4.11 RECREATION

INTRODUCTION

This section provides the recreation setting of the project site, including surrounding recreation facilities and an analysis of potential impacts that project implementation may have on existing recreation facilities. Information presented in this section is based on the Open Space and Recreation Element of the City of Long Beach General Plan and the Long Beach Department of Parks, Recreation, and Marine Departmental Strategic Plan. These documents are available for review at the City of Long Beach Department of Planning and Building.

4.11.1 EXISTING ENVIRONMENTAL SETTING

On-Site Recreation Opportunities

There are several existing on-site recreation facilities and opportunities at the Colorado Lagoon (Lagoon), including swimming areas, a sandy shoreline, grassy open space, play equipment, picnic areas, a pedestrian bridge over the Lagoon, the Colorado Lagoon Marine Science Center, restrooms, and parking. Additionally, the Colorado Lagoon Playgroup Preschool, which is a private program for 3- to 5-year-old children that is permitted through the City to use the building, and a model boat shop are located on the south side of the Lagoon. The City utilizes the Lagoon area for several City programs, which in 2008 include:

- Summer Fun Days – Lectures and guided explorations of Lagoon wildlife scheduled on the first Saturday of June, July and August.
- Estuary Explorers – Friends of Colorado Lagoon (FOCL) volunteers lead explorations at the Lagoon on June 14, July 12, and August 9.
- Summer Sensations – Educational program about sand and surf animals scheduled for July 19.
- Beauty and the Beach – A program that converts trash to art scheduled for August 16.
- Super Science at Colorado Lagoon – Six-week fee program for children that runs from June through August.
- Model Boat Program – Model boat building program for children held during the summer.

Marina Vista Park also has several existing on-site recreation facilities and opportunities: two soccer fields (one adult and one youth field that overlays the baseball/softball field), tennis courts, a baseball/softball field, play equipment, grassy open space, picnic areas, and restrooms. These facilities are utilized by City and private sports programs. Both the Lagoon and Marina Vista Park are owned and operated by the City of Long Beach (City) Department of Parks, Recreation, and Marine.

Off-Site Recreation Opportunities

The City Department of Parks, Recreation, and Marine operates and maintains all municipal parks and recreation facilities in Long Beach. The parks and recreation system includes 94[1] parks encompassing 1,672 acres (ac) (Strategic Plan, Long Beach Department of Parks, Recreation, and Marine, 2003). In addition to parks, Long Beach has a number of specialty facilities that provide recreation and leisure opportunities other than those within the project area, including: a riverfront recreation vehicle (RV) compound; two historic ranchos; the Long Beach Museum of Art; two marine biological reserves; two special events parks (Queen Mary and Rainbow Lagoon); Shoreline, Santa Cruz and Victory Parks; and the El Dorado Nature Center Park and trail. Long Beach is also home to both public and private golf courses and a number of water recreation areas other than those within the project area, including boat launches and Alamitos Bay. Public golf courses include Heartwell, El Dorado, Recreation, Recreation South (adjacent to the north of the project site), and Skylinks. Three of these are 18-hole courses, one is an 18-hole executive par 3 golf course, and one is a 9-hole executive par 3 course. Each is maintained and operated by a private contractor. As provided in the City's Open Space and Recreation Element and Strategic Plan, Figure 4.11.1 shows the location of the Long Beach parks, which are listed along with their acreage and amenities in Table 4.11.A. Since adoption of the City's Open Space and Recreation Element and Strategic Plan, the City has added the following six parks that total 11.7 ac:

- Burton W. Chace Mini-Park: 0.29 ac, located at Market Street and Dairy Avenue. Amenities include open space.
- Ed "Pops" Davenport Park: 5.84 ac, located at 2910 E. 55th Way. Amenities include open space.
- Grace Park: 1.2 ac, located at Elm Avenue and Plymouth Street. Amenities include open space.
- 21st Street and Hill Street Park: 0.9 ac, located adjacent to the Los Angeles River. Amenities include a trail, open space, park benches, and a drinking fountain.
- Trolley: 0.1 ac. Amenities include open space.
- Jack Nichol Park: 3.5 ac, located at 6200 Costa Del Sol. Amenities include a basketball court, baseball field, playground, soccer field, softball field, restrooms, picnic area, and a youth recreation program.

Public schools within Long Beach also provide parklands and recreational amenities. As shown in Figure 4.11.2 and listed in Table 4.11.B, there are 70 public school facilities located in Long Beach. As listed in Table 4.11.B, most of the school sites have areas of green open space and other recreation amenities, such as sports fields and courts. The Open Space and Recreation Element of the City's General Plan states that school site recreation programs managed by the City Department of Parks, Recreation, and Marine are held currently at 16 elementary and 5 middle school locations.

[1] Total is by park type classification wherein portions of El Dorado, Heartwell, and DeForest Parks fall into multiple park type classes. When parks are simply counted by name, there are 89 parks in the City of Long Beach.

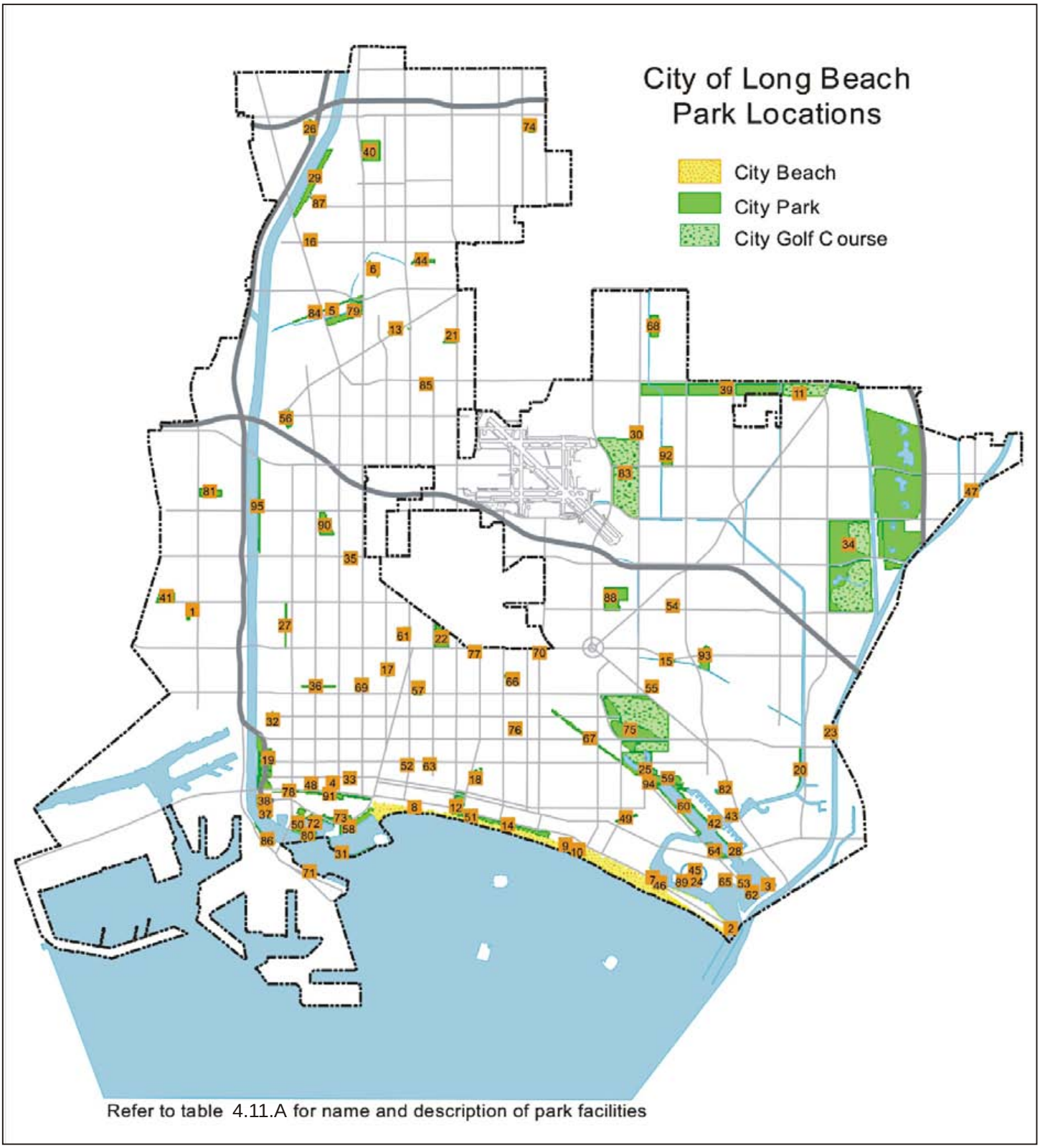

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FIGURE 4.11.1

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Colorado Lagoon Restoration Project

Long Beach Park Locations

SOURCE: Open Space and Recreation Element

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TABLE 4.11.A
City Parks and Recreation Facilities

Park Name - Park Type(s) C = Community Park G = Greenway Park *GC* = Golf Course M = Mini Park N = Neighborhood Park R = Regional Park S = Special Use Park	Acres	Map Location	Activity Center	Baseball	Basketball	Benches	Boat Facilities	Coastal Viewing	Community Center	Fishing	Football	Golf	Green Space	Gymnasium	Hand/Racquetball	Horseshoes	Lakes	Nature Center/Trail	PicnicTables	Playground	Rollerhockey	Sand Lots	Skate Park	Soccer	Softball	Swimming	Tennis	Volleyball
Admiral Kidd - N	9.20	1	●	●	●	●					●		●			●			●	●		●		●				
Alamitos at 72nd - M	0.20	2								●			●													●		
Alamitos Bay Marina - S	1.40	3					●	●					●															
Ampitheater on the Promenade - S	0.50	4				●																						
Arbor St. Park -M	0.43	5											●						●									
Atlantic Plaza - N	4.00	6							●				●							●				●				
Bayshore Playground - M	1.80	7	●		●		●	●							●				●		●					●		
Beach - R	247.00	8					●	●		●																●		●
Belmont Pier and Plaza - S	1.30	9					●	●		●																●		
Belmont Pool Complex - S	4.60	10						●					●		●											●		
Birdcage - M	0.90	11											●						●	●								
Bixby - C	12.50	12	●			●							●			●			●	●								
Bixby Knolls - N	3.60	13	●										●						●	●		●						
Bluff - G	25.80	14				●		●					●															
Bouton Creek - M	0.70	15											●						●									
Burton W. Chace - M	0.30	16			●	●							●						●	●								
California Recreation Center - N	2.00	17			●	●			●				●	●					●	●								
Carroll - M	0.60	18											●															
Cesar E. Chavez - C	24.40	19				●			●				●						●	●								
Channel View - G	5.10	20				●		●					●															
Cherry - C	8.40	21		●	●				●		●		●							●		●		●	●		●	●
Chittick Field - S	18.00	22											●						●					●	●			
College Estates - N	2.20	23	●		●	●							●						●	●		●					●	●
Colonnade - M	0.60	24				●		●																				
Colorado Lagoon - S	43.90	25					●												●	●						●		
Coolidge - N	5.60	26		●	●				●				●			●			●	●		●		●				
Daisy Avenue - G	2.00	27											●															
Davies Launch Ramp - S	7.71	28					●						●			●												
DeForest - N, S	23.40	29			●	●			●						●			●	●	●		●			●		●	●
Douglas - M	2.60	30											●															
Downtown Marina Mole - S	1.70	31					●	●		●			●															
Drake - N	6.30	32		●	●	●			●				●		●				●	●				●			●	●
East Village Arts - M	0.10	33											●															
El Dorado - C, *GC*, R, S	815.50	34	●	●	●		●		●	●		●	●				●	●	●	●	●		●		●		●	●
Fellowship Park - M	0.37	35				●							●						●	●								
Fourteenth Street - M	1.70	36				●							●							●								
Golden Shore Marine Reserve - S	6.40	37						●					●															
Golden Shore RV - S	5.10	38						●												●								
Heartwell - C, *GC*	153.70	39	●	●	●	●						●	●				●		●	●							●	●
Houghton - C	24.20	40	●	●	●	●			●		●		●			●			●	●		●			●		●	●
Hudson - N	13.00	41		●		●							●						●	●				●	●			
Jack Dunster Marine Reserve - S	2.70	42						●					●															
Jack Nichol - G	3.40	43						●					●															
Jackson Street - M	2.10	44											●							●		●						
La Bella Fontana di Napoli - S	0.37	45																										
Leeway Sailing Center - S	0.90	46					●	●					●							●								
Lilly - M	0.20	47											●						●	●								
Lincoln - S	4.50	48				●		●					●															
Livingston Drive - M	1.50	49				●							●						●	●								

