate a project's consistency with the applicable strategies and actions of the CAP*. The Project's conformance with each CAP Consistency Checklist measure is evaluated in Table 5.9-3, *CAP Strategies Consistency*.

As summarized in Table 5.9-3, *CAP Strategies Consistency*, the project would be consistent with all applicable CAP Consistency Checklist measures outlined in Step 2 and would be consistent with the City's CAP with respect to planning and land use strategies. The project would not impede the City's ability to implement the actions identified in the CAP to achieve the CAP's targets and associated GHG emission reductions.

Step 3: Project CAP Conformance Evaluation

Step 3 would only apply if Step 1 is answered in the affirmative under Option B (*If the proposed project is not consistent with the existing land use plan and zoning designations, and includes a land use plan and/or zoning designation amendment, would the proposed amendment result in an increased density within a Transit Priority Area (TPA) and implement CAP Strategy 3 actions, as determined in Step 3 to the satisfaction of the Development Services Department?*). As described above, Step 1 has been answered in the affirmative under Option A; therefore, Step 3 is not applicable. Nonetheless, Step 3 has been voluntarily completed to further demonstrate consistency with the CAP, as outlined above, and attached as Appendix C1 to this EIR.

Significance of Impacts

Both the Specific Plan and future projects associated with buildout of the plan would be consistent with the CAP. Therefore, the project would not result in a cumulatively significant generation of GHG emissions. Thus, impacts would be less than significant.

Mitigation Measures

No mitigation would be required.

5.9.3.2 Issue 2

Issue 2 *Would the project conflict with the City's Climate Action Plan or any applicable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gases?*

Impact Threshold

A project could result in a significant impact on greenhouse gas emissions if it would:

- Conflict with the City's Climate Action Plan or any applicable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gases.

Analysis

As discussed in Issue 1, above, the Specific Plan's conformance with the CAP was conducted through the CAP Conformance Evaluation (Appendix C1). In addition, future development projects were assessed through the CAP Consistency Checklist (Appendix C2). Based on the project's consistency with the CAP Consistency Checklist strategies, the project's contribution of GHG emissions to cumulative Statewide

emissions would be less than cumulatively considerable. Overall, both the Specific Plan and future projects associated with buildout of the Specific Plan would be consistent with the CAP.

The Riverwalk Specific Plan includes a mix of residential, commercial retail, and employment uses that would encourage "village-like" development integrated with transit and active transportation facilities that is consistent with the General Plan and the City of Villages strategy. The Riverwalk Specific Plan also supports General Plan concepts such as increased walkability, enhanced pedestrian and bicycle networks, improved connections to transit, and sustainable development and green building practices.

Discussions, policies, and tailored development standards within the Riverwalk Specific Plan lay out residential densities and non-residential development intensities that support transit-oriented development by providing for increased residential density and on-site employment that supports implementation of the CAP. Discussion within Chapter 4, *Transportation and Circulation*, of the Riverwalk Specific Plan promote multi-modal development and provide for enhanced pedestrian and bicycle facilities. Discussions and regulations within Chapter 6, *Land Uses, Development Standards, and Design Guidelines*, require activation at the ground floor to increase pedestrian engagement. Chapter 6 also contains policies that support environmentally conscious building practices and materials, energy and water efficiency, on-site energy generation, and the reduction waste generation. All of these policies correspond with policies set out by the General Plan. Thus, the Riverwalk Specific Plan would be consistent with the City's General Plan.

As detailed in Section 5.9.2, numerous plans, policies, and regulations have been developed for the purpose of reducing GHG emissions. The project does not conflict with or inhibit implementation of those plans and regulations.

The City General Plan includes policies to reduce GHG emissions, delineated in Section 5.9.2.3. The project's consistency with these policies is analyzed in Table 5.9.4, *General Plan Conservation Element – Project Consistency*. As shown in Table 5.9-4, the project would be consistent with the City's General Plan policies for reducing GHG emissions.

Significance of Impacts

The project would not conflict with the CAP or any other applicable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gases. Impacts would, therefore, be less than significant.

Mitigation Measures

No mitigation would be required.

Table 5.9-3. *CAP Strategies Consistency*

Strategy	Project Consistency
1. Cool/Green Roofs. • *Would the project include roofing materials with a minimum 3-year aged solar reflection and thermal emittance or solar reflection index equal to or greater than the values specified in the voluntary measures under California Green Building Standards Code; OR* • *Would the project roof construction have a thermal mass over the roof membrane, including areas of vegetated (green) roofs, weighing at least 25 pounds per square foot as specified in the voluntary measures under California Green Building Standards Code? OR* • *Would the project include a combination of the above two options?*	**Consistent –** Development of the proposed project would include roofing materials meeting the performance standard of a minimum three-year aged solar reflection and thermal emittance or solar reflection index equal to or greater than the values specified in the measures under California Green Building Standards Code; or would include roof construction that meets the performance standard of a thermal mass over the roof membrane, including areas of vegetated (green) roofs, weighing at least 25 pounds per square foot as specified in the voluntary measures under California Green Building Standards Code; or would provide a combination of these two design features.
2. Plumbing fixtures and fittings *With respect to plumbing fixtures or fittings provided as part of the project, would those low-flow fixtures/appliances be consistent with each of the following:* *Residential buildings:* • *Kitchen faucets: maximum flow rate not to exceed 1.5 gallons per minute at 60 psi;* • *Standard dishwasher: 4.25 gallons per cycle;* • *Compact dishwashers: 3.5 gallons per cycle; and* • *Clothes washers: water factor of 6 gallons per cubic feet of drum capacity?* *Nonresidential buildings:* • *Plumbing fixtures and fittings that do not exceed the maximum flow rate specified in Table A5.303.2.3.1 (voluntary measures) of the California Green Building Standards Code; and* • *Appliances and fixtures for commercial applications that meet the provisions of Section A5.303.3 (voluntary measures) of the California Green Building Standards Code?*	**Consistent –** For residential buildings/residential components of mixed-use buildings, the project would meet the performance standards by utilizing low-flow fixtures, to include kitchen faucets: maximum flow rate not to exceed 1.5 gallons per minute at 60 psi; standard dishwashers with water use of 4.25 gallons per cycle; compact dishwashers with water use of 3.5 gallons per cycle; and clothes washers with a water factor of six gallons per cubic feet of drum capacity. For non-residential buildings/non-residential components of mixed-use buildings, the project would meet the performance standards by utilizing plumbing fixtures and fittings that do not exceed the maximum flow rate specified in Table A5.303.2.3.1 (voluntary measures) of the California Green Building Standards Code. Appliances and fixtures for commercial applications would meet the provisions of Section A5.303.3 (voluntary measures) of the California Green Building Standards Code.
3. Electric Vehicle Charging • *<u>Multiple-family projects of 17 dwelling units or less:</u> Would 3% of the total parking spaces required, or a minimum of one space, whichever is greater, be provided with a listed cabinet, box or enclosure connected to a conduit linking the parking spaces with the electrical service, in a manner approved by the building and safety official, to allow for the future installation of electric vehicle supply equipment to provide*	**Consistent –** The project proposes a mixed-use development that includes multi-family residential dwelling units and commercial retail and office and non-retail commercial space. It is assumed that individual multi-family developments within the proposed project would be more than 17 dwelling units. The project would comply with City requirements. Future total required parking and the required listed cabinets, boxes, or enclosures, would include 50 percent of the required listed cabinets, boxes, or enclosures and would meet the performance standard by having the necessary electric

<table>
<tr>
<td>electric vehicle charging stations at such time as it is needed for use by residents?

• <u>Multiple-family projects of more than 17 dwelling units:</u> Of the total required listed cabinets, boxes or enclosures, would 50% have the necessary electric vehicle supply equipment installed to provide active electric vehicle charging stations ready for use by residents?

• <u>Non-residential projects:</u> Of the total required listed cabinets, boxes or enclosures, would 50% have the necessary electric vehicle supply equipment installed to provide active electric vehicle charging stations ready for use?</td>
<td>vehicle supply equipment installed to provide active electric vehicle charging stations ready for use by residents.

The project proposes 152,000 square feet of commercial retail use and 1,000,000 square feet of office and non-retail commercial use. Future total required parking and the required listed cabinets, boxes, or enclosures, would include 50 percent of the required listed cabinets, boxes, or enclosures and would meet the performance standard by having the necessary electric vehicle supply equipment installed to provide active electric vehicle charging stations. As individual development projects come forward for building permits allowed by the Specific Plan, they would be subject to permit conditions to provide electric vehicle charging facilities in accordance with the performance standards in the table provided in this section of the CAP Consistency Checklist.</td>
</tr>
<tr>
<td>4. Bicycle Parking Spaces

Would the project provide more short- and long-term bicycle parking spaces than required in the City's Municipal Code (Chapter 14, Article 2, Division 5)?</td>
<td>Consistent – Each development within Riverwalk would provide short- and long-term bicycle parking in excess of the Municipal Code requirements.</td>
</tr>
<tr>
<td>5. Shower Facilities

If the project includes nonresidential development that would accommodate over 10 tenant occupants (employees), would the project include changing/shower facilities in accordance with the voluntary measures under the California Green Building Standards Code as shown in the table below?

<table>
<tr><th>Number of Tenant Occupants (Employees)</th><th>Shower/Changing Facilities Required</th><th>Two-Tier (12" X 15" X 72") Personal Effects Lockers Required</th></tr>
<tr><td>0-10</td><td>0</td><td>0</td></tr>
<tr><td>11-50</td><td>1 shower stall</td><td>2</td></tr>
<tr><td>51-100</td><td>1 shower stall</td><td>3</td></tr>
<tr><td>101-200</td><td>1 shower stall</td><td>4</td></tr>
<tr><td>Over 200</td><td>1 shower stall plus 1 additional shower stall for each 200 additional tenant-occupants</td><td>1 two-tier locker plus 1 two-tier locker for each 50 additional tenant-occupants</td></tr>
</table>
</td>
<td>Consistent – As individual development projects come forward for building permits allowed by the Specific Plan, shower/changing facilities and personal effects lockers would be provided in accordance with the performance standards in the table provided in this section of the CAP Consistency Checklist. The number of required shower/changing facilities and personal effects lockers would be based on the cumulative number of tenants/occupants (employees) within the entire Specific Plan area at the time of building permit application.</td>
</tr>
<tr>
<td>6. Designated Parking Spaces

If the project includes a nonresidential use in a TPA, would the project provide designated parking for a combination of low-emitting, fuel-efficient, and carpool/vanpool in accordance with the following table?</td>
<td>Consistent – The proposed project is located within a TPA. As individual non-residential development projects come forward for building permits, as allowed by the Specific Plan, they would be subject to permit conditions to provide designated parking for a combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles in accordance with the table in this section of the CAP Consistency Checklist.</td>
</tr>
</table>

	Number of Required Parking Spaces / ***Number of Designated Parking Spaces*** *0-9* / *0* *10-25* / *2* *26-50* / *4* *51-75* / *6* *76-100* / *9* *101-150* / *11* *151-200* / *18* *201 and over* / *At least 10% of total*	
7. Transportation Demand Management Program *If the project would accommodate over 50 tenant-occupants (employees), would it include a transportation demand management program that would be applicable to existing tenants and future tenants that includes:* *At least one of the following components:* • *Parking cash out program* • *Parking management plan that includes charging employees market-rate for single-occupancy vehicle parking and providing reserved, discounted, or free spaces for registered carpools or vanpools* • *Unbundled parking whereby parking spaces would be leased or sold separately form the rental or purchase fees from the development for the life of the development* *And at least three of the following components:* • *Commitment to maintaining an employer network in the SANDAG iCommute program and promoting its RideMatcher service to tenants/employees* • *On-site carsharing vehicle(s) or bikesharing* • *Flexible or alternative work hours* • *Telework program* • *Transit, carpool, and vanpool subsidies* • *Pre-tax deduction for transit or vanpool fares and bicycle commute costs* • *Access to services that reduce the need to drive, such as cafes, commercial stores, banks, post offices, restaurants, gyms, or childcare, either onsite or within 1,320 feet (1/4) mile of the structure/use?*	**Consistent –** Any required TDM program(s) associated with development within Riverwalk would include such features as: unbundled parking for residential developments; parking cash out; subsidized transit passes; on-site carsharing vehicles and bikesharing; flexible or alternative work hours; telework programs; and access to services that reduce the need to drive, such as cafes, commercial stores, banks, post offices, restaurants, gyms, or childcare, either on-site or within one-quarter-mile of the structure/use. Such projects would follow the performance standards by incorporating at least one of the features from Category 1 of Strategy 3, Step 7; and at least three features from Category 2 of Strategy 3, Step 7.

Table 5.9-4. *General Plan Conservation Element – Project Consistency*

Policy	Project Consistency
Policy CE-A.5. Employ sustainable or "green" building techniques for the construction and operation of buildings.	**Consistent –** The project would be designed to meet Title 24 requirements, which addresses sustainable development. The project would also incorporate

(a) Develop and implement sustainable building standards for new and significant remodels of residential and commercial buildings to maximize energy efficiency, and to achieve overall net zero energy consumption by 2020 for new residential buildings and 2030 for new commercial buildings. This can be accomplished through factors including, but not limited to: • *Designing mechanical and electrical systems that achieve greater energy efficiency with currently available technology;* • *Minimizing energy use through innovative site design and building orientation that addresses factors such as sun-shade patterns, prevailing winds, landscape, and sun-screens;* • *Employing self-generation of energy using renewable technologies;* • *Combining energy efficient measures that have longer payback periods with measures that have shorter payback periods;* • *Reducing levels of non-essential lighting, heating and cooling; and* • *Using energy efficient appliances and lighting.*	sustainable building and site design by designing buildings that meet CALGreen, California Green Building Standards Code, reduce energy use through building orientation, construct and operate buildings using materials and methods that promote healthful indoor air quality, consider re-use of building materials, low wattage and/or LED light features, and use of low flow shower heads , faucets, and toilets**.**
Policy CE-A.7. Construct and operate buildings using materials, methods, and mechanical and electrical systems that ensure a healthful indoor air quality. Avoid contamination by carcinogens, volatile organic compounds, fungi, molds, bacteria, and other known toxins. *(a) Eliminate the use of chlorofluorocarbon-based refrigerants in newly constructed facilities and major building renovations and retrofits for all heating, ventilation, air conditioning, and refrigerant-based building systems.* (b) *Reduce the quantity of indoor air contaminants that are odorous or potentially irritating to protect installers and occupants' health and comfort. Where feasible, select low-emitting adhesives, paints, coatings, carpet systems, composite wood, agrifiber products, and others.*	**Consistent –** The project would utilize building materials and methods directed at improving indoor air quality. HVAC units would utilize filters that help screen-out harmful pollutants, operable windows would allow for natural ventilation, and the project's open courtyards and offsetting planes would allow for air flow through the site. The Riverwalk Specific Plan also includes the following regulations (Reg-19<u>6</u>~~5~~ and Reg-19<u>8</u>~~6~~) that apply to residential development in the South District that front Hotel Circle North and are adjacent to I-8, and would contribute to healthful indoor air quality: • ***Reg-19<u>6</u>.*** *<u>Install air filtration devices rated minimum efficiency reporting value (MERV-13) 13 or higher in the intake of ventilation systems for Lots 46 through 52. Heating, air conditioning, and ventilation (HVAC) systems shall be installed with a fan unit designed to force air through the MERV filter. Prior to issuance of building permits, the project applicant shall submit evidence to the City of San Diego to ensure compliance with this measure. To ensure long-term maintenance and replacement of the MERV filters in the individual residential units, the owner/property manager of residential units shall maintain and replace MERV filters in accordance with the manufacturer's recommendations. The owner/property manager</u>*

	shall keep a record of activities related to maintenance of the filters.~~Install air filtration devices rated minimum efficiency reporting value 13 (MERV-13) or higher in the intake of ventilation systems for lots 46 through 52. HVAC systems shall be installed with a fan unit designed to force air through the MERV filter. Prior to issuance of building permits, the project applicant shall submit evidence to the City of San Diego to ensure compliance with this measure. To ensure long-term maintenance and replacement of the MERV filters in accordance with the manufacturer's recommendations, the owner/property manager shall keep a record of activities related to maintenance of the filters.~~ • ***Reg-19~~8~~.*** *Design residential buildings so that the air intakes do not occur on the southern side of buildings ~~and away from I-8, to the extent feasible~~.*
Policy CE-A.8. Reduce construction and demolition waste in accordance with Public Facilities Element, Policy PF-I.2, or be renovating or adding on to existing buildings rather than constructing new buildings. *Policy CE-A.9*. Reuse building materials, use materials that have recycled content, or use materials that are derived from sustainable or rapidly renewable sources to the extent possible, though factors including: • Scheduling time for deconstruction and recycling activities to take place during project demolition and construction phases; • Using life cycle costing in decision making for materials and construction techniques. Life cycle costing analyzes the costs and benefits over the life of a particular product, technology, or system;	**Consistent –** The only building that would remain with the project would be the golf course clubhouse. The site is largely devoid of other buildings, with the only other structures being maintenance buildings. The project would retain the existing golf course clubhouse building as a project amenity, rather than demolishing the building and constructing a new building or buildings in this location, consistent with Policy CE-A.8. For Specific Plan implementation, new construction is required, as the golf course does not include buildings beyond the golf course clubhouse to remain and maintenance buildings. For new construction, the project would reduce construction and demolition waste in accordance with the LDC and the project's Waste Management Plan. The WMP includes requirements for use of post-consumer recycled content materials. The site does not include building materials that would be eligible for reuse. Per the WMP, demolition would include recycling of on-site materials to the extent possible. In addition, the Riverwalk Specific Plan implements the following policy relative to sustainable building and site design: ***Policy-77.*** *Consider re-use of building materials, materials that have post-consumer recycled content, and materials that are derived from sustainable or rapidly renewable sources.*
Policy CE-A.10. Include features in buildings to facilitate recycling of waste generated by building occupants and associated refuse storage areas.	**Consistent –** The project would provide permanent, adequate, and convenient space for refuse and recyclable materials storage. Storage would be provided to serve entire buildings or projects.

• Provide permanent, adequate, and convenient space for individual building occupants to collect refuse and recyclable material. • Provide a recyclables collection area that serves the entire building or project. The space should allow for the separation, collection and storage of paper, glass, plastic, metals, yard waste, and other materials as needed.	
Policy CE-A.11. Implement sustainable landscape design and maintenance. *b. Use integrated pest management techniques, where feasible, to delay, reduce, or eliminate dependence on the use of pesticides, herbicides, and synthetic fertilizers.* *c. Decrease the amount of impervious surfaces in developments, especially where public places, plazas and amenities are proposed to serve as recreation opportunities.* *d. Strategically plant deciduous shade trees, evergreen trees, and drought tolerant native vegetation, as appropriate, to contribute to sustainable development goals.* *e. Reduce use of lawn types that require high levels of irrigation.* *f. Strive to incorporate existing mature trees and native vegetation into site designs.* *j. Implement water conservation measures in site/building design and landscaping.* *k. Encourage the use of high efficiency irrigation technology, and recycled site water to reduce the use of potable water for irrigation. Use recycled water to meet the needs of development projects to the maximum extent feasible.*	**Consistent -** Riverwalk's landscape plan includes native, native-friendly, and drought-tolerant landscaping. The project would implement sustainable landscape design and maintenance. With the exception of the plaza located at the transit stop, plazas would include a minimum of 20 percent landscaped area and achieve 0.05 point per square foot. Planting areas may be at-grade or in permanently affixed planters. The transit stop plaza would have a minimum of five percent landscaping to allow for community engagement in this space. Within the transit stop plaza, a minimum of 0.05 points per square foot is to be achieved with trees that are 36-inch box minimum. The Riverwalk Specific Plan includes policies and regulations relative to the strategic planting of shade trees, reduction of lawn types that require high levels of irrigation, and the use of water conservation measures and high-efficiency irrigation technology, and sustainable landscaping: • ***Policy-58.*** *Cool season grasses should be limited to highly visible project entrances and areas intended for active recreation.* • ***Policy-81.*** *Consider high efficiency irrigation technology and recycled water, when available, to reduce the use of potable water for irrigation.* • ***Policy-82.*** *Low-water-use plant material, automatic sprinkler systems with timers, and drip-irrigation systems are encouraged.* • ***Policy-86.*** *Deciduous trees should be used in south-facing and west-facing outdoor areas around buildings to provide solar access during winter months and shade in hot summer months.* • ***Reg-98.*** *Evergreen canopy-form shade trees are to be used within surface parking areas to reduce solar glare and provide variation in character.* • ***Reg-128.*** *Utilize trees to maximize energy efficiency. Place evergreen trees in surface parking lots to diminish heat island effect.* • ***Reg-129.*** *Incorporate water conservation measures in site/building design and landscaping.*

	The Riverwalk Specific Plan also includes the following language relative to the preservation of existing mature trees: *Existing on-site tree specimens will be analyzed on an individual basis for preservation in their present or in a new location to the greatest extent feasible. All efforts will be made to preserve mature trees where possible. Existing trees will be analyzed and assessed in accordance with Council Policy 900-19 and the Conserve-A-Tree Program.* Additionally, the Specific Plan includes the following policy relative to existing trees along Friars Road: ***Policy-55.*** *To the greatest extent feasible, the existing trees lining the south side of Friars Road will be retained to reinforce the visual character of Friars Road.*
Policy CE-A.12. Reduce the San Diego Urban Heat Island through actions as: • *Using cool roofing materials, such as reflective, low heat retention tiles, membranes and coatings, or vegetated eco-roofs to reduce heat build-up;* • *Planting trees and other vegetation, to provide shade and cool air temperatures. In particular, properly position trees to shade buildings, air conditions units, and parking lots; and* • *Reducing heat build up in parking lots through increased shading or use of cool paving materials as feasible.*	**Consistent –** Relative to use to cool roofing materials, development of the proposed project would include roofing materials meeting the performance standard of a minimum three-year aged solar reflection and thermal emittance or solar reflection index equal to or greater than the values specified in the measures under California Green Building Standards Code; or would include roof construction that meets the performance standard of a thermal mass over the roof membrane, including areas of vegetated (green) roofs, weighing at least 25 pounds per square foot as specified in the voluntary measures under California Green Building Standards Code; or would provide a combination of these two design features. In addition, the Riverwalk Specific Plan includes the following policies and regulations relative to heat gain, parking lot landscaping, and reducing heat buildup: • ***Policy-88.*** *Overhangs or canopies should be used, where possible, to shade areas from direct sunlight and reduce heat gain.* • ***Policy-90.*** *Consider larger surface parking areas to be located to the east and north of adjacent buildings to reduce solar reflection on buildings.* • ***Reg-98.*** *Evergreen canopy-form shade trees are to be used within surface parking areas to reduce solar glare and provide variation in character.* • ***Reg-128.*** *Utilize trees to maximize energy efficiency. Place evergreen trees in surface parking lots to diminish heat island effect.* Building design for future development would also take into consideration measures to reduce heat gain, in accordance with sustainable building practices and regulations of Title 24 (or its successor in place at the time of development).

5.10 Tribal Cultural Resources

This section evaluates potential Tribal Cultural Resources associated with the project. The analysis is based on the *Cultural Resources Inventory Report for the Riverwalk Project*, prepared by Spindrift Archaeological Consulting, LLC (October 2017), the corresponding *Addendum to the Class III Cultural Resource Inventory for the Riverwalk Project*, prepared by ASM Affiliates, Inc. (December 8, 2019) the *Archaeological Research and Data Recovery Program for the Riverwalk Redevelopment Project* by ASM Affiliates, Inc. (February 2020) and, *Interpretive signage for Tribal Cultural Resources for the Riverwalk Development Project* by ASM Affiliates, Inc (January 15, 2020) included as Appendices G, H, X and BB respectively. Additionally, the analysis is based on consultation with Native American tribes traditionally and culturally affiliated with the project area who have requested consultation pursuant to PRC Section 21080.3.1.

5.10.1 Existing Conditions

The project site is located within Mission Valley in central San Diego along the San Diego River which is a defining feature of the community. The valley sits at the crossroads of a regional freeway system, taking access from I-5, I-8, I-15, I-805, and SR 163. Mission Valley is a regional center of offices, hotels, and retail businesses, as well as a major regional visitor center, with a concentration of hotels located in close proximity to tourist attractions including Mission Bay Park, Sea World, and Balboa Park.

The site slopes gently towards the river, which curves through the central portion of the site. The site has been previously graded and is developed with the Riverwalk Golf Course, comprised of three nine-hole golf courses, driving range, clubhouse building, maintenance facilities, surface parking, access roadways, and golf cart paths/bridges. The San Diego River, as well as a segment of Green Line Trolley tracks, traverses the project site in an east-west direction.

5.10.1.2 Ethnographic, Religious, and Cultural Context

Many areas of San Diego County, including mesas and the coast, are known for intense and diverse prehistoric occupation and important archaeological and Tribal Cultural Resources. The project area is within the traditional territory of the Kumeyaay people, also known as Ipai, Tipai, or Diegueño (named for Mission San Diego de Alcalá). At the time of Spanish contact, Yuman-speaking Kumeyaay bands occupied southern San Diego and southwestern Imperial counties and northern Baja California. The Kumeyaay lived in semi-sedentary villages, or rancherias, with some rancherias containing more than one clan. Kumeyaay villages were located in river valleys, such as the San Diego River, with access to water and boulder outcrops and along the shoreline of coastal estuaries.

The Kumeyaay had a hunting and gathering economy based primarily on various plant resources. Grass seeds were a staple food resource second only to acorns in the Late Prehistoric native diet, supplemented by other seeds and nuts. Grass and other plants also served as building material for making baskets and other items. Small game such as rabbits, jackrabbits, and rodents were important to the prehistoric diet; deer were somewhat less significant for food, but were an important source of leather, bone, and antlers.

Coastal bands ate a great deal of fish, taking them with lines, nets, and bows and arrows. Balsas or reed boats were used. Shellfish and other littoral resources were important to coastal people too. Settlements were moved seasonally to areas where wild foods were in season. Villages and campsites were generally located in areas where water was readily available, preferably on a year-round basis. The San Diego River, which bisects the area, provided an important resource not only as a reliable source of water, but as a major transportation corridor through the region. Additional information regarding cultural context is provided in Section 5.6, *Historical Resources*.

