### **SECTION 2: PROJECT DESCRIPTION**

# 2.1 - Project Background

The most heavily developed portion of the SGPWA's service area is the Beaumont Basin. Currently, the Beaumont Basin is experiencing an overdraft condition, which means that the amount of water withdrawn by pumping exceeds the average amount of water that naturally recharges the groundwater basin on an annual basis. The estimated hydrologic safe yield, which is the amount of groundwater that can be continuously withdrawn from the Beaumont Basin without adverse impact, is estimated at 6,100 acre-feet per year (AFY) (Boyle 2002). In 2007 and 2009, the annual precipitation was among the driest on record in Beaumont while 2010 was one of the wettest (SGPWA 2012). In 2011, the annual precipitation was below normal (SGPWA 2012). In 2010, the total production within the Beaumont Basin was 13,469 acre-feet (af) while in 2011, the total production was 13,908 af (SGPWA 2012), which means that the estimated exceedance of the hydrologic safe yield for 2010 was approximately 7,369 af and for 2011 was approximately 7,808 af. The cumulative overdraft of the Beaumont Basin since development of the region began in the 1920s is over 100,000 af (Albert A. Webb Associates 2008).

In 2003, Phase I of SWP's East Branch Extension (EBX) was completed, bringing raw SWP water into SGPWA's service area. However, the capacity of Phase I allows for a maximum of approximately 12,000 AFY of the SGPWA's Table A amount (i.e., amount of SWP water that SGPWA has contracted for) which is 17,300 AFY (SGPWA 2012). Based on fluctuating precipitation and supply conditions, SWP yearly distribution can differ from Table A amounts. For example, in 2011, the SGPWA was distributed approximately 10,000 af of SWP water (SGPWA 2012), although the SGPWA has capacity for 12,000 AFY, and it's full Table A amount is 17,300 AFY. Following completion of both Phase II of the EBX (estimated 2015), which would increase overall capacity to the region, and the project as proposed in this Draft EIR, the SGPWA would be able to obtain its full Table A amount of 17,300 AFY of SWP water. The proposed recharge facility could also provide capacity to receive water from the SWP under the Article 21 Water Program or other supplemental water such as exchange water. The Article 21 Program was established to allow the California Department of Water Resources to provide water to State Water Project contractors (i.e., SGPWA) when water levels within the San Luis Reservoir in Northern California exceed certain water elevations. Furthermore, the proposed recharge facility could also provide recharge capacity for retail water agencies. The proposed recharge facility will allow SGPWA to receive the full Table A amount of SWP water as well as take advantage of wet years to receive more water to replenish the groundwater basin.

In 2008, the SGPWA evaluated potential recharge sites within the Beaumont Basin. A recharge site would allow the SGPWA to recharge the groundwater basin with SWP water. Initially, SGPWA provided a detailed review of the Brookside South Recharge project that included a recharge facility

within Noble Creek. The SGPWA decided not to proceed with the Brookside South Recharge project and is currently proposing a recharge facility southeast of Noble Creek.

