

C.10 PUBLIC SERVICES AND UTILITIES

This section addresses the environmental setting and impacts on Public Services and Utilities related to the construction and operation of the Proposed Project. Specifically, Section C.10.1 provides a description of the environmental baseline and regulatory settings, followed by an environmental impacts analysis of the Proposed Project in Section C.10.2.

C.10.1 ENVIRONMENTAL BASELINE AND REGULATORY SETTING

C.10.1.1 Public Services

Baseline information pertaining to the six cities intersected by the Proposed Project was collected from city offices and corresponding agencies as appropriate. In those cities where public services are provided by Orange County, County agencies were contacted and information obtained. Where possible, maps were obtained illustrating the location of various public services within each city.

Fire Protection

Fire protection services are provided by only two of the six cities: Garden Grove and Huntington Beach. The other four cities—Cypress, Los Alamitos, Seal Beach, and Westminster—have fire protection services provided by the Orange County Fire Department (OCFD) which provides similar services to 19 out of 36 cities in Orange County. Table C.10-1 describes the fire stations serving the six cities in the project area.

Fire protection services for the cities under the OCFD umbrella are provided by the OCFD in accordance with the Orange County Fire Code, the Orange County Municipal Code, and General Plan of Orange County. These documents serve to guide city departments, other government agencies, private developers, and the public in reference to the construction, maintenance, and operation of fire protection facilities in the city. Additional standards are established for the distribution, design, construction, and location of fire protection facilities. These standards specify fire-flow criteria, minimum distances to fire station, hydrant specification, and access provisions for fire fighting vehicles and personnel.

Cypress. The City of Cypress receives fire protection services from OCFD. There are a total of two fire stations within the city as outlined in Table C.10-1. The fire station closest to the Proposed Project is Fire Station #17, which is located immediately north of the Los Alamitos Race Track, and is approximately 1.5 miles from the Proposed Project (at the intersection of Valley View Street and Orangewood Avenue).

Table C.10-1 Fire Stations Serving The Project Area

City	Fire Station & Address*	Service & Equipment	Staffing**	Distance to Proposed Water Line
Cypress	Fire Station #12 8953 S. Walker St.	Single Engine	3	2.5 miles
	Fire Station #17 4991 Cerritos Ave.	Single Engine; Truck; Medic	9	1.5 miles
Los Alamitos	Fire Station #2 3642 Green Ave.	Double Engine; Hose/Water Truck	8	2.25
Garden Grove	Fire Station #4	Single Engine	3	0.75 miles
	Fire Station #5	Single Engine; Medic	4	2.4 miles
Seal Beach	Fire Station #44 718 Central Ave.	Double Engine; Truck	9	3.85 miles
	Fire Station #48 3131 Beverly Manor Rd.	Single Engine; Medic	5	2 miles
Westminster	Fire Station #64 7351 Westminster Blvd.	Paramedic Engine; Truck; Ambulance	7	2.5 miles
	Fire Station #65 6061 Hefley St.	Paramedic Engine	4	1.2 miles
	Fire Station #66 15061 Moran St.	Paramedic Engine; Ambulance	4	4.15 miles
Huntington Beach	Fire Station #8 5890 Heil Avenue	Double Engine	Not provided	1 mile
	Fire Station #7 3831 Warner Avenue	Single Engine	Not provided	0.5 mile
	Fire Station #2 Gothard Street	Double Engine; Truck; Ambulance	Not provided	2.6 miles
* Only Fire Stations in proximity to the Proposed Project are listed in table.				
** Based on number of staff per shift.				

Los Alamitos. The City of Los Alamitos receives fire protection services from OCFD. There is one fire station within the city as Table C.10-1 shows. The Proposed Project briefly intersects the most southeastern corner of the city on Satellite Drive. A small residential community exists near the Proposed Project just south of the Naval Golf Course. From this location fire protection services are provided by Fire Station #2, which is located at the corner of Green Avenue and Los Alamitos, approximately 2.25 miles away.

Garden Grove. The City of Garden Grove provides its own fire protection services using a total of seven fire stations. The two stations near the Proposed Project are stations #4 and #5 which are located in the western portion of the city. The Proposed Project runs parallel to Bartlett and Manely next to the Bolsa Chica Channel. Fire station #4 is the closest station to the Proposed Project which is 0.75 miles away. However, paramedic services are available only through station #5 which is located approximately 2.4 miles from the Proposed Project.

Seal Beach. The City of Seal Beach receives fire protection services from OCFD. There are two fire stations within the city as outlined in Table C.10-1. The Proposed Project runs parallel to the Bolsa Chica Channel which is the eastern side of the City. The fire station closest to this portion of the City is Fire Station #48, located at the intersection of the I-405 and Seal Beach Boulevard, two miles from the

Proposed Project. South of the I-405, the project runs adjacent to the eastern boundary of the U.S. Naval Weapons Station which provides its own fire services within the station property.

Westminster. The City of Westminster receives fire protection services from OCFD. There are three fire stations within the city as Table C.10-1 shows. The Proposed Project runs within Bolsa Chica Road on the western boundary of the City. The nearest fire station is #65, which is located near the intersection of the I-405 and the Anaheim Barber City Channel. This station is located 1.2 miles from the Proposed Project.

Huntington Beach. The City of Huntington Beach provides its own fire protection services. As a member of Central Net, the city coordinates fire response based on location and type of services required. In certain instances, other cities fire departments may respond within Huntington Beach City limits as needed. The city has a total of eight fire stations plus a Central Net Training Center. There are three fire stations in close proximity to the Proposed Project: Fire Station #8 is one mile away; Fire Station #7 is 0.5 mile away; and Fire Station #2 is 2.6 miles away.