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TABLE 4.11.A (Continued)
City Parks and Recreation Facilities

Park Name - Park Type(s) C = Community Park G = Greenway Park *GC* = Golf Course M = Mini Park N = Neighborhood Park R = Regional Park S = Special Use Park	Acres	Map Location	Activity Center	Baseball	Basketball	Benches	Boat Facilities	Coastal Viewing	Community Center	Fishing	Football	Golf	Green Space	Gymnasium	Hand/Racquetball	Horseshoes	Lakes	Nature Center/Trail	PicnicTables	Playground	Rollerhockey	Sand Lots	Skate Park	Soccer	Softball	Swimming	Tennis	Volleyball
LB Aquarium of the Pacific - S	4.72	50						●	●										●									
LB Museum of Art - S	1.60	51						●	●				●															
LB Senior Center - S	0.92	52				●			●																			
Lookout - M	0.50	53											●															
Los Altos - N	4.74	54				●							●						●	●		●			●			
Los Altos Plaza - M	0.71	55											●						●	●								
Los Cerritos - N	7.24	56			●	●							●						●	●		●						
MacArthur - N	3.70	57			●	●			●				●						●	●								●
Marina Green - S	11.00	58						●					●															
Marina Vista - N	17.00	59				●		●					●						●					●	●			
Marine Stadium - S	20.24	60	●			●	●	●	●				●						●									
Martin Luther King, Jr. - C	8.20	61				●			●				●						●	●				●	●	●		
Maurice "Mossy" Kent - M	0.10	62				●							●						●									
Miracle on 4th Street - M	0.14	63				●							●							●								
Mother's Beach (Marine Park) - S	4.60	64	●			●	●	●					●						●	●						●		●
Naples Plaza - N	0.70	65						●					●															
Orizaba - N	2.50	66			●	●							●						●	●								
Pacific Electric Right-of-Way - G	12.90	67											●															
Pan American - N	12.20	68			●	●			●				●	●	●				●			●			●			●
Peace Park - M	0.40	69			●	●							●						●	●								
Plaza Zaferia - M	0.70	70											●															
Queen Mary Events - S	4.00	71						●					●															
Rainbow Harbor Esplanade - S	7.20	72				●		●					●															
Rainbow Lagoon - S	13.00	73					●						●				●											
Ramona - N	6.60	74		●	●				●				●			●			●	●		●		●	●		●	●
Recreation - C, *GC*	274.20	75		●		●			●				●						●	●		●			●		●	
Rose - M	0.72	76				●							●															
Rotary Centennial - M	1.20	77			●	●							●						●	●								
Santa Cruz - M	2.00	78											●															
Scherer - C	22.40	79	●		●	●							●				●		●	●		●			●		●	●
Shoreline Aquatic - S	11.00	80				●	●	●		●			●						●			●						
Silverado - C	11.20	81		●	●	●			●				●						●	●	●	●		●	●	●	●	●
Sims Pond - S	6.00	82											●					●										
Skylinks - *GC*	159.50	83										●	●	●														
Sleepy Hollow - G	2.60	84											●															
Somerset - N	3.70	85	●		●	●							●						●	●		●				●	●	●
South Shore Launch Ramp - S	6.00	86				●	●						●						●									
South Street Parkway - G	0.30	87											●															
Stearns Champions - C	20.90	88	●	●	●	●							●						●	●	●	●		●			●	●
Treasure Island - M	0.10	89						●					●															
Veterans - C	14.60	90		●	●	●			●				●						●	●		●		●	●		●	●
Victory - G	9.57	91				●		●					●															
Wardlow - N	14.50	92			●	●			●				●						●	●	●	●		●	●			●
Whaley - N	12.80	93		●	●	●			●				●						●	●	●	●						●
Will Rogers - M	1.90	94											●															
Wrigley - G	11.40	95											●															

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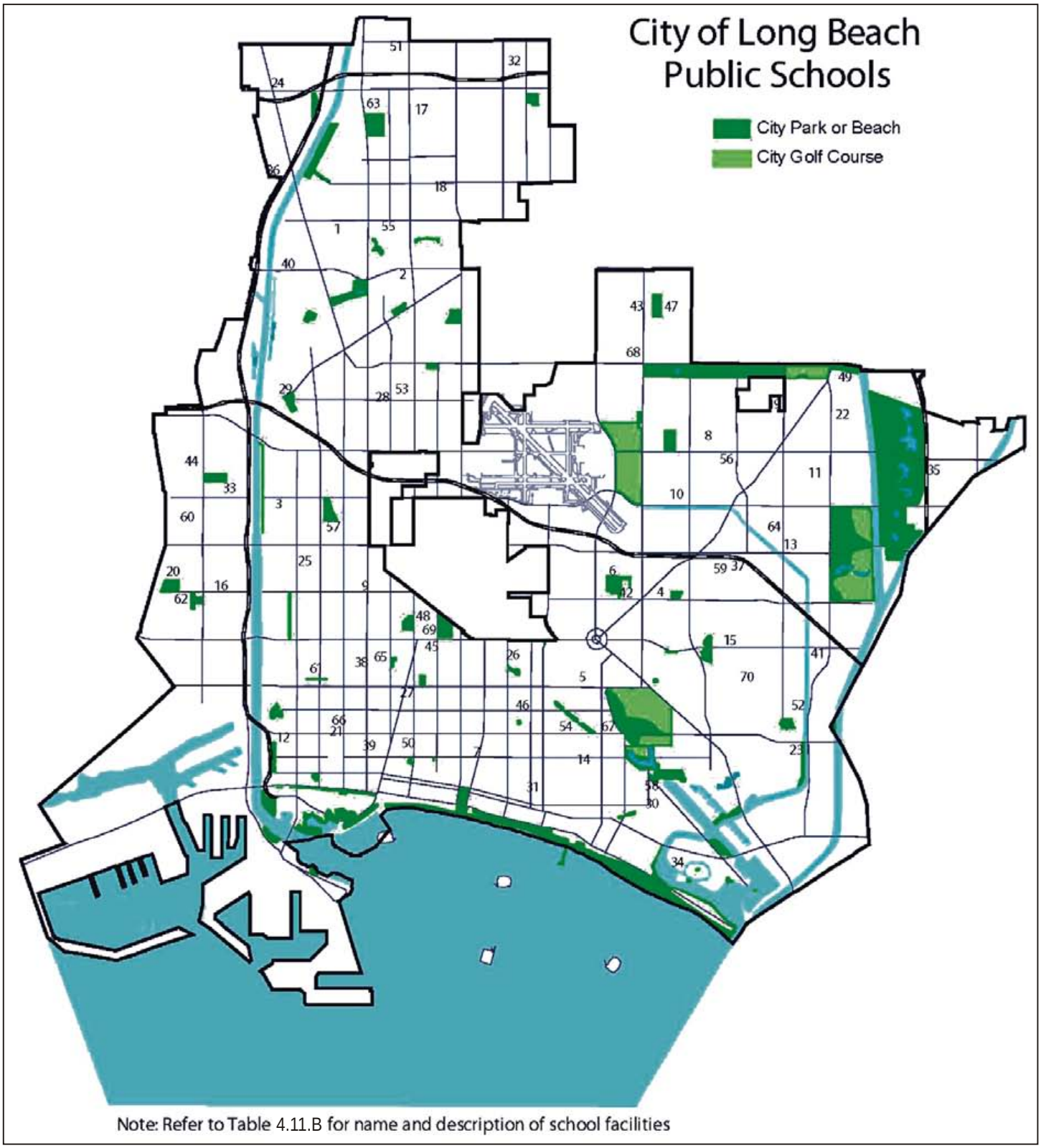

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FIGURE 4.11.2

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Colorado Lagoon Restoration Project

Long Beach School Locations

SOURCE: Open Space and Recreation Element

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TABLE 4.11.B
Long Beach School Recreation Facilities

LB Schools	Map Location	Acres	Green Acres	Baseball	Basketball	Football	Gymnasium	Handball	Playground	Rugby	Soccer	Swimming Pool	Tennis	1/4 mi. Track	Volleyball
Elementary															
Addams	1	4.74	2.46		•				•						•
Barton	2	7.34	3.39		•				•						•
Birney	3	8.37	6.35		•				•						•
Bixby	4	11.06	6.84		•				•						•
Bryant	5	3.07	1.82		•				•						•
Buffum	6	7.99	3.88		•				•						•
Burbank	7	5.53	2.59		•				•						•
Burcham	8	10.75	6.34		•				•						•
Burnett	9	4.44	1.76		•				•						•
Carver	10	10.18	5.46		•				•						•
Cubberley	11	9.41	5.18		•				•		•				•
Edison	12	5.72	2.69		•				•						•
Emerson	13	10.25	6.36		•				•						•
Fremont	14	3.73	1.82		•				•						•
Gant	15	11.32	7.29		•				•						•
Garfield	16	8.48	4.60		•				•						•
Grant	17	8.63	3.31		•				•						•
Harte	18	7.11	4.16		•				•						•
Henry	19	9.99	5.61		•				•						•
Hudson	20	16.37	10.15		•				•						•
International	21	2.38	0.50		•				•						•
Keller	22	10.07	6.24		•				•						•
Kettering	23	10.38	5.67		•				•		•				•
King	24	4.67	1.94		•				•						•
Lafayette	25	3.75	2.60		•				•						•
Lee	26	3.74	1.43		•				•						•
Lincoln	27	5.82	2.68		•				•						•
Longfellow	28	6.17	3.37		•				•						•
Los Cerritos	29	5.97	2.88		•				•						•
Lowell	30	3.69	1.98		•				•						•
Mann	31	3.73	1.98		•				•						•
McKinley	32	7.72	4.74		•				•						•
Muir	33	7.68	4.35		•				•						•
Naples	34	4.38	2.54		•				•						•
Newcomb	35	13.36	7.26		•				•		•				•
Powell	36	14.00	5.70		•				•						•
Prisk	37	10.61	7.67		•				•						•
Roosevelt	38	3.83	2.02		•				•						•
Stevenson	39	2.60	1.21		•				•						•
Sutter	40	11.64	5.30		•				•						•
Tincher	41	7.75	6.45		•				•		•				
Tucker	42	6.55	3.26		•				•						

TABLE 4.11.B (Continued)
Long Beach School Recreation Facilities

LB Schools	Map Location	Acres	Green Acres	Baseball	Basketball	Football	Gymnasium	Handball	Playground	Rugby	Soccer	Swimming Pool	Tennis	1/4 mi. Track	Volleyball
Elementary															
Twain	43	7.71	5.76		•				•		•				•
Webster	44	13.05	7.28		•				•						•
Whittier	45	5.54	2.65		•				•						•
Willard	46	3.7	2.30		•				•						
Total		30.00	17.99												
Middle School															
Bancroft	47	18.04	10.46	•	•		•								•
Butler	48	8.80	4.85												•
DeMille	49	24.66	14.04	•	•		•								•
Franklin	50	5.76	3.90	•	•		•								•
Hamilton	51	15.46	8.20	•	•		•								•
Hill	52	16.97	9.12	•	•		•								•
Hughes	53	11.66	5.64	•	•		•								•
Jefferson	54	7.06	3.45	•	•		•								•
Lindberg	55	13.05	5.99	•	•		•								•
Marshall	56	15.59	7.67	•	•		•								•
Robinson	57	8.75	3.30		•		•								•
Rogers	58	8.13	2.74	•	•		•								•
Stanford	59	15.77	8.06	•	•		•								•
Stephens	60	14.90	5.89	•	•		•								•
Washington	61	4.57	2.12	•	•		•								•
Total		**189.17**	**95.43**												
High School															
Cabrillo/Savannah	62	46.85	22.00	•	•	•	•						•		•
Jordan	63	26.77	9.79	•	•	•	•					•	•		•
Millikan	64	34.89	15.10	•	•	•	•					•	•		•
Polytechnic	65	28.22	13.02	•	•	•	•					•	•		•
Reid	66	3.43	0.00												
Wilson	67	28.12	11.50	•	•	•	•					•	•		•
Total		**168.28**	**71.41**												
Colleges/University															
LBCC LAC on Carson	68	29.45	N/A	•	•	•	•					•	•		•
LBCC PCC on PCH	69	21.45	N/A										•		
CSULB	70	306.00	N/A	•	•	•	•					•	•		•
Total		**356.90**													

The City of Long Beach has few open recreation areas within its boundaries that are owned and maintained by other governmental jurisdictions. The most significant of these are the Los Angeles County (County) bicycle, pedestrian, and equestrian trails along the San Gabriel and Los Angeles Rivers and Coyote Creek. The County also leases a 4.82 ac park in the Carmelitos Housing Development, and the City of Los Alamitos has a 0.5 ac park within the boundaries of Long Beach (Strategic Plan, Long Beach Department of Parks, Recreation, and Marine, 2003).