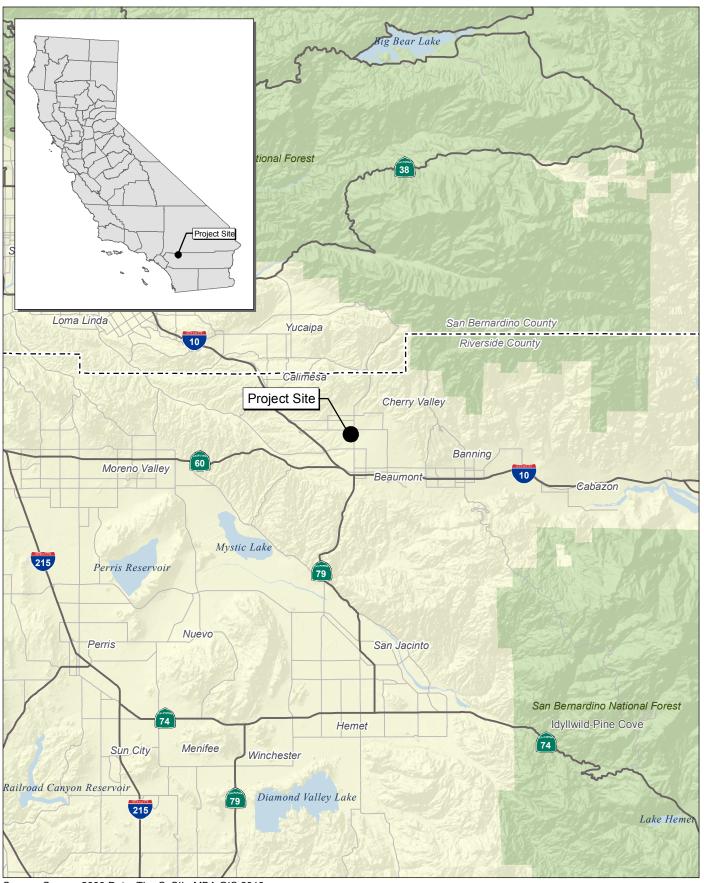
# 2.2 - Project Location

The proposed project is located in both the City of Beaumont and the Cherry Valley area, an unincorporated portion of Riverside County (Exhibit 2-1). The project site encompasses a recharge facility at the southwest corner of Beaumont Avenue and Brookside Avenue, a pipeline that extends north from the recharge facility along Beaumont Avenue to Orchard Street and then west along Orchard Street to approximately Mountain View Channel, and a service connection facility located south of Orchard Street and immediately west of Mountain View Channel (Exhibit 2-2). Additionally, there would be potential that excavation activities associated with construction of the project would require the depositing of excess soil at up to three locations: the southern end of the recharge facility site; an offsite triangular parcel located south of Brookside Avenue, north of Noble Creek, and east of the Mountain View Channel; and the service connection site (Exhibit 2-2).

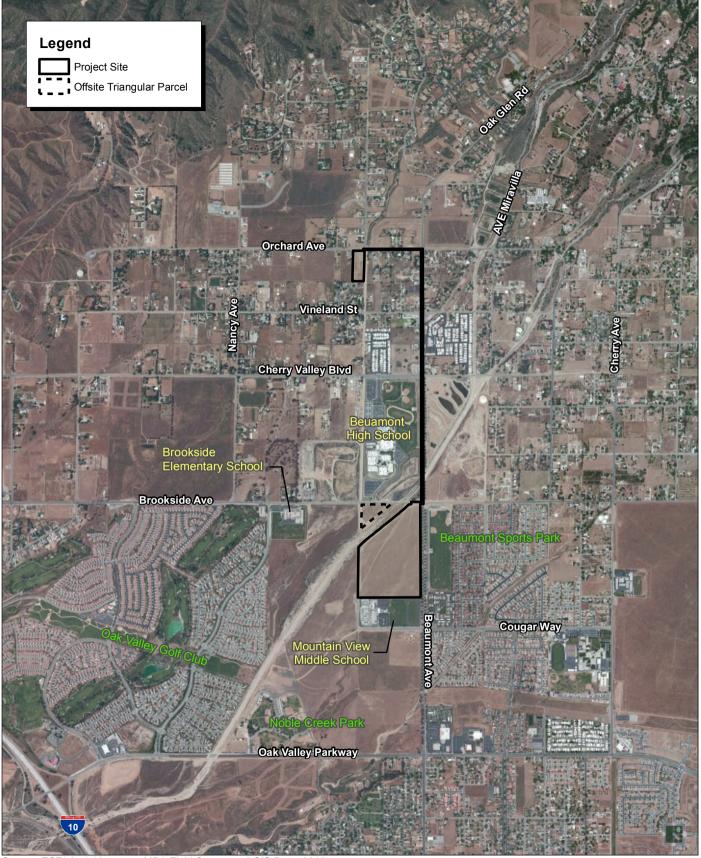
The recharge facility site consists of approximately 44 acres within the City of Beaumont and is located directly west of Beaumont Avenue, south of Brookside Avenue, east of Noble Creek, and north of the Mountain View Middle School. The recharge facility site is owned by SGPWA (Assessor's Parcel Number [APN] 406-080-032) and is located within Section 34, Township 2 South, Range 1 West of the Beaumont U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (Exhibit 2-3).