Police Protection

Each of the six cities along the Proposed Project provides police protection to its residents. Because the size of each city varies, the organization and level of service also varies from one city to another. Each city's general plan and municipal codes guide the police forces organizational structure and emergency response planning. Personnel from all of the cities were interviewed for information on police protection and services provided. Table C.10-2 lists the Police Departments within each of the cities.

Cypress. The City of Cypress is organized into a grid of 48 reporting districts to ensure timely service to its residents and businesses. These reporting districts are further organized into three main service or patrol areas dividing the City into northern, central, and southern patrol areas. Reporting Districts 1 through 20 form Service Area #1; Reporting Districts 21 through 26 form Service Area #2; and Reporting Districts 27 through 48 form Service Area #3. The Proposed Project runs along the boundaries of the 40th and 46th reporting districts in service area #3, which is located in the southern most part of the City. There are a total of 53 sworn officers in the city and the minimum staffing for patrolling the city is five officers and one supervisor. Response times for the area vary depending on the nature of the call. However, general response times for code 3 calls (calls requiring immediate attention) are two to three minutes. District 40 is primarily commercial property and district 46 is primarily residential.

Table C.10-2 Police Departments By City

City	Police Station & Address	Proposed Project in Service Area	Staffing	Response Time
Cypress	Cypress P.D. 5275 Orange Avenue	Service Area #3; District 40 & 46	*	2-3 minutes for code 3 calls
Los Alamitos	Los Alamitos P.D. 3201 Katella Avenue	Area #1	28 sworn officers; 3 officers + 1 supervisor minimum	n/a
Garden Grove	Garden Grove P.D. 11301 Acacia Parkway	West Division	159 sworn officers; 10 officers + 2 supervisors minimum	n/a
Seal Beach	Seal Beach P.D. 911 Seal Beach Boulevard	North & South Divisions	33 sworn officers, 6 reserve, 3 community service officers, 1 animal control, 4 civil record personnel; 2 officers + 1 supervisor + 1-2 traffic officers	n/a
Westminster	Westminster P.D. 8200 Westminster Boulevard			
Huntington Beach	Huntington Beach P.D. 2000 Main Street	North Division; Service areas 8, 10, 11 & 12; Reporting Districts 126, 136, 146, 156, 166, 176, 155 165 & 175	210 sworn officers; 9 officers minimum	5-7 minutes for immediate response

* This information is pending response by the jurisdiction.

Los Alamitos. The City of Los Alamitos is one contiguous city with a small residential enclave separated by the Armed Forces Reserve Center and Naval Base Golf Course. This small residential area is referred to by police as Area #1. Only this area has a special designation. There is only one entrance and exit from this area on Parkwood and Lampson. Units on duty periodically patrol Area #1, however, there is relatively low activity in this area. There are a total of 28 sworn officers in the City, with a minimum of three officers and one supervisor on active duty at any time. The Armed Forces Reserve Center has its own military police force which monitors the Center property.

Garden Grove. The City of Garden Grove has two police patrol divisions. Brookhurst Avenue divides the eastern division from the western division. The West Division is the quietest part of the City with large concentrations of residential communities. The City employs a total of 159 sworn officers, with a minimum of 10 officers and two supervisors on duty at all times. These minimum staffing requirements are divided evenly between the West and East Divisions.

Seal Beach. The City of Seal Beach is divided by Westminster Avenue into a northern and southern area for police patrol. There are a total of 33 sworn police officers in the city, six reserve officers, three community service officers, one animal control officer, and four civil records personnel. There are two substations within the city, one in the southern division at the head of the pier and the other in the northern division in the Rossmoor Shopping Mall. The city's minimum staffing requirements are one officer in the northern and southern divisions, respectively, plus a mobile unit which supports the busy areas of the city. In addition, one or two traffic patrols monitor the city at any given time. The

city also is home to the U.S. Naval Weapons Station, which maintains its own military police force for Station property.

Westminster. The city of Westminster employs a total of 105 sworn officers plus a handful of reserve officers and community service officers. The city is divided into reporting districts which are grouped into six beats. The beats are labeled “A” through “F” and are individually patrolled by a least one unit at all times. The A-Beat includes the western most part of the city and is the area that services the proposed project along Bolsa Chica. This area is primarily comprised of residential property and has low activity. Day shifts within the city normally require a minimum staffing of seven officers and night shifts between eight and nine officers. The A-Beat is usually only patrolled by one officer during each shift.

Huntington Beach. The City of Huntington Beach is the largest city in the project area with a north and south division separating twelve service areas and 128 reporting districts. The Proposed Project intersects the North Division and Service Areas 8, 10, 11, and 12 and Reporting Districts 126, 136, 146, 156, 166, 176, 155, 165, and 175. The city employs a total of 210 sworn officers with a minimum patrolling force of nine officers. The city has a variety of staffed and unstaffed satellite offices with the closest to the Proposed Project located at the intersection of Slater and Beach Boulevards. The City response time varies depending on a variety of factors including type of call and location. However, the average response time for calls requiring immediate attention is described as between five and seven minutes.

Schools

School districts which serve the communities intersected by the Proposed Project are not uniformly contained within each of the six cities along the corridor. School district boundaries by nature are dependent more on population and age densities than on geographic or city boundaries. Therefore, there are a few examples of school districts which include more than one city. For purposes of this analysis, school districts with boundaries intersecting the Proposed Project were visited and school district maps were obtained for documentation purposes. Table C.10-3 identifies the schools in the study area.