It should be noted that several of the off-site park and recreation facilities are in close proximity to the project site. These existing facilities are listed below.

- Recreation Park is 229 ac and is adjacent to the Lagoon on the north. The park includes 9-hole and 18-hole golf courses, a baseball stadium, a casting pond, picnic areas, a dog park, tennis courts, a community center, lawn bowling, green open space, and a playground.
- Marine Stadium is a water body and park area adjacent to Marina Vista Park on the south. The park amenities include an activity center, boating facilities, coastal viewing, a rowing center, green open space, benches, and picnic tables. Additionally, Marine Stadium is the site of municipal band concerts in the summer.
- Will Rogers Mini-Park is 1.9 ac and is located adjacent to the project area at the intersection of East Appian Way and Nieto Avenue. The park provides open space.
- Pacific Electric Railway Greenbelt is a narrow strip of land that runs diagonally from East 4th Street and Park Avenue (adjacent to the project area) to East 11th Street and Loma. The area includes walking and riding trails, and native plants.
- Jack Nichol Park is located approximately 1 mile (mi) from the project site at 6200 Costa Del Sol. The park facilities provide a basketball court, baseball field, playground, soccer field, softball field, restrooms, picnic area, and a youth recreation program.
- Mother's Beach (Marine Park) is a beach area that is adjacent to the waters of Marine Stadium. The recreation amenities include boating facilities, coastal viewing, a playground, swimming, volleyball, green open space, benches, and picnic tables.
- Chittick Field is located approximately 3.25 mi from the project site at 1900 Walnut Avenue. The park facilities provide open green space, picnic tables, a soccer field, and a softball field.
- Martin Luther King, Jr. Park is located approximately 3.66 mi from the project site at 1950 Lemon Avenue. The park facilities provide a community center, open green space, playground, a handball/racquetball court, picnic areas, two baseball/softball fields, a soccer field that overlays a baseball field, swimming pool, softball fields, and restrooms
- Stearns Champions Park is located approximately 2.30 mi from the project site at 4520 East 23rd Street. The park facilities provide basketball and volleyball courts, two baseball diamonds, roller hockey, a soccer field, a community center, and open green space.
- Bryant Elementary School is located at 4101 East Fountain Street, which is approximately 1.41 mi from the project site. The school facilities provide 1.82 ac of green open space, basketball courts, volleyball courts, and playgrounds.
- Fremont Elementary School is located at 4000 East 4th Street, which is approximately 0.46 mi from the project site. The school facilities provide 1.82 ac of green open space, basketball courts, volleyball courts, and playgrounds.

- Lowell Elementary School is located at 5201 East Broadway, which is approximately 0.32 mi from the project site. The school facilities provide 1.98 ac of green open space, basketball courts, volleyball courts, and playgrounds.
- Mann Elementary School is located at 257 Coronado Avenue, which is approximately 1.49 mi from the project site. The school facilities provide 1.98 ac of green open space, basketball courts, volleyball courts, and playgrounds.
- Kettering Elementary School is located at 550 Silvera Avenue, which is approximately 1.57 mi from the project site. The school facilities provide 5.67 ac of green open space, a playground, basketball and volleyball courts, and a soccer field.
- Tincher Elementary School is located at 1701 Petaluma Avenue, which is approximately 2.90 mi from the project site. The school facilities provide 6.45 ac of green open space, a playground, basketball courts, and a soccer field.
- Jefferson Middle School is located at 750 Euclid Avenue, which is approximately 0.97 mi from the project site. The school facilities provide 3.45 ac of green open space, a baseball field, a gymnasium, basketball courts, and volleyball courts.
- Rogers Middle School is located at 365 Monrovia Avenue, which is approximately 0.15 mi from the project site. The school facilities provide 2.47 ac of green open space, a baseball field, a gymnasium, basketball courts, and volleyball courts.
- Wilson High School is located at 4400 East 10th Street, which is approximately 0.66 mi from the project site. The school facilities provide 11.50 ac of green open space, baseball field, a gymnasium, basketball courts, a football field, volleyball courts, a swimming pool, and tennis courts.

4.11.2 METHODOLOGY

The analysis in this section addresses issues relating to recreation facilities and the provision of recreation opportunities and services that may be affected by the proposed project.

4.11.3 THRESHOLDS OF SIGNIFICANCE

The proposed project may have a significant impact on the environment if the project would:

- Increase demand on the City Department of Parks, Recreation, and Marine's services and facilities beyond its capacity, thereby accelerating or leading to substantial physical deterioration of existing recreation facilities; or
- Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

4.11.4 PROPOSED PROJECT

The Lagoon is an approximately 11.7 ac tidal water body that is connected to Alamitos Bay and the Pacific Ocean through an underground tidal culvert to Marine Stadium. The Lagoon serves three main

functions: hosting estuarine habitat, providing public recreation (including swimming), and retaining and conveying storm water drainage.

The purpose of the proposed project is to restore the site's ecosystem, improve the estuarine habitat, provide enhanced recreation facilities, improve water and sediment quality, and manage storm water. The proposed project consists of the following components, which would improve the water and sediment quality within the Lagoon and provide habitat and recreational improvements.

- Improvements Benefiting Water and Sediment Quality
  - Clean culvert and remove tidal gates, sill, and other structural impedances.
  - Build open channel between the Lagoon and Marine Stadium.
  - Remove contaminated sediment in the western arm of the Lagoon.
  - Remove sediment in the central Lagoon area.
  - Upgrade the storm drains with trash separation devices, a diversion system, and bioswales.
- Habitat Improvements
  - Remove the north parking lot and access road.
  - Recontour the side slopes of the Lagoon.
  - Revegetate Lagoon areas with various native plant species.
  - Import and plant eelgrass in the Lagoon and open channel.
  - Develop Bird Island.
- Recreation Improvements
  - Construct a walking trail along the Lagoon and open channel.
  - Reconfigure the sports fields in Marina Vista Park.
- Operational Components
  - Implement trash management protocols.
  - Implement bird management protocols.
  - Modify sand nourishment practices.
- Planning Components
  - Local Coastal Program (LCP) Amendment
  - Zoning Code Amendment

It is expected that the LCP amendment and the Zoning Code amendment will be approved after Environmental Impact Report (EIR) certification and at the time of project approval. Implementation of the proposed Colorado Lagoon Restoration project would occur in two phases. It is anticipated that phase one would involve the improvements at the Lagoon, and phase two would involve

improvement within Marina Vista Park. Specifically, the improvements within Marina Vista Park are anticipated to occur at least 1 year after the commencement of Lagoon improvements, depending upon the availability of funding. The project components of each phase are listed below.

- **Phase 1: Lagoon Improvements**
  - Clean culvert and remove tidal gates, sill, and other structural impedances at culvert.
  - Dredge western arm and central Lagoon areas.
  - Implement storm drain upgrades, including the development of a storm water diversion system and bioswales.
  - Remove the north parking lot and access road, and the restroom on the north shore of the Lagoon.
  - Recontour Lagoon side slopes, develop Bird Island, revegetate land areas, and plant eelgrass.
  - Develop the walking trail and viewing platform at the Lagoon.
- **Phase 2: Marina Vista Park Improvements**
  - Construct two roadway bridges spanning the open channel at East Colorado Street and East Eliot Street. Demolish and replace two public restrooms. Build the open channel between the Lagoon and Marine Stadium.
  - Develop the walking trail on the eastern side of the open channel and vegetation buffers on both sides of the channel.

4.11.5 IMPACTS AND MITIGATION MEASURES

The following impacts of the proposed project have been identified based on project characteristics and the significance thresholds defined above. Some of the impacts are considered less than significant; others are considered potentially significant. Both types of impacts are identified and discussed below.

Less Than Significant Impacts

The following impacts that could result from implementation of the proposed project were evaluated and determined to be less than significant.

Increased Demand on Existing Facilities. Implementation of the proposed project would provide improvements to enhance the existing recreation uses on the project site. The primary goals of the proposed project are to: (1) create habitat at the Lagoon that can successfully establish and support native plant and animal communities in the long term, (2) implement long-term water quality control measures, and (3) enhance the Lagoon's value as a recreational resource. Specifically, regarding recreation opportunities on the project site, the proposed project would improve water quality to enhance the swimming amenity, develop a walking trail along portions of the Lagoon and along the eastern side of the open channel, develop sustainable native vegetation for enjoyment and educational uses, develop a viewing platform, and reconfigure the existing sports fields within Marina Vista Park.

The proposed project does not include residential development or other factors that will increase demand on City Department of Parks, Recreation, and Marine services and facilities beyond its capacity. In addition, the proposed project will not preclude the use of any existing recreation facilities in the project vicinity. The project will provide additions/enhancements to the existing recreational facilities on the project site. Therefore, there are no adverse impacts related to increased demand on existing parks and recreation facilities.

Recreation Effects at Colorado Lagoon. The Lagoon is owned and operated by the City Department of Parks, Recreation, and Marine. Existing on-site facilities include the Colorado Lagoon Marine Science Center, which is staffed by the City and Friends of the Colorado Lagoon (FOCL), restrooms, parking, a pedestrian bridge, a lifeguard station, sandy shoreline areas, play equipment, picnic areas, grassy open space areas, a preschool, and a model boat shop.

Implementation of the proposed project would provide improvements to enhance the existing uses within and adjacent to the Lagoon. The primary goals of the proposed project are to: (1) create habitat at the Lagoon that can successfully establish and support native plant and animal communities in the long term, (2) implement long-term water quality control measures, and (3) enhance the Lagoon's value as a recreation resource. Specifically, the proposed project would improve water quality within the Lagoon by increasing the tidal flows between the Lagoon and Marine Stadium, develop storm drain upgrades to divert and treat flows prior to discharge in to the Lagoon, and to remove contaminated sediments within the western arm of the Lagoon. The improved water quality that is expected to result from the proposed project would lead to fewer days when the swimming area would be closed due to elevated bacteria levels, which in turn will provide more opportunities for swimming at the Lagoon.

Habitat improvements involve creating upland, marsh, and intertidal habitat areas around the Lagoon to restore and improve the native habitat. The north parking lot, which contains 73 parking spaces, and the access road from the parking lot to East 6th Street would be removed to provide more space for native vegetation planting and habitat restoration. The project would also demolish the existing restroom on the north shore of the Lagoon. The restroom located on the south shore of the Lagoon would remain for Lagoon patron use. The existing recreation amenities on the north shore of the Lagoon (e.g., barbeques and picnic tables) will remain or be replaced after construction.

As detailed in Section 4.12, Traffic and Circulation, in addition to the north shore parking lot, parking for Lagoon use is also provided by a parking lot on the south shore, which includes 56 parking spaces, and by on-street parking on East 6th Street to the north of the Lagoon and on East Colorado Street south of the Lagoon. The parking lot bound by East Colorado Street, East Appian Way, and Nieto Avenue is also utilized for Lagoon parking; however, it is not reserved for Lagoon use. After implementation of the proposed project, the maximum parking demand of Lagoon use would be approximately 38 spaces. The parking lot on the south shore can accommodate this demand while providing 18 surplus parking spaces. In addition, parking will remain available on East 6th Street, East Colorado Street, and at the Nieto Avenue parking lot. The parking locations along the southern shore of the Lagoon are appropriate, as a large portion of the existing recreational use of the Lagoon is on the south shore, which is also the location of the swimming area. As a result, removal of the north parking lot will not cause a parking deficiency, overcrowding of the remaining parking areas, or other adverse impacts.