5.10.2 Regulatory Framework

5.10.2.1 Federal

National Historic Preservation Act of 1966 and National Register of Historic Places

The National Historic Preservation Act of 1966 established the National Register of Historic Places (NRHP) as the official Federal list of cultural resources that have been nominated by State offices for their significance at the local, State, or Federal level. Listing on the NRHP provides recognition that a property is historically significant to the nation, the state, or the community. Properties listed (or potentially eligible for listing) on the NRHP must meet certain significance criteria and possess integrity of form, location, or setting. Barring exceptional circumstances, resources generally must be at least 50 years old to be considered for listing on the NRHP.

Criteria for listing on the NRHP are stated in Title 36, Part 60 of the Code of Federal Regulations (36 CFR 60). A resource may qualify for listing if there is quality of significance in American history, architecture, archaeology, engineering, and culture present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association; and where such resources:

- Are associated with events that have made a significant contribution to the broad patterns of history.
- Are associated with the lives of persons significant in the past.
- Embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; possess high artistic values; or represent a significant and distinguishable entity whose components may lack individual distinction.
- Have yielded, or may be likely to yield, information important in prehistory or history.

Ordinarily cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years are not considered eligible for the NRHP. However, such properties will quality if they are integral parts of districts that do not meet the criteria or if they fall within the following categories:

- A religious property deriving primary significance from architectural or artistic distinction or historical importance; or
- A building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or
- A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building directly associated with his productive life; or
- A cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or
- A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or
- A property primarily commemorative in intent, if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or
- A property achieving significance within the past 50 years if it is of exceptional importance.

Eligible properties must meet at least one of the NRHP criteria and exhibit integrity, measured by the degree to which the resource retains its historical properties and conveys its historical character, the degree to which the original historic fabric has been retained, and the reversibility of changes to the property. The fourth criterion is typically reserved for archaeological and paleontological resources. These criteria have largely been incorporated into the State CEQA Guidelines (Section 15064.5), as well.

5.10.2.2. State

California Health and Safety Code, Section 7050.5

This code requires that if human remains are discovered in the project site, disturbance of the site shall halt and remain halted until the coroner has conducted an investigation into the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative. If the coroner determines that the remains are not subject to his or her authority and recognizes or has reason to believe the human remains are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

California Public Resources Code, Sections 5020-5029.5

This code continued the former Historical Landmarks Advisory Committee as the State Historical Resources Commission. The commission oversees the administration of the California Register of Historical Resources and is responsible for the designation of State Historical landmarks and Historical Points of Interest.

California Public Resources Code, Section 5024.1

The CRHR is the State version of the NRHP program. The CRHR was enacted in 1992 and became official January 1, 1993. The CRHR was established to serve as an authoritative guide to the State's significant historical and archaeological resources. Resources that may be eligible for listing include buildings, sites, structures, objects, and historic districts. CEQA identifies a historic resource as a property that is listen on – or eligible for listing on – the NRHP, CRHR, or local registers. NRHP-listed properties are automatically included on the CRHR.

The CRHR also includes properties that: have been formally determined eligible for listing or are listed in the NRHP; are registered State Historical Landmark Number 770 and above; are points of historical interest that have been reviewed and recommended to the State Historical Resources Commission for listing; or are City- or County-designated landmarks or districts (if criteria for designation are determined by OHP to be consistent with CRHR criteria).

Assembly Bill 52

Assembly Bill 52 (AB 52), the Native American Historic Resource Protection Act, sets forth a proactive approach intended to reduce the potential for delay and conflicts between Native American and development interests. Projects subject to AB 52 are those that file a notice of preparation for an EIR or notice of intent to adopt a negative or mitigated negative declaration on or after July 1, 2016. AB 52 adds tribal cultural resources (TCR) to the specific cultural resources protected under CEQA. Under AB 52, a TCR is defined as a site, feature, place, cultural landscape (must be geographically defined in terms of size and scope), sacred place, or object with cultural value to a California Native American tribe that is either included or eligible for inclusion in the California Register, or included in a local register of historical resources. A Native American tribe or the lead agency, supported by substantial evidence, may choose at its discretion to treat a resource as a TCR. AB 52 also mandates lead agencies to consult with tribes, if requested by the tribe, and sets the principles for conducting and concluding consultation.

5.10.3 Impact Analysis

5.10.3.1 Issue 1

Issue 1 Would the project cause a substantial adverse change in the significance of a tribal cultural resources, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place or object with cultural value to a California Native American tribe, and that is:

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Impact Threshold

The City of San Diego has not yet prepared thresholds of significance for potential impacts to Tribal Cultural Resources. Therefore, for purposes of this EIR, guidance provided by issue questions listed in CEQA Appendix G are utilized to evaluate the potential for significant impacts to Tribal Cultural Resources:

- Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Analysis

Tribal Cultural Resources include sites, features, places, cultural landscapes, and sacred places or objects that have cultural value or significance to a Native American Tribe. Tribal Cultural Resources include "non-unique archaeological resources" that, instead of being important for "scientific" value as a resource, can also be significant because of the sacred and/or cultural tribal value of the resource. Tribal representatives are considered experts appropriate for providing substantial evidence regarding the locations, types, and significance of tribal cultural resources within their traditionally and cultural affiliated geographic area (PRC §21080.3.1(a)).

As discussed under Section 5.6, *Historical Resources*, the Riverwalk Specific Plan area is located on the City's Historical Resources Sensitivity Maps and recorded cultural resources have been mapped onsite. The Class III inventory conducted by Spindrift identified previously recorded cultural resources that are within or intersect the project site. Three of the cultural resources intersecting the project boundaries have been tested, evaluated, and recommended eligible for listing in the NRHP and/or the CRHR. Seven sites were evaluated and determined not significant under CEQA criteria. Three sites are in areas designated as open space and will not likely be impacted by the project. One site has not yet been formally evaluated, but it is in a portion of the project site that will not be impacted. One resource is an isolate find that was collected, and no further work is necessary.

The three recorded sites, SDI-11767, SDI-12220, and SDI-12126, have been evaluated and determined to be significant cultural resources. One site, SDI-4675, has not yet been evaluated, but only a small portion of the site intersects the project area and would not be impacted, as it would remain in its current open space condition. The remaining sites have been evaluated and were identified as not significant cultural resources under City guidelines and CEQA criteria. Additionally, a Sacred Lands Search was requested of the Native American Heritage Commission on September 25, 2017, and a response from the NAHC was received on September 27, 2017. The results of the Sacred Lands Search were negative. Additionally, all persons and organizations on the NAHC list were contacted to inquire about any concerns that might affect the site.

Also, the project site has not been selected as a site recommended for historic designation. Furthermore, the project site is not identified on any of the historic resource lists/databases—the NRHP and the California State Historical Landmarks, Points of Historical Interest, and Register of Historic Places.

The City of San Diego, as Lead Agency, determined that TCR (buried cultural resources and/or subsurface deposits) pursuant to Public Resources Code Section 5024.1(c) would be potentially impacted through future development in the Riverwalk Specific Plan area. Therefore, in accordance with the requirements of Public Resources Code 21080.3.1, the City of San Diego provided formal consultation notification to the Iipay Nation of Santa Isabel and Jamul Indian Village, both traditionally and culturally affiliated with the project area, on March 14, 2018. Both Native American Tribes responded within the 30-day formal notification period requesting consultation with the initial consultation occurring on March 15, 2018. Additional consultations with the Native American Tribes occurred on May 11, 2018 October 12, 2018; October 11, 2019; and March 19, 2020.

Through the consultation process, it was determined the site is a significant TCR due to the importance of the San Diego River corridor to the Kumeyaay. During various consultations, both the Iipay Nation of Santa Isabel and Jamul Indian Village requested the inclusion of a native plant palette of species traditionally used by the Kumeyaay, an interpretive signage program that would identify the native plant species and how they were used, and that project streets be identified with Kumeyaay names. The Iipay Nation of Santa Isabel and Jamul Indian Village also reviewed and concurred with the Archaeological Data Recovery Program and associated monitoring program developed for the project.

The plant palette would incorporate plant species traditionally used by Native American tribes including mugwort (*Artemisia douglasiana*), mulefat (*Baccharis salicifolia)*, western ragweed (*Ambrosia psilostachya)*, California deergrass (*Muhlenbergia rigens*), red willow (*Salix lasiolepis*), elderberry (*Sambucus nigra*), Freemont's cottonwood (*Populus fremontii*), black willow (*Salix exigua*), and arroyo willow (*Salix lasiolepis*), yerba mansa (*Anemopsis*), spiny rush (*Juncas acutus*), pale spikerush (*Elocharis macrostachya*), Saltmarsh fleabone (*Pluchea odorata*), Creeping wild rye (*leymus tritcoides*), San Diego sagewort (*Artemisia palmeri*), Tarragon (*Artemisia dracunculus*), and Purple needlegrass (*Stipa pulchra*). The plant palette would be incorporated into the restoration effort taking place within the San Diego River and as part of the landscape plan for the Riverwalk River Park.

The interpretive signage program would be implemented that provide plant identification signs (each approximately six inches by eight inches). The signage would be provided along the trails within the River Park, with plants traditionally utilized by Native American tribes identified by a symbol. Additionally, a storyboard sign (approximately 20 inches by 30 inches) would also be provided to describe the native plants identified along the river pathway and their relationship to the Kumeyaay people's ability to thrive in the region.

Lastly, the streets within the South District of the project would include traditional Kumeyaay names. Both the Iipay Nation of Santa Isabel and Jamul Indian Village concurred with City staff's determination and concluded consultation on April 30, 2020.

In conclusion, due to the importance of the San Diego River corridor to the Kumeyaay, the onsite recorded archaeological sites, as well as the potential to encounter additional TCR (buried cultural resources and/or subsurface deposits) through ground-disturbing activities associated with development in the Riverwalk Specific Plan area, significant impacts to TCR could occur.

Significance of Impacts

The project site has not been selected as a site recommended for historic designation. Furthermore, the project site is not identified on any of the historic resource lists/databases—the National Register of Historic Places and the California State Historical Landmarks, Points of Historical Interest, and Register of Historic Places. The area is considered sensitive for TCR as identified by Iipay Nation of Santa Isabel and Jamul Indian Village, affiliated traditionally and culturally with the project area. Therefore, there is the potential for TCR to be impacted by project implementation. Impacts would be considered significant.

Mitigation Measures

Implementation of mitigation measures MM 5.6-1 and MM 5.6-2 would reduce subsurface impacts to tribal cultural resources to below a level of significance. The following mitigation also applies to tribal cultural resources.

MM 5.10-1 Prior to issuance of Building Permit or beginning of any construction related activity for the Riverwalk River Park, the Development Services Department (DSD) Director's Environmental Designee (ED) shall verify the plant palette shown on construction documents includes plants from the following species traditionally utilized by the Native American tribes culturally affiliated with the project area in barrier plantings and adjacent to the River Park Pathway: mugwort (*Artemisia douglasiana*), mulefat (*Baccharis salicifolia)*, western ragweed (*Ambrosia psilostachya)*, California deergrass (*Muhlenbergia rigens*), red willow (*Salix lasiolepis*), elderberry (*Sambucus nigra*), Freemont's cottonwood (*Populus fremontii*), black willow (*Salix exigua*), and arroyo willow (*Salix lasiolepis*), yerba mansa (*Anemopsis*), spiny rush (*Juncas acutus*), pale spikerush (*Elocharis macrostachya*), Saltmarsh fleabone (*Pluchea odorata*), Creeping wild rye (*leymus tritcoides*), San Diego sagewort (*Artemisia palmeri*), Tarragon (*Artemisia dracunculus*), and Purple needlegrass (*Stipa pulchra*).

MM 5.10-2 Prior to issuance of Building Permit or beginning of any construction related activity for the Riverwalk River Park, the Development Services Department (DSD) Director's Environmental Designee (ED) shall verify the interpretive signage along the River Pathway as shown on construction documents. Signage shall include 20 plant identification signs (each approximately six inches by eight inches) along the River Pathway with plants traditionally utilized by Native American tribes identified by a symbol. A storyboard sign (approximately 20 inches by 30 inches) shall also be provided that describes the native plants identified along the river pathway and their relationship to the Kumeyaay people's ability to thrive in the region. The interpretative signage plan shall be reviewed and accepted to the satisfaction of DSD, Iipay of Santa Isabel, and Jamul Indian Village.

MM 5.10-3 Prior to recordation of Final Map for the South District, Owner/Permittee shall submit a street sign plan that includes Kumeyaay street names to be reviewed and accepted to the satisfaction of DSD.

MM 5.10-4 Prior to issuance of any construction permits, such as Demolition, Grading or Building, or beginning any construction related activity on-site, Owner/Permittee shall implement the conditions as detailed in MM 5.6-1 Historical Resources (Archaeological Data Recovery Monitoring) and MM 5.6-2 Historical Resources (Archaeology and Native American Monitoring).

Significance of Impacts Following Implementation of Mitigation Measures

With implementation of mitigation measure~~-~~s MM 5.10-1 through MM 5.10-4~~,~~ and mitigation measures MM 5.6-1 and MM 5.6-2, i~~I~~mpacts to tribal cultural resources, would be reduced to below a level of significance.

5.11 Geologic Conditions

This section evaluates the potential geologic hazards associated with the project. The following discussion is based on the *Preliminary Geotechnical Investigation and Review of the Updated Grading Plan, Proposed Mixed-Use Redevelopment Project at Riverwalk Golf Course, City of San Diego, California* prepared by NMG Geotechnical, Inc. (November 27, 2019) and included as Appendix M.

5.11.1 Existing Conditions

5.11.1.1 Geologic Setting

The project site is located within the Peninsular Range Geomorphic Province of southern California. The province is characterized by a series of northwest-trending mountain ranges, separated by northwest-trending faults. The area is underlain by sedimentary deposits and is located near the San Diego embayment, which is characterized by marine, lagoonal, and non-marine deposits.

The project site is located in the wide alluvial Mission Valley, along the lower reaches of the San Diego River, approximately four to five miles inland from the coastline (Pacific Ocean). The river valley is broad in this location with hillsides to the north and south extending up to higher mesas. The valley was down cut significantly in the past during a time of low sea level, as evidenced by the deep alluvium to elevations of nearly minus 80 feet (below current day sea level). As sea level has fluctuated during the late Quaternary era, several levels of alluvium have been deposited and then eroded. Older alluvium underlies younger Holocene-age alluvium, and older river terrace deposits remain along the northern side of the valley.

5.11.1.2 Site Conditions

The topography of the project site consists of relatively level to gently sloping terrain incised by the San Diego River. The site is developed with a golf course and its associated facilities. The San Diego Metro Green Line Trolley crosses the site approximately 400 to 800 feet north and subparallel of the river. The trolley rail line was constructed on a raised berm across the site. Two small under-crossing tunnels, large enough for two golf carts or landscape equipment carts, exist on the site. In addition, two bridges to support golf carts and light vehicles exist over the river. Elevations range from 67 feet AMSL along the northern side of the project to a low of near 16 feet AMSL near the western river edge. The average (non-flood) river water level varies from 12 feet AMSL in the west to 15 feet AMSL in the east.

5.11.1.3 Geologic Conditions and Soils

The earth units encountered at the project site include alluvium, older alluvium, river terrace deposits, and bedrock. The earth units that were encountered are described below and depicted in Figure 5.11-1, *Geology Map*.

Alluvium (Qya)

Alluvium was the most prevalent earth unit found throughout the project site, underlying the majority of the site. The alluvium consists of loose to medium dense fine-grained clayey sand, silty sand and clean sand that is highly micaceous. Layers of dark gray sandy clay near and below sea level elevation were found in the western portions of the project site. These interlayers are believed to be estuary muds that were deposited during ancient times of low sea level. Local layers of gravelly sand was also found in the alluvium. The younger alluvium is underlain by older alluvium, terrace deposits, and/or bedrock.

Older Alluvium (Qalo)

Older Alluvium was encountered below the younger alluvium. This material varied in composition from sandy silt, silty sand, and gravelly sand that was generally denser than the overlying younger alluvium. This material is not exposed at the ground surface.

River Terrace Deposits (Qtr)

River Terrace Deposits were encountered throughout the northern central portion of the site. The terrace materials in the northern portion of the project site are dense, consolidated, and a mixture of cobble and fine-grained matrix.

Artificial Fills (Af)

Several different generations of artificial fills were found on site, including undocumented fill and three generations of compacted fill. Shallow undocumented fill associated with golf course contour grading exists within most of the site. During grading of the golf course compacted fill was placed near the clubhouse, parking lot, entry street and bridges. Fill materials were placed across the site for construction of trolley improvements. Also, compacted fill was encountered in the northeast portion of the site, north of the trolley and west of Fashion Valley Road. The aforementioned fills where encountered during the investigation generally consist of medium dense silty or clayey sand, with significant amounts of gravel and cobble.

Bedrock

Bedrock was encountered below the river terrace and alluvium deposits, near the western and northeast portions of the project site. The bedrock consists of yellow brown to dark gray silty fine or medium sandstone that is very moist and dense.

The previously mapped Bay Point Formation to the northwest of the project site is now mapped as the Nestor marine terrace deposit. Therefore, it was concluded that a different bedrock formation, other than the Bay Point Formation, underlies the project site. The very dense sandstone bedrock encountered at the project site may be another bedrock unit, such as the Scripps Formation. These formations would not be encountered during future grading or construction.

Expansive Soils

Based on soil mapping by the U.S. Department of Agriculture (USDA), the near-surface soils over the low-lying portions of the site are comprised of Tujunga sand. This material is generally granular, very

permeable, and subject to erosion. Soils along the northern, higher elevations of the site are mapped as the Huerhuero-Urban land complex. These soils are typically formed on marine terraces and consist primarily of clayey loam and sandy loam that is moderately permeable. Based on expansion testing of the near surface materials at the site, the expansion indices vary from "Very Low" to "Medium".

5.11.1.4 Geologic Hazards

Review of the 2008 City of San Diego Seismic Safety Study, Geologic Hazards and Faults, Sheet 35, indicated that the site is mapped as Geologic Hazard Categories 31 and 32. Category 31, listed under liquefaction, is described as "High Potential – shallow groundwater, major drainages, hydraulic fills." Category 32, listed under liquefaction, is described as "Low Potential – fluctuating groundwater, minor drainages." (See Figure 5.11-2, *City of San Diego Geohazard Map*.) The project site's susceptibility to liquefaction is discusses below.

Faulting/Seismicity

The Peninsular Range Province of Southern California is cut by a system of numerous active faults that trend north-northwest, subparallel with the San Andreas Fault. The closest seismically active faults are the north-south trending Rose Canyon Fault located approximately one mile to the west of the project site, and the Coronado Bank Fault, located approximately 12.5 miles west (offshore) of the project site. The Rose Canyon Fault is mapped as a Fault Rupture Hazard Zone by the California Geologic Survey to the north and south of Mission Valley, but not across Mission Valley. Other regionally active, more distant faults that could produce ground shaking at the project site include, but are not limited to, the Elsinore, San Jacinto, and San Andreas Faults. Despite the site's proximity to seismically active faults, there are no major or active faults mapped at the site. Further, the site is not located within a Fault-Rupture Hazard Zone as defined by the Alquist-Priolo Special Studies Zones Act.

Due to the site's location within a seismically active region, it is likely to experience ground shaking as a result of earthquakes. Since there are no active faults at the site, the potential for primary ground rupture is considered very low. The primary seismic hazard for this site is ground shaking due to a future earthquake on one of the major regional active faults listed above.

Landslide Potential and Slope Stability

The occurrence of landslides and other types of slope failures (e.g., rockfalls and mudslides) is influenced by a number of factors including slope grade, geologic and soil characteristics, moisture levels, and vegetation cover. Landslides can be triggered by one or more potentially destabilizing conditions or events, such as gravity, fires, precipitation, grading, and seismic activity. The project site contains fill slopes up to 20 feet high and is not subject to landslide potential or slope failure. These slopes are underlain by fill, alluvium and terrace deposits, with shallow groundwater. The alluvium is potentially liquefiable and is subject to lateral spread.

Liquefaction

Liquefaction is a phenomenon in which earthquake-induced cyclic stresses generate excess pore-water pressure in low density (loose), saturated, sandy soils and soft silts below the water table. In order to be subject to liquefaction, all of the following four conditions must be present: there must be severe ground shaking, such as occurs during a strong earthquake; soil material must be saturated or nearly saturated, generally below the groundwater table; corrected normalized standard penetration test must be relatively low; and the soil material must be granular (usually sands or silts) with only low plasticity, at most. There are four possible adverse consequences of liquefaction of sandy soil layers: liquefaction-induced settlements; loss of bearing and other possible local disruptions at the ground surface (sand boils); lateral spreading; and global scope instability due to flow liquefaction or lateral spread.

Based on the geotechnical investigations performed for the project, the liquefaction potential for the alluvium at the site is considered moderate. The potentially liquefiable soils layers generally range from 0.5 to 2.5 feet thick and locally up to 10 feet thick. The shallower liquefiable layers at the site have lower shear strength loss from liquefaction.

Tsunamis and Seiches

Tsunamis are great sea waves produced by submarine earthquakes or volcanic eruptions. Seiches are periodic oscillations in large bodies of water such as lakes, harbors, bays, or reservoirs. The potential for secondary seismic hazards, such as tsunamis and seiches, are considered low to nil, as the site is located away from the ocean and is at an elevation of 16 feet or higher AMSL. The project is located outside of the State mapped tsunami inundation zones, and is not located adjacent to a confined body of water; therefore, the potential for seismic hazard of a tsunami or seiche is considered very low.

5.11.1.5 Groundwater

The project site lies within the Mission Valley Groundwater Basin, in the east-west trending valley drained by the San Diego River. The primary source of groundwater recharge to this site is through rainfall and runoff, which results in infiltration of the river flow. There are two groundwater wells located in the eastern portion of the site that have been historically used for irrigation of the golf course. During geotechnical investigations conducted for the project, groundwater was encountered typically at depths of five to 10 feet below ground surface (bgs) near the river, and between 10 and 25 feet bgs away from the river. Across the site, groundwater varied in elevation from approximately 6 feet AMSL to 15 feet AMSL in the alluvium.

Borings drilled into the dense river terrace deposits to depths of up to 26.5 feet did not encounter groundwater. This is most likely due to the higher ground elevations and shallow refusal depths. In borings drilled through the terrace deposits, groundwater was encountered at a depth of 47 feet bgs, and at an elevation of 11 feet AMSL. Groundwater was also encountered in borings drilled into the terrace deposits at depths of 11 and 25.6 feet and elevations of 14 and six feet AMSL, respectively.

The groundwater table fluctuates both seasonally and annually. Based on review of GeoTracker sites along Friars Road, the groundwater levels have been monitored over the past several years and were found to fluctuate depending upon the time of year and the rainfall that year. The groundwater is 22 to 35 feet deep to the east, near the intersection of Friars Road and Fashion Valley Road, and the soils are generally gravelly sand in this area. The water was found to fluctuate up to three feet from high to low levels recorded quarterly between 2003 and 2009. In addition, based on review of onsite boring data drilled over the years, the groundwater appears to vary three to four feet from high to low levels.

5.11.2 Regulatory Framework

5.11.2.1 Federal

International Building Code

The International Building Code (IBC, which encompasses the former Uniform Building Code [UBC]) is produced by the International Code Council (formerly the International Conference of Building Officials). The IBC provides standard specifications for engineering and construction activities, including measures to address geologic and soil concerns. Specifically, these measures encompass issues such as seismic loading (e.g., classifying seismic zones and faults), ground motion, engineered fill specifications (e.g., compaction and moisture content), expansive soil characteristics, and pavement design. The referenced regulations, while not compromising formal regulatory requirements per se, are widely accepted by regulatory authorities and are routinely included in related standards such as municipal grading codes. The IBC regulations are regularly updated to reflect current industry standards and practices, including criteria from the American Society of Civil Engineers (ASCE) and ASTM International (formerly the American Society for Testing and Materials [ASTM]).

5.11.2.2 State

California Seismic Hazards Mapping Act

The California Seismic Hazards Mapping Act (PRC Division 2, Chapter 7.8, Section 2690 et seq.) provides a statewide seismic hazard mapping and technical advisory program to assist local governments in protecting public health and safety relative to seismic hazards. The act provides direction and funding for the State Geologist to compile seismic hazard maps (to designate zones of potential liquefaction and seismically induced landslide potential) and to make those maps available to local governments. The Act, along with related standards in the Seismic Hazards Mapping Regulations (CCR Title 14, Division 2, Chapter 8, Article 10, Section 3270 et seq.), also directs local governments to require the completion and review of appropriate geotechnical studies prior to approving development projects. These requirements are implemented on a local level through means such as General Plan directives and regulatory ordinances (with applicable City standards).

California Alquist-Priolo Earthquake Fault Zoning Act

The California Alquist-Priolo Act (PRC Section 2621 et seq.) is intended to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The law requires the State

Geologist to establish regulatory zones known as Earthquake Fault Zones (previously called Special Studies Zones and Fault-Rupture Hazard Zones) around the surface traces of active faults, and to distribute maps of these zones to all affected cities, countries, and State agencies. The Act also requires completion of a geologic investigation prior to project approval, to demonstrate that applicable structures will not be constructed across active faults and/or that appropriate setbacks from such faults (generally 50 feet) are included in the project design.

California Building Code

The California Building Code (CBC) (CCR title 24, Part 2) encompasses a number of requirements related to geologic issues. Specifically, these include general provisions, structural design, including soil and seismic loading; structural tests and special inspections, including seismic resistance; soils and foundations; concrete; masonry; wood, including consideration of seismic design categories; construction safeguards; and grading, including excavation, fill, drainage, and erosion control criteria. The CBC encompasses standards from other applicable sources, including the IBC and ASTM International, with appropriate amendments and modifications to reflect site-specific conditions and requirements in California.