Table C.10-3 Schools and School Districts in the Proposed Project Area

School District/School	City	Grade Level
Vessels Elementary	Cypress	K-6
Lexington Junior High School	Cypress	7-8
Cypress High School	Cypress	9-12
Barker Elementary	Garden Grove	K-6
Patton Elementary	Garden Grove	K-6
Enders Elementary	Garden Grove	K-6
Carver Elementary	Garden Grove	K-6
Garden Park Elementary	Garden Grove	K-6
Bell Intermediate	Garden Grove	7-8
Pacifica High School	Garden Grove	9-12

School District/School	City	Grade Level
Frank Eastwood Elementary	Westminster	K-6
Sequoia Elementary	Westminster	K-6
Ada E. Clegg Elementary	Westminster	K-6
C. Fred Schroeder Elementary	Westminster	K-6
Finley Elementary	Westminster	K-6
Dr. Russell I. Johnson Middle School	Westminster	7-8
Helen Stacey Middle School	Westminster	9-12
McGaugh Elementary	Los Alamitos; Seal Beach	K-6
Mc Auliffe Middle School	Los Alamitos; Seal Beach	7-8
Los Alamitos High School	Los Alamitos; Seal Beach	9-12
Harbour View Elementary	Huntington Beach	K-5
Village View Elementary	Huntington Beach	K-5
Circle View Elementary	Huntington Beach	K-5
Marine View Middle School	Huntington Beach	6-8
Spring View Middle School	Huntington Beach	6-8
Marina High School	Huntington Beach	9-12
Westminster High School	Westminster	9-12

Cypress. The City of Cypress is served by two school districts, Cypress School District for Elementary and Anaheim Union High School District for middle and high schools. Both school districts are on year-round programs. There are a total of three schools (one elementary, one middle, and one high school) that have boundaries that intersect the Proposed Project area.

Los Alamitos. The City of Los Alamitos has its own school district for all three school levels. The Los Alamitos Unified School District not only services the City of Los Alamitos, but also Seal Beach and other surrounding areas. As a result of a growing school-age population, previously shut-down schools have recently been reopened and are run on a year-round program. There are a total of three schools, including one elementary, one middle, and one high school within the Proposed Project area.

Garden Grove. The City of Garden Grove has its own school district for all three school levels. The Garden Grove Unified School District runs on a traditional nine-month calendar school year. There are a total of five elementary schools, one intermediate, and one high school within the Proposed Project area or alternatives.

Seal Beach. The City of Seal Beach is incorporated into the Los Alamitos Unified School District. Please refer to the description provided for Los Alamitos.

Westminster. The City of Westminster is served by two separate school districts, one for elementary and intermediate, and another for high school. The Westminster School District runs on a traditional nine-month calendar, serving all of Westminster and portions of Huntington Beach. There are a total of five elementary schools and two middle schools in the district that intersect the Proposed Project or alternatives. The City's only high school, Westminster High School, is part of the Huntington Beach Union High School District (see next paragraph).

Huntington Beach. The City of Huntington Beach is served by four school districts. There are three districts which have boundaries that intersect the Proposed Project. The Westminster School District provides elementary and middle school service to the north portion of the city bounded by McFadden Avenue. The Ocean View School District provides elementary and middle school service to the central portion of the city. There are three elementary schools and two middle schools that serve within the Proposed Project area. The Huntington Beach Union High School District provides service to the cities of Huntington Beach, Fountain Valley, and Westminster. Marina High School is the only high school in the City of Huntington Beach that intersects the project area. All three school districts run on a traditional nine-month school year.

Libraries

Within the Proposed Project area there are six corridor cities that are all part of the Orange County Public Library System (OCPL), except the City of Huntington Beach, which has its own public library system. The OCPL has only two regional libraries and 25 community branch libraries serving the participating cities within the County of Orange. Currently, the number of libraries is expanding due to the growth occurring within the county. The central library, which serves as the administrative headquarters, is located at 1501 E. St. Andrew Place in the City of Santa Ana. There are two regional libraries that provide concentrated research and extensive reference material for the region. Within the five cities that are located in the Proposed Project area, there are a total of six community branch libraries.

According to OCPL standards, the goal for library expansion is based on a ratio of 0.2 square feet per capita. Table C.10-4 describes the libraries within the six corridor cities.