The proposed project would develop a walking trail around portions of the perimeter of the Lagoon and the eastern side of the proposed open channel, extending through areas that currently provide no public access. As shown on Figure 4.11.3, the trail would not extend around the western arm of the Lagoon. A viewing platform will be located at the end of the trail toward the western arm. The trail would connect to the existing footbridge on both the north and south shores of the Lagoon.

The trail would be generally 8 ft wide, except along the north shore where the access trail from East 6th Street would be 12 ft wide so as to provide emergency access along the western shore of the northern arm of the Lagoon. The trail would be constructed of decomposed granite in the new areas, and would connect to the existing sidewalk. Interpretive kiosks, seating benches, picnic tables, and shade structures would be installed along the trail. The kiosks would provide educational information about the Lagoon.

The project also includes implementation of trash and bird management protocols, which are designed to keep the Lagoon area free of litter and reduce the number of nonnative birds that are attracted to the area due to being fed by humans. These project components are expected to result in enhanced cleanliness and enjoyment of the recreational opportunities provided by the Lagoon.

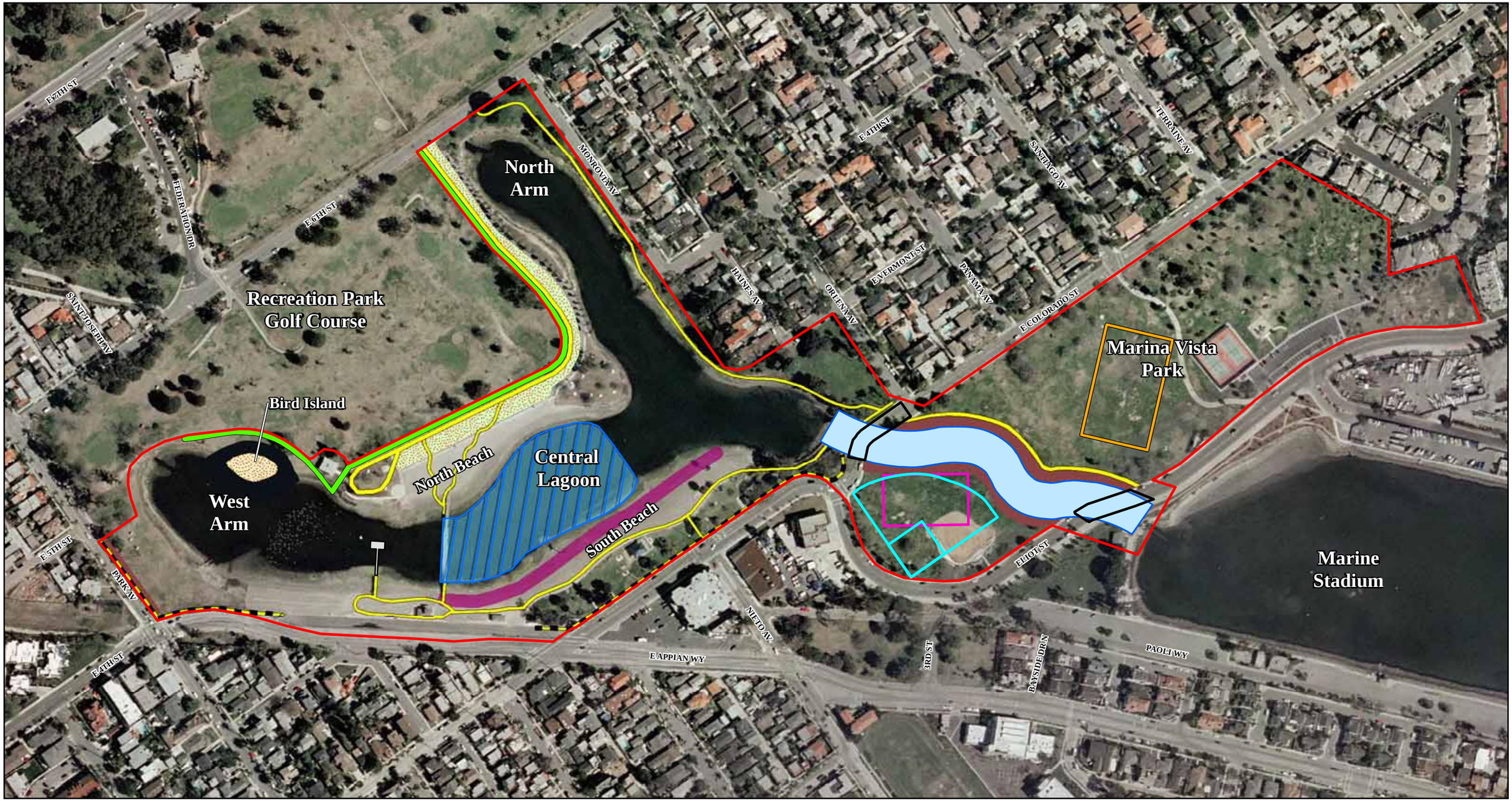
As described, the proposed project would make improvements to the recreational amenities at the Lagoon. These improvements would enhance the existing recreational uses on site. Therefore, the proposed project would not result in any long-term adverse impacts related to recreation at the Lagoon, and no mitigation is necessary.

Recreation Effects within Marina Vista Park. The Marina Vista Park area of the proposed project is 19.41 ac[1] and is located to the southeast of the Lagoon, on the south side of East Colorado Street. Marina Vista Park overlooks the water of Marine Stadium to the south and provides the following amenities: two soccer fields (one adult field and one youth field that overlays the baseball/softball field), tennis courts, a baseball/softball field, play equipment, picnic areas, and restrooms. Additionally, Marina Vista Park is the site of municipal band concerts in the summer. Marina Vista Park is owned and operated by the City Department of Parks, Recreation, and Marine.

Implementation of the proposed project will result in improvements and recreational use changes within Marina Vista Park. The proposed project would develop an open channel with vegetated buffers and a walking trail within the park. In addition, the existing baseball and overlay soccer fields would be leveled and reconfigured.

The proposed open channel would run a meandering course from the Lagoon to Marine Stadium in approximately the same alignment as the existing underground culvert. The channel would have curvilinear edges to create a natural looking feature. As shown in Figure 4.11.4, the open channel will be characterized by a soft bottom and gently sloping banks and will be constructed with erosion control blankets and riprap on the curves to maintain the integrity of the channel design, native landscaping buffer areas along the banks, and a walking trail along the eastern bank. The open

[1] Acreage was estimated by LSA Associates, Inc. (LSA) by using Geographic Information System (GIS) data based on a 2006 aerial photo.



LSA

0 125 250 Feet

- Project Boundary
- Swimming Area
- Sand Nourishment Area
- Existing Sidewalk
- Proposed Bioswale
- Bird Island
- Proposed Trail (Decomposed Granite)
- Vegetated Buffer/Berm
- Proposed Bridge
- Proposed Open Channel (Top of Channel 100')
- Proposed Viewing Platform
- Baseball Field (New Location)
- Adult Soccer Field (Existing Location)
- Youth Soccer Field (New Location)
- Access Road and Parking Lot to be removed with proposed project

FIGURE 4.11.3

Colorado Lagoon Restoration Project

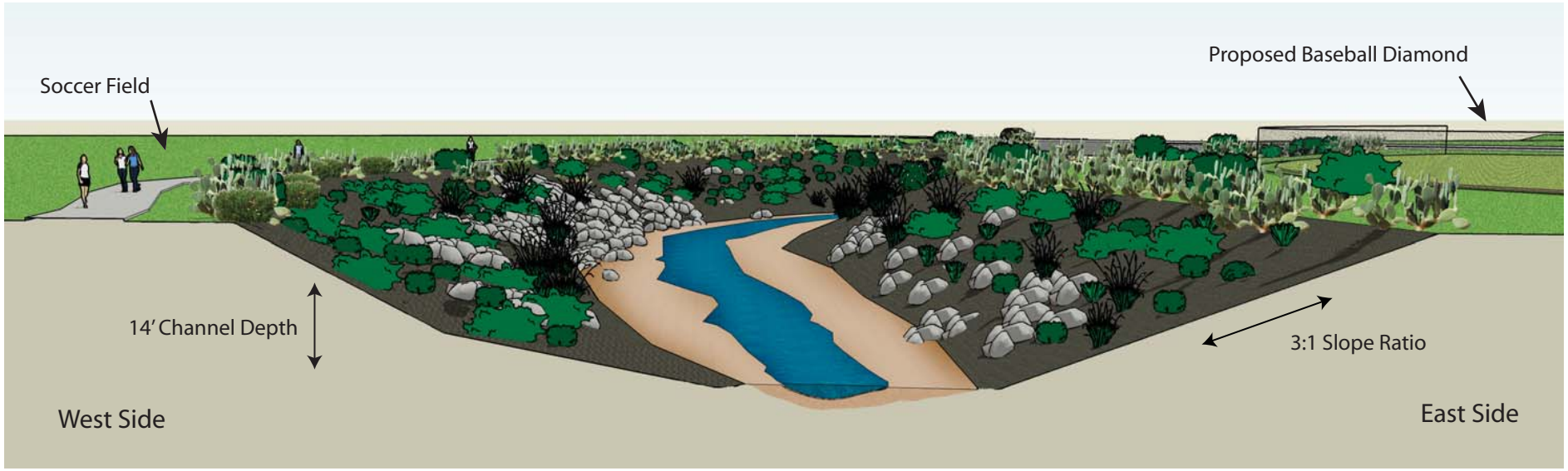
Proposed Recreation Components

SOURCE: Air Photo USA (2007), Moffat & Nichol (2007), Thomas Bros. (2007).

I:\CLB0702\GIS\Fig4.11.3_PropRecreation.mxd (5/20/2008)

Open Channel Profile

With contouring of slopes and varying widths.



Looking Toward Marine Stadium

LSA

FIGURE 4.11.4

Colorado lagoon Restoration Project

Open Channel Profile Oblique Angle

I:\CLB0702\G\Channel Profile Oblique_v3.ai (2/22/08)

channel would be 14 ft deep, have 3:1 side slopes, be approximately 100 ft across at the top, and would encompass 2.02 ac of the existing parkland. This design would provide an aesthetically pleasing, natural looking water feature and also provide opportunities to implement biological enhancements such as marsh areas and eelgrass beds.

A landscaped buffer would be installed along the sides of the channel and would contain a mixture of armor rock and native plantings that would also serve as a safety barrier by discouraging pedestrian access to the channel. A meandering 8 ft wide walking trail constructed of decomposed granite would be installed on the eastern side of the channel, as shown in Figure 4.11.3. This walking trail would connect to the proposed walking trail at the Lagoon. Two vehicular bridges with pedestrian and bicycle facilities would be built over the open channel to maintain circulation. One bridge would be for East Colorado Street and one for East Eliot Street.

In addition, two existing public restrooms near the Marine Stadium end of the proposed open channel (one in Marina Vista Park and one south of East Eliot Street at Marine Stadium) will be demolished and replaced with the new design that is recommended by the Long Beach Police Department (LBPD). Each of the new restrooms will provide eight unisex toilets and three sinks, which is the same as the existing facilities. One stall in each new restroom building will be a “family restroom” sized to be in full compliance with the Americans with Disabilities Act (ADA). Per the recommendation of the LBPD, the restroom buildings would be designed so that the exterior of the building is lined with doors to individual stalls that can be locked from inside. Washbasins would be outside at one end of the building. This would eliminate hallways or other central areas in which criminal activity can take place. This design has the advantage of not providing room for multiperson criminal acts. In addition, restroom entrances and washbasin areas would be well lighted.

Marina Vista Park currently contains one baseball/softball field that has a 90 ft baseline, which accommodates adult baseball or adult softball. Marina Vista Park also contains two soccer fields: one adult field that is 360 ft in length and 225 ft in width, and one youth (ages 6–7) soccer field that is 225 ft in length and 135 ft in width. This youth soccer field overlays the baseball/softball field. Due to the location of the proposed open channel, the baseball/softball field in Marina Vista Park would be moved slightly north. The adult soccer field will remain in its current location and would be on the east side of the open channel, as shown in Figure 4.11.3. The new location of the baseball/softball field would provide a 90 ft baseline and measure 275 ft from home plate to the outfield fence, which accommodates adult softball and youth baseball. The soccer fields would be the same size as the existing fields and would provide the same functionality for league sports. In summary, the proposed project would reconfigure the existing baseball/softball and youth overlay soccer fields but would continue to provide the same number of fields and the same functionality currently provided in the park.