The majority of the pipeline would be installed underground in the unincorporated Cherry Valley area of Riverside County, although the southernmost portion of the pipeline that connects to the recharge facility would be located in the City of Beaumont. The pipeline is proposed to extend from the recharge basin along the southern side of Brookside Avenue to Beaumont Avenue. At Beaumont Avenue, the pipeline is proposed to traverse in a north/south direction along Beaumont Avenue from Brookside Avenue to Orchard Street and in an east/west direction along Orchard Street from Beaumont Avenue to the service connection facility. The pipeline would be located in Sections 27, 28, 34, Township 2 South, Range 1 West of the Beaumont USGS 7.5-minute topographic quadrangle (Exhibit 2-3).

The service connection site consists of approximately 3.5 acres within the unincorporated Cherry Valley area of Riverside County and is located south of Orchard Street and immediately west of Mountain View Channel. Construction of the service connection facility would disturb roughly 1.75 acres, or half the 3.5-acre site, while operations of the facility will disturb approximately 0.3 acre of the northeast portion of the site. The service connection site is owned by SGPWA (APN 405-060-013) and is located within Section 28, Township 2 South, Range 1 West of the Beaumont USGS 7.5-minute topographic quadrangle (Exhibit 2-3).



Source: Census 2000 Data, The CaSIL, MBA GIS 2013.



Source: ESRI Aerial Imagery. MBA Field Survey and GIS Data, 2013.

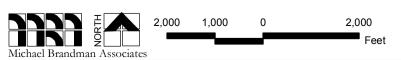


Exhibit 2-2 Local Vicinity Map Aerial Base



Source: Google Earth Pro.

The approximately 3.4-acre offsite triangular parcel that could potentially be used for a staging area and/or for depositing excess excavated soil is located south of Brookside Avenue, north of Noble Creek, and east of the Mountain View Channel. This offsite parcel is owned by SGPWA (APN 404-010-012) and is located within Section 34, Township 2 South, Range 1 West of the Beaumont USGS 7.5-minute topographic quadrangle (Exhibit 2-3)

# 2.3 - Project Characteristics

### 2.3.1 - Project Components

## **Recharge Facility**

The recharge facility would consist of a series of five tiered basins, each separated by berms (Exhibit 2-4). The facility would have raised embankments along its perimeter so that a portion of the basins will be above the current ground elevation and a portion of the basins will be below the current ground elevation. A maximum 3:1 slope would be used for the interior basin portions of the facility, while 3:1 cut/fill slopes would be used for the exterior perimeter of the facility. The raised embankments would extend a maximum of approximately 9.5 feet above the surrounding grade along the majority of Beaumont Avenue. The southern end of the embankment adjacent to Beaumont Avenue would extend approximately 14 feet above the existing surrounding grade. The embankment along the southern property line will raise approximately 15.5 feet above the existing surrounding grade. The raised embankment along the western property line will be up to 6.5 feet above the existing surrounding grade. The embankment along the northern portion of the recharge facility will raise approximately 9.5 to 11 feet adjacent to three middle basins within the recharge facility and the embankment adjacent to the northern basin will range from 10.5 to -11.2 feet compared to the surrounding grade.