Table C.10-4 Libraries in the Proposed Project Area

City	Library/Address	Type	Size	Hours
Cypress	5331 Orange Ave.	Community	15,000 sq. ft.	M-W 10 a.m. – 9 p.m.; Th 10 a.m – 6 p.m.; Fri closed; Sat 10 a.m. – 5 p.m.; Sun 12 – 5 p.m.
Los Alamitos	Los Alamitos/ Rossmoor 12700 Montecito	Community	10,488 sq. ft.	M-Tues 10 a.m. – 9 p.m.; Wed 10 a.m. – 6 p.m.; F-Sat 10 a.m. – 5 p.m.; Th & Sun closed
Garden Grove	Chapman 9182 Chapman Ave.	Community	5,279 sq. ft.	M-Tues 12 – 8 p.m.; W-Th 10 a.m. – 6 p.m.; Sat 10 a.m. – 5 p.m.; Fri & Sun closed
	Regional 1120 Stanford Ave.	Regional	21,484 sq. ft.	M-Th 10 a.m. – 9 p.m.; F-Sat 10 a.m. – 5 p.m.; Sun closed
	West Garden Grove 11962 Bailey St.	Community	5,279 sq. ft.	M-Tues 12 – 8 p.m.; W-Th 10 a.m. – 6 p.m.; Sat 10 a.m. – 5 p.m.; Fri & Sun closed
Seal Beach	Mary Wilson 707 Electric Ave.	Community	10,000 sq. ft.	M-Tues 12 – 8 p.m.; W-Th 10 a.m. – 6 p.m.; Sat 10 a.m. – 5 p.m.; Fri & Sun closed
Westminster	8180 13 th St.	Community	18,437 sq. ft.	M-Thur 10 a.m. – 9 p.m.; F-Sat 10 a.m. – 5 p.m.; Sun closed
Huntington Beach	Huntington Beach Central Library 7111 Talbert Ave.	Central	117,000 sq. ft.	M 1 – 9 p.m.; T-Th 9 a.m. – 9 p.m.; F-Sat 9 a.m. – 5 p.m.; Sun 1 – 5 p.m.

City	Library/Address	Type	Size	Hours
Huntington Beach (continued)	Banning Street Annex 9281 Banning	Branch	7,400 sq. ft.	M-Th 12 – 9 p.m.; Sat 9 a.m. – 5 p.m.; F & Sun closed
	Graham Street Annex 15882 Graham	Branch	4,820 sq. ft.	M-Th 12 – 9 p.m.; Sat 9 a.m. – 5 p.m.; F & Sun closed
	Main Street Annex 525 Main	Branch	4,800	M-Th 10 a.m. – 7 p.m.; Sat 9 a.m. – 5 p.m.; F & Sun closed

Cypress. The City of Cypress belongs to the OCPL system and has one community branch library located in the northern half of the City away from the Proposed Project area.

Los Alamitos. The City of Los Alamitos belongs to the OCPL system and has one community branch library located in the southern part of the City away from the Proposed Project area.

Garden Grove. The City of Garden Grove belongs to the OCPL system and has three libraries within the City including one regional library and two community branch libraries. The regional library is located in the eastern part of the City near Euclid Street and away from the Proposed Project area. The two community branch libraries are located off Chapman Avenue, which is one of the cities main east/west arterials. One of these libraries is located on Bailey Street near the Proposed Project area. The other library is located just east of Magnolia and is away from the Proposed Project area.

Seal Beach. The City of Seal Beach belongs to the OCPL system and has one community branch library located in the southern part of the City away from the Proposed Project area.

Westminster. The City of Westminster belongs to the OCPL system and has one community branch library located near the middle of the City away from the Proposed Project area.

Huntington Beach. The City of Huntington Beach maintains its own public library system with one central and three branch libraries. The central library is the world renowned Huntington Beach Central Library. Located at the intersection of Talbert and Golden West, the central library draws patrons from all over the county. The Graham Street Annex branch is located near the intersection of Edinger and Graham and is in close proximity to the Proposed Project. The other two branch libraries are located in the southeastern portion of the City away from the Proposed Project area.

Solid Waste

Non-hazardous solid waste generated during construction of the pipeline would consist of two basic forms: solid waste materials left over from construction (e.g., pipe sections, valve assemblies, coating supplies, etc.) and excess soil produced during excavation for the pipeline. These wastes could be disposed at municipal landfills serving the communities along the pipeline route. Clean soil materials

(including rock and boulders) may be recycled or relocated to sites that can use them. The disposal of hazardous waste is discussed in Section C.4 (Environmental Contamination). Disposal of solid wastes within the project area is provided by county, city, and private entities. A mixture of municipal public works departments and private refuse companies provide for collection of residential and commercial waste in the project area.

There are three major landfills currently serving Orange County. The three landfills are: Olinda/Olinda Alpha in Brea; Prima Deshecha in San Juan Capistrano; and Frank R. Bowerman (for commercial use only) in Irvine. The landfills generally accept anything solid and non-hazardous, and do not accept liquids, chemicals, hazardous wastes, complete auto bodies, brake lining, dead animals or parts, asbestos, fuel tanks, and mufflers.

Regulatory Setting

Public services are governed by local jurisdictions, including the respective cities and County. The general plans and local municipal codes and regulations form the basis for organization and management of public resource elements such as fire, police, schools, libraries, and parks and recreation. However, these documents and regulations do not have specific guidelines for water line and wastewater construction as it relates to public services. All applicable laws, regulations, and standards for construction of the Proposed Project are found in the building codes for each of the cities. Any emergency evacuation plans or guidelines affecting any public services are part of the city and county contingency planning efforts, which are outside the scope of general planning documents. With regard to solid waste disposal, pursuant to the California Integrated Solid Waste Management Act of 1989, the subject cities and the County of Orange are required to reduce the amount of solid waste disposed in landfills by 25% in 1995 and 50% in the year 2000.

C.10.1.2 Utilities

Public utilities run parallel to, or cross, most of the right-of-way (ROW) of the proposed pipeline route. The majority of the utilities are located in the public ROW (i.e., within roads). These utilities include: water mains, sewer pipes, power lines, natural gas mains, telephone lines, and other petroleum pipelines. Table C.10-5 provides the approximate locations of utilities that could potentially be affected by the Proposed Project. Although most of the utilities are between 6 to 12 inches in diameter, there are a few in the study area that are over three feet in diameter (e.g., the 42-inch sanitary sewer along Westminster Boulevard). Utility companies post signs along the corridors that they use. Also, a general repository of information on the location of underground utilities is provided to contractors and others by Underground Service Alert (also known as Dig Alert), a non-profit organization supported by utility firms.