The location of the proposed open channel would separate the sports fields and court areas within Marina Vista Park. The baseball/softball field and the overlay youth soccer field would be on the western side of the open channel, and the adult soccer field and existing tennis courts would be on the eastern side of the proposed open channel, as shown in Figure 4.11.3. The project would maintain pedestrian accessibility from one side of Marina Vista Park to the other by developing pedestrian facilities on the two proposed bridges that would span the open channel at East Colorado Street and East Eliot Street.

Implementation of the open channel component of the proposed project includes reconfiguration of the existing baseball/softball and youth overlay soccer fields but no net loss in the number or use of sports fields compared to existing conditions. Therefore, changes to the park are considered to be a less than significant impact to Marina Vista Park. The open channel will also result in a change to pedestrian movement in the park. Currently, there is no impediment to east-west pedestrian movement across Marina Vista Park. After construction of the proposed open channel, pedestrian movement between the east and west portions of the park will be limited to the street sidewalks and bridges spanning the channel. All areas of the park will remain open and accessible to the public; therefore, the impact of pedestrian flow is considered a less than significant impact to recreation.

As described above, the proposed project would make changes to the recreation amenities within Marina Vista Park. Development of the open channel would result in a conversion of 2.02 ac of parkland from an active recreation use to a passive recreation use. However, in the future, the City may explore the opportunity to provide additional recreational activities at Marina Vista Park by allowing boating access for kayaks and canoes. Although there will be a change to the use of approximately 2.02 ac of Marina Vista Park as a result of the open channel, there would be no loss of City parkland and no conversion from parkland to non-parkland use. The addition of the walking trail, reconfigured and leveled sports fields, and new redesigned restrooms would enhance the existing recreation uses on site. Therefore, the conversion of approximately 2.02 ac of park from active recreation to passive recreation/open channel is considered a less than significant impact on recreation. The proposed project would not result in any long-term adverse impacts related to recreation within Marina Vista Park, and no mitigation is necessary.

Recreation Effects to the Recreation Park 9-Hole Golf Course. The Recreation Park 9-hole golf course is adjacent to the west and north shores of the Lagoon. An existing fence separates the Lagoon and the golf course from East 6th Street along the north shore to the existing restroom. West of the restroom there is no fence or other physical separation between the Lagoon and the golf course. The development of Bird Island, which would be located on the north shore of the western arm of the Lagoon (where no fence exists), would utilize some of the land area that is currently golf course. Additionally, the storm drain diversion system would involve the installation of an underground wet well and pump station on the golf course at the corner of East 6th Street and Park Avenue. These improvements will result in the use of a small portion of the golf course. However, the locations of Bird Island and the pump station would not impede the golf course uses, specifically the long and short tees of the 7th hole. Therefore, the proposed project would not result in significant adverse impacts related to recreation at the Recreation Park 9-hole golf course, and no mitigation is necessary.

Conflict with Existing Land Uses at Marine Stadium. Marine Stadium is a recreational water body and park area adjacent to Marina Vista Park to the south of East Eliot Street. The park amenities include Mothers Beach, an activity center, boating facilities, coastal viewing, a rowing center, green open space, benches, and picnic tables.

The project area includes a 0.28 ac triangle-shaped area that is adjacent to the north end of Marine Stadium waters, just south of East Eliot Street. This area consists of open space, nonnative trees (several palms), and a restroom building. Development of the open channel component of the proposed project (as detailed previously) would relocate the existing restroom, and this area would

become a part of the open channel, which would end at the waters of Marine Stadium. The existing restroom would be replaced with a facility consistent with the current LBPD-recommended design. The new redesigned restroom would enhance the existing recreation uses on site.

Therefore, the proposed open channel component would make long-term changes within the 0.28 ac area at Marine Stadium. The construction of the open channel over a portion of the 0.28 ac triangle will not preclude the continued use of the remaining land area for passive and active recreation uses. Therefore, the proposed project would not result in significant adverse impacts related to recreation at Marine Stadium, and no mitigation is necessary.

Potentially Significant Impacts

The following impacts that could result from implementation of the proposed project were evaluated and determined to be potentially significant.

Construction Phase Recreation Effects. Short-term construction-related effects will result from development of the proposed improvements. Components that would affect on-site land uses at the Lagoon during construction include: dredging the Lagoon areas, recontouring the Lagoon side slopes, upgrading storm drains, developing bioswales, revegetating Lagoon areas, and removing the north parking lot and access road to East 6th Street. Components that would affect on-site land uses within Marina Vista Park during construction include: excavating the open channel, developing the walking trail, and reconfiguring the sports fields.

Use of the project area for recreational activities would be adversely impacted during the construction phases of the project. As detailed in Subsection 4.11.4, implementation of the proposed project would occur in two phases that have sequenced components; therefore, not all of the project areas will be impacted at the same time. However, the use of areas in proximity of construction would not be permitted during the construction phases in order to enhance public safety and therefore would result in short-term use impacts. Tables 4.11.C and 4.11.D show each phase of construction and sequence of improvement in addition to what areas of the project site would be affected and the duration of the impact. In addition, Figure 4.11.3 shows the staging and stockpile areas that would be utilized during construction activities for the various project components.

As shown on Table 4.11.C, some areas at the Lagoon will be closed off to the public during construction activities. During these times, passive and active recreation, including swimming, at the Lagoon will be impacted. Similarly, as shown on Table 4.11.D, a large portion of Marina Vista Park, including the sports fields, would not be available for use during construction of the improvements within the park. In addition, the Summer Concert Series that is held at Marine Stadium, which consists of one concert per week during the summer, would be impacted and may need to be relocated during construction of the open channel (Phase 2).

Table 4.11.C: Construction Effects on Recreation – Phase 1: Lagoon Improvements

Sequence of Improvement	Project Component	How Affected	Approximate Duration of Effect	Months of Duration
1	Clean culvert and remove impedances	Tidal flows through the culvert would be stopped during the culvert work, which would reduce water quality in the Colorado Lagoon (Lagoon), and swimming in the Lagoon would not be allowed during this component.	6 weeks	July–August
2	Dredge Lagoon areas	The Lagoon area would be fenced off to the public. All recreation uses, including swimming, would be discontinued during this component.	6 months	June–November
3	Storm drain upgrades, diversion system, and bioswales	The northern shore of the Lagoon would be fenced off to the public. The south shore area would be open to the public for recreation uses. However, swimming in the Lagoon would not be allowed during this component.	3 months	April–June
4	Remove north parking lot and access road, and north shore restroom	The northern shore of the Lagoon would be fenced off to the public. The south shore area would be open to the public for recreation uses. Swimming would be available as permitted by construction activities and water quality.	3 months	October–December
5	Recontour Lagoon slopes, develop Bird Island, and revegetate	The construction area would be fenced off to the public. All recreation uses, including swimming, would be discontinued during this component.	4 months	September–December
6	Develop walking trail and viewing platform at the Lagoon	The construction area would be fenced off to the public and all recreation uses within and near the construction activities would be discontinued during this component.	1 month	January

Table 4.11.D: Construction Effects on Recreation – Phase 2: Marina Vista Park Improvements

Sequence of Improvement	Project Component	How Affected	Approximate Duration of Effect	Months of Duration
1	Construct bridges, demolish and replace restrooms, build open channel	The western portion of Marina Vista Park would be fenced off to the public. The sports fields would not be available for use. The eastern portion of the park (to the east of the existing walking trail by the tennis courts) would be available for recreation use. The Colorado Lagoon area would be available for use, and swimming will be available as permitted by construction activities and water quality.	15 months	All
2	Reconfigure sports fields and develop walking trail in Marina Vista Park	A large portion of Marina Vista Park, including the sports fields, would be fenced off to the public. The eastern portion of the park (to the east of the existing walking trail by the tennis courts) would be available for recreation use.	6 months	Summer and Fall

To offset these short-term construction use impacts, Mitigation Measures REC-1 and REC-2, as described below, would provide coordination between the City Department of Parks, Recreation, and Marine and the affected park users, including identification of other available recreation facilities within the project vicinity. For example, Mother's Beach is a recreational beach area within Marine Stadium that provides many of the amenities also provided by the Lagoon, including swimming. This area, in addition to the 247 ac (11 mi) of ocean beaches located between the Los Angeles and San Gabriel Rivers, could be used as a substitute during construction. In addition, there are several swimming pools that are available for public use, including: five City swimming pools located at the Martin Luther King, Jr. Park, Silverado Park, and the Belmont Plaza Pool Complex (3 pools); four swimming pools at Long Beach Unified School District (LBUSD) high schools that are open to the public during the summer through City/LBUSD joint use agreements; and four pools at the City colleges and California State University at Long Beach that offer public pool use.

Likewise, Mitigation Measures REC-1 and REC-2 will require coordination of the use of other sports fields and facilities for the Summer Concert Series within Long Beach to substitute for the short-term unavailability of the soccer and baseball/softball fields within Marina Vista Park and the concert location at Marine Stadium. As detailed in Subsection 4.11.1, there are several facilities within the project vicinity that provide soccer and baseball/softball fields for public and league use, including Chittick Field, Martin Luther King, Jr. Park, Stearns Champions Park, Kettering Elementary School, Tincher Elementary School, Jefferson Middle School, Rogers Middle School, and Wilson High School. With implementation of Mitigation Measures REC-1 and REC-2, short-term construction-related recreation use impacts would be less than significant.

Effects from Construction of Recreation Facilities. The proposed project would result in improvements to the existing recreation facilities on the project site, including: development of a viewing platform at the Lagoon and a walking trail along portions of the Lagoon and the eastern side of the open channel; improvement of water quality to enhance the swimming amenity; redevelopment of the two public restrooms within Marina Vista Park; and reconfiguration of the sports fields within Marina Vista Park.

Implementation of the proposed project, including the recreation facilities, would include all feasible mitigation measures as detailed throughout this EIR. However, construction of the project components is expected to result in short-term adverse physical effects to on-site and off-site sensitive land uses. The unavoidable adverse construction effects are detailed within the following EIR Sections: Section 4.2, Air Quality, and Section 4.9, Noise.

Mitigation Measures

The following mitigation measures are incorporated to offset potentially significant adverse impacts of the proposed project.

REC-1 The City of Long Beach Director of Parks, Recreation, and Marine will ensure that during construction activities affecting Colorado Lagoon (Lagoon) (e.g., dredging, recontouring the Lagoon side slopes, revegetation, storm drain improvements, and development of the walking trail and viewing platform), City Department of Parks, Recreation, and Marine staff will provide local residents and neighborhood groups with

information regarding the availability of other nearby City parks and facilities that offer swimming, picnicking, and other passive recreation opportunities enjoyed at the Lagoon. Information regarding Lagoon closures will also be made available on the City's Web site, through outreach to the neighborhood groups, and other means as appropriate.

REC-2 The City of Long Beach Director of Parks, Recreation, and Marine will ensure that during construction activities affecting Marina Vista Park (such as culvert improvements, channel construction, and activities affecting the sports fields), City Department of Parks, Recreation, and Marine staff will determine what specific neighborhood groups and/or league uses of Marina Vista Park will be temporarily affected by construction activity, and will coordinate with these groups and local residents to identify other nearby available City parks and other facilities to meet the temporarily displaced recreation uses, including the Summer Concert Series. City staff also will provide information to City residents when swimming is closed at the Lagoon as a result of project construction activities on the City's Web site, through outreach with neighborhood groups, and other means as appropriate.

4.11.6 CUMULATIVE IMPACTS

Cumulative impact analysis considers the impacts of all park and recreation factors in the vicinity of the project. Implementation of the proposed project will result in the enhancement of the existing public recreation space and amenities within the project area. The project would significantly improve the water quality for swimming and add additional recreation amenities while maintaining all the existing uses on the project site. The project would result in an increase in the quality of the recreation uses on site.