The recharge facility has been designed for an infiltration rate of two feet per day and to accommodate a maximum flow rate of 20 cubic feet per second (cfs). With a capacity of 20 cfs, the normal operation of the facility would allow recharge of 3,000 AFY to 4,000 AFY because the existing Beaumont Cherry Valley Water District's recharge basins located northeast of the proposed recharge basin has a current capacity of approximately 14,000 AFY. The proposed recharge basin would be operating during wet periods of the year when the SGPWA can take advantage of surplus water, and when it needs to import its full Table A amount. However, in a very wet year when surplus water is available through the California Department of Water Resources Article 21 Program and exchanges, the proposed recharge facility could have a capacity up to a maximum of 14,500 AFY.

The floor of the basin in the northeast portion of the facility would be approximately 40 to 45 feet higher in elevation than the floor of the basin in the southwest portion of the facility. Emergency spillways would be placed on the embankments of each basin and directed into the adjacent basin. The southernmost basin would have a spillway draining to the west and an emergency outflow swale

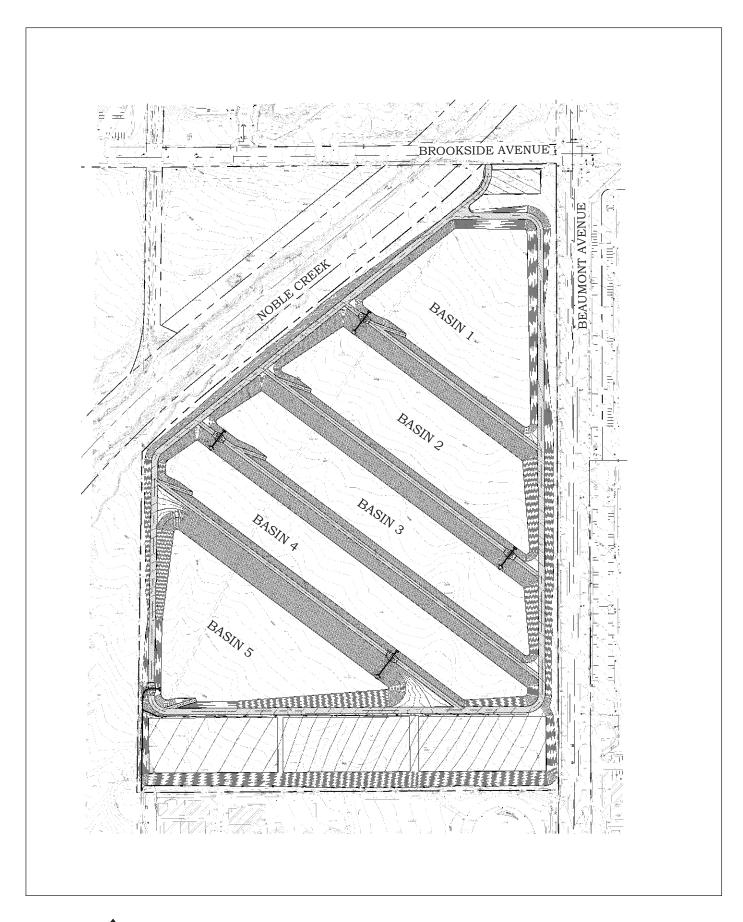
to the south that would convey the emergency runoff south to Mountain View Avenue. The proposed recharge facility site would include an onsite polyvinyl chloride (PVC) pipe distribution system.

Each basin would have a maximum ponding depth of 5.5 feet and a minimum freeboard of 1.5 feet from water surface to the basin rim. Maintenance roads would be provided along both the perimeter of the facility and between each of the basins. The perimeter maintenance road would be 20 feet wide, while the roads between the basins will be 15 feet and the ramps to the floor of the basins will be 12 feet. These roads would be engineered to prevent erosion and would be slightly angled towards the basins to allow for drainage into the basins. Site access is proposed along Brookside Avenue and from Mountain View Avenue on the south.

The recharge facility is proposed with berms that would prevent stormwater flows from being conveyed to the basins from outside of the recharge facility. The outlet structure located towards the southwesterly corner of the recharge facility would only be used in an unusual event that the basins must be quickly drained.