5.11.2.3 Local

City of San Diego Seismic Safety Study

The City Seismic Safety Study includes a series of maps identifying potential geologic hazards throughout the City. These maps provide a guide to determine relative risks and identify areas prone to hazards including active fault zones, liquefaction, and landslides/slope stability that require appropriate levels of geotechnical investigation prior to discretionary approvals. Specific requirements related to the nature and level of required geotechnical investigations are outlined in Article 5, Division 18, Section 145.1803 of the SDMC; and Information Bulletin 515.

City of San Diego General Plan Policies

The Public Facilities, Services, and Safety Element of the City General Plan identifies a number of applicable policies related to seismic, geologic, and structural considerations. Specifically, Policies PF-Q.1 and PF-Q.2 include measures regarding conformance with State laws related to seismic and geologic hazards, conducting/reviewing geotechnical investigations, and maintaining structural integrity with respect to geologic hazards.

Additional City of San Diego Requirements

In addition to the regulatory standards listed above, City requirements related to geologic and geotechnical issues include obtaining a grading permit (per Article 9, Division 6, Section 129.0601 et seq. of the SDMC), and conformance with applicable elements of the City Storm Water Standards Manual and related documents (per Article 3, Division 3, Section 43.0301 et seq. of the SDMC). Storm water standards are discussed in more detail in Section 5.12, *Hydrology*, and Section 5.14, *Water Quality*.

5.11.3 Impact Analysis

5.11.3.1 Issue 1 and Issue 2

Issue 1: *Would the* project *expose people or structures to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards?*

Issue 2: *Would the project be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in an on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?*

Impact Threshold:

Based on the City of San Diego's CEQA Significance Determination Thresholds, a project could result in a significant impact associated with geologic conditions if a project would:

- *Expose people or structures to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards;*
- *Be located on a geological unit or soil that is unstable or that would become unstable as a result of the project and potentially result in on-site or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse.*

Analysis

The Riverwalk VTM provides details relative to grading, street design, and utility layout necessary to implement the land use plan of Riverwalk in an efficient manner. Grading for the project would consist of approximately 426,400 cubic yards of cut, approximately 1,454,000 cubic yards of fill and would import 1,028,000 cubic yards. The overall grading for the project would consist primarily of design fill of up to 25 feet above existing topography to create pads. There are design cuts within the North and Central Districts, both in the buildings and for the pads below Friars Road and the Trolley. These design cuts will be up to 13 feet deep. Design cuts up to 21 feet and fills up to four feet are proposed for the parks. There would be some cut slopes or retaining walls in the cut areas. Figure 3.10, *Riverwalk Grading Plan*, shows grading for the project.

Faulting/Seismicity

The project area is not located on any known active, potentially active, or inactive fault traces. Like all of Southern California, in the event of a major earthquake on the referenced faults or other significant faults in the southern California and northern Baja California area, the site could be subjected to moderate to severe ground shaking. Additionally, seismic design of the proposed structures would be performed in accordance with guidelines currently adopted by the CBC and other applicable regulatory standards. Conformance with the CBC and other applicable regulatory standards would reduce impacts to people or structures to an acceptable level of risk.

Landslide Potential and Slope Stability

Landslides are not present at the property nor at a location that could impact the site. Therefore, the risk associated with landslides hazard and slope stability would not occur.

Liquefaction

Preliminary slope stability analysis has been performed to consider static, seismic induced liquefaction (strength loss), and liquefaction induced post-seismic flow conditions. The proposed slopes are considered stable under static conditions, with a factor of safety of greater than 1.5, provided that the remedial grading recommendation included in the geotechnical report are implemented during the grading of the site.

The liquefaction analysis performed for the project site indicates that much of the saturated sandy and silty alluvium below the water table are considered liquefiable. Lateral ground spreading can occur when viscous liquefied soils flow down gradient, usually towards a river channel or shoreline. The project includes deeper ground improvement in slope areas next to the river to address potential seismically-induced lateral spread and flow conditions as a result of liquefaction.

There is also a potential for seismic settlements throughout the building areas underlain by alluvium. As a result, a combination of grading and ground improvement is recommended in these areas. Removals of the near surface alluvium will be made with heavy equipment down to a few feet above the groundwater table and ground improvements will be installed to depths of between 10 and 25 feet below these levels. The excavated areas will then be filled to finish grades.

In addition, implementation of standard building practices would avoid impacts associated with liquefaction. With the implementation of the above ground improvements and structural design measures, the potential impacts will be reduced to an acceptable level. Impacts relative to lateral spreading or liquefaction would be less than significant.

Tsunamis and Seiches

The project is located outside of the mapped tsunami inundation zones and is not located adjacent to a confined body of water; therefore, the potential for seismic hazard of a tsunami or seiche is considered very low. No impacts would result.

Significance of Impacts

Conformance with recommendations of the project's Geotechnical Report and appropriate building design measures per the IBC/CBC would reduce the risk of potential effects from geologic hazards to an acceptable level of risk. Therefore, impacts would be less than significant.

Mitigation Measures

No mitigation would be required.

5.11.3.2 Issue 3

Issue 3: *Would the* project *result in a substantial increase in wind or water erosion of soils, either on or off the site?*

Impact Threshold

Based on the City of San Diego's California Environmental Quality Act Significance Determination Thresholds for impacts to geology, a project may result in a significant impact if a project would:

- *Result in substantial increase in wind or water erosion of soils, either on or off the site?*

Analysis

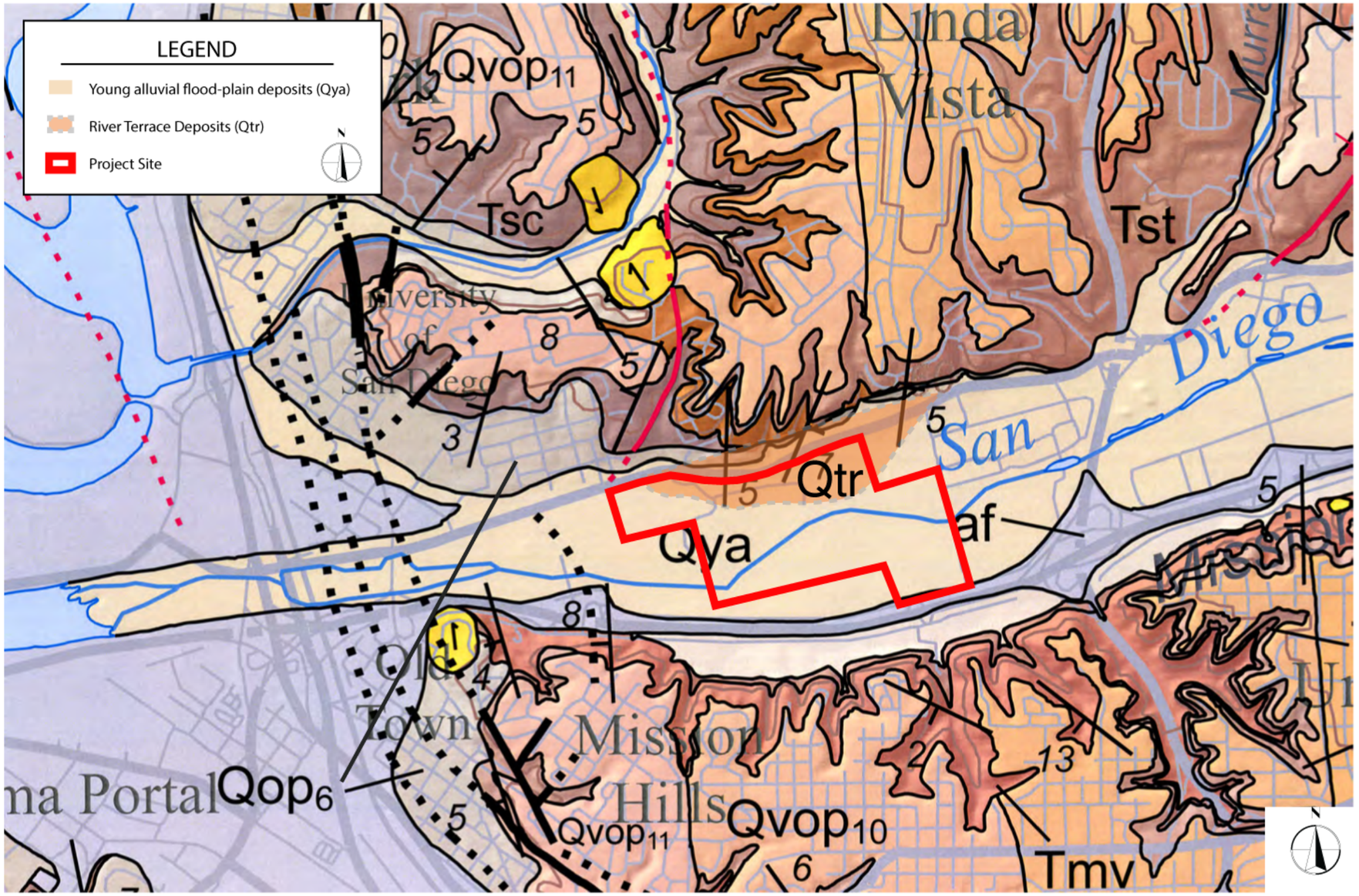
Construction would involve grading activities that would expose and disturb soils and could, therefore, increase the potential for soil erosion. However, potential erosion impacts during construction would be avoided with adherence to the erosion control standards established by the City's grading ordinance. As presented in Section 5.12, *Hydrology,* a SWPPP would be implemented to identify detailed measures to prevent and control the discharge of pollutants in storm water runoff. As described in Section 5.14, *Water Quality*, drainage for the site would be adequately controlled such that substantial runoff would not occur, and storm drains have been sized to handle storm water runoff. Proper construction BMPs would be implemented to avoid soil erosion during construction. Landscaping of the site in accordance with the proposed Landscape Plan would control erosion of topsoil after completion of construction. Also, the structural graded fill slopes next to the river will be protected from erosion by surface protection (i.e. rip-rap or other similar methods) and scour protection. As such, the potential for erosion to adversely impact the site is considered low. Wind erosion does not occur. The project would not result in a substantial increase in wind or water erosion, and there is a very low potential for the loss of topsoil.

Significance of Impacts

The project includes preparation and implementation of a SWPPP and BMPs. The SWPPP would be completed prior to project construction. Therefore, with implementation of the SWPPP and BMPs, and adherence to applicable standards, less than significant impacts associated with wind or water erosion of soils would occur and no mitigation measures are required.

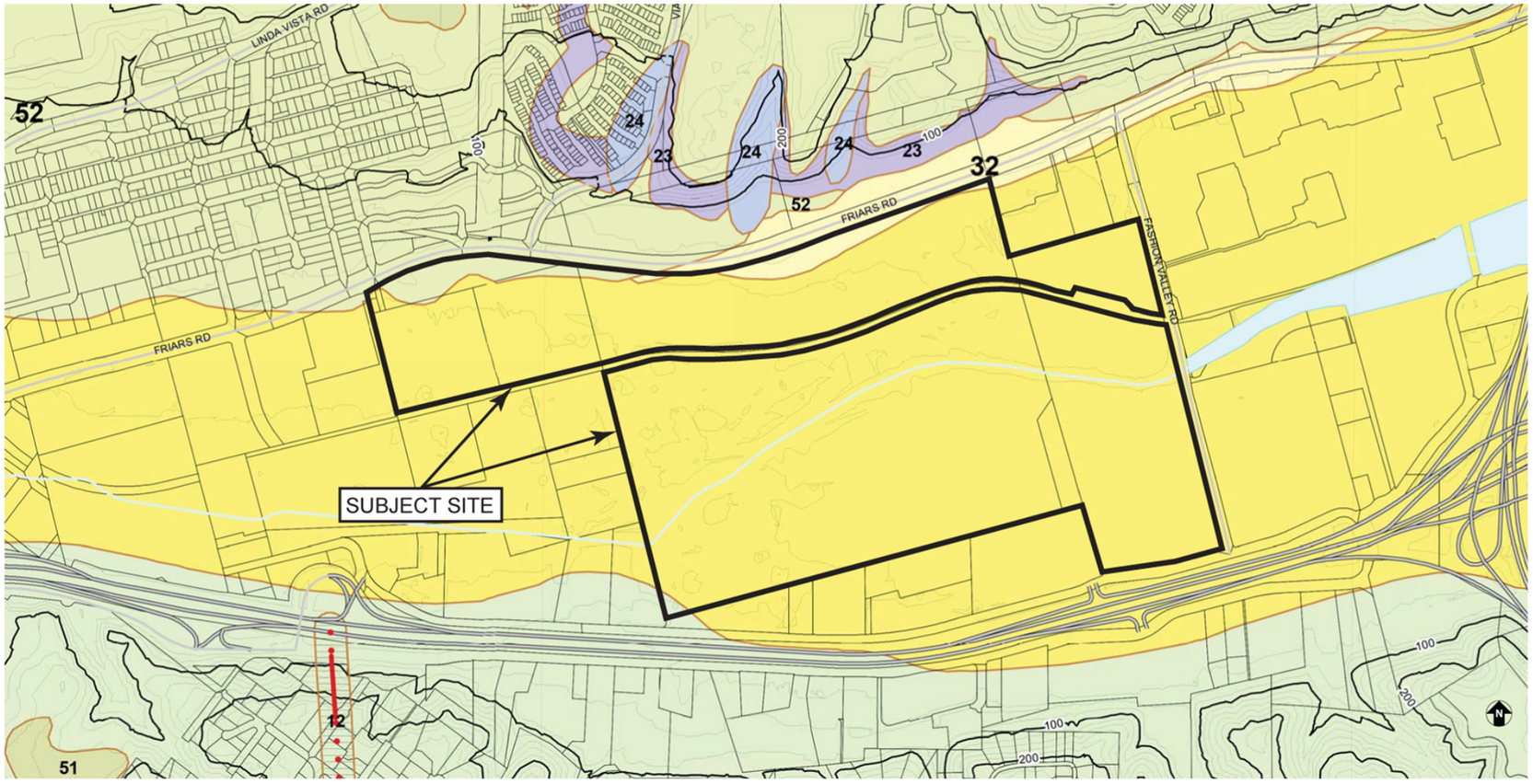
Mitigation Measures

No mitigation would be required.



Scale: 1"=2000'

Figure 5.11-1. ***Geology Map***



LEGEND

FAULT ZONES

12 Potentially Active, Inactive, Presumed Inactive, or Activity Unknown

SLIDE-PRONE FORMATIONS

23 Friars: neutral or favorable geologic structure

24 Friars: unfavorable geologic structure

LIQUEFACTION

31 High Potential -- shallow groundwater major drainages, hydraulic fills

32 Low Potential -- fluctuating groundwater minor drainages

OTHER TERRAIN

51 Level mesas -- underlain by terrace deposits and bedrock nomimal risk

52 Other level areas, gently sloping to steep terrain, favorable geologic structure, Low risk

53 Level or sloping terrain, unfavorable geologic structure, Low to moderate risk

Water (Bays and Lakes)

FAULTS

Fault

Concealed Fault

Not to Scale

Base: City of San Diego Seismic Safety Study

Figure 5.11-2. ***City of San Diego Geohazard Map***

5.12 Hydrology

This section evaluates potential hydrology impacts associated with the project. The following discussion is based on the *Preliminary Drainage Report* (April 7, 2020) and the *Storm Water Quality Management Plan (SWQMP)* (April 7, 2020) prepared by Chang Consultants and are included as Appendices N and O, respectively.

5.12.1 Existing Conditions

The Riverwalk Specific Plan area is part of the San Diego River watershed and is located within the San Diego Hydrologic Unit (HU 907.00). The project site currently supports the Riverwalk Golf Club and is primarily pervious, consisting of three nine-hole golf courses and associated landscaping, accessory buildings, parking, and other hardscape. Non-vegetated pervious areas include sand traps and miscellaneous dirt areas. Impervious surfaces include parking lots, golf cart paths, sidewalks, hardscape, and a clubhouse. Under existing conditions the amount of pervious and impervious surfaces can be broken down as:

Condition	**Total*** (acres)
Permeable	160.67
Impermeable	12.97
TOTAL	173.63

* Total includes project site area, except the San Diego River, MTS (trolley) areas and areas not graded/improved with the project (approximately 21acres).

5.12.1.1 Surface Water

The project site is located within the ~~lower San Diego subunit of the~~ San Diego Hydraulic Unit, Lower San Diego Hydrologic Area, Mission San Diego Hydrologic Subarea~~, Basin Number~~ (907.11), as identified in the Water Quality Control Plan for the San Diego Basin. The main receiving water body in this Hydrologic Subarea is the San Diego River. The San Diego Hydraulic Unit drains an approximately 440-square-mile area and discharges the combined drainages of the Alvarado Canyon, San Vicente Creek, and Foster Creek through the San Diego River into the Pacific Ocean. The drainage area extends easterly to Lake Cuyamaca and westerly to Mission Bay. Average annual precipitation ranges from approximately ~~9.9~~10.2 inches along the coast to in excess of 40 inches in the inland mountains.

5.12.1.2 Flooding

FEMA provides all floodplain information through the publication of FIRMs. All FIRMs delineate the location of 100- and 500-year floodplains. Based on these maps, a large portion of the project site is within the San Diego River 100-year floodplain floodway. (See Figure 2-5, *FEMA 100-Year Floodway and Floodplain Map*.)

According to the Mission Valley Community Plan, [t]*he majority of the* Community Plan *area is developed and is highly impervious in the existing condition*. *Flooding sources in the* Community Plan *area include local surface runoff from developed areas and riverine flooding from the San Diego River and its tributaries.* Among the areas identified in the Mission Valley Community Plan as within the 100-year floodplain of the San Diego River is the areas west of *SR-163 – Avenida Del Rio*, including *portions of Fashion Valley Road (low water crossings very frequently flooded during lower storm events)* proximate to the project site.

Flooding in Mission Valley can occur during and after heavy rains. Road crossings/culverts are impassable during some storm events. According to the Community Plan, *Avenida Del Rio, Fashion Valley Road, and San Diego Mission Road are the most susceptible to flooding and typically flood in* five*-year storm events and greater.* The Mission Valley Community Plan recognizes that *[l]arge areas of impervious surfaces (buildings, roadways, and surface parking) are interspersed with a smaller amount of pervious areas. Future buildout of the* Community Plan area *could result in new or increased impervious surfaces. For example, the Riverwalk development proposes new commercial/office, mixed-use, and residential uses in an area that is currently pervious (currently Riverwalk Golf Course).*

5.12.1.3 Drainage

The floodplain and floodway flow in a westerly direction across the project site and are primarily south of the MTS trolley tracks. Site runoff north of the river channel flows southerly in a series of landscape area drains and existing storm drain pipes, as well as via overland flow. An existing east-west trolley embankment splits the northerly portion of the site. The area north of the trolley embankment discharges to the San Diego River via existing storm drain outfalls. The area south of the trolley embankment (but still north of the river), drains southerly via a combination of storm drains and, to a lesser degree, overland flow. Site runoff south of the river drains northerly via a series of landscape area drains and existing storm drains and, to a lesser degree, as overland flow.

The project site receives a considerable amount of off-site run-on from Friars Road (northerly project boundary) and properties further to the north. The off-site flow is conveyed to the San Diego River via existing on-site storm drains.

5.12.1.4 Groundwater

As discussed in Section 5.11, *Geologic Conditions*, groundwater was encountered within exploratory borings at approximate depths ranging from five to 10 feet below ground surface near the San Diego River, and between 10 feet and 25 feet away from the river. Groundwater varies across the site in elevation from approximately six feet AMSL to 15 feet AMSL in the alluvium. Based on review of GeoTracker sites along Friars Road, the groundwater levels have been monitored over the past several years and found that the groundwater table fluctuates both seasonally and annually.

5.12.2 Regulatory Framework

5.12.2.1 Federal

Clean Water Act/National Pollutant Discharge Elimination System Requirements

The project is subject to applicable elements of the CWA, including the NPDES. Specific NPDES requirements associated with the project include conformance with the following:

- General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit, NPDES No. CAS000002, SWRCB Order 2009-0009-DWQ; as amended by Order Nos. 2010-0014-DWQ and 2012-0006-DWQ);
- General Groundwater Extraction Discharges to Surface Waters Permit (Groundwater Permit; NPDES No. CAG919003, Order No. R9-2015-0013);
- Waste Discharge Requirements for Municipal Separate Storm Sewer Systems (MS4) Permit (Municipal Permit, NPDES No. CAS 0109266, Order No. R9-2013-0001, as amended by Order Nos. R9-2015-0001 and R9-2015-0100); and
- General Permit for Storm Water Discharges Associated with Industrial Activities (Industrial Permit, NPDES No. CAS000001, Order No. 2014-0057-DWQ). In California, the EPA has delegated authority for implementing NPDES requirements to the SWRCB; therefore, these permits are described below under state standards (and related City requirements discussed under local standards).

Federal Emergency Management Agency

FEMA, under the Department of Homeland Security, provides a single point of accountability for all Federal emergency preparedness and mitigation and response activities. This includes flood hazards. They are responsible for programs that take action before a disaster, in order to identify risks and reduce injuries, loss of property, and recovery time. The agency has major analysis programs for floods, hurricanes and tropical storms, dams, and earthquakes. FEMA also works to enforce no-build zones in known floodplains and relocate or elevate some at-risk structures. California is located in FEMA Region IX. Coordination is carried out by their Oakland office.

As part of these planning efforts, FEMA provides Letters of Map Revision, in which they formally evaluate modification to flow patterns and either approve proposed actions or require project redesign. A Conditional Letter of Map Revision (CLOMR) is FEMA's comment on a proposed project that would, upon construction, affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodway, the effective Base Flood Elevations (BFEs), or the Special Flood Hazard Area (SFHA). It is conditional because it sets forth requirements for design that must be implemented in order to revise the floodplain and/or floodway.

Executive Order 11988, Floodplain Management

The major requirements of this Federal order are to avoid support of floodplain development; to prevent uneconomic, hazardous, or incompatible use of floodplains; to protect and preserve the natural and

beneficial floodplain values; and to be consistent with the standards and criteria of the National Flood Insurance Program. The basic tools for regulating construction in potentially hazardous floodplain areas are local zoning techniques. Proper floodplain zoning can be beneficial in the preservation of open space, retention of floodplains as groundwater recharge areas, and directing of development to less flood-prone areas.

5.12.2.2 State

National Pollutant Discharge Elimination System Construction General Permit

Projects that involve land disturbance of one acre or more (or that are part of a larger plan of development that would disturb one or more acres) are subject to pertinent requirements under the Construction General Permit. Specific conformance requirements include implementing a SWPPP, an associated Construction Site Monitoring Program (CSMP), employee training, and minimum BMPs, as well as a Rain Event Action Plan (REAP) for applicable projects (e.g., those in Risk Categories 2 or 3, as described below).

Under the Construction General Permit, project sites are designated as Risk Level 1 through 3 based on site-specific criteria (e.g., sediment erosion and receiving water risk), with Risk Level 3 sites requiring the most stringent controls. Based on the site-specific risk level designation, the SWPPP and related plans/efforts identify detailed measures to prevent and control the discharge of pollutants in storm water runoff. Depending on the risk level, these may include efforts such as minimizing/stabilizing disturbed areas, mandatory use of technology-based action levels, effluent and receiving water monitoring/reporting, and advanced treatment systems (ATS). Specific pollution control measures require the use of best available technology economically achievable (BAT) and/or best conventional pollutant control technology (BCT) levels of treatment, with these requirements implemented through applicable BMPs.

While site-specific measures vary with conditions such as risk level, proposed grading, and slope/soil characteristics, detailed guidance for construction-related BMPs is provided in the permit and related City standards (as outlined below), as well as additional sources including the EPA *National Menu of Best Management Practices for Storm Water Phase II – Construction* (EPA 2018), and the *Construction Storm Water Best Management Practices Handbook* (California Stormwater Quality Association [CASQA] 2015). Specific requirements for the project under this permit would be determined during SWPPP development, after completion of project plans and application submittal to the State Water Resources Control Board (SWRCB).

National Pollutant Discharge Elimination System Groundwater Permit

Shallow groundwater is expected to occur on site, as previously described. If project-related construction activities entail the discharge of extracted groundwater into receiving waters, the applicant would be required to obtain coverage under the Groundwater Permit. Conformance with this permit is generally applicable to all temporary and certain permanent groundwater discharge activities, with exceptions as noted in the permit fact sheet. Specific requirements for permit conformance include: (1) submittal of

appropriate application materials and fees; (2) implementation of pertinent (depending on site-specific conditions) monitoring/testing, disposal alternative, and treatment programs; (3) provision of applicable notification to the associated local agency prior to discharging to a municipal storm drain system; (4) conformance with appropriate effluent standards (as outlined in the permit); and (5) submittal of applicable documentation (e.g., monitoring reports).

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act established the principal legal and regulatory framework for water quality control in California. This Act is embodied in the California Water Code, which authorizes the SWRCB to implement the provisions of the Federal CWA as previously described. The Porter-Cologne Act also provides for the development and periodic review of water quality control plans that designate beneficial uses for surface waters, groundwater basins, and coastal waters, and establish water quality objectives for applicable waters as outlined below under the *Water Quality Control Plan for the San Diego Basin* heading.

The Porter-Cologne Act establishes the responsibility of the RWQCBs for adopting, implementing, and enforcing water quality control plans, which set forth the state's water quality standards (i.e., beneficial uses of surface waters and groundwater) and the objectives or criteria necessary to protect those beneficial uses. The State of California is divided into nine regions governed by RWQCBs, which implement and enforce provisions of the California Water Code and the CWA under the oversight of the SWRCB. The City is located within the purview of the San Diego RWQCB (Region 9). The Porter-Cologne Act also provides for the development and periodic review of basin plans that designate beneficial uses for surface waters, groundwater basins, and coastal waters, and establish water quality objectives such as those listed for the Miramar Reservoir Hydraulic Area.