The planned future projects, as listed in Table 4.11.E, are generally improvements to existing developments or facilities, residential projects, or commercial development. There are no known incompatibilities between the proposed project and planned future projects that would result in adverse cumulative recreation impacts. Conversely, three of the planned future projects listed in Table 4.11.E involve improvements to recreation and open space lands that would result in a cumulative benefit or overall enhancement of existing recreation facilities. The cumulative improvements are detailed as follows:

- The Alamitos Bay Marina provides boating facilities, dock slips, and restrooms for recreational boaters. The Alamitos Bay Rehabilitation project will renovate the existing Alamitos Bay Marina facilities that are 50+ years old and have physically deteriorated over time. This project involves renovations to restroom facilities, dredging the seafloor of the marina, sea wall repairs, and dock and piling replacement. The Alamitos Bay Marina Rehabilitation project would enhance marina facilities, thereby positively contributing to recreation amenities in Long Beach. Because the Alamitos Bay Marina and the proposed project area (Lagoon and Marina Vista Park) provide very different recreation facilities, neither project would cumulatively affect one another during construction. Uses from the Alamitos Bay Marina would be shifted to other Long Beach marinas and temporary docks within Alamitos Bay, and as detailed previously in Subsection 4.11.5, uses at the Lagoon and Marina Vista Park would be shifted to other facilities providing similar amenities.

Table 4.11.E: Planned Future Projects

Project	Size	Description
2080 Obispo Avenue	106 units (single-family homes)	Residential development project
4200 East Anaheim Street	29 units (condominiums)	Residential development project
5116 Anaheim Road	64 units (attached townhomes)	Residential development project
2930 East 4th Street	6,200 square feet	Commercial expansion project (Ralph's Supermarket)
Alamitos Bay Marina Rehabilitation Project	N/A	Marina reconstruction project
Termino Avenue Drain	N/A	Storm drain expansion project
Home Depot, 400 Studebaker Road	175,000 square feet	Commercial development

- The Home Depot project includes off-site open space landscaping of 1.37 ac southeast of the intersection of East 7th Street and Silvera Avenue, adjacent to the Channel View Park bike path. Kettering Elementary School borders the site to the south. The site consists of 0.31 ac of California Department of Transportation (Caltrans) right-of-way, a 0.43 ac flood control easement, and a 0.63 ac private property that will be deeded to the City for inclusion in its inventory of open space. This project includes removal of the existing asphalt, enhancing landscaping with a mix of low maintenance and drought tolerant plant materials, and construction of a 5 ft concrete walkway that will traverse the length of the site**.** These improvements would enhance the existing open space area that is currently underutilized, thereby positively contributing to recreation amenities in Long Beach.
- The 2080 Obispo Avenue residential project includes an area of private open space that is related to providing safety from natural hazards. This project would add to the private open space available within Long Beach.

Therefore, the proposed project would not contribute to adverse cumulative impacts related to recreation when it is combined with other foreseeable projects that are planned or expected to occur in Long Beach or the region.

4.11.7 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of Mitigation Measures REC-1 and REC-2 would reduce potentially significant recreation impacts that may result from the proposed project to a less than significant level. Therefore, no significant adverse impacts related to recreation would result from the proposed project.

4.12 TRANSPORTATION AND CIRCULATION

INTRODUCTION

This section is focused on the evaluation of potential impacts related to construction traffic and parking capacity. Other topics related to transportation and circulation, such as design features, emergency access, air traffic patterns, and alternative transportation have been evaluated within the Initial Study/Notice of Preparation (IS/NOP) prepared for the proposed project (Appendix A) and were found to have less than significant impacts and are not discussed further in this Environmental Impact Report (EIR).

The existing uses on the project site are a combination of passive and active recreation uses, and the proposed project would implement improvements to the existing recreation and open space uses on the project site. No new buildings are proposed as part of the project, with the exception of replacing two existing restroom structures that will be demolished as a result of construction of the open channel. An existing active recreation swimming beach on the north shore of the Colorado Lagoon (Lagoon) is being removed as part of the project and replaced with passive open space habitat and a trail. The proposed open channel is an additional passive recreation feature in Marina Vista Park; however, it is within an area that is already devoted to park use. There is no change to the number or type of existing sports fields in Marina Vista Park. The proposed project would not convert any existing park use to a use other than park, and no net increase in active recreation facilities would occur.

The traffic analysis presented in this section is based on the Construction Traffic Analysis and the Parking Demand Analysis (Appendix I), which are summarized in this section.

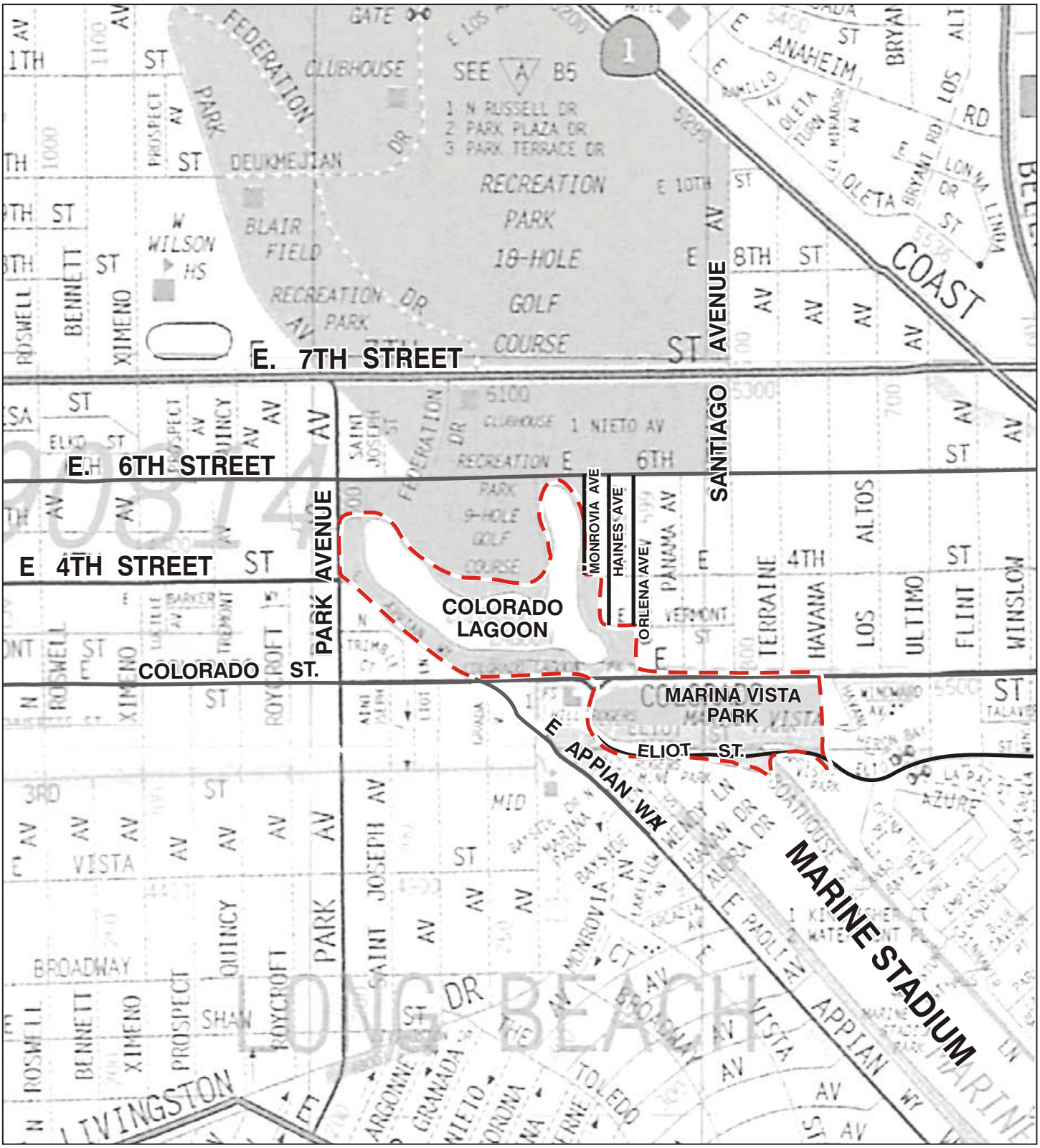
4.12.1 EXISTING ENVIRONMENTAL SETTING

Existing Circulation System

The proposed project area is located in the southeastern portion of the City of Long Beach (City). The Lagoon and Marina Vista Park lie northwest of the mouth of the San Gabriel River and are north of Marine Stadium and Alamitos Bay.

The closest major roadway to the project site is East 7th Street, which is a six-lane, east-west regional corridor located north of the project area. The proposed project area is bound by several local streets, including: East 6th Street, Park Avenue, East Appian Way, East Colorado Street, East Eliot Street, Monrovia Avenue, Haines Avenue, and Orlena Avenue. The streets in the vicinity of the project area are shown on Figure 4.12.1.

The City Traffic and Transportation Bureau of the Department of Public Works has estimated the following existing traffic volumes on the streets nearby the project site:



LSA

FIGURE 4.12.1

PROJECT AREA

N

0 400 800
FEET

SOURCE: Thomas Guide, 2007

Colorado Lagoon Restoration Project

Roadways in Project Vicinity

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East 7th Street currently carries approximately 45,000 vehicles a day between Pacific Coast Highway (PCH) and Park Avenue. The intersection of East 7th Street and PCH has an existing level of service (LOS) of F in the a.m. and p.m. peak hours, which is below the City's established threshold of LOS D as the minimum operating level for roadway segments and intersections.[1] Section 4.12.2 provides a description of LOS values and methodology.

- The portion of East Colorado Street adjacent to the Lagoon carries approximately 11,000 vehicles a day.
- Park Avenue carries approximately 15,000 vehicles a day north of East 4th Street and East Appian Way.
- Park Avenue carries approximately 10,500 vehicles a day south of East 4th Street and East Appian Way.
- East Appian Way carries approximately 9,000 vehicles a day.

The City does not have existing LOS information for the local streets serving the project area. However, the City Traffic Engineer has stated that existing traffic volumes on the local roads adjacent to the Lagoon area are higher than many residential/park areas due to the existing roadway network and other physical constraints such as the waters of Marine Stadium and Alamitos Bay and the bridges that cross Alamitos Bay.

Due to the existing discontinuous street network in the southeastern portion of Long Beach, most traffic destined to or from Belmont Park, Belmont Shore, and portions of Belmont Heights are funneled through Park Avenue to East 7th Street. East Appian Way also provides a secondary route to and from Belmont Park and Naples because it has a bridge over Alamitos Bay and connects to PCH.

Bike Routes

The Long Beach Bicycle Master Plan identifies bike routes within Long Beach. The system is intended to provide alternative transportation facilities. Bikeways as described by the Bicycle Master Plan are:

- **Class I Bikeway:** Called a bike path or multi-use trail. Provides for bicycle travel on a paved right-of-way completely separated from any street or highway.
- **Class II Bikeway:** Referred to as a bike lane. Provides a striped lane for one-way travel on a street or highway.
- **Class III Bikeway:** Referred to as a bike route. Provides for shared use with pedestrian or motor vehicle traffic and is identified only by signing.

The Bicycle Master Plan identifies the following existing bicycle routes, which are adjacent to the project site:

- East 6th Street is a Class III bikeway.

[1] Long Beach Home Depot Traffic Impact Analysis, April 2005.

- Park Avenue between East 4th Street and East 6th Street and East Appian Way are Class II bikeways.
- East Eliot Street is a Class I bikeway.

4.12.2 METHODOLOGY

The relative impacts of the added construction-related project traffic volumes generated by the proposed project have been evaluated based on the analysis of the volume of construction-related traffic in addition to existing conditions. Methodology related to parking capacity is based on existing regulations within the City's Municipal Code and the existing parking demand.

Level of Service (LOS)

The City uses Intersection Capacity Utilization (ICU) methodology to determine LOS for the signalized intersections. This methodology compares the volume-to-capacity (v/c) ratios of conflicting turn movements at an intersection, sums these critical conflicting v/c ratios for each intersection approach, and determines the overall ICU. The resulting ICU is expressed in terms of LOS, where LOS A represents free-flow activity, and LOS F represents overcapacity operation. LOS is a qualitative assessment of the quantitative effects of such factors as traffic volume, roadway geometrics, speed, delay, and maneuverability on roadway and intersection operations. The LOS criteria for signalized intersections using the ICU methodology are presented below.