Table C.10-5 Utilities Adjacent to the Proposed Route Alignment by Segment

Location	Side of Street	Utilities Present	
Segment 1 – Parallel Facilities			
Orangewood Avenue	South	<ul style="list-style-type: none"> • 10-inch water pipeline • natural gas pipeline • electrical line 	<ul style="list-style-type: none"> • 8-inch sanitary sewer • 10-inch sanitary sewer
	North	<ul style="list-style-type: none"> • 10-inch sanitary sewer 	<ul style="list-style-type: none"> • 12-inch water pipeline
Segment 1 – Perpendicular Facilities			
Samoa Street	East	<ul style="list-style-type: none"> • 8-inch water pipeline 	
	West	<ul style="list-style-type: none"> • 8-inch sanitary sewer 	
Truk Street	East	<ul style="list-style-type: none"> • 10-inch water pipeline 	
	West	<ul style="list-style-type: none"> • natural gas pipeline 	
Segment 2			
No Utilities were identified within the golf course parking lot or cart path.			
Segment 3 – Parallel Facilities			
No parallel facilities were identified within Bolsa Chica Channel (Segments 3, 4, and 5)			
Segment 3 – Perpendicular Facilities			
Lampson Avenue	North	<ul style="list-style-type: none"> • 34-inch gas line 	
Segment 4 – Perpendicular Facilities			
Lampson Avenue	South	<ul style="list-style-type: none"> • 4-inch gas line 	
Segment 5 – Parallel Facilities			
I-405 and SR 22 Interchange	West	<ul style="list-style-type: none"> • 12-inch water line 	
Segment 6 – Perpendicular Facilities			
I-405 and SR 22 Interchange	South	<ul style="list-style-type: none"> • 14-inch gas line 	<ul style="list-style-type: none"> • 16-inch gas line
Segment 6 – Parallel Facilities			
Old Bolsa Chica Road	West	<ul style="list-style-type: none"> • 14-inch gas line • 4-inch gas line 	<ul style="list-style-type: none"> • 12-inch O line
		<ul style="list-style-type: none"> • 14-inch gas line • 4-inch gas line • 3-inch gas line • 6-inch gas line 	<ul style="list-style-type: none"> • 12-inch gas line • 12-inch water line • 8-inch sanitary sewer • 12-inch O line
Bolsa Chica Road	East	<ul style="list-style-type: none"> • 8-inch sanitary sewer • 12-inch water line 	<ul style="list-style-type: none"> • 8-inch water line • 10-inch water line
	Segment 6 – Perpendicular Facilities		
Northwesterly Avenue	South	<ul style="list-style-type: none"> • 8-inch water line 	
	North	<ul style="list-style-type: none"> • 3-inch gas line 	
Westminster Boulevard	North	<ul style="list-style-type: none"> • 12-inch gas line • 12-inch water line • 8-inch water line 	<ul style="list-style-type: none"> • 10-inch water line • 42-inch sanitary sewer • 30-inch sanitary sewer
Segment 7 – Perpendicular Facilities			
Westminster Boulevard	South	<ul style="list-style-type: none"> • 18-inch water line 	<ul style="list-style-type: none"> • 12-inch O line
Sloane Avenue	North	<ul style="list-style-type: none"> • 10-inch water line 	
Between Westminster Blvd. and Sloane Ave.	NA	<ul style="list-style-type: none"> • 12-inch water line 	
St. James Park	South	<ul style="list-style-type: none"> • Television Cable 	
Hampton Circle	South	<ul style="list-style-type: none"> • 3-inch gas 	<ul style="list-style-type: none"> • sanitary sewer
South of Hampton Circle	NA	<ul style="list-style-type: none"> • 3 Television Cables 	
Segment 7 – Parallel Facilities			
Bolsa Chica Road	West	<ul style="list-style-type: none"> • telephone line • fuel line 	<ul style="list-style-type: none"> • 14-inch gas line
	East	<ul style="list-style-type: none"> • 3-inch gas line • 4-inch gas line 	<ul style="list-style-type: none"> • sanitary sewer • water line
Segment 8 – Parallel Facilities			
Bolsa Chica Road	West	<ul style="list-style-type: none"> • 14-inch gas • 12-inch gas • telephone line 	<ul style="list-style-type: none"> • 12-inch fuel • 12-inch sanitary sewer • 15-inch sanitary sewer