Periodic maintenance activities of the recharge facility would be required once the basins are operational. If the recharge basins continue to infiltrate at an acceptable rate, the time between maintenance activities would be extended. It is anticipated that each recharge basin may require servicing on an annual basis. Maintenance activities would involve temporarily taking an individual basin out of commission, allowing the basin to thoroughly dry over several weeks, re-grading and ripping the basin bottom with a dozer, and, if necessary, re-grading and tracking the basin slopes, although this final step is not expected to be regularly required. Each basin would take approximately one day to grade, rip, and track. Since SGPWA has plans to temporarily take the pipeline offline every year to perform mandatory annual maintenance activities, it is also possible that the recharge facility would be shut down during this period, with each basin being serviced during the shut down period.

The proposed recharge facility would include landscaping along its perimeter. To provide irrigation water for landscaping, an irrigation well is proposed. The well is proposed to include an electric pump that would include an electrical line to the recharge basin site and have a capacity to pump a maximum of 100 gallons per minute of non-potable water. A storage pressure vessel may be located next to the well to accommodate a small volume of irrigation water. The exact location of the groundwater pump is still unknown; however, as a worst-case, it is assumed that the pump will be located along the property line.





### **Pipeline**

A 24-inch pipeline is proposed to extend east from the recharge facility along Brookside Avenue for approximately 180 linear feet, north along Beaumont Avenue for approximately 5,600 linear feet, and west along Orchard Street for approximately 1,400 feet toward the service connection facility. The pipeline is planned to be located within the southern side of Brookside Avenue (eastbound travel lane), within the western side of the Beaumont Avenue centerline (southbound traffic lane) and the southern side of the Orchard Street centerline (eastbound traffic lane). The pipeline would transfer SWP water from the service connection site to the recharge facility for groundwater recharge. The pipeline has been designed to convey a flow rate of 20 cfs.

#### **Service Connection**

The service connection facility would convey SWP water from the existing 36-inch East Branch Extension/Noble Creek pipeline located at the intersection of Orchard Street and Mountain View Avenue to the pipeline and ultimately downstream to the recharge facility. A pipe outlet, not to exceed 24-inch diameter, would be extended from the service connection facility to the 24-inch pipeline along Orchard Street. While up to half of the service connection site could be disturbed during construction of the project, the service connection facility itself would disturb a smaller, approximately 120-foot by 110-foot portion (0.3 acre) representing less than 10 percent of the overall site (Exhibit 2-5). The service connection site would consist of a precast concrete control building and various below- and above-grade pipelines and ancillary infrastructure. Site access would be provided by a driveway from Orchard Street.

### Offsite Triangular Parcel

The offsite triangular parcel located northwest of the recharge facility site on the north side of Noble Creek could potentially be used, along with three other locations, as a staging area during construction of the project. Additionally, this parcel could potentially be used for depositing excess excavated soil as a result of excavation of the pipeline.

### 2.3.2 - Project Construction

Construction of the project is anticipated to occur over approximately one year beginning in 2013 and extending into 2014. The construction phase of the project would include construction of the recharge facility beginning in 2013 and completing in 2014, the construction of the pipeline is anticipated to occur in 2014 while the public schools are not in session; however, the northerly portion of the pipeline, north of Vineland Street may be constructed while the public schools are in session, and the construction of the service connection site is also anticipated to occur in 2014. Of the three primary project components, the recharge facility would take the longest amount of time to construct, taking approximately four months to complete. Aside from the recharge facility, the pipeline would take roughly six weeks to construct, and construction of the service connection facility would take an estimated two weeks to complete. Although the approximate timeframes are identified

above, there could be potential delays due to the contractor or the weather and could extend the construction timeframes.

Since the project would disturb one or more acres of soil, the project would be required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ). Construction activities subject to the Construction General Permit includes clearing, grading, and disturbances to the ground such as stockpiling or excavation. The Construction General Permit requires development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). Among other mandated items that are included within a SWPPP, the SWPPP would contain project features designed to protect against substantial soil erosion as a result of water and wind erosion, known as Best Management Practices (BMPs). Common BMPs include maintaining or creating drainages to convey and direct surface runoff from bare areas and installing physical barriers such as berms, silt fencing, waddles, straw bales, and gabions.