LOS	Description
A	No approach phase is fully utilized by traffic, and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily, and nearly all drivers find freedom of operation.
B	This service level represents stable operation, where an occasional approach phase is fully utilized, and a substantial number are nearing full use. Many drivers begin to feel restricted within platoons of vehicles.
C	This level still represents stable operating conditions. Occasionally, drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.
D	This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
E	Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is attained no matter how great the demand.
F	This level describes forced-flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially, and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, speed can drop to zero.

The relationship between LOS and the ICU value (i.e., v/c ratio) is as follows:

Level of Service	Intersection Capacity Utilization (ICU)
A	≤ 0.600
B	0.610–0.700
C	0.710–0.800
D	0.810–0.900
E	0.910–1.000
F	> 1.000

4.12.3 THRESHOLDS OF SIGNIFICANCE

The IS contained in Appendix A of this document determined that the proposed project would not result in any significant impacts related to operational traffic increases, design features, emergency access, air traffic patterns, and alternative transportation. Therefore, these topics are not discussed in this EIR.

Criteria for determining the significance of impacts to transportation and circulation are based on the California Environmental Quality Act (CEQA) Guidelines. Project-related traffic impacts may be considered potentially significant and adverse if the proposed project would:

- Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the v/c ratio on roads, or congestion at intersections)
- Exceed, either individually or cumulatively, a LOS standard established by the county congestion management agency for designated roads or highways
- Result in inadequate parking capacity

4.12.4 IMPACTS AND MITIGATION MEASURES

Less Than Significant Impacts

Operational Traffic. The proposed project would implement water quality, habitat, and recreation improvements to the project area. These improvements will enhance the existing environment at both park sites. Currently, both sites are used by neighborhood residents, Wilson High School students who walk to the parks, and area residents who drive to the parks. It is not known to what extent the proposed improvements to the project area will attract additional visitors to the parks. The removal of the north shore parking lot and beach may make the Lagoon less desirable to visitors who now drive to the Lagoon for swimming. The habitat improvements may make the Lagoon more attractive to bird watchers and local residents who are interested in the passive and natural components of the site. Similarly, the open channel may be of interest to people who wish to view or walk along the feature, but the channel does not incorporate new active uses that would attract a greater number of park users on a regular basis. Overall, any change in park attendance and patterns of use are expected to be negligible as a result of project implementation. Therefore, the traffic levels resulting from operation of the proposed project are not anticipated to change as a result of the proposed project.

Parking Capacity. Existing parking for Lagoon use is provided by: (a) a parking lot on the southwest shore (along Appian Way) that includes 56 parking metered spaces (west parking lot); (b) a parking lot on the north shore that is open between 8 a.m. and sunset and includes 73 unmetered parking spaces (north parking lot); (c) the off-site south parking lot which includes 50 spaces, which is bounded by East Colorado Street, East Appian Way, and Nieto Avenue (which is not metered and shared with other uses); and (d) on-street unmetered parking on East Colorado Street south of the Lagoon and East 6th Street north of the Lagoon. The existing parking lots at the Lagoon are shown on Figure 4.12.2.

As a part of the proposed project's habitat improvements, the north parking lot (which contains 73 parking spaces and is closed between sunset and 8 a.m.) and the East 6th Street access road that leads to the north parking lot would be removed to provide more space for native vegetation planting and habitat restoration, as described in Section 3.0, Project Description.

To determine the existing parking demand of the Lagoon area, parking surveys were conducted at the four Lagoon parking areas. Parking counts were performed on each Wednesday, Friday, and Saturday of the second and third weeks in August 2007, which is a period of peak activity at the Lagoon. The surveys were carried out by counting the parked vehicles in each of the parking areas at 30-minute intervals. The surveys were conducted at the north shore parking lot (being removed), the west parking lot (East Appian Way), on-street parking on East Colorado Street (south side of the Lagoon), and the off-site south parking lot (located at Nieto Avenue/East Colorado Street/East Appian Way). Because the south parking lot is shared among various uses in the area, it was observed whether parking lot visitors walked toward the Lagoon or in another direction. Only those who walked toward the Lagoon were considered to be Lagoon visitors. Data for these parking surveys are summarized in Table 4.12.A, which shows the highest parking demand per day during the survey period. The actual parking surveys are included in the Parking Demand Analysis prepared for the proposed project (Appendix I).

Table 4.12.A: Colorado Lagoon Parking High Demand Summary

Day	Time[1]	North Parking Lot	West Parking Lot	Colorado On-Street Parking	South Parking Lot	Total Parking Demand
Wednesday	11:30 a.m.	3	13	5	0	21
Friday	11:30 a.m.	3	10	7	6	26
Saturday	3:00 p.m.	3	12	12	6	33
Wednesday	3:00 p.m.	5	4	15	2	26
Friday	2:30 p.m.	6	5	12	3	26
Saturday	5:00 p.m.	2	20	14	2	38

Source: Parking Demand Analysis, March 2008.
[1] Highest parking demand period for that day.

As shown in Table 4.12.A, the maximum parking demand ranges from 21 to 38 automobiles, with the maximum number occurring on Saturday. Wednesdays and Fridays were fairly similar in terms of how many automobiles parked in the lots or on the street around the Lagoon.

LSA

Legend

- North Parking Lot (To Be Removed)
- West Parking Lot
- Colorado Street On-Street Parking
- South Parking Lot

N

0 125 250
FEET

SOURCE: TRM Air Photo USA (2008)

FIGURE 4.12.2

Colorado Lagoon Restoration Project

Location of Existing Parking Areas

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The proposed project would implement habitat and recreation improvements to the existing project area. The proposed project would retain the recreation and open space uses of the project site and is not anticipated to lead to an increase in the number of visitors to the project area, as discussed in the introduction to this section. Because the project does not intensify visitor-serving uses, the parking demand of the Lagoon is expected to remain the same with the project as the existing observed parking demand. Therefore, the maximum parking demand will continue to be approximately 38 spaces with implementation of the project.

The City's Zoning Code designates the required number of parking spaces for the various land uses throughout the City. As described in Section 4.8, Land Use, the Lagoon is zoned Park (P) and is designated in the zoning code as a Special Use Park because of the Lagoon water body. In addition, the Lagoon is considered a passive park. The City of Long Beach Zoning Code (Chapter 21.41.216) specifies a parking ratio of 2 spaces per gross land area (GLA) for passive park uses. The GLA at the Lagoon is approximately 18.5 acres and varies slightly with tides. Application of Zoning Code parking ratios to the land area at the Lagoon results in a total parking requirement of 37 spaces.

As described previously, the north parking lot (which contains 73 parking spaces and is closed between sunset and 8 a.m.) and the access road to East 6th Street would be removed to provide more space for native vegetation planting and habitat restoration. At the completion of the proposed project, parking will continue to be provided in the west parking lot (which contains 56 metered parking spaces), the south parking lot (50 spaces not metered and shared with other uses), and unmetered on-street parking along East Colorado Street and East 6th Street. As described previously, the average maximum parking demand of the Lagoon area is 38 spaces, and the Zoning Code requires 37[1] spaces. The west parking lot provides 56 parking spaces, which is adequate to accommodate the parking demand while providing 18 surplus parking spaces. In addition, on-street parking will remain available on East Colorado Street and East 6th Street. In addition, it is assumed that parking will continue to be available at the south parking lot; however, the City does not control, nor guarantee, parking for Lagoon use at this off-site location. Even without availability of the south parking lot, the parking surveys and zoning code requirements demonstrate that removal of the north shore parking lot will not cause a parking deficiency or overcrowding of the remaining parking areas. Hence, project impacts related to parking capacity are less than significant.

Potentially Significant Impacts

Construction Impacts/Street Capacity. Construction activities of the proposed project would be implemented in two phases. Phase 1 of the project includes excavating and removing contaminated sediment from the project site that has accumulated in the western arm of the Lagoon. The removed contaminated sediment will then be transported by truck either to the Port of Long Beach (Port) or to the Kettleman Hills Landfill in Kings County, California. Phase 1 of the proposed project also includes several components, as listed in Table 4.12.B, that would require materials to be transported by truck and disposed of at Class III landfills such as Puente Hills Landfill, which is the closest Class III landfill.

[1] Passive Park Zoning Code requires two spaces per gross acre.

Table 4.12.B: Construction Truck Trips by Phase

Project Components	Delivery Trucks	Removal Trucks
Phase 1		
Culvert improvements		80
Removal of contaminated dredge material from western arm of Colorado Lagoon (Lagoon)		1,000
Removal of noncontaminated dredge material from central Lagoon		350
Storm drain treatments	110	60
Bioswales	40	160
Demolished restroom, north parking lot, access road debris, and soils from development of bird island	60	600
Side slope recontouring		340
Construction of trail and viewing platform	60	
Phase 2		
Construction of open channel, two bridges, and walking trail; culvert demolition; and restroom demolition and reconstruction	550	2,010

Phase 2 of the proposed project involves removing the underground box culvert that currently connects the Lagoon to Marine Stadium and replacing it with an open channel that would improve the circulation and water quality in the Lagoon. The excavated soil (approximately 25,500 cubic yards) will be disposed of at a Class III landfill. Phase 2 would also demolish and reconstruct two restrooms, construct two bridges spanning the open channel, and construct a walking trail within Marina Vista Park. In addition, as shown on Table 4.12.B, both construction phases involve the delivery of construction materials and equipment to the project site. Staging and stockpile areas would be located in different areas of the project site depending on the construction phase and project component (Figure 4.12.3). At the Lagoon, stockpile areas will be located in the existing north shore parking lot and in the southwestern corner of the Lagoon area (near Park Avenue and East 4th Street). For components in Marina Vista Park, a staging/stockpile area will be located within the western portion of Marina Vista Park.

The two bridges that would span the open channel at East Colorado and East Eliot Streets would both be at-grade and would be approximately 160 feet (ft) in length (due to the angle of the street/bridge and the proposed channel alignment) and approximately 45 ft in width. Each bridge would include two 12 ft lanes, two 5 ft sidewalks, and an 8 ft wide bike path on one side. Piles would be constructed to allow the bridges to span the open channel. The space between the piles would be approximately 35 ft. Construction of the bridges would occur one at a time to provide for adequate circulation during construction. Construction is anticipated to take approximately 6 months for each bridge.

The construction traffic analysis prepared for the proposed project (Appendix I), assumed each truck trip to have a passenger car equivalent (PCE) of two trips. Because of its larger size and less maneuverability, the impact of a single truck to the roadway is approximately equivalent to two passenger cars.

LSA

LEGEND

- Project Boundary
- Proposed Staging Area
- Proposed Stockpile Area

0 150 300 Feet

FIGURE 4.12.3

Colorado Lagoon Restoration Project

Proposed Staging and Stockpile Areas

SOURCE: Air Photo USA (2007).

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During Phase 1 of the project, approximately 10 construction workers will be on site per day. These workers will add 20 daily passenger car trips (10 inbound in the morning and 10 outbound in the evening). Worker commute trips will not add a.m. peak-hour trips to Phase 1 construction traffic because the workers will arrive on the site before the 7:00 a.m. to 9:00 a.m. peak period. However, worker commute trips will add p.m. peak-hour trips because the workers will depart between 5:30 and 6:00 p.m. Removal truck trips are estimated to add 35 truck trips (70 PCE) per day, with a maximum of 14 truck trips (28 PCE) in the a.m. peak hour and 10 truck trips (20 PCE) in the p.m. peak hour. During Phase 2, approximately 12 construction workers will be on site per day, adding 24 daily passenger car trips (12 inbound in the morning and 12 outbound in the evening). Similar to Phase 1, these workers will not add a.m. peak-hour trips, but will add p.m. peak-hour trips in Phase 2. Average truck haul trips are estimated to be 40 per day (80 PCE), with a maximum of 16 (32 PCE) in the a.m. peak hour and 8 (16 PCE) in the p.m. peak hour. Table 4.12.C provides the trip generation for Phases 1 and 2 of the project.