C. ENVIRONMENTAL ANALYSIS
C.10 Public Services and Utilities

Location	Side of Street	Utilities Present	
	East	<ul style="list-style-type: none"> • 3-inch gas • 10-inch water • 12-inch water • 6-inch water 	<ul style="list-style-type: none"> • 8-inch water • 4-inch water • 8-inch sanitary sewer
Segment 8 – Perpendicular Facilities			
Rancho Road	South	<ul style="list-style-type: none"> • sanitary sewer 	
Bolsa Avenue	South	<ul style="list-style-type: none"> • 12-inch water line • 4-inch gas line 	<ul style="list-style-type: none"> • telephone line
	North	<ul style="list-style-type: none"> • 12-inch sanitary sewer 	
Argosy Drive	South	<ul style="list-style-type: none"> • 3-inch gas line 	<ul style="list-style-type: none"> • 8-inch water line
	North	<ul style="list-style-type: none"> • 10-inch sanitary sewer 	
Tasman Drive	South	<ul style="list-style-type: none"> • 6-inch water line 	
	North	<ul style="list-style-type: none"> • 8-inch sanitary sewer 	
McFadden Avenue	South	<ul style="list-style-type: none"> • 10-inch water line 	
	North	<ul style="list-style-type: none"> • 12-inch sanitary sewer 	
Dovewood Drive	South	<ul style="list-style-type: none"> • 3-inch gas line 	
	North	<ul style="list-style-type: none"> • 8-inch sanitary sewer 	
Robinwood Drive	South	<ul style="list-style-type: none"> • 6-inch water line 	<ul style="list-style-type: none"> • 3-inch gas line
	North	<ul style="list-style-type: none"> • 8-inch sanitary sewer 	
Segment 9 – Parallel Facilities			
Bolsa Chica Road	West	<ul style="list-style-type: none"> • 2-inch gas • 4-inch gas • 3-inch gas • 14-inch gas • 12-inch water line 	<ul style="list-style-type: none"> • 12-inch fuel • telephone line • electric line • television cable
	East	<ul style="list-style-type: none"> • 12-inch water line • 8-inch water line • 6-inch water line • 14-inch gas • 3-inch water line 	<ul style="list-style-type: none"> • 8-inch gas • 8-inch sanitary sewer • 10-inch sanitary sewer • 21-inch sanitary sewer
Segment 9 – Perpendicular Facilities			
Edinger Avenue	South	<ul style="list-style-type: none"> • 5-inch sanitary sewer • 12-inch water line 	<ul style="list-style-type: none"> • 3-inch gas line
North of Kona Drive	NA	<ul style="list-style-type: none"> • 6-inch water line 	
Kona Drive	South	<ul style="list-style-type: none"> • 8-inch water line 	
Sisson Drive	South	<ul style="list-style-type: none"> • 4-inch gas line 	
Oahu Drive	South	<ul style="list-style-type: none"> • 8-inch water line 	<ul style="list-style-type: none"> • 3-inch gas line
Heil Avenue	South	<ul style="list-style-type: none"> • 2-inch gas line 	<ul style="list-style-type: none"> • 8-inch sanitary sewer
	North	<ul style="list-style-type: none"> • television cable • 6-inch fuel line 	<ul style="list-style-type: none"> • 12-inch water line
Pearce Drive	South	<ul style="list-style-type: none"> • 8-inch water line 	<ul style="list-style-type: none"> • 8-inch sanitary sewer
	North	<ul style="list-style-type: none"> • 2-inch gas line 	<ul style="list-style-type: none"> • Telephone line
Waverider Circle	South	<ul style="list-style-type: none"> • 8-inch water line 	
	North	<ul style="list-style-type: none"> • 2-inch gas line • 8-inch sanitary sewer 	<ul style="list-style-type: none"> • fuel line
Warner Avenue	South	<ul style="list-style-type: none"> • 18-inch sanitary sewer • 8-inch water line 	<ul style="list-style-type: none"> • 8-inch gas • 2-inch electrical line
	North	<ul style="list-style-type: none"> • 21-inch sanitary sewer • 16-inch water line • 12-inch fuel line 	<ul style="list-style-type: none"> • electrical line • telephone line
Dunbar Avenue	North	<ul style="list-style-type: none"> • 8-inch water line 	<ul style="list-style-type: none"> • telephone line
Dorado Drive	South	<ul style="list-style-type: none"> • gas line 	
	North	<ul style="list-style-type: none"> • 8-inch water line 	
Segment 10 – Parallel Facilities			
Los Patos Avenue	South	<ul style="list-style-type: none"> • 8-inch TG • 21-inch sanitary sewer 	<ul style="list-style-type: none"> • electrical line

Location	Side of Street	Utilities Present	
	North	<ul style="list-style-type: none"> • 8-inch gas • electrical line 	<ul style="list-style-type: none"> • 12-inch water line • 8-inch sanitary sewer
Segment 10 – Perpendicular Facilities			
Green Street	West	<ul style="list-style-type: none"> • 8-inch sanitary sewer 	
	East	<ul style="list-style-type: none"> • 8-inch water line 	<ul style="list-style-type: none"> • 2-inch gas

Source: SCWC, 1997.

The exact utility locations along the project corridor would be determined during preparation of the final pipeline designs and the development of detailed construction plans. After construction, the pipeline location will be identified through two primary means. As previously noted, utility companies generally post signs along the corridors in which their lines are located. Signs for oil and gas pipelines are typically yellow or red plates on metal stakes identifying the owner, name of the pipeline, and a telephone number for reporting problems. Second, Underground Service Alert maintains a computer database system of companies with buried utilities, so those planning subsurface excavation can find exact locations of buried pipelines. However, neither of these methods are 100 percent complete in identifying buried utilities, so contractors typically perform test “potholing” just prior to excavation to confirm location/absence.

Regulatory Setting

California state law requires that an excavator must contact a regional notification center at least two days prior to excavation of any subsurface installations. In southern California, this center is Underground Service Alert. Anyone about to begin an excavation project can call Underground Service Alert’s toll-free hotline, and Underground Service Alert will notify the utilities that may have buried lines within 1,000 feet of the excavation. Representatives of the utilities are required to mark the specific location of their facilities within the work area prior to the start of excavation. The excavator is required to probe and expose the underground facilities by hand prior to using power equipment.