### **Pipeline Excavation and Construction**

Construction of the pipeline would include trenching for the majority of the pipeline, with jacking and boring occurring under the Noble Creek creek bed at Beaumont Avenue and under the Mountain View Channel at Orchard Street. Excavation activities along the pipeline alignment would require the export of approximately 1,100 cubic yards of soil. The export soil is anticipated to be transported to one of the soil sites identified below. If the contractor discovers soil that is classified as hazardous, then the soil that is classified as hazardous will be disposed of in accordance with local and state regulations.

### **Recharge Facility and Service Connection Facility Construction**

In the existing condition, both the recharge facility site and service connection site have constant gradients with elevations higher in the northern portions of each facility site compared to the southern portions. The highest elevation at the recharge facility site is 2,713 feet mean sea level (msl) in the northeast corner of the recharge facility site, and the lowest elevation is 2,640 msl in the southwestern corner of the site. The highest elevation at the service connection site is 2,840 msl in the northeastern portion of the site and the lowest elevation is 2,810 msl in the southwestern portion of the site. Both sites are free from prominent or irregular topographical features. Both project sites would require grading to prepare the ground surface for construction activities. Grading and other earthmoving activities on these project sites would not require offsite soil export; however, although not expected, any soils that are classified as hazardous will be required to be disposed of in accordance with local and state regulations.



Source: Google Earth Pro.

### Staging Areas

During construction of the project, construction equipment, vehicles, and materials could be stored at up to four staging areas: the recharge facility site, within the Beaumont Avenue and Orchard Street right-of-ways adjacent to the portion of the pipeline undergoing installation, the service connection site, and/or the offsite triangular parcel.

#### Soils Sites

Excavation activities associated with construction of the proposed pipeline is anticipated to require the depositing of excess soil at one or more of the following three locations: the first is the recharge facility site; the second is an offsite triangular parcel located south of Brookside Avenue, north of Noble Creek, and east of the Mountain View Channel; and the third is the service connection site. Any soil brought to and disposed of at these locations would be eventually distributed evenly throughout the sites.

### 2.3.3 - Project Operation

The operation of the recharge facility, pipeline, or service connection site would not require full-time employees. Once the project is completed and in operation, the SGPWA would periodically visit the sites to inspect the operation of the facilities. Approximately once per year, the five individual basins proposed at the recharge basin site would be completely dewatered for cleaning.

### 2.3.4 - Existing Land Use

#### **Onsite Uses**

The recharge facility site and the offsite triangular parcel currently consist of vacant, undeveloped land. Historically, the recharge facility site was used for cattle and sheep grazing prior to 1938, although more than 74 years have passed since any onsite agricultural activities has occurred. Based upon the past agricultural character of the City of Beaumont and the surrounding area, it is likely that historical agricultural activities occurred on the offsite triangular parcel as well, although no evidence of such activity is presently found on the parcel.

The pipeline would traverse Brookside Avenue, Beaumont Avenue and Orchard Street, three existing roadways that serve the residents of the City of Beaumont and the unincorporated Cherry Valley area.

The service connection site presently consists of vacant, undeveloped land. The service connection site was historically used for agricultural activities, although all former agricultural operations likely ceased prior to development of the surrounding area several years ago.

#### **Surrounding Offsite Uses**

The recharge facility site and offsite triangular parcel are surrounded by a combination of land uses, including specific uses such as Brookside Avenue and Beaumont High School to the north; Beaumont

Avenue, Beaumont Sports Park, and residential tracts to the east; Mountain View Middle School to the south; and undeveloped land, Brookside Elementary School, and residential tracts to the west.