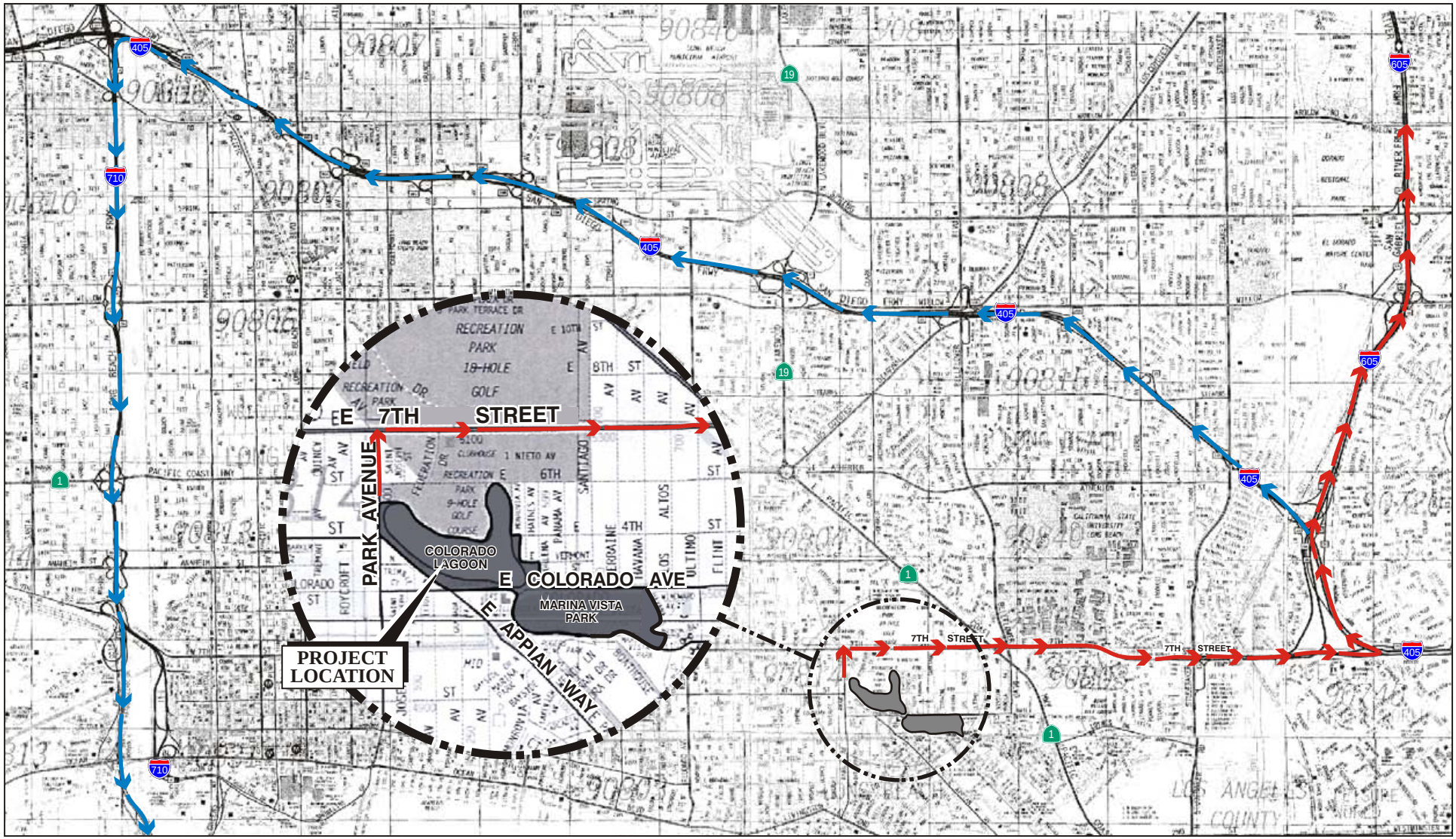
Table 4.12.C: Phase 1 and Phase 2 Project Trip Generation

Generator	Peak-Hour Trips			Peak-Hour PCE Trips[1]		
	ADT	AM	PM	ADT	AM	PM
Phase 1						
Construction Workers[1]	10	N/A	5	20	N/A	10
Trucks[2]	35	14	10	70	28	20
Total	**45**	**14**	**15**	**90**	**28**	**30**
Phase 2						
Construction Workers[2]	12	N/A	6	24	N/A	12
Trucks[3]	40	16	8	80	32	16
Total	**52**	**16**	**14**	**104**	**32**	**28**

Source: Construction Traffic Analysis, April 2008.
[1] Truck trips are multiplied by a factor of 2 PCE per truck.
[2] Workers arrive between 6:00 and 6:30 a.m. and depart between 5:30 and 6:00 p.m. No a.m. peak-hour trips are generated due to workers arriving before the a.m. peak period. Trips are based on one person per vehicle.
[3] Based on construction activity estimates provided by the project engineer.
ADT = average daily traffic
N/A = not applicable
PCE = passenger car equivalent

If the removal vehicles carrying the contaminated sediments from the western arm of the Lagoon are destined for the Kettleman Hills Landfill in Phase 1, they will be routed north on Park Avenue, east on East 7th Street, north on Interstate 605 (I-605), and then north on Interstate 5 (I-5). Removal trucks transporting materials to Class III landfills in the region would also be routed north on Park Avenue, east on East 7th Street, and north on I-605. Removal vehicles destined for the Port would travel east on East 7th Street, north on Interstate 405 (I-405), and then south on Interstate 710 (I-710). The haul routes are shown on Figure 4.12.4.

In Phase 2, excavated soils and demolition material from the culvert, restrooms, and road debris will be hauled off site and disposed at landfills utilizing the designated truck route. Construction activity will take place from 7:00 a.m.–5:30 p.m. on weekdays and 9:00 a.m.–6:00 p.m. on weekends.



LSA

FIGURE 4.12.4

LEGEND

TO PORT OF LONG BEACH

TO LANDFILL FACILITIES

N

0 2500 5000

FEET

SOURCE: Thomas Guide, 2007

Colorado Lagoon Construction Traffic Analysis

Construction Haul Routes

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Construction activity is anticipated to add approximately 90 daily PCE trips, 28 a.m. peak-hour PCE trips, and 30 p.m. peak-hour PCE trips in Phase 1, and 34 daily PCE trips, 4 a.m. peak-hour PCE trips, and 14 p.m. peak-hour PCE trips in Phase 2. All of the truck trips would travel on East 7th Street.

As described previously, East 7th Street is a four-lane roadway with an hourly capacity of 6,400 vehicles and an existing LOS of F in the a.m. and p.m. peak hours at the intersection of East 7th Street and PCH. The addition of up to 32 p.m. peak-hour, construction-related, short-term trips would add less than one-half of 1 percent of the capacity of the roadway during the peak hour. In addition, most truck trips would occur during the day, when ambient traffic is less. Therefore, construction of the proposed project would not cause an increase in traffic that is substantial in relation to the existing traffic load of the street system. In addition, construction traffic effects are temporary during the period of construction, and the number of construction workers and truck trips would vary depending on the specific construction activities. However, because the intersection of East 7th Street and PCH has an existing LOS of F in the a.m. and p.m. peak hours (which is below the City's established threshold of LOS D as the minimum operating level for roadway segments and intersections) and is located in the project vicinity and along the haul route, Mitigation Measure TR-1, which requires implementation of a construction management plan, has been included to reduce the impact of construction traffic on the local circulation system to less than significant.

During construction of the two at-grade bridges spanning the open channel (Phase 2), East Colorado Street will be closed between East Eliot Street and Panama Avenue during construction of the Colorado Street Bridge, and East Eliot Street (which contains a Class I bikeway) will be closed between East Colorado Street and Boathouse Lane during construction of the Eliot Street Bridge. Construction of the bridges would occur one at a time so as to provide adequate circulation during construction. Construction is anticipated to take approximately 6 months for each bridge. When East Colorado Street is closed, East Eliot Street would serve as an alternate route. Similarly, when East Eliot Street is closed, East Colorado Street would be the alternate route. Likewise, when the East Eliot Street bikeway is closed, the existing bikeways on East Appian Way would serve as alternate routes.

Both East Colorado Street and East Eliot Street are local roadways serving the residential land uses east of the project site. Neither street directly serves a commercial, employment, or other land use that would generate high volumes of traffic. Furthermore, the existing roadway and bikeway network in the residential neighborhoods served by East Colorado Street and East Eliot Street provide several other alternate routes. As a result, the closure of either East Colorado Street or East Eliot Street for a temporary period (6 months for each road consecutively) during construction of the open channel and bridges is not anticipated to adversely affect traffic. However, to ensure that impacts related to construction traffic are less than significant, implementation of a construction management plan would be required to minimize traffic impacts to the local circulation system in the area. With implementation of Mitigation Measure TR-1, construction traffic impacts associated with implementation of the project would be less than significant.

Mitigation Measure

The following mitigation measure is incorporated to offset potentially significant adverse construction-related traffic impacts of the proposed project.

TR-1 Prior to the issuance of a grading permit for each of the two construction phases, the City of Long Beach shall, under the direction of the City of Long Beach Traffic Engineer, design and implement a construction area traffic management plan. The plan shall be designed by a registered Traffic Engineer and shall address traffic control for any street closure, detour, or other disruption to traffic circulation and public transit routes. The plan shall identify the routes that construction vehicles will use to access the site, the hours of construction traffic, traffic controls and detours, and off-site vehicle staging areas. The plan shall also require the City to keep all haul routes clean and free of debris including, but not limited to, gravel and dirt.

TR-2 Prior to the issuance of a grading permit for each of the two construction phases, the City of Long Beach shall, under the direction of the City of Long Beach Traffic Engineer, address the truck route and circulation effects of TADP construction, should the TADP be under construction in the vicinity of the project site during either Phase 1 or Phase 2 construction of the Colorado Lagoon Restoration project. The coordination shall identify the construction routes, the hours of construction traffic, traffic controls and detours, and off-site vehicle staging areas, and address traffic control for any street closure, detour, or other disruption to traffic circulation and public transit routes.

4.12.5 CUMULATIVE IMPACTS

The proposed project would retain the existing recreation and open space uses of the project site and no intensification of uses would occur. Any change in park attendance and patterns of use are expected to be negligible as a result of project implementation. Therefore, the traffic levels resulting from operation of the proposed project are not anticipated to change as a result of the proposed project, and no cumulative operational traffic impacts would occur.

One of the five related projects, described in Section 4.8.7, the Termino Avenue Drain Project (TADP), is the only one located adjacent to the proposed project and has the potential to affect some of the same streets as construction of the proposed project would. The Los Angeles County Department of Public Works is proposing to replace and reroute the Termino Avenue Drain that currently drains to the Lagoon. The Termino Avenue Drain is a major outfall structure that consists of two side-by-side storm water drainage lines. The project would extend and reroute the drain to empty into Marine Stadium, thereby bypassing the Lagoon. This project would also redirect flows from three other local storm drains located on the south shore of the Lagoon that currently discharge into the Lagoon. TADP construction that would occur adjacent to the Colorado Lagoon Restoration project area would occur along East Appian Way, which is adjacent to the south shore of the Lagoon. Because the TADP is an infrastructure project, no long-term operational traffic impacts will occur.

The construction activity for the proposed project and construction of the TADP in the vicinity of and at the project site may occur at the same time. TADP construction workers and equipment and haul vehicles working in the vicinity of the proposed project may utilize the same haul route. Therefore,

when combined, these projects have the potential to contribute to short-term construction traffic impacts. However, with implementation of Mitigation Measure TR-1 and those mitigation measures included in the TADP Draft Environmental Impact Report (DEIR), cumulative impacts would be reduced. The mitigation measures included in the TADP DEIR include implementation of a traffic control plan and restricting construction on East 7th Street to weekends while requiring a minimum of one travel lane in each direction to be open to traffic. Nevertheless, should the TADP, in the vicinity of the Lagoon, and Phase 1 and/or Phase 2 of the Colorado Lagoon Restoration project both be under construction at the same time, implementation of Mitigation Measure TR-2 is warranted to ensure coordination between City of Long Beach and Los Angeles County construction activities.

4.12.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Operational project impacts related to traffic are less than significant (see NOP, Appendix A). Implementation of Mitigation Measure TR-1 would reduce construction-related project traffic impacts to a less than significant level. In addition, Mitigation Measure TR-1 and the mitigation measures included in the TADP DEIR (should construction activities for the two projects overlap) would reduce cumulative short-term construction traffic impacts to a less than significant level.