C.10.2 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

The construction and operation of the Proposed Project has the potential to create impacts on the operation of public services and utilities within the corridor. The public services impact analysis focuses on any increased demand for public services, any impact on existing public services currently provided, as well as any growth inducing or secondary impacts created by the Proposed Project. The impact analysis for utilities focuses on potential service disruption associated with the Proposed Project. The criteria used to determine impacts for the various public services and utilities are described below.

C.10.2.1 Significance Criteria

The criteria used to determine impacts, and the significance of those impacts, are described below for each of the public service categories analyzed as part of this document. There are four classes of

impacts which the proposed project may induce, ranging from Class I, which is a significant and unavoidable impact, to Class IV, which is a beneficial impact.

Fire and Police Protection

An impact would be considered significant (Class I or Class II) if:

- The proposed project resulted in an increased demand for additional personnel or substantial change in the availability of the fire or police protection services
- The proposed project resulted in an accidental spill or other unplanned event which resulted in demand on fire or police providers exceeding current capacity.

Schools

An impact would be considered significant (Class I or Class II) if:

- The proposed development resulted in an increased student enrollment that caused a school to operate over its capacity
- The safety or health of students would be at risk due to impacts of the proposed development.

Libraries

An impact is considered significant (Class I or Class II) if anticipated demand for libraries within the proposed project corridor exceeded the supply of existing and planned library resources.

Solid Waste

Five percent or more of the expected average annual increase in waste generation for a given facility as a result of project construction or as a result of the operation of the Proposed Project would be considered significant (Class I or II); 1 percent or more of the average annual increase would be considered adverse but less than significant (Class III).

Utilities

Impacts to public utilities would be significant (Class I or II) if:

- The construction and operation of the pipeline could permanently displace, alter, or disrupt the existing public and private utility lines and services
- Emergency access is precluded to utility lines along the pipeline corridor during or after pipeline construction.

C.10.2.2 Applicant's Environmental Commitments

SCWC has committed to implementing the following impact reduction measures as part of the Proposed Project:

Coordination with the relevant city and Orange County agencies to provide construction scheduling and traffic restricting activities as appropriate to emergency service providers to ensure adequate response times in the event of any unforeseen events or accidents.

1. Prepare proper signage and permits required for all construction activities.
2. Notify Underground Service Alert (USA) at least 48 hours prior to beginning construction activities. USA will in turn notify the proper members and follow the procedures required for planned construction activity.
3. Require construction contractor to prepare construction plans designed to protect existing utilities. Plans are to be submitted to the corridor cities and affected jurisdictions for review, revision and final approval.

C.10.2.3 Construction Impacts

Public Services. Based on preliminary construction plans, the 6.7-mile alignment corridor would be divided into three areas with limited construction activity occurring in all three areas simultaneously. Construction activity in each of the three areas would be limited to 100-foot sections per day to limit the disruption of traffic flow in the surrounding communities. These preliminary construction plans are factored into the analysis of each of the public services.

Fire Protection. A change in normal demand for fire protection services within the six corridor cities during construction is not anticipated. The nature of the Proposed Project and resulting construction and installation activities are well within the acceptable range of infrastructure improvements which are part of the city, county, and local jurisdictions normal activities.

The Proposed Project would not result in any additional demand for new fire protection personnel within any of the adjacent or neighboring cities or within the County of Orange.

Fire protection services could potentially be required during construction in the event of an accident as a result of construction activities. Any unforeseen impacts resulting from accidents during construction would be distributed to the corresponding city and/or county fire departments as outlined in the preceding discussion of public services.

Construction of the Proposed Project would require the temporary closure of traffic lanes and subsequent impedance of traffic on several major arterials. Emergency service providers were

contacted, and although no concern was expressed over the potential temporary traffic closures and restrictions of the areas surrounding the Proposed Project, the possibility still exists that, in some circumstances, traffic congestion could impact emergency service providers. Construction activities could potentially interfere with emergency response by ambulance, fire, paramedic, and police vehicles. The loss of a lane and the resulting increase in congestion could lengthen the response time required for emergency vehicles passing through the construction zone. Moreover, there is a possibility that emergency services may be needed at a location where access is temporarily blocked by the construction zone. This impact is considered to be significant, but mitigable (**Class II**).

Impact: Emergency service providers could be blocked or impeded by pipeline construction activities (**Class II**).

Mitigation Measures: Although SCWC has committed to the following measure in general terms, additional specificity is provided in Mitigation Measure PS-1, to ensure effective mitigation. Mitigation Measure T-1 (see Section C.3) requiring the preparation of traffic control plans for construction will also help avoid adverse impacts related to emergency access.

PS-1 SCWC shall coordinate in advance with emergency service providers to avoid restricting movements of emergency vehicles. Police departments, fire departments, ambulance services, and paramedic services shall be notified in advance by SCWC of the proposed locations, nature, timing, and duration of any construction activities and advised of any access restrictions that could impact their effectiveness. At locations where access to nearby property is blocked, provision shall be ready at all times to accommodate emergency vehicles, such as plating over excavations, short detours, and alternate routes in conjunction with local agencies. Traffic Control Plans shall be developed (see Mitigation Measure T-1) which include details regarding emergency services coordination and procedures, and copies shall be provided to all relevant service providers. Documentation of coordination with service providers shall be provided to the designated CPUC monitor prior to the start of construction.

Police Protection. Due to the nature of police protection services, the discussion provided for fire protection services applies to police protection as well. In contrast to the foregoing fire protection discussion, all six corridor cities provide their own police protection services. In discussions with the corridor cities, many of them opined that the Proposed Project alignment was located in low to moderate activity areas not requiring a large amount of patrol. In the event of any unforeseen accident requiring emergency services, the police departments within each corridor city would coordinate with the appropriate fire department.