Land uses located adjacent to the pipeline generally consist of commercial and residential uses, although specific uses such as Beaumont High School and the Beaumont-Cherry Valley Water District's Recharge Facility also occur in the vicinity of the alignment.

Land uses occurring around the service connection site primarily consist of lower density, single-family residential uses. Mountain View Channel is also located adjacent to the service connection site.

## 2.3.5 - Land Use Designations

The recharge facility site and the offsite triangular parcel are located within the land use jurisdiction of the City of Beaumont. These sites are zoned by the City of Beaumont as Specific Plan Area (SPA) and occur within the boundary of the Noble Creek Vistas Specific Plan. These sites are designated by the City of Beaumont General Plan Land Use Map as Single-Family Residential.

The majority of pipeline would be located within the land use jurisdiction of the County of Riverside, although a small portion of the pipeline would occur within the jurisdiction of the City of Beaumont. The pipeline would traverse the existing roadways of Beaumont Avenue and Orchard Street. The City of Beaumont designates Beaumont Avenue south of Brookside Avenue as a Divided Collector, while the County of Riverside designates Beaumont Avenue south of Cherry Valley Boulevard as a Major Collector, and north of Cherry Valley Road as a Secondary Roadway. The County of Riverside designates Orchard Street as a Secondary Roadway. The pipeline traverses areas zoned by the County of Riverside as General Commercial (C-1/C-P), Residential Agricultural (R-A), One Family Dwellings (R-1), Multiple-Family Dwellings (R-2), General Residential (R-3), and Light Agriculture (A-1). The areas surrounding this portion of the project site is designated by the County's General Plan Land Use Map as Commercial Retail, Medium Density Residential, and Rural Community - Very Low Density Residential. The pipeline would also be located within the boundary of the County of Riverside Pass Area Plan.

The service connection site is located within the land use jurisdiction of the County of Riverside. The service connection site is zoned by the County of Riverside as Residential Agriculture, One-family Dwelling (R-A-1). The site is designated as Rural Residential on the County of Riverside's General Plan Land Use Map.

# 2.4 - Project Objectives and Approvals

#### 2.4.1 - Objectives

Implementation of the project is needed to meet the following SGPWA objectives:

- To enable the Agency to deliver its entire Table A amount of water from the State Water Project.
- To enable the Agency to purchase Article 21 water or other supplemental water sources that become available over and above the Agency's Table A water.
- To provide a regional recharge facility that would be available to all retail water agencies.
- To augment regional storage capacity.
- To provide water supply for the ongoing and projected needs of the SGPWA's service area.

# 2.4.2 - Approvals

Table 2-1 lists the approvals required for the project.

**Table 2-1: Required Project Approvals** 

Agency	Project Approvals
San Gorgonio Pass Water Agency	Approval of the proposed Beaumont Avenue Recharge Facility and Pipeline project
	Approval of the construction contracts for the project.
Riverside County Flood Control and Water Conservation District	Approval of an encroachment permit for pipeline crossing within a portion of Noble Creek and Mountain View Channel.
Riverside County Transportation Department	Approval of an encroachment permit for pipeline construction in Beaumont Avenue and Orchard Street.
City of Beaumont	Approval of an encroachment permit for pipeline construction within Brookside Avenue.

## 2.5 - Intended Uses of This Draft EIR

This Draft Environmental Impact Report (Draft EIR) has been prepared in accordance with CEQA (Public Resources Code, Section 21000 et seq.) and the Guidelines for Implementation of CEQA published by the Resources Agency of the State of California (Title 14, Cal. Code Regs., 15000 et seq.). Additionally, this Draft EIR has been prepared to comply with the rules, regulations, and procedures for implementation of CEQA as adopted by SGPWA. SGPWA would be responsible for project approvals and supervision, and therefore, SGPWA would serve as the Lead Agency for the project. Moreover, this Draft EIR may also be used by an outside agency for discretionary approvals and permits, which include, but are not necessarily limited to those provided in Table 2-1.

FirstCarbon Solutions 2-19