5.12.2.3 Local

Drainage Design Manual

Pursuant to SDMC Chapter 14 Article 2 Division 2, Storm Water Runoff and Drainage Regulations, drainage regulations apply to all development in the City, whether or not a permit or other approval is required. Drainage design policies and procedures for the City are provided in the Drainage Design Manual (City 2017), which is incorporated into the Land Development Manual as Appendix B. The Drainage Design Manual provides design guidelines for drainage and drainage-related facilities associated with development in the City, including criteria for determining watersheds, storm discharge, and applicable storm drain structure types and capacities.

Storm Water Standards Manual

The City has adopted a jurisdiction-specific Storm Water Standards Manual (City 2018d) to reflect related NPDES standards. The Storm Water Manual provides direction for associated regulatory compliance, including identification of construction and post-construction storm water requirements for Standard Projects and Priority Development Projects, pursuant to the Regional MS4 Permit. Specifically, the manual identifies regulatory requirements and provides detailed performance standards and

monitoring/maintenance efforts for: (1) construction BMPs; (2) overall storm water management design; (3) site design (LID) and source control BMPs applicable to all projects; (4) pollutant (or treatment) control and hydromodification management BMPs applicable to Priority Development Projects; (5) operation and maintenance requirements for applicable BMPs; and (6) specific direction and guidance to provide conformance with City and related NPDES storm water standards.

Grading Ordinance

The City Grading Ordinance (SDMC Section 142.0101 et seq.) incorporates a number of requirements related to hydrology and water quality, including BMPs necessary to control storm water pollution from sources such as erosion/sedimentation and construction materials during project construction and operation. Specifically, these include elements related to slope design, erosion/sediment control, revegetation requirements, and material handling/control.

San Diego General Plan

The City of San Diego General Plan provides goals and policies related to hydrology in the Public Facilities, Services, and Safety Element. This element includes a number of goals and policies related to the provision of adequate public facilities and services for existing and proposed development. For storm water, these involve efforts to provide appropriately designed and sized infrastructure and ensure adequate conveyance capacity, protect water quality, and provide conformance with applicable regulatory standards (such as the NPDES).

Mission Valley Community Plan

The Mission Valley Community Plan includes policies, implementing actions, and design guidelines *to address storm water runoff to reduce the potential for flooding, as well as infrastructure design to reduce the impact of storm water runoff when it occurs.* Guidance in the Community Plan includes Policy for Development FSR-1, Implementing Actions IA-90 through IA-94, and Design Guideline DG-65.

5.12.3 Impact Analysis

5.12.3.1 Issue 1 and Issue 2

Issue 1 *Would the* project *result in a substantial increase in impervious surfaces and associated increased runoff?*

Issue 2 *Would the* project *result in a substantial alteration to on- and off-site drainage patterns due to changes in runoff flow rates or volumes?*

Impact Thresholds

Based on the City's CEQA Significance Determination Thresholds, a project could result in a significant impact associated with hydrology if it would:

- *Grade, clear, or grub more than 1.0 acre of land, especially into slopes over a 25 percent grade, and would drain into a sensitive water body or stream, there may be significant impacts on stream hydrology if uncontrolled runoff results in erosion and subsequent sedimentation of downstream water bodies*;
- *Result in modifications to existing drainage patterns, there may be significant impacts on environmental resources such as biological communities, archaeological resources*, etc.; and/or
- *Result in decreased aquifer recharge* or *result in extraction from an aquifer resulting in a net deficit in the aquifer volume or reduction in the local groundwater table.*

Analysis

Implementation of the project requires grading to allow for the construction of buildings, roadways, a transit station, parking lots, walkways, plazas/courtyards, and park lands, as well as installation of utilities to serve the project. The project would be graded in a phased manner restricted by City rules, regulations, and ordinances; and agency limitations. Grading for the project would consist of approximately 426,400 cy of cut, approximately 1,454,000 cy of fill and import 1,028,000 cy of soil. However, grading would not affect slopes over a 25 percent grade as the project site is generally level.

Buildout of the proposed project would be required to comply with the hydromodification management requirements described in the City's Storm Water Standards Manual. These requirements have been developed to comply with the Regional MS4 Permit, which requires implementation of on-site BMPs to manage hydromodification that may be caused by storm water runoff discharged from a project. By adhering to the requirements of the City's Stormwater Standards Manual, the project would not increase the rate or amount of surface runoff in a manner which would result in substantial erosion or siltation on- or off-site, and impacts would be less than significant. (See also discussion in Section 5.14, *Water Quality*.)

The project would result in a change to the amount of pervious and impervious surfaces, as shown in Table 5.12-1, *Comparison of Pervious and Impervious Surfaces*, associated with redevelopment of a predominately pervious site to one with a combination of impervious and pervious surfaces. The amount

of impervious surfaces would increase from approximately 13 acres (or approximately four percent of the project site) to approximately 60 acres (or approximately 20 percent of the project site), leaving the remainder of the site as pervious conditions associated with park development, and open space.

Table 5.12-1. *Comparison of Pervious and Impervious Surfaces*

Condition	Total Permeable Surface* (acres)	Total Impermeable Surface* (acres)
Existing Condition	160.67	12.97
Proposed Project	113.44	60.19

* Includes project site area, except the San Diego River, MTS (trolley) areas and areas not graded/improved with the project.

The increase in impervious cover is not expected to substantially decrease associated potential groundwater recharge capacity, because approximately 80 percent would be available for infiltration/recharge capacity. The project would not result in decreased aquifer recharge or result in extraction from an aquifer resulting in a net deficit in the aquifer volume or reduction in the local groundwater table.

A dual storm drain system would be constructed on-site. One system would primarily convey storm runoff from the development pads, while the other would primarily convey street and runoff from adjacent areas to the San Diego River. The off-site runoff would not commingle with the on-site runoff until the on-site runoff is treated. The project runoff would be treated by biofiltration basins or compact biofiltration BMPs (e.g., Modular Wetland System Linear or equivalent) before discharging towards the San Diego River. The site was divided into five major basins, 100 to 500, which reflect the five primary discharge areas. The 100-year flow rates for each basin area as follows Basin 100 184 cubic feet per second (cfs); Basin 200 70 cfs, Basin 300 166 cfs, Basin 400 12 cfs and Basin 500 43 cfs. The total for all basins is 475 cfs. These results indicate that the flow rates are of a magnitude that can be conveyed by standard drainage facilities. The proposed drainage facilities would adequately control and convey storm water runoff.

Significance of Impacts

Construction of the project would grade more than 1.0 acre of land and introduce new impervious surfaces beyond what currently exists. However, the project would be designed consistent with all applicable regulations. With adherence to applicable regulations, the project would not affect the rate or volume of surface runoff, groundwater recharge capacity, nor would the project result in impacts to sensitive biological and archaeological resources. Impacts would be less than significant.

The project would result in an increase in impervious surfaces from what exists currently. However, the project would construct a storm drain system to handle project runoff. In addition, improvements to the Fashion Valley Road culverts would increase flow conveyance at the crossing. No significant impacts associated with drainage and runoff would result.

Mitigation Measures

Mitigation would not be required.

5.12.3.2 Issue 3

Issue 3 *Would the project develop wholly or partially within a 100-year floodplain as identified on a FEMA map and impose flood hazards on other upstream or downstream properties?*

Impact Threshold

Based on the City's CEQA Significance Determination Thresholds, a project could result in a significant impact associated with hydrology if it would:

- *Result in increased flooding on- or off-site,* that may result in *significant impacts on upstream or downstream properties and to environmental resources*.
- *Impose flood hazards on other properties or development or be proposed to develop wholly or partially within the 100-year floodplain identified on the FEMA maps.*

Analysis

As shown in Figure 5.12-1, *Project Site's Location in Relation to Special Flood Hazard Zone,* the project site is located within the 100-year floodplain of the San Diego River. The majority of the project site is located within Zone AE (100-year) floodplain of the San Diego River based on FEMA FIRM. The project would encroach into the floodplain and floodway.

Portions of the mixed-use development and the park are within portions of the floodplain and floodway. (See Figure 5.12-1, *Project Site's Location in Relation to Special Flood Hazard Zone*.) The project would be required to adhere to the City's Municipal Code, which outlines the local regulations for floodplain and floodway encroachments. LDC Section 143.0146(a)(7) states that floodway encroachments including fill, new construction, modifications, and other development are prohibited unless a registered engineer certifies that the encroachments will not increase the base flood (100-year water surface) levels (a "no-rise" condition). LDC Section 143.0146(c)(6) requires new construction or substantial improvement of any structure to have the lower floor elevated at least two feet above the base flood elevation, i.e., two feet of freeboard over the 100-year water surface elevations.

The project would avoid significant impacts to hydrology by increasing conveyance within the proposed Riverwalk River Park. The Riverwalk River Park would be widened and/or lowered to provide the offset of water surface impacts from floodplain and floodway encroachments. Additionally, the project would increase conveyance of floodwaters at Fashion Valley Road. The current crossing contains six 60-inch reinforced concrete pipes. The project would replace the existing drainage facility with an arch culvert. In conjunction with the improvements to Fashion Valley Road, automated gates would be installed adjacent to the road to restrict traffic when the river reaches the level at which it crosses over the roadway. The gates would be connected to sensors in the river, which would measure the water level and would trigger the gates to close Fashion Valley Road to traffic, across the culvert, in a north and south direction.

As shown in Table 5.12-1, comparison of the existing and proposed condition shows that the proposed grading would not increase the 100-year water surface elevations; therefore, no rise would result. In

addition, the water surface elevations upstream of Fashion Valley Road are lowered due to the proposed arch culvert. Because the San Diego River is under subcritical flow, changes at a given location would impact only the upstream water surface elevations, not downstream. As a result, the off-site water surface elevations downstream of the project would not be altered or affected by the project. Table 5.12-2, *Comparison of 100-Year Water Surface Elevations,* shows that the upstream water surface elevations would be benefited (lowered) by the project, because the project causes a decrease just upstream of Fashion Valley Road. Ultimately, the upstream water surface elevations resulting from the project would match existing conditions.

The current site conditions include two golf cart/pedestrian bridge crossings. These two crossings in conjunction with the Fashion Valley Road crossing, were analyzed to estimate the capacity of the three crossings. The resultant hydraulic analysis shows that the westerly golf course bridge can convey about 10,000 cfs under proposed conditions before water reaches the low end of the bridge, or just over the 30-year event. The easterly golf course bridge can convey about 20,000 cfs under proposed conditions before water reaches the low end of the bridge, or about the 60-year event. The proposed Fashion Valley Road culvert can convey about 4,000 cfs before overtopping the road or about the 12-year event. Floor elevations of any building must be two feet above the 100-year frequency flood elevation. The project proposes import of fill material to raise building finished floor elevations to at least two feet above the 100-year floodplain. As a result of the project, upstream water surface elevation would be benefited (lowered) since the project causes a decrease just upstream of Fashion Valley Road.

The upstream water surface elevations resulting from the project would match existing conditions and would not impact environmental resources. Implementation of the project would not result in significant and unavoidable flooding impacts.

Table 5.12-1, comparison of the existing and proposed condition shows that the proposed grading would not increase the 100-year water surface elevations; therefore, no rise would result.

Building finished floor elevation would be two feet above the 100-year floodplain. No impacts would result.

Significance of Impacts

The project would not result in increased flooding on- or off-site and would not cause significant impacts on upstream or downstream properties or to environmental resources. The project would not impose flood hazards on other properties or development. No impacts would occur on any properties or environmental resources surrounding the project site. No mitigation would be required.

Mitigation Measures

Mitigation would not be required.

Table 5.12-2. *Comparison of 100-Year Water Surface Elevations*

River Station	Existing 100-Year Water Surface Elevations, feet	Proposed Concept 100-Year Water Surface Elevations, feet	Proposed – Existing, feet
28331	30.79	30.46	-0.33
28300	Fashion Valley Road		
28269	29.64	29.18	-0.46
28244	29.74	29.31	-0.43
28164	28.77	28.65	-0.12
28064	28.80	28.44	-0.36
27929	28.75	28.25	-0.50
27759	28.63	27.97	-0.66
27589	28.51	27.98	-0.53
27429	28.33	27.96	-0.37
27259	28.25	27.89	-0.36
27069	28.02	27.60	-0.42
26951	27.96	27.36	-0.60
Easterly Golf Course Bridge			
26937	27.95	27.33	-0.62
26799	27.70	27.16	-0.54
26614	27.50	26.94	-0.56
26379	27.06	26.56	-0.50
26174	26.92	26.34	-0.58
25914	26.78	26.26	-0.52
25654	26.37	26.20	-0.27
25354	26.37	26.14	-0.23
25181	26.27	26.09	-0.18
25001	26.14	26.01	-0.13
24804	26.06	25.97	-0.09
Westerly Golf Course Bridge			
24790	26.03	25.96	-0.07
24581	25.75	25.73	-0.02
24401	25.31	25.28	-0.03
24226	24.98	24.98	0.00
24019	24.62	24.62	0.00
23800	24.21	24.21	0.00
23796	24.13	24.13	0.00
23650	24.17	24.17	0.00
23636	24.05	24.05	0.00
23470	23.78	23.78	0.00
23461	23.76	23.76	0.00
23220	23.60	23.60	0.00
23210	23.17	23.17	0.00
23200	23.00	23.00	0.00
23171	22.60	22.60	0.00
22880	22.36	22.36	0.00
22870	22.53	22.53	0.00
22860	22.08	22.08	0.00
22850	22.15	22.15	0.00

A CLOMR would be required to be submitted to FEMA after following discretionary action taken on the project to show the proposed floodplain and floodway of the project site. As stated above, As shown in

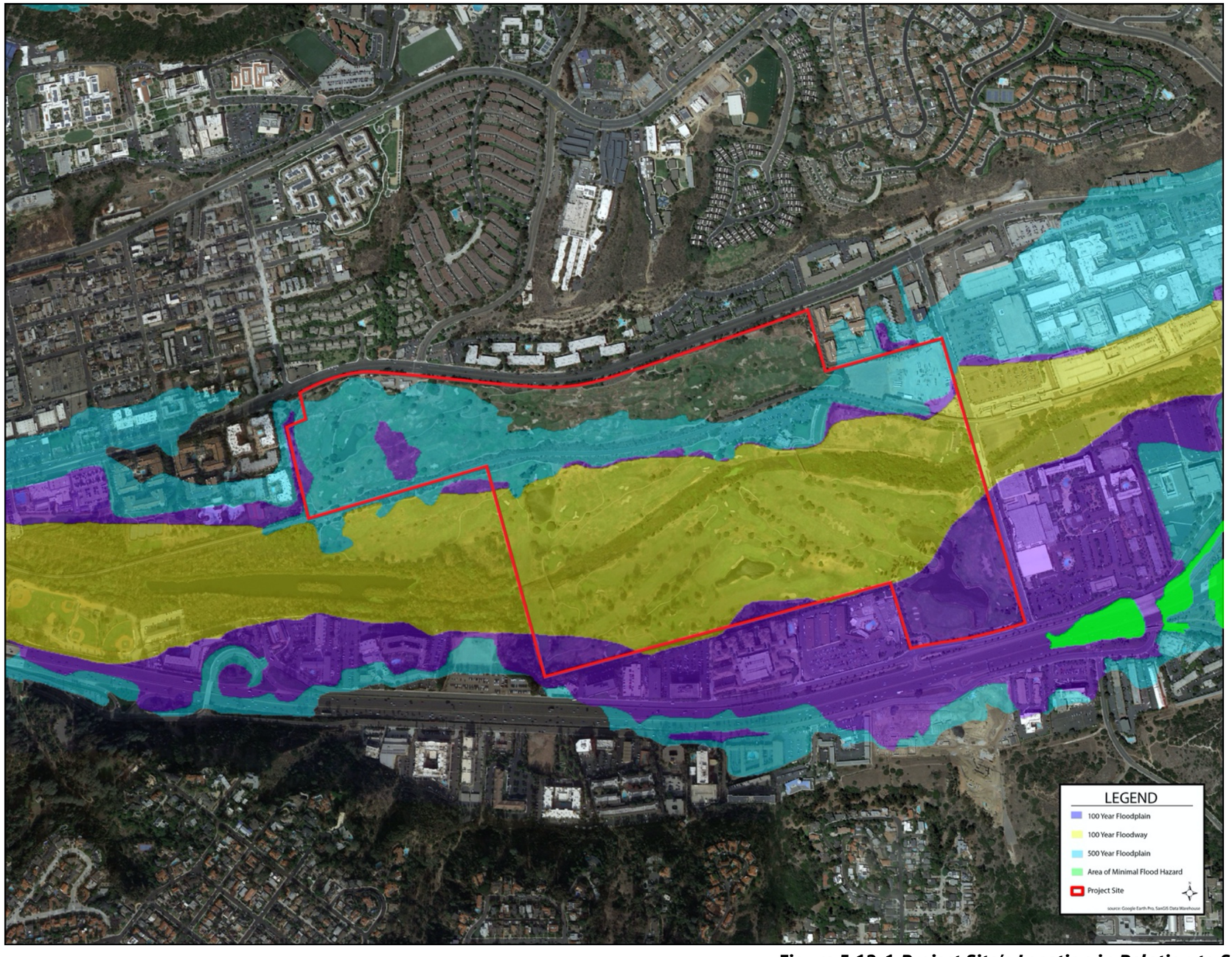


Figure 5.12-1 ***Project Site's Location in Relation to Special Flood Hazard Zone***

5.13 Public Utilities

This section evaluates the potential public utilities impacts associated with the project. The following discussion is based on the *SB 610 Water Supply Assessment* prepared by the San Diego Public Utilities Department (~~April 2019~~July 27, 2020); *Waste Management Plan* prepared by KLR Planning (March 2020); *Water Study* prepared by West Coast Civil (February 3, 2020); and *Sewer Study* prepared by Project Design Consultants, Inc. (April 2020). These documents are included as Appendix P, Appendix Q, Appendix R, and Appendix S, respectively.

5.13.1 Existing Conditions

Public utilities are functions and facilities that serve residents on a community-wide basis. Public utilities are generally provided to an area based on population, although each public utility provider has their own set of service standards. The City provides the project site with water supplies, wastewater treatment services, and solid waste management services, as detailed below.

5.13.1.1 Water

Water Facilities

Water service to the project site is provided by the City's Public Utilities Department (PUD). The PUD serves nearly 1.3 million people populating over 200 square miles of developed land, with average deliveries of 200 million gallons per day (mgd). The PUD maintains a complex water system that includes nine surface reservoirs, three drinking water treatment plants, 29 treated water storage facilities, 49 pump stations, and approximately 3,302 miles of water transmission and distribution pipelines (City 2018a). Potable water lines in the project area are located within public right-of-way; specifically, eight-inch and 12-inch water lines are located in Friars Road north of the plan area, a 16-inch water line is located in Fashion Valley Road east of the plan area, and an eight-inch water line is located in Hotel Circle North just south of the plan area. The project site is located in the City's 390 HGL Pressure Zone.

The PUD has developed a separate recycled water system to offset the demand for potable water. The goal is to reduce the City's dependence on imported water and increase reliability by providing non-potable water supplies. Recycled water service is available through the North City Water Reclamation Plant (northern service area) and the South Bay Water Reclamation Plant (southern service area). Recycled water is approved for use in some construction activities, recreational water bodies, and the irrigation of parks, playgrounds, schoolyards, residential landscaping, common areas, nurseries, freeway landscaping, golf courses, dual plumbed-uses, and cooling towers. Customers can purchase recycled water for approved uses if they are fronting an existing recycled water distribution pipeline. The City's Ordinance 0-17327 also supports feasible use of recycled water for new Developments. There are no recycled water distribution lines in the vicinity of the project site as indicated in Figure 5.13-1, *Recycled Water Availability*.

Water Supply

The City's PUD serves the area within its incorporated boundaries on a retail basis for treated water, imports the majority of its raw water from the San Diego County Water Authority (SDCWA), and is a limited wholesaler to neighboring agencies. The SDCWA is recognized as the lead agency for procuring imported water to meet the present and long-term needs of the City and the San Diego region. The SDCWA purchases much of its water from the Metropolitan Water District (MWD). As a member agency of SDCWA, the City of San Diego assists SDCWA as needed in working with the MWD, the State Department of Water Resources (DWR), the County of San Diego, other local water agencies, and the private sector in efforts to satisfy the future water supplies and demands of the region. Below is a summary of these water supply sources.

Metropolitan Water District

MWD is a consortium of 26 cities and water districts that provides imported water to nearly 19 million people in parts of Los Angeles, Orange, San Diego, Riverside, San Bernardino, and Ventura counties. MWD currently delivers an average of 1.5 billion gallons of water per day to a 5,200-square-mile service area. MWD imports its water from two main sources: the Colorado River [via the Colorado River Aqueduct (CRA) and the Sacramento and San Joaquin Rivers (via the State Water Project (SWP)]. Together, these two sources provide approximately 45 percent of Southern California's water; the remainder comes from various local sources. The CRA is owned and operated by MWD, and extends approximately 242 miles from the Colorado River at Lake Havasu to Lake Mathews in Riverside County. From there, a series of canals, siphons, pipelines, and pump stations moves water west to several MWD reservoirs for local distribution. The principal structure conveying water south through the SWP is the California Aqueduct, which extends approximately 444 miles south from the Sacramento-San Joaquin Delta to Lake Perris in Riverside County. Additional water sources currently or potentially available to MWD include local supplies, groundwater banking, water transfers, seawater desalination, and water recycling.

San Diego County Water Authority

The SDCWA is an independent public agency that serves as a wholesale water supplier to its 24 member agencies. The SDCWA supplies approximately 95 percent of the population of San Diego County, in a service area of 952,208 acres. The SDCWA operates and maintains a regional water delivery system capable of delivering more than 900 mgd of water. This system consists of two major aqueducts and numerous related facilities, including approximately 300 miles of pipeline and over 100 flow control facilities.

MWD is SDCWA's largest supplier, but SDCWA has pursued strategies over the last two decades to diversify San Diego's regional water supply portfolio and reduce the region's dependence on water deliveries from MWD, including through purchases from the Imperial Irrigation District (IID) and development of the Carlsbad Desalination Plant. In 1998, the SDCWA entered into a water conservation and transfer agreement with the IID, an agricultural district in neighboring Imperial County that receives Colorado River water. The agreement gave SDCWA a higher priority water right to Colorado River water, and includes strategies to provide SDCWA with a larger share of Colorado River water. These strategies involve voluntary conservation measures by Imperial Valley farmers, a canal lining project on the All

American and Coachella Canals, and the transfer of water conserved by these measures directly to SDCWA. This agreement, along with amendments related to the 2003 Quantification Settlement Agreement, is expected to provide over 40 percent of the region's water supply by 2020. In addition to developing its own regional supplies of water, SDCWA has also encouraged the development of additional local water supply projects, such as water recycling and groundwater projects.

In December 2015, SDCWA added desalinated water to its supply portfolio, with the completion of a seawater desalination facility capable of providing 50 mgd of potable water. SDCWA purchases up to 56,000 AFY of desalinated water from the Carlsbad Desalination Plant for their direct use or use by identified member agencies.

By 2013, SDCWA had reduced its dependency on MWD water purchases from 95 percent to 45 percent (SDCWA 2016c). SDCWA continues to pursue strategies for water supply diversification and reliability, such as additional seawater desalination projects, groundwater utilization, increased recycled water use, and the recent dam raise on the San Vicente Reservoir, which doubled its storage capacity. By 2020, SDCWA intends to increase local water resources to approximately 36 percent of total supply.

In coordination with its 24 member agencies, the SDCWA developed its most recent Urban Water Management Plan (UWMP) to demonstrate regional water supply reliability over the next 25 years (2015 to 2040). Main components of the plan are the baseline demand forecasts under varying future climate conditions, conservation savings estimates, water demand projections, a water supply assessment for the region, supply reliability analysis, and scenario planning. The SDCWA UWMP also includes water demand associated with accelerated forecasted residential development as part of its municipal and industrial sector demand projections. These housing units were identified by SANDAG's land use plan in the course of its RHNA update, but are not yet included in existing general land use plans of local jurisdictions. This Accelerated Forecasted Growth (AFG) is intended to account for growth that was originally anticipated to occur between 2040 and 2050, but has the likely potential to occur on an accelerated schedule. The AFG is an additional demand increment that can be used to confirm that water demands would be met for some development projects that are not currently identified in general land use plans.

City of San Diego Public Utilities Department

In June 2016, the City issued its most recent UWMP, which outlines current and future water supplies and demands in the City's service area. The City is engaged in several strategies to increase water reliability, including the development of local groundwater supplies; increased utilization of recycled water, or potable reuse; continued conservation efforts; and ongoing strategic water resources planning. The UWMP projects water supply reliability for average years, single dry years, and multiple dry years, and concludes that the PUD will have sufficient water supplies to serve the City through the year 2040 (City 2016f). PUD and interim supply and demand forecast tracking in 2018 also support a reduction in 2015 UWMP projected demands as a possible result of less water consumption than what was originally projected.

Conservation

In addition, the PUD emphasizes the importance of water conservation to minimize water demand and avoid excessive water use. The Water Conservation Program implemented by the PUD aims to reduce water use in San Diego by offering various rebate programs, landscaping classes, education, and free water conservation surveys for property owners and tenants. These programs are credited with achieving over 32.2 mgd of potable water savings (City 2015b). Depending on conditions, these savings can account for as much as 20 percent of raw water purchases annually. Water conservation continues to be a priority throughout California, and water suppliers are tasked with adopting programs and policies designed to promote water conservation practices and implementing comprehensive public information and educational campaigns.

The City's General Plan includes The Conservation Element (CE), Public Facilities, Services and Safety Element (PF-H) and Housing Element (HE). These Elements present respective water resource, climate change adaptation, sustainability, water efficiency and conservation policies and goals. Examples include policies that call for drought resistant landscaping, optimization of the use of imported water supplies and improve reliability by increasing alternative sources (PF-H.1), and the long-range planning and integrated management of groundwater and surface water resources and protecting those resources by implementing guidelines for future development (CE-D-2).

The City's Climate Action Plan and Community Plans consider adaptive strategies that include consideration of the water-energy nexus, City per capita reduction goals, City water supply choices and sustainability of water supply and services.