Schools. Based on the nature of the Proposed Project and the size of construction crews needed to support the project, there would be no additional pressure placed on schools due to population

immigration as a result of this project. Local labor pools would provide adequate resources for construction activity and no growth inducing impacts would occur due to construction.

The Proposed Project is not located adjacent to any schools within the six corridor cities and therefore does not pose any immediate risk due to unforeseen pipeline related accidents. (In the event of any accidents where schools could potentially be impacted, emergency service providers are required to contact and coordinate with affected schools as necessary to ensure the safety and welfare of the students and faculty.)

All the schools listed in the existing conditions discussion of public services have boundaries that intersect the Proposed Project alignment or alternative alignment boundaries. As previously discussed in Section C.3, the Proposed Project would result in temporary traffic closures and increased congestion around construction activities. This would result in potential increased commute times to schools for local residents, causing adverse but less than significant impacts (**Class III**). However, there would be no school service-related impacts.

Impact: During construction, temporary traffic closures and increased congestion could potentially increase the commute time to local schools (**Class III**).

Mitigation Measures: None required.

Libraries. The Proposed Project would not result in any additional demand for new or existing library services. Any existing demand exceeding the supply of library services provided by the County of Orange or corridor cities would not be exacerbated by the Proposed Project.

Utilities

Service Disruption. After probing within streets or shoulders, a route for the pipe within the easement can usually be defined that bypasses existing utilities. Historic data indicate that construction of a buried utility in a crowded corridor will lead to approximately two instances of damage to another utility line (INTECH, 1992). Given the large number of utilities that are present in the pipeline corridor, some service disruptions during construction would be expected. These disruptions could occur while the pipeline is laid in the trench and the interrupted utility reconnected around the new pipeline placement. Service interruption would likely occur for only a few hours and those entities whose services would be interrupted would generally be notified in advance by USA (Underground Service Alert) of the unavoidable interruption. This impact is considered adverse, but not significant (**Class III**).

Impact: Potential utility service disruptions during construction activities (**Class III**).

Mitigation Measures: None required.

Construction Accident. The proposed pipeline would parallel or cross numerous utility lines, such as natural gas, petroleum product, water and sewer pipelines, electric power lines, and telecommunications lines (wire, cable, fiber). Trenching could accidentally damage one or more of these lines. Under State law, SCWC is required to contact USA prior to ground-breaking activities to determine the location of utilities in the pipeline ROW and notify utility owners of excavation plans (Applicant Proposed Measure 2). In addition, Applicant Proposed Measure 3 discussed in Section C.10.2.2 requires construction contractors to prepare construction plans designed to protect utilities and to provide those plans to affected jurisdictions for review, revision, and final approval. With implementation of Applicant Proposed Measures 2 and 3 (see Section C.10.2.2), construction-related impacts to utilities would be reduced to an adverse, but less-than-significant impact (**Class III**).

Impact: Accidental damage to existing utility lines during trenching activities (**Class III**).

Mitigation Measures: None required.

Use of Other Utilities. Project construction would require little demand for electrical power or water. Where needed, generators would be used onsite for power. Water for dust suppression would be provided by local water purveyors. As part of the Applicant's contract with its construction contractor, the contractor will be required to use only equipment with all required permits and licenses. Telephone service for construction activities may include service to a field office, as well as use of mobile phones. Construction activities would not require natural gas. Construction-related demand for these utility services is expected to be negligible.

C.10.2.4 Operational Impacts

Public Services

Impacts on public services as a result of the operation of the water transmission line will be minimal. This is because the pipeline will be buried and the surface restored to its previous functional condition. However, impacts may result to emergency service providers from temporary disruption to traffic flow and congestion resulting from emergency response due to any unforeseen rupture or failure. In these circumstances, the impacts would be temporary and adverse, but less than significant (**Class III**). Such impacts are anticipated to occur regularly over the operational life of the pipeline. There would be no other operation impacts to the other public services.

Impact: Temporary disruptions to traffic flow and congestion resulting from emergency response due to any unforeseen rupture or failure (**Class III**).

Mitigation Measures: None required.

Utilities

It is anticipated that once the construction phase of the project is over, there would be no further potential impacts to utilities associated with the operation of the Proposed Project.

C.10.2.5 Impact and Mitigation Summary

Table C.10-6 Impact and Mitigation Summary – Public Services and Utilities

Impact	Class	Mitigation Measures
Public Services		
Emergency service providers could be blocked or impeded by pipeline construction activities.	II	PS-1
During construction, temporary traffic closures and increased congestion could potentially increase the commute time to local schools.	III	NA
Emergency service providers from temporary disruption to traffic flow and congestion resulting from emergency response due to any unforeseen rupture or failure.	III	NA
Utilities		
Potential utility service disruptions during construction activities.	III	NA
Accidental damage to existing utility lines during trenching activities.	III	NA

NA = Not Applicable, mitigation not required.

C.10.3 REFERENCES

INTECH, Inc. 1992. *Inventory of Lifelines in the Cajon Pass, California*. Prepared for the Federal Emergency Management Agency, Washington, D.C. Submitted August 1991 to FEMA. FEMA 225. February.

IWMD. (Orange County Integrated Waste Management Department). Landfill Information Fact Sheet.

SCWC (Southern California Water Company). 1997. *Construction Plans for the Bolsa Chica 18 inch Water Transmission Main, Segments 1, 2, and 3*. June 10.