5.13.1.2 Wastewater

Wastewater treatment service is provided by the PUD, which operates the Metropolitan Sewerage System (Metro System). Facilities in the Metro System include the Point Loma Wastewater Treatment Facility, ocean outfall pipes, pump stations, interconnecting interceptor sewers, and the North City and South Bay Water Reclamation Plants. The Metro System provides wastewater transportation, treatment, and disposal services to the San Diego region. The system serves a population of 2.0 million from 16 cities and districts generating approximately 190 mgd of wastewater. Planned improvements to the existing facilities will increase wastewater treatment capacity to serve an estimated population of 2.9 million through the year 2050.

In the project site vicinity there are two sewer lines that convey flow to the 78-inch North Mission Valley Trunk Sewer. A 15-inch line exists on-site that conveys flow to the west. Off-site, 24-inch line in Fashion Valley Road that conveys wastewater to the south after it receives flow from off-site developments near the intersection of Friars Road and Fashion Valley Road. A 15-inch line off-site near the western portion of the site is currently not in use. All three sewer lines connect to the 78-inch North Mission Valley Trunk Sewer. A private sewer lateral servicing the golf course restroom is located near the southwest corner of the project site and conveys flow to the south. This private lateral connects to the 27-inch Mission Valley Trunk Sewer that passes east to west through the southwest corner of the project site.

5.13.1.3 Solid Waste

Solid waste management in the project area is provided by the City Environmental Services Department (ESD) and private collectors. The City provides refuse collection for residences located on dedicated public streets, provide adequate safe space and access for storage collection, and comply with regulations set forth in the San Diego Municipal Code. Other customers pay for services by City franchised private hauling companies.

City of San Diego ESD pursues waste management strategies that emphasize waste reduction and recycling, composting, and environmentally-sound landfill management to meet the City's long-term management needs.

Refuse collected from the area is generally taken to the Miramar Landfill, located just north of SR 52, between I-805 and SR 163. According to the Solid Waste Information System (SWIS) database maintained by CalRecycle, the Miramar Landfill had a remaining capacity of approximately 15,527,878 cy of solid waste as of June 30, 2014. Based on the remaining capacity and disposal rates, the Miramar Landfill is expected to close August 31, 2025 (CalRecycle 2018); however, the amount of waste managed at the landfill is expected to decrease while the amount of composting and recycling will increase over time as the City strives to achieve the target 75 percent diversion rate identified in the City's Zero Waste Plan.

Currently, only two other landfills provide disposal capacity within the urbanized region of San Diego: the Sycamore and Otay Landfills. The Sycamore Landfill contains 349 disposal acres on a 491-acre site and is located to the east of Miramar, within the City of San Diego's boundaries. The Otay Landfill contains 230 disposal acres on a 464-acre site and is located within an unincorporated island of County land in the City of Chula Vista. The Sycamore and Otay Landfills are privately owned by Allied Waste Industries, Inc. The Sycamore Landfill is permitted to receive a maximum of 8,000 tons per day. The remaining capacity as of December 31, 2016 was 113,972,637 cy. This landfill is projected to cease operation on December 31, 2042. The Otay Landfill is permitted to receive 6,700 tons per day. It has a remaining capacity of 21,194,008 cy as of May 31, 2016. It is estimated that the Otay Landfill will cease operation on February 28, 2030.

5.13.2 Regulatory Framework

5.13.2.1 State

California Assembly Bill 1881

AB 1881, the Water Conservation in Landscaping Act of 2006, requires the DWR to prepare an updated Model Water Efficient Landscaping Ordinance (Model Ordinance) in accordance with specified requirements to conserve water through efficient irrigation and landscaping. By January 1, 2010, local agencies were to adopt either the updated Model Ordinance or a local landscape ordinance that is at least as effective in conserving water as the Model Ordinance. Pursuant to state law, the City amended its Landscape Regulations (SDMC Chapter 14, Article 2, Division 4) and Landscape Standards in April 2016 to expand water conservation in landscaping. The Landscape Standards implement the requirements of the Landscape Regulations. All landscape plans and installations are required to be in compliance with the Landscape Standards.

Integrated Waste Management Act

The State of California Integrated Waste Management Act (IWMA) of 1989 [California AB 939], which is administered by CalRecycle, requires counties to develop an Integrated Waste Management Plan (IWMP) that describes local waste diversion and disposal conditions, and lays out realistic programs to achieve the waste diversion goals. IWMPs compile Source Reduction and Recycling Elements (SRREs) that are required to be prepared by each local government, including cities. SRREs analyze the local waste stream to determine where to focus diversion efforts, and provide a framework to meet waste reduction mandates. The goal of the solid waste management efforts is not to increase recycling, but to decrease the amount of waste entering landfills. AB 939 required all cities and counties to divert a minimum 50 percent of all solid waste from landfill disposal. In 2011, the State legislature enacted AB 341 (PRC Section 42649.2), increasing the diversion target to 75 percent statewide. AB 341 also requires the provision of recycling service to commercial and residential facilities that generate four cubic yards or more of solid waste per week.

AB 1826

In October 2014, Governor Brown signed AB 1826, Chesbro (Chapter 727, Statutes of 2014), which requires businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste. For businesses that generate eight or more cy of organic waste per week, this requirement began April 1, 2016, while those that generate four cy of organic waste per week must have an organic waste recycling program in place beginning January 1, 2017. This law also requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses, including multi-family residential dwellings that consist of five or more units. Mandatory recycling of commercial organics would be phased in over time, and an exemption process is available for rural counties.

As of January 1, 2019, changes to AB 1826 require more sites to have organics collection service. Businesses and institutions that generate four or more cubic yards of solid waste per week must have organics collection service. Materials that must be composted include food waste, green waste, landscape and pruning waste, non-hazardous wood waste, and food-soiled paper.

California Urban Water Management Act

As part of this Act, UWMPs are prepared, adopted, and administered by urban water suppliers and submitted to the California Department of Water Resources. These plans support the suppliers' long-term resource planning to ensure that adequate water supplies are available to meet existing and future water needs over a 20-year planning time-frame. The plans describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation, and demand management activities. Within UWMPs, urban water suppliers must assess the reliability of water sources over a 20-year planning time frame, describe demand management measures and water shortage contingency plans.

Senate Bill 610 Water Supply Assessment

The SB 610 Water Supply Assessment (SB 610 WSA) is intended to be internally consistent with the Urban Water Management Plan and applicable City General Plan Elements. WSAs are intended to closely link the demands of a set of proposed land uses contained in a proposed project with the water supplies available for that development and evaluate cumulative demands in the water service area. The standard for the certainty and reliability of water supplies sufficient to meet the demands of the proposed development is more exacting then that required for the Urban Water Management Plan; a foundational document to the SB 610 WSA.

Ultimately, because the SB 610 WSA is a source document for an EIR prepared for a proposed project pursuant to CEQA, it must provide detailed evidence showing that sufficient water will be available to meet water demands for the water purveyor's existing and planned land uses over a 20-year planning horizon, including single and multiple dry years, provide a discussion of increased demands and may evaluate practical efficient use of alternative water sources. The types of projects subject to SB 610 are the following:

- Residential developments of more than 500 units;
- Shopping centers or businesses employing more than 1,000 people or having more than 500,000 SF of floor space;
- Commercial office buildings employing more than 1,000 people or having more than 250,000 SF of floor space;
- Hotels or motels having more than 500 rooms;
- Industrial, manufacturing, or processing plants or industrial parks planned to house more than 1,000 people or having more than 650,000 SF of floor space;
- Mixed-use projects that include one or more of the above types of projects; and
- Projects that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-du project.

5.13.2.2 Local

Drought Restrictions

In July 2016, the City moved from a Level 2 Drought Alert to a Level 1 Drought Watch, lifting some of the water-use restrictions that were put in place to mitigate the multi-year drought that California had been experiencing. A Level 1 Drought Watch includes voluntary water-use restrictions that limit landscape watering and the washing of mobile equipment. Additionally, permanent mandatory water use restrictions are in place, with the goal of promoting water conservation as a way of life in San Diego.

City of San Diego Comprehensive Policy for a Sustainable Water Supply (CP 400-15)

CP 400-15 includes policies to assure an adequate water supply for the City. For example, it is the policy of the City Council to:

- Support economically sound activities that create an affordable and reliable water supply to attract, retain and expand business, and promote an excellent quality of life for residents.
- Support decisions that are aligned with the City's Urban Water Management Plan and the Conservation Element of the City's General Plan.
- Support the use of Water Supply Assessments related to land-use decisions.
- Support and encourage low-water use plumbing, landscaping and irrigation materials in public and private development.
- Support economically sound activities that reduce the City's reliance on imported sources of water and increase local supplies.
- Support the economically sound development of a diverse portfolio of local water supplies to meet the City's present and future needs.
- Support cost-effective programs to recharge, protect and improve the yield from local and regional groundwater basins.

San Diego Municipal Code 147.04 (Plumbing Retrofit Upon Re-Sale Ordinance)

This ordinance requires that all buildings, prior to a change in property ownership, be certified as having water-conserving plumbing fixtures in place. All residential, commercial and industrial water customers who receive water service from the City of San Diego Public Utilities Department are affected by this ordinance.

City of San Diego Ordinance 0-17327 (Mandatory Water Reuse Ordinance)

This ordinance, adopted by the City Council in 1989, requires that "recycled water shall be used within the City where feasible and consistent with the legal requirements, preservation of public health, safety, and welfare, and the environment." All development projects are required to install an additional water pipeline reserved for reclaimed water, based on the project's location within an existing or proposed recycled water service area. Compliance with this ordinance for new development is made a condition of tentative maps, land use permits, etc. Furthermore, it is the policy of the City that use of potable water for non-domestic uses shall be contrary to the City policy and shall not be considered the most beneficial use

of a natural resource and shall be avoided to the maximum extent possible (City of San Diego Rules and Regulations for Recycled Water Systems, June 2016).

Zero Waste Plan

The City's Zero Waste Plan, a component of the City's CAP, was approved and adopted by the City Council on July 13, 2015. The Zero Waste Plan lays out strategies to be implemented by the City to accomplish the following goals:

- Target 75 percent diversion by 2020, 90 percent diversion by 2035, and "zero waste" by 2040 by identifying potential diversion strategies for future action. To increase the City's waste diversion rate to 75 percent will require an estimated additional 332,000 tons per year to be diverted from landfill disposal;
- Demonstrate continuous improvement towards a goal of zero waste to landfills;
- Emphasize education by renewing City public information efforts;
- Promote local policies and ordinances and legislation at the state level that encourage manufacturers, consumers, and waste producers to be responsible for waste;
- Investigate appropriate new technologies; and
- Re-emphasize market development at the local and State level.

The City's ESD estimates that compliance with existing City codes and ordinances alone (including the Refuse and Recyclable Materials Storage Regulations [SDMC Chapter 14, Article 2, Division 8], Recycling Ordinance [SDMC Chapter 6, Article 6, Division 7], and the Construction and Demolition Debris Deposit Ordinance [SDMC Chapter 6, Article 6, Division 6]) would achieve only an approximate 40 percent diversion rate, which is substantially below the current 75 percent diversion level targeted by the state and the goals of the City's Zero Waste Plan.

The Recycling Ordinance requires all single-family, multi-family, and commercial uses to participate in a recycling program by separating recyclable materials from other solid waste and depositing the recyclable materials in the approved recycling containers. The Construction and Demolition Debris Deposit Ordinance requires project applicants to submit a Waste Management Form with the building permit or demolition/removal permit, to provide a general estimate of the total waste generated by the project including how much will be recycled. The code requires a minimum diversion rate of 50 percent for building permits or demolition/removal permits issued within 180 calendar days of the effective date of the ordinance, and a minimum diversion rate of 75 percent for building permits or demolition/removal permits issued after 180 calendar days from the effective date of the ordinance, provided that a certified recycling facility which accepts mixed construction and demolition debris is operating within 25 miles of the City Administrative Building.

5.13.3 Impact Analysis

5.13.3.1 Issue 1

Issue 1 *Would the* project *result in the need for new systems, or require substantial alterations to existing utilities, the construction of which would create physical* impacts with regard to the following utilities: water, sewer, and solid waste disposal?

Impact threshold

Based on the City's Significance Determination Thresholds, impact analysis of public utilities should focus on the physical impacts associated with the construction or expansion of existing utilities. Impacts to public utilities would be significant if the removal, construction, and/or relocation of the utility would:

- Result in direct impacts from the construction of new or expanded public utilities needed to serve the project, and/or
- Construct, demolish, or renovate *1,000,000 square feet or more of building space, which would generate approximately 1,500 tons or more of waste. For projects over 1,000,000 square feet, a significant impact would result if compliance with the City's* waste management *ordinances, and the Waste Management Plan fail[s] to reduce impacts of such projects to below a level of significance and/or if a Waste Management Plan for the project is not prepared and conceptually approved by ESD prior to distribution of the draft environmental document for public review.*

Additionally, the City's Significance Determination Thresholds note the following guidance should be considered in determining whether the utility work could have significant environmental impacts.

Would removal, construction, and/or relocation of the utility:

- *Be compatible with existing and adjacent land uses?*
- *Change drainage or affect water quality/runoff?*
- *Affect air quality?*
- *Affect biological resources including habitat? Consider access road locations.*
- *Have a negative aesthetic effect? Visual simulations might be necessary.*
- *Impact historical resources?*
- *Increase noise levels to sensitive receptors?*

Analysis

Water

The project is located within an urbanized area in the Mission Valley community. As such, water facilities have been installed to serve existing on-site uses and adjacent areas. To determine the appropriate water system design based on required capacity, the water demands associated with the Specific Plan were developed by the PUD in accordance with the City's Design Guidelines and Standards. Residential water

demand was estimated based on residential housing type, commercial square footage and park water demand (see Section 5.13.3.2, Issue 2 and Issue 3, for detail).

The proposed new water lines and connections to the City water system as described in the project's Water Study (February 2020) are represented in Figure 5.13-2, *Proposed Water System Modifications*, and were assessed by the City for conformance to the City's Facility Design Guidelines, the California Fire Code, and PUD level of service requirements. The Water Study determined pipeline sizes for the public water system only. Private development water systems would be developed for each lot and submitted as part of individual site plan development. . The proposed on-site water system would be provided through multiple connections to the existing water system and would accommodate the Specific Plan's demand. The proposed 16-inch diameter northern loop would have four connections to the existing 16-inch diameter main in Friars Road and one connection to the existing 16-inch diameter main on Fashion Valley Road. The proposed 12-inch diameter southern loop would have one connection to the existing 16-inch main in Fashion Valley Road and one connection to the existing eight-inch water main in Hotel Circle North. Domestic water would be provided for each lot off the proposed public mains with metered connections, back flow prevention, and private service mains. Construction of water facilities to serve the project would be subject to standard industry measures and the SDMC. The physical construction of these facilities has been analyzed within the various sections of this EIR, as all facilities would be a part of the project's proposed grading and construction plans.

Development of the Specific Plan would not trigger the need for new water facilities or the expansion of those facilities beyond what is proposed for the project. Adequate services are available to serve the project. Impacts would be less than significant.

Wastewater

The project proposes four POCs to the existing sewer system as shown in Figure 5.13-3, *Proposed Sewer System* which would allow. for four independent sewer systems. The first POC would connect to the northern unused off-site 15-inch line stub out near the western portion of the project site. Upstream of POC 1 are proposed public 12-inch and 10-inch sewer lines that make up the first sewer system (SYSTEM 1). SYSTEM 1 would convey sewage for 20 separate lots compromised of residential, retail, and employment space with a cumulative total population served of 4,507.

POC 2 would connect to the off-site 24-inch line in Fashion Valley Road. Upstream of POC 2 are proposed 10-inch sewer lines that make up the second sewer system (SYSTEM 2). SYSTEM 2 would convey sewage for two separate lots compromised of residential areas with a cumulative total population served of 1,005.

POC 3 would connect to the southern unused off-site 15-inch line stub out near the western portion of the project site. Upstream of POC 3 are proposed 10-inch sewer lines that make up the third sewer system (SYSTEM 3). SYSTEM 3 would convey sewage for six separate lots compromised of residential and retail space with a cumulative total population served of 1,471.

POC 4 would connect to the 78-inch North Mission Valley Trunk Sewer in an off-site existing manhole in Fashion Valley Road. Ten-inch sewer lines upstream of POC 4 make up the fourth sewer system (SYSTEM

4). SYSTEM 4 would convey sewage for 26 separate lots compromised of residential, retail, and employment space, in addition to the future park facilities, with a cumulative total population served of 3,586.

The project's sewer system has been designed in conformance with the City's Sewer Design Guide. The project would result in a reduction of the projected peak sewer flow-rate due to a change in the uses on the project site. Construction of wastewater facilities to serve the project would be subject to standard industry measures and the SDMC. The physical construction of these facilities has been analyzed within the various sections of this EIR, as all facilities would be a part of the project's proposed grading and construction plans.

The City has determined that is has adequate wastewater treatment capacity to serve the project. The existing facilities available to serve the project site were determined to be acceptable; in addition, the treatment facility has remaining capacity. Therefore, no new facilities would be needed to serve the project. Subsequently, the project would not adversely affect existing wastewater treatment services and adequate services are available to serve the project without requiring new or expanded entitlements. The project would result in less than significant impacts.

Solid Waste

The Waste Management Plan (WMP) prepared for the project pursuant to the City's Significance Determination Thresholds. Provided below is a discussion of solid waste generation associated with construction and operation of the project. There would be no export of material during grading operations. Therefore, no waste materials (earth) would be required to be disposed of as a result on project grading operations.

Construction

Construction for the project would occur over an extended period of time (approximately 20 years). Construction activities would generate packaging materials and unpainted wood, including wood pallets, and other miscellaneous debris. Construction debris would be separated on-site into material-specific containers to facilitate reuse and recycling and to increase the efficiency of waste reclamation. The types of construction waste anticipated to be generated that could be marketable include:

- Inert granule products (asphalt and concrete)
- Wood waste products
- Ferrous metals

Management of construction material and recycling would adhere to industry standards such that refuse that cannot be reused or recycled is disposed of at appropriate facilities. Provided below is a list of general procedures which would be implemented such that 75 percent of construction waste, in accordance with AB 341 and current City diversion targets for project-specific waste management plans, would be diverted from disposal in landfills in accordance with City requirements.

- Determine recycling, salvage, reuse, and disposal options before the job begins.

- Donate materials that can be reused to charities and nonprofit agencies.
- Choose refuse haulers based on their responsiveness to the projects recycling plan.
- Choose a recycling facility, such as Miramar Landfill, based on its fees, geographic proximity to the project site, and diversion rate.
- Solid waste management coordinator would be responsible for educating contractors and subcontractors regarding waste management plan requirements.
- Clearly identify recycling areas with large bilingual signs.
- Place recycling bins in areas that would minimize misuse or contamination by employees and the public.

To facilitate management of construction materials, as individual developments come forward, the developer shall identify one person or agency connected with the proposed development to act as Solid Waste Management Coordinator, whose responsibility it becomes to work with all contractors and subcontractors to ensure material separation and coordinate proper disposal and diversion of waste generated. The Solid Waste Management Coordinator would help to ensure all diversion practices outlined in this Waste Management Plan are upheld and communicate goals to all contractors involved efficiently.

The responsibilities of the Solid Waste Management Coordinator, include, but are not limited to, the following:

- Review the Solid Waste Management Plan including responsibilities of Solid Waste Management Coordinator.
- Work with contractors to estimate quantities of each type of material that would be salvaged, recycled, or disposed of as waste, then assist contractors with documentation.
- Review and update procedures as needed for material separation and verify availability of containers and bins needed to avoid delays.
- Review and update procedures for periodic solid waste collection and transportation to recycling and disposing facilities.

The contractors would perform daily inspections of the construction site to ensure compliance with the requirements of the Waste Management Plan and all other applicable laws and ordinances and report directly to Solid Waste Management Coordinator. Daily inspections would include verifying the availability and number of dumpsters based on amount of debris being generated, correct labeling of dumpsters, proper sorting and segregation materials, and salvaging of excess materials.

Construction debris would be separated onsite into material-specific containers, corresponding to the materials types to facilitate reuse and recycling and to increase the efficiency of waste reclamation. In accordance with City WMP requirements, the City's Construction and Demolition Ordinance, the City's current diversion targets, and AB 341, 89 percent of the construction materials generated by the project are targeted for diversion.

Occupancy

While the construction phase for each future development project in Riverwalk occurs as a one-time waste generation event with each development, tenant/owner occupancy requires an on-going plan to manage waste disposal to meet the waste reduction goals established by the City and State. Future developments within Riverwalk will comply with the City's Recycling Ordinance.

For the project, each dwelling unit would be outfitted with interior refuse and recyclable material storage area pursuant to San Diego Municipal Code §142.0820. All recyclable materials will be delivered to an appropriate recycling facility(s), such as the Miramar Recycling Center, located at 5165 Convoy Street, San Diego, California 92111.

If the project developed at 4,300 multi-family residential units as projected at full build-out, the project would be required to provide a minimum of 8,256 square feet refuse storage area and a minimum of 8,256 square feet recyclable material storage area for a total of approximately 16,512 square feet minimum of exterior refuse and recyclable material storage area for residential developments within Riverwalk. Additionally, the project could develop with as much as 152,000 square feet of commercial (including neighborhood retail uses). At full build-out, this will require a minimum of 2,208 square feet refuse storage area and a minimum of 2,208 square feet recyclable material storage area for a total of approximately 4,416 square feet minimum of exterior refuse and recyclable material storage area. For the Riverwalk development as a whole, the project would be required to provide a minimum of 10,464 square feet refuse storage area and a minimum of 10,464 square feet recyclable material storage area for a total of approximately 20,928 square feet minimum exterior refuse and recyclable material storage area, if it develops with the maximum development intensity identified in the Riverwalk Specific Plan.

On-site recycling services shall be provided to all occupants of non-residential facilities within Riverwalk. Occupants of non-residential facilities within Riverwalk that receive solid waste collection service shall participate in a recycling program by separating recyclable materials from other solid waste and depositing the recyclable materials in the recycling container provided for the occupants. Recycling services are required by Section 66.0707 of the City of San Diego LDC. Based on current requirements, these services shall include the following:

- Continuous assessment of new technologies for recycling, composting, cogeneration, and disposal to maximize efficient use of resources and environmental protection;
- Collection of recyclable materials as frequently as necessary to meet demand;
- Collection of plastic bottles and jars, paper, newspaper, metal containers, cardboard, and glass containers;
- Collection of other recyclable materials for which markets exist, such as scrap metal, wood pallets;
- Collection of food waste for recycling by composting, where available;
- Utilization of recycling receptacles or containers which comply with the standards in the Container and Signage Guidelines established by the City of San Diego Environmental Services Department;
- Designated recycling collection and storage areas; and

- Signage on all recycling receptacles, containers, chutes, and/or enclosures which complies with the standards described in the Container and Signage Guidelines established by the City of San Diego Environmental Services Department.

For non-residential facilities within Riverwalk (as required by Section 66.0707 of the City of San Diego LDC), the building management or other designated personnel shall ensure that occupants are educated about the recycling services as follows:

- Information, including the types of recyclable materials accepted, the location of recycling containers, and the occupants responsibility to recycle shall be distributed to all occupants annually;
- All new occupants shall be given information and instructions upon occupancy; and
- All occupants shall be given information and instructions upon any change in recycling service to the commercial facility.

Additionally, measures for reducing waste of non-residential facilities include contract stipulations and/or tenant programs. The owner, building manager, or other designated personnel shall consider the following:

- Require vendors to use reusable and/or recyclable food containers/flatware;
- Have vendors work with suppliers to reduce packaging materials;
- Choose preferred products with a high level of post-consumer content;
- Set printers to double-sided;
- Reduce electronic waste.

Multi-family residential developments within Riverwalk shall provide on-site recycling services and education to occupants. Recycling services are required by Section 66.0706 of the City of San Diego LDC. Based on current requirements, these services shall include the following:

- Continuous assessment of new technologies for recycling, composting, cogeneration, and disposal to maximize efficient use of resources and environmental protection;
- Collection of recyclable materials at least two times per month;
- Collection of plastic bottles and jars, paper, newspaper, metal containers, cardboard, and glass containers;
- Utilization of recycling receptacles which comply with the standards in the Container and Signage Guidelines established by the City of San Diego Environmental Services Department;
- Designated recycling collection and storage areas; and
- Signage on all recycling receptacles, containers, chutes, and/or enclosures which complies with the standards described in the Container and Signage Guidelines established by the City of San Diego Environmental Services Department.

For multi-family residential developments within Riverwalk (as required by Section 66.0706 of the City of San Diego LDC), the building management or other responsible personnel shall ensure that occupants are educated about the recycling services as follows:

- Information, including the types of recyclable materials accepted, the location of recycling containers, and the occupants' responsibility to recycle shall be distributed to all occupants annually;
- All new occupants shall be given information and instructions upon occupancy; and
- All occupants shall be given information and instructions upon any change in recycling service to the facility.

The project would implement all measures and requirements in the WMP to the fullest degree of accuracy and efficiency. Additionally, the WMP plan for the Riverwalk project is designed to implement and adhere to all city ordnance and regulations with regards to waste management.

Significance of Impacts

Water

The project would connect to existing water lines adjacent to the site and would not require off-site pipeline upsizing of water mains or new water facilities. On-site water infrastructure would be designed and sized to meet the project's water needs in conformance with City standards. The physical construction of these facilities has been analyzed within the various sections of this EIR, as all facilities would be a part of the project's proposed grading and construction plans. Development of the Specific Plan would not significantly increase the demand for water or services, and as such, would not trigger the need for new water facilities or the expansion of those facilities beyond what is proposed for the project. Therefore, project impacts to water infrastructure would be less than significant.

Wastewater

Based on the available capacity of existing sewer facilities, the increase in demand associated with wastewater utilities would not be significant, and new or expanded sewer services would not be needed to serve the project. Impacts related to wastewater infrastructure would be less than significant. Construction of wastewater facilities to serve the project would be subject to standard industry measures and the SDMC. The physical construction of these facilities has been analyzed within the various sections of this EIR, as all facilities would be a part of the project's proposed grading and construction plans. The City has determined that is has adequate wastewater treatment capacity to serve the project. The existing facilities available to serve the project site were determined to be acceptable; in addition, the treatment facility has remaining capacity. Therefore, no new facilities would be needed to serve the project. Subsequently, the project would not adversely affect existing wastewater treatment services and adequate services are available to serve the project without requiring new or expanded entitlements. The project would result in less than significant impacts.

Solid Waste

The project would generate solid waste during the grading, construction, and operational phases. However, with implementation of the strategies outlined in the project-specific WMP through conditions of approval, as well as compliance with applicable City regulations related to solid waste. The project would not require new or expansion of solid waste facilities, including landfills. Therefore, impacts would be less than significant.

Mitigation Measures

Mitigation would not be required.

5.13.3.2 Issues 2 and 3

Issue 2 Would the project result in the use of excessive amounts of water?

Issue 3 Does the project propose landscaping which is predominantly non-drought resistant vegetation?

Impact Thresholds

Based on the City's CEQA Significance Determination Thresholds, a project could have a significant public utilities impact related to water if it would:

- Water Supply – Result in the need to comply with SB 610 to determine *the availability of water to meet the projected water demands of the project for a 20-year planning horizon, including single and multiple dry years*, or result in the need to comply with SB 221 to *determine whether the decision-maker* can *make a finding that the project's water demands for the planning horizon will be met before approving a Tentative Map. The types of projects subject to SB 610 and SB 221 include the following:*
    - *Residential developments with more than 500 units;*
    - *Shopping centers or businesses employing more than 1,000 people or having more than 500,000 SF of floor space;*
    - *Commercial office buildings employing more than 1,000 people or having more than 250,000 SF of floor space;*
    - *Mixed use projects that include one or more of the projects listed above; or*
    - *Projects that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling unit project.*

- Water Conservation
    - *Use an excessive amount of potable water*; or
    - Propose *predominately non-drought resistant landscaping and excessive water usage for irrigation and other purposes*.

Analysis

Water Supply

The project's SB 610 WSA was based on the City's 2015 UWMP and concluded with a determination of sufficient water supply in normal, single-dry, and multiple dry years to meet the estimated water demand for the project, as shown below in Table 5.13-1, *Water Demand Analysis*. There are no feasible alternative, non-potable water sources in the project vicinity. ~~Collaborative water resource discussions with the City have included preliminary research on the use of two low yield, brackish groundwater wells associated with the abandoned golf course to support the municipal groundwater monitoring program.~~

As show in Table 5.13-1, based on demand data supplied in the SB 610 WSA (July, 27, 2020), the project's estimated demand amounts to ~~1,159,868 gallons per day (GPD), or 1,299.22~~1,056 AFY from 2020 to 2030 (with a 25 percent planning level contingency) and 679 AFY from 2030 to 2040 (with a 25 percent planning level contingency. ~~In the City's 2015 UWMP, the planned water demand for the project site is 369,804 GPD (414.23 AFY) in 2040. The remaining portion of the estimated demand, or 790,064 GPS (884.99 AFY),~~ PUD evaluation of combined service area demand and supply projections result in a finding of sufficient overall planned water supply to serve the SB 610 WSA's identified cumulative water demands in normal, single-dry year, and multiple-dry water year forecasts within a 20-year projection.~~is accounted for through additional and planned imported water from the San Diego County Water Authority. The project is consistent with water demand assumptions in the regional water source planning documents and there would be adequate water supply to serve all anticipated growth and development resulting from implementation of the project.~~ The SB 610 WSA concluded that there is sufficient water for the project. The project would not result in the use of excessive amounts of water.

Water Conservation Devices

Relative to water conservation, the project would replace a predominately non-drought resistant landscaping (the golf course), which uses large amounts of water for irrigation, with a low-water consumption project.

Furthermore, the project would not result in the use of excessive amounts of potable water. The project would develop in accordance with Title 24 of the CCR, and incorporate water conservation devices, such as:

- Kitchen faucets that would not exceed a maximum flow rate of 1.5 gallons per minute at 60 psi;
- Standard dishwashers that would not exceed a maximum flow rate of 4.25 gallons per cycle;
- Compact dishwashers that would not exceed 3.5 gallons per cycle; and
- Clothes washers that would not exceed a water factor of six gallons per cubic food drum capacity.

Table 5.13-1. *Water Demand ~~Analysis~~Estimate (2040)*

Mixed Use	Quantity	Water Use Factor	Gallons per Day (gpd)	Average Annual Demand (afy)			
				2020-2025	2025-2030	2030-2035	2035-2040
Multi-family Residential	4,300 units	134 gpud	576,200	645	645	645	645
Commercial/ Retail	152,000 sf	0.1 gpd/sf	15,200	17	17	17	17
Restaurant/ Community Dining	5,000 sf	0.3 gpd/sf	1,500	2	2	2	2
Office	1,000,000 sf	0.04 gpd/sf	40,000	45	45	45	45
Pools	14 units	2,100 gpd/unit	29,400	33	33	33	33
Landscape Irrigation	57.2 ac	2,000 gpd.ac	114,400	128	128	128	128
Construction Water (potable)	1,640,000 cy	60 gal/cf	53,918	302	302	0	0
Total Project Demands				**1,172**	**1,172**	**870**	**870**
2015 Existing Site Demand Projection (Offset)	146 ac	2,000 gpd/ac	292,000	327	327	327	327
Net Water Demand Projection				**845**	**845**	**543**	**543**
Total with 25% Planning Level Contingency				**1,056**	**1,056**	**679**	**679**

The method of estimation conservatively accounts for total construction water and an assumed two phase construction ending between 2025-2030.

~~City-Planned Water Demands for Project (2015 UWMP)~~			
~~Category~~	~~Quantity~~	~~Estimated Potable Water Demand~~	
		~~Gallons per Day (GPD)~~	~~Acre-Foot per Year (AFY)~~
~~SANDAG SERIES 13: 2040~~			
~~Multi-Family Residential[1]~~	~~1,329 DUs~~	~~233,904~~	~~262.01~~
~~Employees[2]~~	~~2,265 persons~~	~~135,900~~	~~152.23~~
	~~TOTAL:~~	~~369,804~~	~~414.23~~

~~Projected Water Demands for Long-Range Development Plan by Year 2040~~				
~~Category~~	~~Quantity~~	~~GPD~~	~~AFY~~	
~~Multi-Family Residential[1]~~	~~4,300 DUs~~	~~756,800~~	~~847.72~~	
~~Employees[2]~~	~~1,152,000 SF~~	~~138,240~~	~~154.85~~	
~~Landscape Irrigation[3]~~	~~57.2 Acres~~	~~228,800~~	~~256.29~~	
~~Community Dining Amenity[4]~~	~~5,000 SF~~	~~6,628~~	~~7.42~~	
~~Pools[5]~~	~~14 Units~~	~~29,400~~	~~32.93~~	
	~~TOTAL:~~	~~1,159,868~~	~~1,299.22~~	

~~Net Water Demands~~		
~~Projected Demand~~	~~1,159,868~~	~~1,299.22~~
~~City of San Diego 2015 UWMP – Planned Demand~~	~~369,804~~	~~414.23~~
~~Water Authority AFG – Planned Demand~~	~~790,064~~	~~884.99~~
~~Net Unanticipated Demands~~	~~0~~	~~0~~

[1]Multi-family water consumption for this project is based on the City's water demand factor of 176 GPD/DU. This demand factor accounts for 80 GPCD (inclusive of minor landscaping demand) and 2.2 persons per household.
[2]Average commercial employee (administrative, retail, etc.) is based on the City's acceptable standard water demand factor of 60 GPCD/500 square feet.
[3]Irrigation was estimated as 4,000 GPD/acre (City's Facility Design Guidelines and City's Landscape Watering Calculator).
[4]An estimate of dining/restaurant associated employees is based on the City's acceptable standard water demand factor of 60 GPCD/450 square feet. Customer use is estimated as 31 GPCD per seat and 1 seat per 13 square feet of 50% of the total square footage of facility.
[5]Swimming pool water usage is estimated at 50 GPD/100 square feet (American Society of Plumbing). Additional pool shower use at the facility was estimated at 10 GPD/20 square feet of Pool Area (Title 24, Department of Health Services) assuming two gallons per minute for shower head and an average five-minute shower.

Drought Tolerant Landscaping

The Specific Plan's proposed landscaping consists of indigenous and drought-tolerant shade trees and shrubs. Raised planters, pots, and rooftop plantings would include drought-tolerant plants. Overall, the project would include native and drought-tolerant species consistent with the Landscape regulations. All irrigation design and maintenance would conform to the City of San Diego's latest water use restrictions, and the project's irrigation system has been designed to meet the City's water efficient landscape ordinance contained within Chapter 14, Article 2, Division 4, *Landscape Regulations*, of the Municipal Code.

Significance of Impacts

Water Supply

The project would be consistent with regional water resource planning and there would be sufficient water supply to meet the projected demands of the project. Impacts related to potable water supplies and demand from project implementation would be less than significant.

Water Conservation Devices

The project would incorporate water sustainable design features, techniques, and materials that would reduce water consumption. Impacts would be less than significant.

Drought Tolerant Landscaping

The project would include landscaping consisting of native and drought-tolerant species consistent with the Landscape regulations. Impacts related to the use of predominantly non-drought resistant landscaping and excessing water usage for irrigation, therefore, would be less than significant.

Mitigation Measures

Mitigation would not be required.

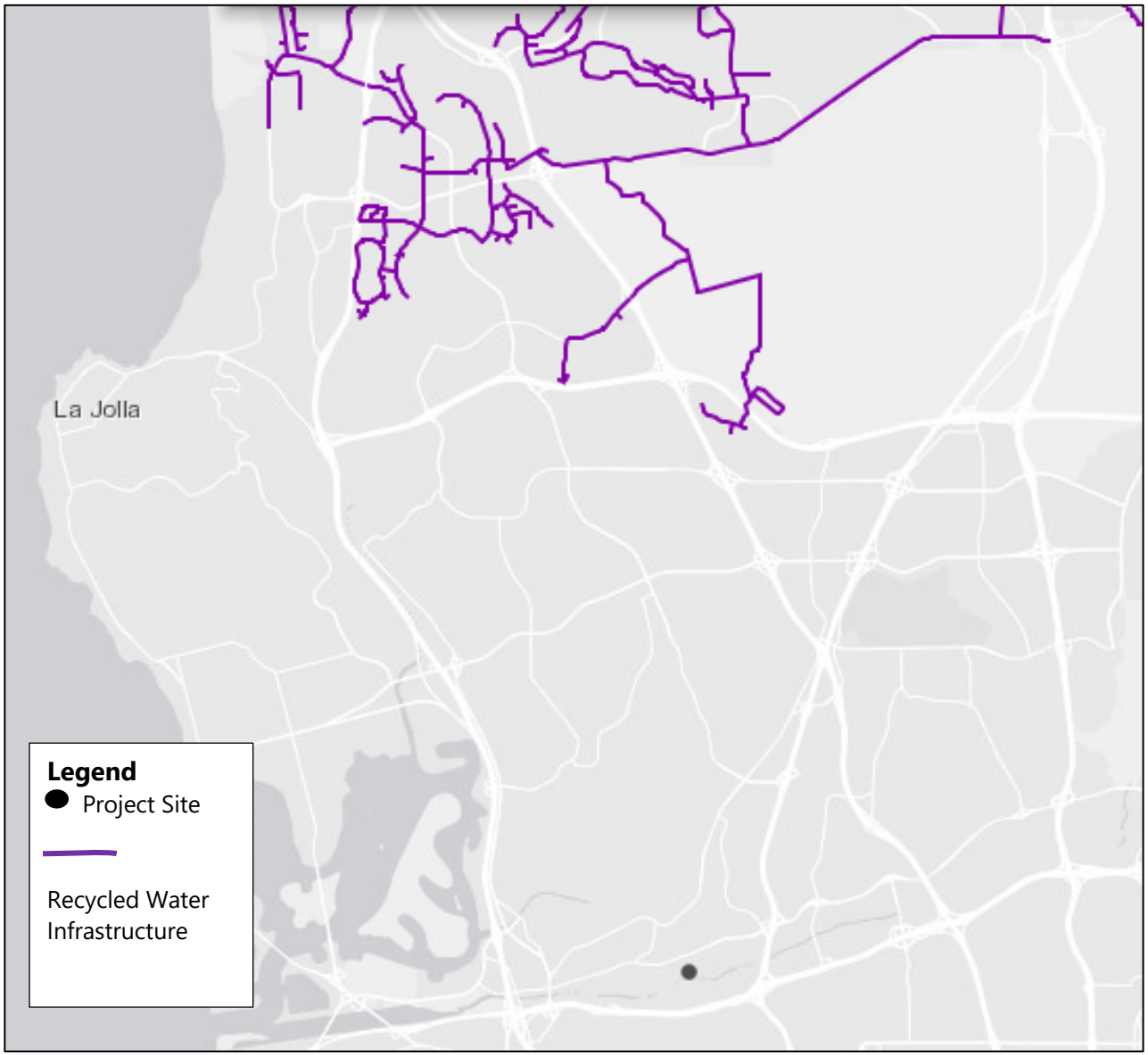


Figure 5.13-1. *Recycled Water Availability*

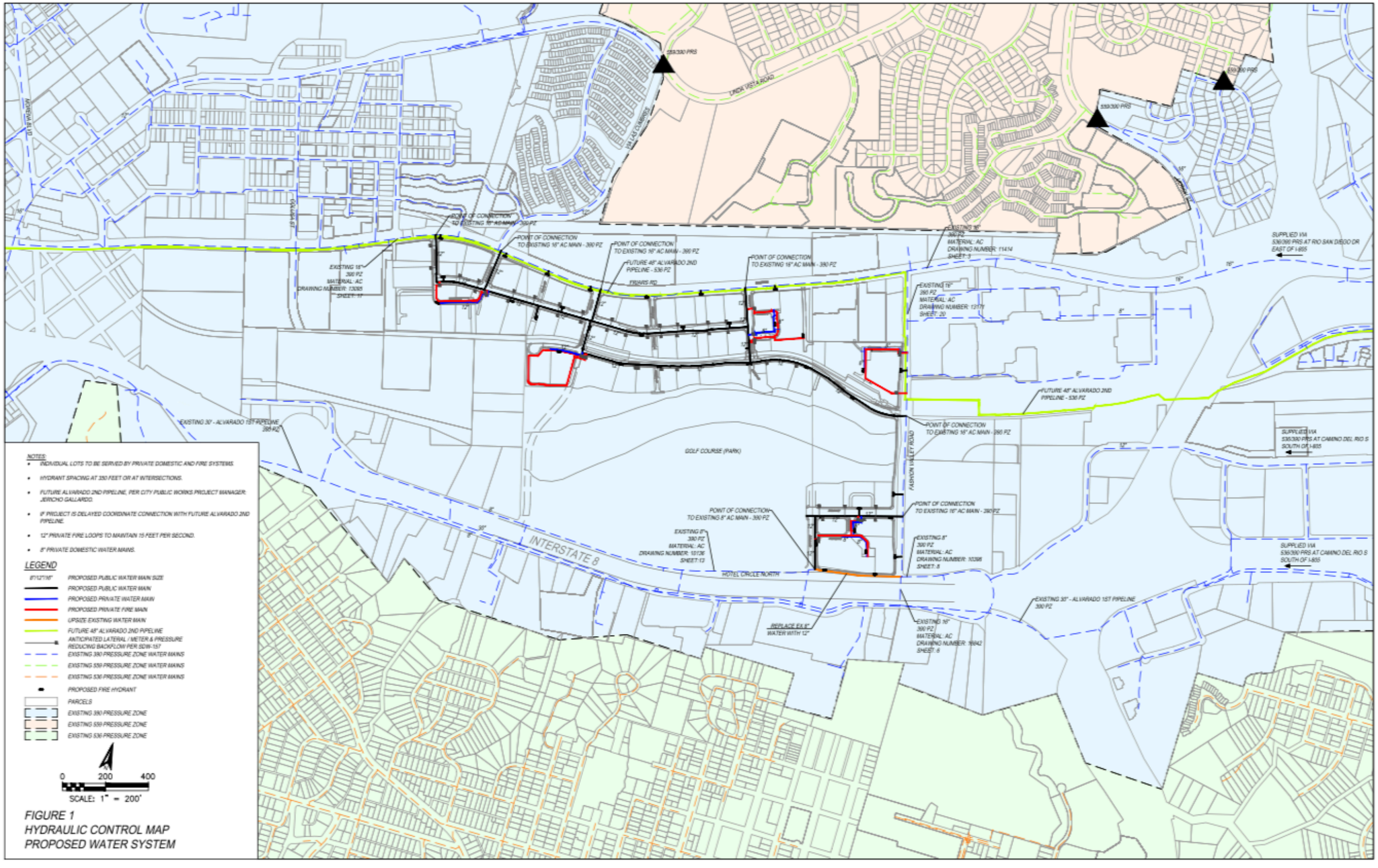


Figure 5.13-2. *Proposed Water System Modifications*

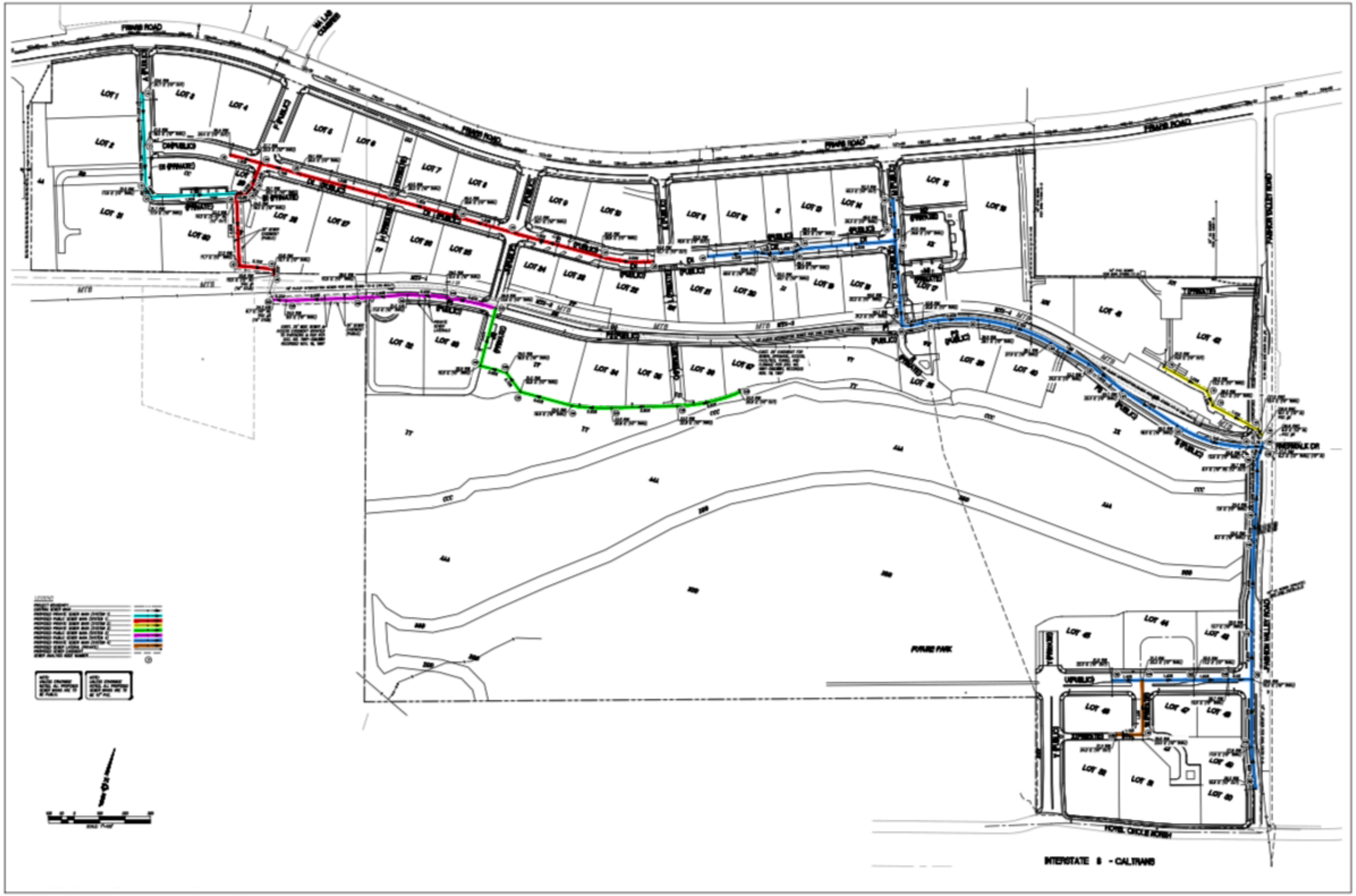


Figure 5.13-3. ***Proposed Sewer System***

5.14 Water Quality

This section evaluates potential water quality impacts associated with the project. The following discussion is based on the *Storm Water Quality Management Plan (SWQMP)* prepared by Chang Consultants (April 7, 2020), included as Appendix O.

5.14.1 Existing Conditions

5.14.1.1 Existing Site Conditions

The project site is situated south of Friars Road, north of Hotel Circle North, and west of Fashion Valley Road in the Mission Valley community of the city of San Diego. It is situated within the San Diego Hydrologic Unit (No. 907.00), Lower San Diego Hydrologic Area (No. 907.10), and Mission San Diego Hydrologic Subarea (HSA) (907.11) per the Water Quality Control Plan for the San Diego Basin (San Diego Regional Water Quality Control Board, September 1994 as amended through 2016). Storm water generated on-site is discharged to the San Diego River via existing storm drain outfalls. The San Diego River is identified as an impaired water body in the most recent list of Clean Water Act Section 303(d) List of Water Quality Segments. The project site directly discharges to the San Diego River, which is impaired with enterococcus, fecal coliform, low dissolved oxygen, manganese, nitrogen, phosphorous, total dissolved solids, and toxicity.

5.14.1.2 Beneficial Uses

According to the RWQCB, the existing beneficial uses for inland surface waters include AGR, IND, REC1, REC2, BIOL, WARM, WILD, and RARE. The potential groundwater beneficial uses are AGR, IND, and PROC with a potential beneficial use of MUN. The San Diego River mouth has beneficial uses of REC1, REC2, COMM, EST, WILD, RARE, MAR, MIGR, SPWN, and SHELL. These beneficial uses are described below:~~segment of the San Diego River located in the Mission San Diego HSA 907.11 and adjacent to the project site is classified as having the following beneficial uses:~~

- **MUN (Municipal Domestic Supply ~~(MUN)~~):** Includes uses of water for community, military, or individual water supply systems including but not limited to, drinking water supply.
- **AGR (Agricultural Supply) ~~(AGR)~~:** Includes uses of water for farming, horticulture, or ranching including, but not limited to, irrigation, stock watering, or support of vegetation for range grazing.
- **IND (Industrial Service Supply ~~(IND)~~):** Includes uses of water for industrial activities that do not depend primarily on water quality including, but not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection, or oil well re-pressurization.
- **PROC (Industrial Process Supply ~~(PROC)~~):** Includes uses of water for industrial activities that depend primarily on water quality.
- **REC-1 (Contact Water Recreation ~~(REC-1)~~):** Includes uses of water for recreational activities involving body contact with water, where ingestion of water is reasonably possible. These uses

include, but are not limited to, swimming, wading, water-skiing, skin and SCUBA diving, surfing, white water activities, fishing, or use of natural hot springs.

- **REC-2 (Non-Contact Water Recreation ~~(REC-2)~~):** Includes the uses of water for recreational activities involving proximity to water, but not normally involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tide pool and marine life study, hunting, sightseeing, or aesthetic enjoyment in conjunction with the above activities.
- **BIOL (Preservation of Biological Habitats of Special Significance ~~(BIOL)~~):** Includes uses of water that support designated areas or habitats, such as established refuges, parks, sanctuaries, ecological reserves, or Areas of Special Biological Significance (ASBS), where the preservation or enhancement of natural resources requires special protection.
- **WARM (Warm Freshwater Habitat ~~(WARM)~~):** Includes uses of water that support warm water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, or fish or wildlife, including invertebrates.
- **WILD (Wildlife Habitat ~~(WILD)~~):** Includes uses of water that support terrestrial ecosystems including, but not limited to, preservation and enhancement of terrestrial habitats, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources.
- **RARE (Preservation of Rare and Endangered Species ~~(RARE)~~):** Includes uses of water that support habitats necessary for the survival and successful maintenance of plant or animal species established under State and/or Federal law as rare, threatened, or endangered.
- **COMM (Commercial and Sport Fishing):** Includes the uses of water for commercial or recreational collection of fish, shellfish, or other organisms including, but not limited to, uses involving organisms intended for human consumption or bait purposes.
- **EST (Estuarine Habitat):** Includes uses of water that support estuarine ecosystems including, but not limited to, preservation or enhancement of estuarine habitats, vegetation, fish, shellfish, or wildlife (e.g., estuarine mammals, waterfowl, shorebirds).
- **MAR (Marine Habitat):** Includes uses of water that support marine ecosystems including, but not limited to, preservation or enhancement of marine habitats, vegetation such as kelp, fish, shellfish, or wildlife (e.g., marine mammals, shorebirds).
- **MIGR (Migration of Aquatic Organisms):** Includes uses of water that support habitats necessary for migration, acclimatization between fresh and salt water, or other temporary activities by aquatic organisms, such as anadromous fish.
- **SPWN (Spawning, Reproduction, and/or Early Development):** Includes uses of water that support high quality habitats suitable for reproduction, early development and sustenance of marine fish and/or cold freshwater fish.
- **SHELL (Shellfish Harvesting):** Includes uses of water that support habitats suitable for the collection of filter-feeding shellfish (e.g., clams, oysters and mussels) for human consumption, commercial, or sport purposes.

5.14.2 Regulatory Framework

5.14.2.1 Federal

Clean Water Act of 1972

The Federal CWA of 1972 is the principale law governing pollution control and water quality of the Nation's waterways. The objective of this Act is to restore and maintain the chemical, physical and biological integrity of the Nation's waters (33 U.S.C. 1251). Section 402 of the CWA controls water pollution through the NPDES, by regulating point sources that discharge pollutants into waters of the U.S. Implementation of the act is the responsibility of the EPA, which has delegated much of that authority to State and regional agencies.

5.14.2.2 State

National Pollutant Discharge Elimination System

Projects that involve land disturbance of one acre or more (or that are part of a larger plan of development that would disturb one or more acres) are subject to pertinent requirements under the Construction General permit. Specific conformance requirements include implementing a SWPPP, an associated CSMP, employee training, and minimum BMPs, as well as a REAP for applicable projects (e.g., those in Risk Categories 2 or 3, as described below).

Under the Construction General Permit, project sites are designated as Risk Level 1 through 3 based on site-specific criteria (e.g., sediment erosion and receiving water risk), with Risk Level 3 sites requiring the most stringent controls. Based on the site-specific risk level designation, the SWPPP and related plans/efforts identify detailed measures to prevent and control the discharge of pollutants in storm water runoff. Depending on the risk level, these may include efforts such as minimizing/stabilizing disturbed areas, mandatory use of technology-based action levels, effluent and receiving water monitoring/reporting, and advanced treatment systems (ATS). Specific pollution control measures require the use of BAT and/or BCT levels of treatment, with these requirements implemented through applicable BMPs.

While site-specific measures vary with conditions such as risk level, proposed grading, and slope/soil characteristics, detailed guidance for construction-related BMPs is provided in the permit and related City standards (as outlined below), as well as additional sources including the EPA *National Menu of Best Management Practices for Storm Water Phase II – Construction* (USEPA 2018), and the *Construction Storm Water Best Management Practices Handbook* (CASQA 2015). Specific requirements for the project under this permit would be determined during SWPPP development, after completion of project plans and applicable submittal to the SWRCB.

National Pollutant Discharge Elimination System Groundwater Permit

Shallow groundwater is expected to occur on site, as previously described. If project-related construction activities entail the discharge of extracted groundwater into receiving waters, the applicable would be required to obtain coverage under the Groundwater Permit. Conformance with this permit is generally

applicable to all temporary and certain permanent groundwater discharge activities, with exceptions as noted in the permit fact sheet. Specific requirements for permit conformance include: (1) submittal of appropriate application materials and fees; (2) implementation of pertinent (depending on site-specific conditions) monitoring/testing, disposal alternative, and treatment programs; (3) provision of applicable notification to the associated local agency prior to discharging to a municipal storm drain system; (4) conformance with appropriate effluent standards (as outlined in the permit); and (5) submittal of applicable documentation (e.g., monitoring reports).

National Pollutant Discharge Elimination System Municipal Permit

The Municipal permit implements a regional strategy for water quality and related concerns and mandates a watershed-based approach that often encompasses multiple jurisdictions. The overall permit goals include: (1) providing a consistent set of requirements for all co-permittees; and (2) allowing the co-permittees to focus their efforts and resources on achieving identified goals and improving water quality, rather than just completing individual actions (which may not adequately reflect identified goals). Under this approach, the co-permittees are tasked with prioritizing their individual water quality concerns, as well as providing implementation strategies and schedules to address those priorities.

Municipal Permit conformance entails considerations such as receiving water limitations (e.g., Basin Plan criteria as outlined below), waste load allocations (WLAs), and numeric water quality based effluent limitations (WQBELs). Specific efforts to provide permit conformance and reduce runoff and pollutant discharges to the maximum extent practicable (MEP) involve methods such as: (1) using jurisdictional planning efforts (e.g., discretionary General Plan approvals) to provide water quality protection; (2) requiring coordination between individual jurisdictions to provide watershed-based water quality protection; (3) implementing appropriate BMPs, including LID measures, to avoid, minimize, and/or mitigate effects such as increased erosion and off-site sediment transport (sedimentation), hydromodification and the discharge of pollutants in urban runoff; and (4) using appropriate monitoring/assessment, reporting, and enforcement efforts to ensure proper implementation, documentation, and (as appropriate) modification of permit requirements. The City has implemented a number of regulations to ensure conformance with these requirements, as outlined below under local standards.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act established the principal legal and regulatory framework for water quality control in California. This Act is embodied in the California Water Code, which authorizes the SWRCB to implement the provisions of the Federal CWA as previously described. The Porter-Cologne Act also provides for the development and periodic review of water quality control plans that designate beneficial uses for surface waters, groundwater basins, and coastal waters, and establish water quality objectives for applicable waters as outlined below under the *Water Quality Control Plan for the San Diego Basin* heading.

The Porter-Cologne Act establishes the responsibility of the RWQCBs for adopting, implementing, and enforcing water quality control plans, which set forth the state's water quality standards (i.e., beneficial uses of surface waters and groundwater) and the objectives or criteria necessary to protect those

beneficial uses. The State of California is divided into nine regions governed by RWQCBs, which implement and enforce provisions of the California Water Code and the CWA under the oversight of the SWRCB. The City is located within the purview of the San Diego RWQCB (Region 9). The Porter-Cologne Act also provides for the development and periodic review of basin plans that designate beneficial uses for surface waters, groundwater basins, and coastal waters, and establish water quality objectives ~~such as those listed for the Miramar Reservoir Hydraulic Area~~.

5.14.2.3 Local

San Diego Regional Water Quality Control Board

The RWQCB regulates waste discharge and reclaimed water use to minimize and control adverse effects on the quality and beneficial uses of the Region's ground and surface waters. The Regional Board issues permits, called "waste discharge requirements" and "master reclamation permits" which require that waste and reclaimed water not be discharged in a manner that would cause an exceedance of applicable water quality objectives or adversely affect beneficial uses designated in the Basin Plan. The Regional Boards enforce these permits through a variety of administrative means.

The San Diego Regional Board's Basin Plan is designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. Specifically, the Basin Plan: (1) designates beneficial uses for surface and ground waters; (2) sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's antidegradation policy; (3) describes implementation programs to protect the beneficial uses of all waters in the Region; and (4) describes surveillance and monitoring activities to evaluate the effectiveness of the Basin Plan [California Water Code sections 13240 thru 13244, and section 13050(j)]. Additionally, the Basin Plan incorporates by reference all applicable State and Regional Board plans and policies. The Basin Plan is the Regional Board's plan for achieving the balance between competing uses of surface and ground waters in the San Diego Region.

Water Board Order No. R9-2013~~07~~-0001, As Amended by Order No. R9-2015-0001 and Order No. R9-2015-0100, NPDES Permit No. CAS0109~~8758~~266

The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) regulates discharges from Phase I municipal separate storm sewer systems (MS4s) in the San Diego Region under the Regional MS4 Permit. The Regional MS4 Permit covers 39 municipal, county government, and special district entities (referred to jointly as Co-permittees) located in San Diego County, southern Orange County, and southwestern Riverside County who own and operate large MS4s which discharge storm water (wet weather) runoff and non-storm water (dry weather) runoff to surface waters throughout the San Diego Region. The Regional MS4 Permit, Order No. R9-2013-0001, was adopted on May 8, 2013 and initially covered the San Diego County Co-permittees. Order No. R9-2015-0001 was adopted on February 11, 2015, amending the Regional MS4 Permit to extend coverage to the Orange County Co-permittees. Finally, Order No. R9-2015-0100 was adopted on November 18, 2015, amending the Regional MS4 Permit to extend coverage to the Riverside County Co-permittees. This

current MS4 Permit was scheduled to expire June 27, 2018, but remains in effect under an administrative extension until it is reissued by the San Diego Water Board.

San Diego River Watershed Management Area Water Quality Improvement Plan (WQIP)

Agencies involved in the development of the San Diego River Water Quality Improvement Plan (WQIP) include the Cities of El Cajon, La Mesa, Santee, San Diego, the County of San Diego, and the California Department of Transportation. The WQIP is a requirement of updated stormwater regulations adopted by the Regional Water Quality Control Board according to Order No. R9-2013-0001, as amended by Order Nos. R9 2015-0001 and R9-2015-0100. The ultimate goal of the WQIP is to protect, preserve, enhance, and restore water quality of receiving water bodies. These improvements in water quality will be accomplished through an adaptive planning and management process that identifies the highest priority water quality conditions within the watershed and implements strategies to address them.

City of San Diego Jurisdictional Urban Runoff Management Program

This document is a total account of how the City of San Diego plans to protect and improve the water quality of rivers, bays and the ocean in the region in compliance with the Water Board permit referenced above. The document describes how the City incorporates storm water best management practices into land use planning, development review and permitting, City capital improvement program project planning and design, and the execution of construction contracts.

Construction of any project in the City of San Diego is subject to the requirements of erosion control in the City's Grading Ordinance and is also required to comply with the State Water Resources Control Board (SWRCB) regulations, including the Regional MS4 Permit Order No. R9-2013-0001, and Order No. R9-2015-0100 amending the Regional MS4 Permit. To comply with this permit, the applicant must obtain a construction permit, which requires conformance with applicable BMPs and development of a SWPPP and monitoring program plan.

Drainage Design Manual

Pursuant to SDMC Chapter 14 Article 2 Division 2, Storm Water Runoff and Drainage Regulations, drainage regulations apply to all development in the City, whether or not a permit or other approval is required.

Drainage design policies and procedures for the City are provided in the Drainage Design Manual (City 2017), which is incorporated into the Land Development Manual as Appendix B. The Drainage Design Manual provides design guidelines for drainage and drainage-related facilities associated with development in the City, including criteria for determining watersheds, storm discharge, and applicable storm drain structure types and capacities.

Storm Water Standards Manual

The City has adopted a jurisdiction-specific Storm Water Standards Manual (City 2018d) to reflect related NPDES standards. The Storm Water Manual provides direction for associated regulatory compliance,

including identification of construction and post-construction storm water requirements for Standard Projects and Priority Development Projects, pursuant to the Regional MS4 Permit. Specifically, the manual identifies regulatory requirements and provides detailed performance standards and monitoring/maintenance efforts for: (1) construction BMPs; (2) overall storm water management design; (3) site design (LID) and source control BMPs applicable to all projects; (4) pollutant (or treatment) control and hydromodification management BMPs applicable to Priority Development Projects; (5) operation and maintenance requirements for applicable BMPs; and (6) specific direction and guidance to provide conformance with City and related NPDES storm water standards.

Grading Ordinance

The City Grading Ordinance (SDMC Section 142.0101 et seq.) incorporates a number of requirements related to hydrology and water quality, including BMPs necessary to control storm water pollution from sources such as erosion/sedimentation and construction materials during project construction and operation. Specifically, these include elements related to slope design, erosion/sediment control, revegetation requirements, and material handling/control.

San Diego General Plan

The City General Plan provides a number of goals and policies related to water quality concerns in the Conservation Element. The Conservation Element provides a number of goals and policies related to preserving and protecting watersheds and natural drainage features, minimizing runoff and related pollutant generation during and after construction activities, and protecting drinking water resources. Conservation Element goals and polices relevant to water quality include the following:

Climate Change & Sustainable Development

- *CE-A.11.* Implement sustainable landscape design and maintenance.

5.14.3 Impact Analysis

5.14.3.1 Issue 1 and Issue 2

Issue 1 *Would the project result in an increase in pollutant discharge to receiving waters during or following construction? Would the proposed project discharge identify pollutants to an already impaired water body?*

Issue 2 *What short-term and long-term effects would the project have on local and regional water quality? What types of pre- and post-construction Best Management Practices (BMPs) would be incorporated into the project to preclude impacts to local and regional water quality?*

Impact Threshold

Based on the City's CEQA Significance Determination Thresholds, *compliance with the Water Quality Standards is assured through permit conditions provided by LDR Engineering.* Adherence to the City storm water standards is thus considered adequate to preclude surface water quality impacts, unless substantial

evidence supports a fair argument that a significant impact will occur.

Analysis

As identified previously, implementation of the plan would be in proximity to a 303(d) listed water body (San Diego River). Development near this impaired water body could potentially generate pollutants that would exacerbate existing impairments, cause additional pollution, and impact water quality if not properly controlled. The following categories of anticipated or potential pollutants have been identified as "pollutants of concern" based on a "mixed-use residential" and "community development" proposed site use:

- Sediments
- Nutrients
- Heavy metals
- Organic Compounds
- Trash and debris
- Oxygen demanding substances
- Oil and grease
- Bacteria and viruses (potential)
- Pesticides

Water quality is affected by sedimentation caused by erosion, by runoff-carrying contaminants, and by direct discharge of pollutants. Potential project-related pollutant discharge and water quality impacts are associated with both short-term construction activities and long-term operation and maintenance of buildout of the Specific Plan, as described below.

Short-term (Construction)

Project-related excavation, grading, and construction activities could potentially result in generation of pollutants that could affect receiving waters, including impaired water bodies like the San Diego River. Project activities would involve the removal of surface stabilizing features such as structures and vegetation and site grading, which can result in increased erosion and sediment transport, Implementation of the project would also involve the demolition of existing on-site facilities, including structures and pavement. The introduction of demolition-related debris into local drainages or storm drain systems could result in downstream water quality impacts, potentially including pollutants contributing to identified downstream water quality impairments. Additionally, project construction would involve the on-site use and/or storage of hazardous materials such as fuels, lubricants, solvents, concrete, paint, and portable septic system wastes. The accidental discharge of such materials during construction could potentially result in significant impacts if these pollutants reach downstream receiving waters, particularly materials such as petroleum compounds that are potentially toxic to aquatic species in low concentrations.

Short-term water quality effects from construction would be addressed through adherence to the City's Grading Ordinance and conformance with City storm water standards and the related NPDES Construction General Permit. This would include implementing an authorized SWPPP for proposed construction/demolition including (but not limited to) erosion and sedimentation BMPs and BMPs associated with use and storage of construction-related hazardous materials.

Long-term (Operational)

The increase in impervious surfaces generally associated with the development of land leads to increased opportunity for contaminated runoff that carries oils, heavy metals, pesticides, fertilizers, and other contaminants to enter a watershed. On-site runoff would be treated and conveyed to storm drain systems within the project site. On-site runoff would be directed to on-site pollutant control BMPs including biofiltration basins and Bio Clean Environmental Services Modular Wetland System (MWS) Linear Units prior to comingling with off-site flow. With the implementation of these BMPs, the project is not expected to affect the quality of storm water runoff leaving the site in the near- or long-term. The project would also implement BMPs directed at precluding impacts to local and regional water quality. This would include efforts such as the use of flow regulation/water quality (detention and biofiltration) facilities and drainage facility maintenance (e.g., to remove accumulated sediment). LIDs and BMPs that apply to the project are summarized below.

LID Site Design BMPs

LID site design BMPs are intended to avoid, minimize, and/or control post-development runoff, erosion potential, and pollutant generation. The LID process employs design practices and techniques to effectively capture, filter, store, evaporate, detain, and infiltrate runoff close to its source. Specific LID site design BMPs are identified in the project SWQMP, based on requirements in the City Storm Water Standards Manual. These strategies/measures include efforts to maintain natural drainage/hydrologic features, minimize and disperse impervious areas throughout the site, minimize soil compaction, collect and convey runoff to detention/water quality basins, and use native and/or drought-tolerant landscaping. All of the proposed LID site design BMPs would help reduce long-term urban pollutant generation by minimizing runoff rates and amounts, retaining permeable areas, increasing on-site filtering, and reducing erosion/sedimentation potential.

Source Control BMPs

Source control BMPs are intended to avoid or minimize the introduction of pollutants into storm drains and natural by reducing on-site pollutant generation and off-site pollutant transport. Specific source control BMPs are identified in the project SWQMP, based on requirements in the City Storm Water Standards Manual. These include efforts to prevent illicit discharges (e.g., through use of educational materials); provide appropriate "no dumping" signs/ stencils at storm drain system inlets/catch basins (and other applicable locations); properly design/ contain trash storage (e.g., by precluding rainfall/run-on contact), protect storm drain inlets; provide interior parking structures; provide interior floor drains and elevator shaft pumps; and implement non-chemical pest control measures (and restrict chemical use appropriately when necessary). All of the proposed source control BMPs would help to improve long-term water quality within and downstream from the project site by avoiding or minimizing pollutant generation and exposure to storm flows at the source.

Structural/Pollutant Control BMPs

Pollutant control (or structural) BMPs are designed to remove pollutants from urban runoff for a design storm event through means such as filtering or treatment. Pollutant control BMPs are required to address applicable pollutants of concern for Priority Development Projects, and must be designed in conformance with applicable requirements in the City Storm Water Standards Manual to provide long term pollutant

removal that is "reasonably equivalent" to retention of the design capture volume (DCV, with retention facilities typically providing the highest level of treatment). Because the existing on-site soils exhibit low infiltration rates (between 0.01 and 0.50 inches per hour), full infiltration is not feasible. Partial infiltration is also infeasible due to the fill thickness and BMP groundwater separation would not meet City requirements. Pursuant to Chapter 5 of the City Storm Water Standards Manual (Part 1), preliminary pollutant control BMPs identified in the project SWQMP includes a series of biofiltration basins that would serve as pollutant control BMPs for the mixed-use development lots and street The required basin area for each lot has been determined based on conceptual impervious and pervious footprints. This was done to verify feasibility of setting aside the required BMP area. As the design progresses to the final engineering stages, additional basins can be incorporated into each lot. The BMPs will be established based on the building (roof), grading, and landscaping design. MWS Linear BMPs are proposed for street areas where biofiltration basins are not feasible.

Hydromodification Management Facilities

Discussion/justification of hydromodification control requirements do not apply. The project site is located within and immediately adjacent to the San Diego River. This segment of the San Diego River is hydromodification exempt per the October 1, 2015, "San Diego County Regional Watershed Management Area Analysis." The flowline at the storm drain discharge points serving the site would outlet into the main San Diego River channel, which is below FEMA's 10-year floodplain elevations. Therefore, the project would meet the hydromodification exemption criteria.

Post-construction BMP Monitoring/Maintenance Schedules and Responsibilities

Identified BMPs include physical structures such as detention/biofiltration basins and signs/stencils that require ongoing monitoring and maintenance. Pursuant to requirements in the City Storm Water Standards Manual and the related NPDES Municipal Permit, the applicant would be required to enter into a written Maintenance Agreement with the City for applicable facilities and implement an associated Operation and Maintenance Plan. Specifically, this process would entail identifying and documenting maintenance responsibilities, funding sources, activities, and schedules to ensure proper BMP function in perpetuity. A summary of typical maintenance procedures for applicable proposed BMPs is provided below, pursuant to direction in the City Storm Water Standards Manual.

Detention/Biofiltration Basins

Inspections are typically conducted every 6 or 12 months and after major storm events to assess/identify: (1) vegetation conditions; (2) accumulation of sediment, litter, and/or debris; (3) standing water; (4) inlet/outlet obstructions; and (5) damaged structural components. Ongoing maintenance generally includes vegetation trimming/removal, removal (and proper disposal) of accumulated materials (e.g., sediment and debris), elimination of standing water (and causes), clearing of inlet/outlet structures, as-needed structural repairs, and identification of additional maintenance/cleaning services if applicable.

Signs/Stencils

Inspections are generally conducted annually to ensure legibility, with associated maintenance including as-needed repairs or replacement of faded, vandalized or otherwise illegible signs, stencils, or other labeling facilities.

Significance of Impacts

The project would implement appropriate source control, site design, and treatment-control BMPs during construction and post-construction, as well maintenance efforts in conformance with the City's storm water standards. ~~The project would not have any short-term and long-term effects on local and regional water quality~~With these measures, the project is characterized as not expected to have significant adverse impacts on water quality. Implementation of the proposed BMPs would preclude significant potential impacts to water quality. Additionally, the project would comply with associated requirements including the NPDES Construction General, Municipal and Groundwater permits. These requirements have been reviewed by qualified City staff and would be reverified during the ministerial process. Adherence with the standards would preclude considerable contribution to water quality. Therefore, potential pollutant discharge and water quality impacts associated with construction and operation of the Specific Plan would be less than significant.

Mitigation Measures

Mitigation would not be required.

5.15 Public Services and Facilities

This section evaluates potential public services and facilities impacts associated with the project. The following discussion includes police protection, fire-rescue, libraries, parks and recreation, and schools as they relate to the project and is based on correspondence with individual service providers, included as Appendix J.

5.15.1 Existing Conditions

Public services are functions and facilities that serve residents on a community-wide basis. Public services are generally provided to an area based on population, although each public service provider has their own set of service standards. Based on SANDAG's population forecast, the estimated population of Mission Valley is roughly 28,588 as of 2018. The following section contains a description of the existing public services and facilities that would serve the Specific Plan area.

5.15.1.2 Police Protection

Police protection for the Specific Plan area is provided by the San Diego Police Department (SDPD). The SDPD is divided into nine divisions. The Specific Plan area is currently served by Beat 623 of the SDPD Western Division Substation, located at 5215 Gaines Street. This station serves the Mission Valley community west of SR 163, along with other nearby neighborhoods, including Linda Vista, Morena, University Heights, North Park, Burlingame, Hillcrest, Midtown, Mission Hills, Midway District, Loma Portal, Point Loma Heights, Ocean Beach, Sunset Cliffs, Roseville-Fleetridge, La Playa, and Wooded Area. The Western Division serves a population of 129,709 people and encompasses 22.7 square miles.

This police station is located approximately one-half mile west of the project site. The Western Division is currently staffed with 110 sworn patrol personnel and one civilian employee. Officers work ten-hour shifts. Staffing is comprised of three shifts, which operate from 6:00 AM to 4:00 PM (First Watch), 2:00 PM to Midnight (Second Watch), and from 9:00 PM to 7:00 AM (Third Watch). Using the Department's recommended staffing guidelines, Western Division currently deploys a minimum of 15 patrol officers on First Watch, 18 patrol officers on Second Watch, and 11 patrol officers on Third Watch.

The SDPD does not staff individual stations based on ratios of sworn officers per 1,000 population. The goal Citywide is to maintain 1.48 officers per 1,000 population. The Department is currently staffing 1.34 sworn officers per 1,000 residents based on 2014 estimated Citywide resident population of 1,311,882. There are no current plans for additional police sub-stations in the project area. Correspondence with SDPD notes that police response times in the Mission Valley community will continue to increase with build-out community plans and the increase of traffic generated by new growth.

The Department currently utilizes a five-level priority call dispatch system, which includes priority E (Emergency), one, two, three, and four. The calls are prioritized by the phone dispatcher and routed to the

radio operator for dispatch to the field units. The priority system is designed as a guide, allowing the phone dispatcher and the radio dispatcher discretion to raise or lower the call priority as necessary based on the information received. Priority E and priority one calls involve serious crimes in progress or those with a potential for injury. Priority two calls include vandalism, disturbances, and property crimes. Priority three includes calls after a crime has been committed, such as cold burglaries and loud music. Priority four calls include parking complaints or lost and found reports.

Table 5.15-1, *Western Division Call Priority Response Times*, lists the Department's response-time guidelines, the 2016 Citywide average response times for each priority call level, and the 2016 average response times for each priority level call within Beat 623. As indicated in Table 5.15-1, average response times for Beat 623 exceed the Department goals for all call priorities. The Department strives to maintain the response time goals identified in Table 5.15-1 as one of various other measures used to assess the level of service to the community.

Table 5.15-1. *Western Division Call Priority Response Times*

Call Priority	Department Goal Response Times	2016 Citywide Average Response Times	2016 Beat 623 Average Response Times
Priority E- Imminent threat to life	Within 7 minutes	7 minutes	6.6 minutes
Priority 1- Serious crimes in progress	Within 14 minutes	16 minutes	13.4 minutes
Priority 2- Less serious crimes with no threat to life	Within 27 minutes	42.5 minutes	37.3 minutes
Priority 3 –Reported after a crime has been committed	Within 80 minutes	100.9 minutes	108.8 minutes
Priority 4- Parking complaints and lost and found report	Within 90 minutes	150.6 minutes	169.5 minutes

Source: SDPD, March 10, 2020.

5.15.1.3 Fire/Life Safety Protection

Fire protection and emergency services are provided by the San Diego Fire-Rescue Department (SDFD), which serves a total area of approximately 343 square miles, a population of over 1.4 million, and 17 miles of coastline extending three miles offshore. SDFD is a multi-faceted organization that provides the City with fire and life-saving services including fire protection, emergency medical services, and lifeguard protection at San Diego beaches.

Two fire stations serve the project site: Station 5 and Station 23. Station 5 ~~serves Hillcrest and its surrounding areas~~is located at 3902 Ninth Avenue, approximately 1.63 miles southeast of the project site. This station includes a fire engine and a battalion chief's vehicle and has no paramedic unit. Station 23 is located at 2190 Comstock Street, approximately 2.1 miles northwest of the project site. This station

includes a fire engine and has no paramedic unit. Additionally, Station 45 serves as a backup station for the project site. Station Number 45 is located at 9366 Friars Road, approximately 3.3 miles east of the project site. Station 45 is equipped with a Battalion Chief's vehicle, fire engine, aerial truck, and HAZMAT unit. ~~*Fire Stations 5, 17, 18, 20, 23, 25, and 28 are located outside the* Community Plan *area but provide service within portions of the CPU area.*~~ *As of 2017, the City is not planning to construct new stations in* Mission Valley *(Citygate Associates, 2017).* ~~Station Number 45, located at 9366 Friars Road, approximately 3.3 miles east of the project site, and Station Number 5, located at 3902 Ninth Avenue, approximately 1.63 miles southeast of the project siteStation 45 is equipped with a Battalion Chief's vehicle, fire engine, aerial truck, and HAZMAT unit. Fire Station 45 serves the existing project site and would continue to be the primary station servicing the project s~~

The City of San Diego has established a first-due unit response time of 7.5 minutes for medical emergencies and small fires, 90 percent of the time from the receipt of the 911 call in fire dispatch (Citygate Associates, 2017). This equates to a one-minute dispatch time, 1.5-minute company turnout time, and five-minute travel time in the most populated areas of the city (Citygate Associates, 2017). ~~*As of 2016, Fire Station 45 had an average travel time of about seven minutes, above the five-minute goal (Citygate Associates, 2017). As of 2016, Fire Station 45 had an average dispatch and crew turnout time of about nine minutes from the time of the 911 call to the time of arrival – above the City's established goal of 7.5 minutes (Citygate Associates, 2017).*~~

Emergency medical services are provided to the CPU area and throughout the city through a public/private partnership between the City's Emergency Medical Services (EMS) and Rural Metro Corporation, which provides additional personnel and some ambulances. EMS has ambulances, paramedics, and emergency medical technicians (EMTs) who respond to emergency calls. Calls are prioritized from Level 1 (most serious) to Level 4 (non-emergency).

5.15.1.4 Schools

Public school service would be provided by San Diego Unified School District (SDUSD). There are no public schools located within Mission Valley. Correspondence with the SDUSD identifies that the schools that would serve the project area are located in the adjacent communities of Linda Vista and Kearny Mesa. Specifically, public schools serving the project area are Carson Elementary School, located in the Linda Vista community at 6905 Kramer Street, approximately 0.8-mile northeast of the project site; Montgomery Middle School, also located in the Linda Vista community at 2470 Ulric Street, approximately 1.6 miles northeast of the project site; and Kearny High Complex, located in the Kearny Mesa community at 7651 Wellington Street, approximately 2.7 miles northeast of the project site. According to the SDUSD, these three schools have an estimated capacity of 3,329 students with a collective enrollment of 2,275 students for the 2019-2020 school year.

There are three charter schools located in the project area: Audeo Charter School, located at 7510-7610 Hazard Center Drive in the Mission Valley community, approximately one mile east of the project site;

Empower Charter School, located at 2230 E Jewett Street in the Linda Vista community, approximately two miles north of the project site; and San Diego Cooperative Charter School, located at 7260 Linda Vista Road in the Linda Vista community, approximately 1.9 miles north of the project site.

5.15.1.5 Libraries

Library services are provided by the San Diego Public Library (SDPL). Mission Valley is served by the Mission Valley Branch of the SDPL, located at 2123 Fenton Parkway, approximately four miles east of the project site. The Mission Valley Branch library is a 19,760-square-foot facility that opened in 2002 and is open seven days a week. Hours of operation for the Mission Valley Branch library are typically 9:30 a.m. to 6:00 p.m., with the exception of 11:30 a.m. to 8:00 p.m. on Tuesdays and Wednesdays and 12:30 p.m. to 5:00 p.m. on Sundays. The library includes a large community meeting room, seminar rooms, a children's library, an outdoor patio with a children's garden that has a flowing river sculpture, a computer lab, and a mezzanine and terrace. Additionally, three other SDPL branches are located close to the project site: the Linda Vista Library, located at 2160 Ulric Street, approximately 1.4 miles from the project, the Mission Hills – Hillcrest/Knox Library, located at 215 W. Washington Street, approximately two miles from the project, and the University Heights Library, located at 4193 Park Boulevard, approximately 3.5 miles from the project.

The General Plan establishes a minimum size of 15,000 square feet of dedicated library space for branch libraries and a target resident population of 30,000 people per library. Based on this requirement, the 19,760-square-foot Mission Valley Branch library exceeds the minimum library size. The current household population in the Mission Valley Community Plan area is approximately 28,588. This excludes people residing in group quarters, such as those in hospitals, nursing facilities, and certain kinds of student housing.

5.15.1.6 Parks or Other Recreational Facilities

Mission Valley contains two public recreational amenities, Sefton Field, which houses four little league fields and is located approximately three miles west of the project site, south of Friars Road and a public park located within the Civita development, approximately three miles northeast of the project site. In addition, the San Diego River Park Master Plan area is located through the middle of the project site along the San Diego River. Included as part of the San Diego River Park Master Plan is an integrated and connected trail system, which provides additional opportunities for access to and recreation along the San Diego River.

Several regional recreational amenities are located near the Mission Valley community. These include Balboa Park, Presidio Park, and Mission Bay Park. Balboa Park, located just north of downtown San Diego, approximately three miles south of the project site, encompasses more than 1,000 acres and includes open space areas, natural vegetation zones, green belts, gardens, walking paths, three off-leash dog parks, restrooms, and recreational facilities, such as tennis courts, swimming pool, lawn bowling, a golf

course, and disc golf. In addition, Balboa Park contains 15 museums, several theaters, gift shops, restaurants, and the San Diego Zoo. Presidio Park is located approximately three miles west of the project site, in the Old Town San Diego community, and contains open lawn for picnicking and play, as well as restrooms and Junípero Serra Museum. Mission Bay Park, located approximately five miles northwest of the project site, is the largest aquatic park of its kind in the country, consisting of over 4,600 acres in roughly equal parts land and water. Mission Bay has 27 miles of shoreline, 19 of which are sandy beaches with eight locations designated as official swimming areas. Mission Bay Park offers boat docks and launching facilities, sailboat and motorboat rentals, bicycle and walking paths, basketball courts, and playgrounds, as well as open lawn areas for picnicking and recreation. Public restrooms and showers are available and lifeguard stations are located in designated areas.

5.15.2 Regulatory Framework

5.15.2.1 State

California Mutual Aid Plan

The California Mutual Aid Plan establishes policies, procedures, and responsibilities for requesting and providing inter- and intra-agency assistance in emergencies. The plan directs local agencies to develop automatic or mutual aid agreements, or to enter into agreements for assistance by hire where local needs are not met by the framework established by the Mutual Aid Plan.

Assembly Bill 16

AB 16 was passed in 2002 and created the Critically Overcrowded School Facilities program to supplement the construction provisions within the School Facilities Program (SFP). The SFP provides state funding assistance for new construction and modernization of facilities. The Critically Overcrowded School Facilities program allows school districts that have been determined by the California Department of Education (CDE) to have critically overcrowded facilities to apply for new construction projects without meeting all SFP program requirements (CDE 2015). Districts with SFP new construction eligibility and school sites included on a CDE list of source schools may apply (Chapter 33, Statutes of 2002).

Senate Bill 50

SB 50, or the Leroy F. Greene School Facilities Act of 1998, restricts the ability of local agencies to deny project approvals on the basis that public school facilities (classrooms, auditoriums, etc.) are inadequate. School impact fees are payments to offset capital cost impacts associated with new developments, which result primarily from costs of additional facilities, related furnishings and equipment, and projected capital maintenance requirements. As such, agencies cannot require additional mitigation for any school impacts (Chapter 407, Statues of 1998).

Quimby Act and Assembly Bill 1359

Cities and countries have been authorized since the passage of the 1975 Quimby Act (Government Code Section 66477) to pass ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements. Revenues generated through the Quimby Act cannot be used for the operation and maintenance of park facilities. The dedicated land or fees may only be used for the development or rehabilitation of neighborhood or community parks or recreational facilities in the subdivision they were provided for, according to AB 1359 (Chapter 413, Statutes of 2013), unless certain requirements are met and an exception is made. The goal of the Quimby Act is to require developers to help mitigate the impacts of property improvements. The act gives authority for passage of land dedication ordinances only to cities and counties. Special districts must work with cities and/or counties to receive parkland dedication and/or in-lieu fees. The fees must be paid, and land conveyed directly to the local public agencies that provide park and recreation services communitywide.

Fire Hazard Severity Zones

Responsibility for wildland fire protection in California is divided between the State, local government, or the Federal government. The California Department of Forestry and Fire Protection (CAL FIRE) adopted Fire Hazard Severity Zone maps for State Responsibility Areas in 2007, as well as recommended maps for Very High Fire Hazard Severity Zones in Local Responsibility Areas. Local Responsibility Areas include incorporated cities, cultivated agriculture lands, and portions of the desert. The CAL FIRE recommendations are not the same as actual zones, which do not go into effect unless adopted by local agencies (CAL FIRE 2012). In San Diego County, CAL FIRE has made recommendations on 13 cities, including the City of San Diego. The County of San Diego Wildland Hazard Map tool provides local designations based on CAL FIRE's recommendations (SDFD 2009). Fire Hazard Severity Zones are based on increasing fire hazard and are designated as "No Designation," "Moderate," "High," or "Very High."

The *Very High Fire Hazard Severity Zone (VHFHSZ) Map*, as shown on Figure 5.16-8, was established on February 24, 2009 in coordination between the San Diego Fire Department and Cal-Fire. The VHFHSZ map identifies areas within and adjacent to the project site that would fall into a risk zone. However, areas north of Friars Road have been developed since publication of the VHFHSZ map, and the project site is now mostly surrounded by urban development. The remaining area of vegetated fuel load is located along the San Diego River, which traverses the project site. Safety issues relative risk of wildfire are addressed in Section 5.16, *Health and Safety*, of the EIR.

5.15.2.2 Local

City of San Diego General Plan

The City's General Plan contains a Public Facilities, Services, and Safety Element to address publicly managed and provided facilities and services. This element provides policies for financing, prioritization, developer, and City funding responsibilities for public facilities in the City.

Fire Services Deployment

Fire response deployment simply stated is about the speed and weight of attack. Speed calls for first-due, all-risk intervention units (engines, trucks, and/or rescue ambulances) strategically located across a community responding in an effective travel time. These units are tasked with controlling moderate emergencies without the incident escalating to second alarm or greater size, which unnecessarily depletes departmental resources as multiple requests for service occur. Weight is about multiple-unit response for serious emergencies such as a room and contents structure fire, a multiple-patient incident, a vehicle accident with extrication required, or a heavy rescued incident. In these situations, enough firefighters must be assembled within a reasonable timeframe to safely control the emergency, thereby keeping it from escalating to greater alarms. The science of fire crew deployment is to spread crews out across a community for quick response to keep emergencies small with positive outcomes, without spreading the crews so far apart that they cannot amass together quickly enough to be effective in major emergencies (Citygate 2017).

In 2011, the City retained Citygate Associates, LLC to conduct a Fire Services deployment planning study to:

1. Further refine the findings of the Regional Fire Service Deployment Study that Citygate conducted for the County of San Diego that pertained to Fire-Rescue deployment within the City;
2. Analyze whether the SDFD's performance measures are appropriate and achievable given the risks, topography, and special hazards to be protected in the City; and
3. Review existing SDFD deployment and staffing models for efficiency and effectiveness and determine how and where alternative deployment and staffing models could be beneficial to address current and projected needs (Citygate 2011).

Prior to this study, the SDFD used the National Fire Protection Association (NFPA) Standard 1710 for the Organization and Deployment of Fire Suppression Operations to determine adequate response times. According to the standards, initial fire suppression resources shall be deployed to provide for the arrival of an engine company within a four-minute travel time to 90 percent of incidents. The study concluded that additional fire-rescue resources were needed to meet these service delivery goals. In response, the SDFD adopted the recommendations of the study and set new deployment standards. The updated deployment standards and fire station planning measures are described below.

Distribution of Fire Stations

To treat medical patients and control small fires, the first responding unit should arrive within seven minutes and 30 seconds from the time of the 9-1-1 call receipt in fire dispatch. This equates to a one-minute dispatch time, one minute and 30 seconds for company turnout time, and a five-minute drive time in the most populated areas (Citygate 2017).

Multiple-Unit Effective Response Force for Serious Emergencies

To confine fires near the room of origin, to confine wildland fires to fewer than three acres when noticed promptly, or to treat up to five medical patients at once, the goal is for a multiple-unit response of at least 17 personnel to arrive within 10 minutes and 30 seconds from the time of the 9-1-1 call receipt in fire dispatch, 90 percent of the time. This equates to a one-minute dispatch time, a one minute and 30 seconds company turnout time, and an eight-minute drive time spacing for multiple units in the most populated areas (Citygate 2017).

Adopted Fire Station Location Measures

To direct fire station location timing and crew size planning as the community grows, the adopted fire unit deployment performance measures based on population density zones listed in the General Plan. Structure fires in urban areas over 1,000 people per square mile would require a response standard of five minutes for first due travel time, 7.5 minutes for total reflex time, eight minutes for first alarm travel time, and 10.5 minutes for first alarm total reflex. Reflex time is the total time from receipt of a 9-1-1 call to arrival of the required number of emergency units (Citygate 2017).

Aggregate Population Definitions

Standards listed in the General Plan guide the determination of response time measures and the need for fire stations. The first-due unit travel time goal for metropolitan areas of over 200,000 people is four minutes. Urban-suburban areas of less than 200,000 people would require a goal of five minutes (Citygate 2017).

5.15.3 Impact Analysis

5.15.3.1 Issue 1

Issue 1: Would the project have an effect upon, or result in a need for new or altered governmental services in any of the following areas: Police protection; Fire/Life Safety protection; Libraries; Parks or other recreational facilities; maintenance of public facilities, including roads; and Schools?

Impact Threshold

Per the City's Significance Determination Thresholds, impacts to public services and facilities would be significant if a project would conflict with the community plan in terms of the number, size, and location of public service facilities and if so, would it result in the need for new or expanded public service facilities, the construction of which would cause direct, adverse physical environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives.

Analysis

The project would build-out consistent with the Mission Valley Community Plan. The provision of public services and facilities was evaluated in the Mission Valley Community Plan Update Program EIR. The analysis presented in this section is intended to evaluate those public services and facilities needed to specifically serve the Riverwalk project.

Police

The project site is served by the Western Division of the SDPD. The project would introduce 7,998 residents at the site, based on the proposed 4,300 units and a density factor of 1.86 persons per household. The project is consistent with the Mission Valley Community Plan, which assumes development of the project as proposed by the Riverwalk Specific Plan. Although the project could result in an increase in service calls, the SDPD has facilities and staffing in the project area to adequately serve the project, ongoing funding for police services is provided by the City General Fund; and no new facilities or improvements to existing faculties would be required.

Fire-Rescue

In 2017, Citygate Associates, LLC published the Standards of Response Coverage Review for the City of San Diego Fire-Rescue Department (Citygate 2017). The City adopted the performance measure recommended by Citygate in that report that first-due units should arrive to the site of the emergency within 7.5 minutes 90 percent of the time from the receipt of the 911 call in fire dispatch. This includes the one-minute dispatch time, 1.5-minute company turnout time, and five-minute drive time in the most populated areas. Additionally, the Citygate standards state that for multiple-unit calls to confine fires near the room of origin, to stop wildland fires to under three acres when noticed promptly, and to treat up to five medical patients at once, a multiple-unit response of at least 17 personnel should arrive within 10:30 minutes/seconds from the time of 911-call receipt in fire dispatch, 90 percent of the time. This equates to a one-minute dispatch time, 1.5-minute company turnout time and eight-minute drive time spacing for multiple units in the most populated areas (Citygate 2017).

The project would result in approximately 7,998 residents at the site (based on the proposed 4,300 units and a density factor of 1.86 persons per household), which would increase the demand for fire protection within the service area. The project would be constructed in accordance with applicable fire codes and would comply with applicable City regulations. The project would provide fire safety features, such as installation of fire sprinklers. The project would not conflict with the Mission Valley Community Plan in terms of number, size, and location of existing or planned Fire-Rescue facilities. The Fire-Rescue

Department has facilities and staffing in the project area to adequately serve the project. Although the project could result in an increase in service calls, no new or expanded facilities or improvements to existing facilities would be required as a result of the project. Therefore, no new or expanded facilities would be required as a result of the project and impacts to Fire Protection would not be significant.

Schools

SDUSD offers a host of magnet, alternative, charter, and special education programs that would be available to serve residents of the project. There are no identified deficiencies at these schools and SDUSD currently does not have plans for new or expanded school facilities that would serve the project site. Based on correspondence with SDUSD (see Appendix J), the following schools currently serve the project site:

School	Address	Estimated Program Capacity[1]	2018-19 Enrollment	2019-20 Enrollment
Carson Elementary	6905 Kramer Street San Diego, CA 92111	525	380	367
Montgomery Middle	2470 Ulric Street San Diego, CA 92111	1,064	465	487
Kearny High Complex	7651 Wellington Street San Diego, Ca 92111	1,737	1,456	1,421

Footnote: [1] Capacities are approximate and are calculated using current class size ratios; if class size ratios change, additional or less capacity may be available. Attendance boundaries are reviewed annually and are subject to change.

A new elementary school with an approximate capacity for 500 transitional Kindergarten (TK) through 5th grade students is planned within the Civita development at the intersection of Via Alta and Civita Boulevard, located approximately 2.5 miles east of Riverwalk. The preliminary opening date of the school is Fall 2022. Attendance boundaries for the new school are not yet finalized, but scenarios under review may assign future housing in Riverwalk to this new elementary school. Middle school boundaries are also under review and may change from the above table. High school assignment is not expected to change.

Carson Elementary has no portable and 32 permanent classrooms. Montgomery Middle has no portable and 43 permanent classrooms. Kearny High Complex has eight portable and 64 permanent classrooms.

Student generation rates vary based on the type of project, number of units, bedroom mix, neighborhood, and other factors. There are no district standard rates. In order to estimate the number of students generated by this project, SDUSD referenced existing similar developments in the project vicinity, as well as additional projects that have been proposed in the area. Based on planned and proposed projects, SDUSD was able to estimate student generation rates for the project. The student generation rates are the average from the existing developments and proposed developments, with a low and high range.

Student generation rates based on the average from existing and planned developments, with a low and high range, and are shown in Table 5.15-2, *Estimated Generation Rates for the Riverwalk Project*.

Table 5.15-2. *Estimated Generation Rates for the Riverwalk Project*

Proposed Development	Address	Number of Units	Student Generation Rate	Estimated Number of Students
Riverwalk Project	1150 Fashion Valley Road San Diego, CA 92108	4,300	K-5: 0.041-0.082 6-8: 0.014-0.028 9-12: 0.070-0.140	K-5: 176-353 6-8: 60-120 9-12: 65-602
		TOTAL	**K-12: 0.055-0.110**	**K-12: 301-602**

Source: SDUSD, November 13, 2019.

Based on the estimated student generation, the project would generate approximately 301-602 students. SDUSD concluded that the project can be accommodated by existing district schools at the middle and high school levels. However, the elementary level would be a concern as the estimated number of students, particularly at the high range, could exceed the capacity of Carson Elementary. However, a new elementary school is planned within the Civita development in Mission Valley which would add additional capacity.

The existing schools have sufficient capacity in the near-term to serve these students, and the project would not result in the need for new or expanded school facilities. Furthermore, the project would be required to pay school fees in compliance with CGC Section 65995 et seq.

Libraries

Library services are provided by the SDPL. The City's General Plan establishes goals and polices for the library system facilities. Per the General Plan, a library system should contribute to the quality of life through technologically improved services and welcoming environments. Branch libraries should be 15,000 square feet or larger and include features and services that address community-specific needs.

The project would result in approximately 7,998 residents, based on 1.86 persons per household. Even with the population increase projected to be generated by the project, existing library systems would not be impaired, nor would additional or expanded library facilities be required. Because residents may use the Mission Valley Library or any branch library that is part of the San Diego Public Library system, the existing branches could adequately serve the increase in residents from the project, and no new or altered facilities would be required. Impacts to library service would be less than significant.

Parks or Other Recreational Facilities

The Recreation Element of the General Plan provides "Park Guidelines" to address Open Space, Resource-Based Parks, and Population-Based Parks. Open Space and Resource-Based Parks serve the larger regional and/or visitor population. Population-Based Parks (commonly known as Neighborhood and Community Parks) are facilities and services that are located in close proximity to residential development and are

intended to serve the daily needs of the neighborhood and community. When possible, these parks adjoin schools in order to share facilities and are ideally within walking distance of the residences within their service area. Community Parks are intended to meet a minimum standard of providing 2.8 acres per 1,000 population. The General Plan's Recreation Element minimum standard of 2.8 acres per 1,000 people for population-based parks can be achieved through a combination of neighborhood and community park acreages and park equivalencies.

Based on the projected build-out population for the community, General Plan standards for population-based parks and recreation facilities in the Mission Valley Community Plan area would require a minimum of 203 usable acres of public parkland. As of 2018, there are approximately 19 acres of population-based parks in the Mission Valley Community Plan area. The Mission Valley Community Plan includes approximately 75 additional acres of population-based parkland, bringing the grand total of population-based parks at buildout to approximately 94.15 acres, about 108.85 acres short of the 203-acre General Plan standard. Including park equivalencies, the park total at buildout would be 152.79 acres.

Mission Valley contains two public recreational amenities: Sefton Field, which houses four little league fields approximately three miles west of the project site and a public park located within the Civita development, located approximately three miles northeast of the project site. In 2013, the City approved the San Diego River Park Master Plan. A major portion of the San Diego River Park Master Plan is within the Mission Valley community. When fully implemented, the San Diego River Park will provide a natural park for the City. The San Diego River Park Master Plan envisions a waterway that is healthy, accessible to the public, and inhabited with wildlife. The plan provides guidance on how the San Diego River can be reasserted as the focus of the River valley and become an asset to the community. Included as part of the San Diego River Park Master Plan is an integrated and connected trail system, which will provide additional opportunities for recreation along the San Diego River.

There are limited semiprivate recreational facilities at the western end of Mission Valley. The Mission Valley YMCA is a semiprivate facility located at 5505 Friars Road. The YMCA provides both indoor and outdoor recreational opportunities in a park-like setting along the River. The Mission Valley Community Plan includes two additional park-like recreation areas are planned for future development by the City on City-owned land in Mission Valley. One location is identified in the vicinity of SDCCU Stadium, and the second location is near the existing YMCA.

Several regional recreational amenities are located near to the Mission Valley community, including Balboa Park, Presidio Park, and Mission Bay Park. Balboa Park encompasses more than 1,000 acres and is located just north of downtown San Diego, approximately three miles south of the project site. Mission Bay Park encompasses more than 4,200 acres and is located roughly 1.5 miles west of the project site. Future residents of the project could easily access these regional recreation amenities.

The Mission Valley Community Plan *provides for the development of a number of new population-based parks, including two major parks (Stadium Park and Riverwalk* River *Park), two Neighborhood Parks (Civita*

Central Neighborhood Park and a park on the Post Office site[1]), a mini park in the Civita development, two pocket parks (Franklin Ridge and Hazard Center), and a special activity park (Public Utilities site), as well as several park equivalencies as opportunities arise. The Community Plan *also provides for the construction of two recreation centers—one at the Stadium site and one near the Riverwalk site—and one aquatic complex (location to be determined)* within the community. Associated with development of recreation facilities for the Mission Valley community are park equivalencies[2] that include *the Mission Valley Preserve Canyon Open Space Trail; portions of resource-based parks, including trail amenities to support the San Diego River Pathway and redevelopment of the southeast area of Mission Bay Park; privately-owned park sites, including a proposed pocket park at the Union Tribune site, a three-acre Neighborhood Park as part of the Town and Country Hotel revitalization project, a proposed mini park in the Civita development, and a proposed approximately two-acre Neighborhood Park in the Civita development; and non- traditional parks, including parks to be developed in conjunction with redevelopment projects, including the Mission Valley Heights project, the Mission Valley Mall, and Fenton Marketplace.*

The project would generate approximately 7,998 residents at the site, which would require approximately 22.~~4~~ acres of population-based parkland. In accordance with provision of required population-based park space, Riverwalk would provide approximately 55~~1~~ acres of publicly-~~owned~~ accessible park ~~land~~ space eligible for population-based park credit, resulting in an excess of approximately 33~~29~~ acres of park space provided beyond what is required by City standards. The project would also receive equivalency park credit for two pedestrian bridges within the Riverwalk River Park. Therefore, the project would more than satisfy its approximately 22.~~4~~-acre population-based park requirement through the provision of parks on-site.

Urban parks would be phased with development in the North District. These parks would be privately-owned publicly-accessible parks. These areas would have a recreation easement recorded, allowing for unrestricted public access. The Riverwalk River Park, which would be delivered with project development, may serve as a potential location for a Recreation Center. The Riverwalk River Park would be delivered in phases. The first phase (Phase 1), would include opening up the existing golf course as a passive park in a form substantially similar to current conditions. When development of the Central District or South District occurs, the site would be graded and active amenities would be constructed in the Central District park areas, with passive park space remaining south of the San Diego River (Phase 2). The final phase of the Riverwalk River Park would include full build-out of amenities and active recreation areas in the River Park District (Phase 3). The designs of each phase will be decided through a GDP process consistent with Council Policy 600-33.

As noted above, Mission Valley contains two public recreational amenities a little league baseball facility and a public park located within the Civita development. These parks would serve community residents, as well as visitors to Mission Valley. Additionally, it is anticipated that the residents of Riverwalk would likely

[1] Located at 2600 Camino Del Rio North.
[2] *Park equivalences* are alternative methods of providing recreation facilities to achieve citywide equity or to satisfy community specific needs and demands.

utilize the various regional parks located within close proximity to the project site for recreational needs. These parks have been developed as regional amenities with the purpose of providing active and passive recreation to residents of the region. Additionally, the project would provide active recreational amenities on-site in the form of the Riverwalk River Park traversing the center of the project site; various mini, linear, and pocket parks; plazas; and trail connections to Riverwalk's internal pedestrian and bicycle trail network.

Because the two regional parks are all located less than three miles from the project site, it is likely that users from the project would partake in these parks more or less equally, diffusing potential use of project residents to all three parks. Due to the regional nature of these parks and the likely diffusion of use, adverse impacts to the regional park amenities would not occur. The project would not result in impacts to recreational facilities.

While the community of Mission Valley has a deficit of existing required park space, the project would not impair existing facilities. The project would exceed the General Plan's requirement relative to population-based parks. The physical impacts related with future construction of the Riverwalk River Park and its associated park amenities (e.g. pedestrian bridges, walkways, etc.) have been conducted as part of the project's analysis; and no additional impacts beyond those already addressed would occur for noise, biological resources, historical resources, tribal cultural resources, water quality, or hydrology.

Significance of Impacts

The project would not result in significant impacts to police protection, fire/life safety protection, libraries, parks, or other recreation facilities, and schools.

Mitigation Measures

Mitigation would not be required.

Figure 5.15-1. ***Location of Public Services***