

3.15 Transportation and Traffic

3.15.1 Introduction

This section describes the potential for the proposed project to affect transportation and circulation. The analysis is based on review of transportation studies and maps of the project area and vicinity, including site-specific investigations conducted for each of the four individual sites that comprise the proposed project, the relevant regulatory ordinances, and a discussion of the methodology and thresholds used to determine whether the proposed project would result in significant impacts. This section analyzes the potential for both project-level and cumulative environmental impacts.

Data used in this section includes information obtained from the four technical memoranda prepared for the project site, including *Lyon Communities, Wetlands Restoration Project Synergy Oil Field/Pumpkin Patch* (Pirzadeh Associates Inc. [Pirzadeh] 2015 [Appendix I1]); *Pumpkin Patch, Construction Phase Traffic Generation* (Pirzadeh 2016 [Appendix I2]); *Pumpkin Patch, Construction Trip Generation Summary* (Pirzadeh 2017a [Appendix I3]); and *Pumpkin Patch Trash Removal/Export Trip Generation* (Pirzadeh 2017b [Appendix I4]). Due to the limited nature of the project development and minimal additional traffic trips that would be added to the project area (if any), the City determined that a full traffic impact analysis (traffic study) was not required for the proposed project. All information sources used are included as citations within the text; sources are listed in Section 3.15.5, References.

3.15.2 Environmental Setting

As shown in Figure 2-2, Project Site and Local Vicinity, in Chapter 2, *Project Description*, the proposed project would be developed on four individual sites with a total area of approximately 195 acres. The study area encompassing these four individual sites is generally bounded to the west by Pacific Coast Highway (PCH)/State Route 1 (SR-1), to the east by undeveloped land and an industrial park development, to the north by the Los Cerritos Channel, and to the south by the San Gabriel River.

3.15.2.1 Regional and Local Roadways

Regional access to the project site is provided by the San Diego Freeway (Interstate 405 [I-405]), the Garden Grove Freeway (SR-22), and SR-1. Roadways in the study area are classified per the City of Long Beach Mobility Element and the Los Angeles County Congestion Management Program (CMP).

Pacific Coast Highway (SR-1) is classified as a State Highway (Arterial) in the Los Angeles County CMP and as a Regional Corridor in the City of Long Beach Mobility Element. The roadway extends south from SR-101 in Leggett, California, along the Pacific Coast over 650 miles before terminating at I-5 in Dana Point, California. Within the study area, PCH has an east/west orientation and is a six-lane facility divided by a two-way left-turn lane. The posted speed limit in the study area is 35 miles per hour (mph).

San Diego Freeway (I-405) is classified as a State Freeway in the Los Angeles CMP and as a Freeway in the City of Long Beach Mobility Element. I-405 runs from Irvine to San Fernando, cutting through the City of Long Beach. Within the study area, I-405 has ten lanes with a posted speed limit of 65 mph.

Garden Grove Freeway (SR-22) is classified as a State Freeway in the Los Angeles CMP and as a Freeway in the City of Long Beach Mobility Element. The roadway begins at SR-55 and ends at PCH in Long Beach. Within the study area, SR-22 has six lanes into the heart of Long Beach and a posted speed limit of 45 mph.

2nd Street/Westminster Avenue is classified as a Boulevard in the City of Long Beach Mobility Element. It runs east/west and extends between Livingston Drive and Island Village Drive. At Village Island Drive, 2nd Street becomes Westminster Avenue. Within the study area, 2nd Street is a four- to six-lane roadway divided by a median and has a posted speed limit of 40 to 50 mph.

Studebaker Road is classified as a Major Avenue in the City of Long Beach Mobility Element. The roadway runs north/south and provides direct access to I-405 and SR-22. Studebaker Road begins at 2nd Street in Long Beach and extends to Los Coyotes Diagonal south of Lakewood. Within the study area, Studebaker Road is a divided four-lane facility with a median and has a posted speed limit of 40 mph.

Existing Traffic Conditions

As stated previously, a traffic impact analysis was not required to assess specific traffic conditions on transportation facilities in the study area; however, existing morning (7:00 to 9:00 a.m.) and afternoon (4:00 to 6:00 p.m.) weekday peak period vehicle counts were taken on May 20 and 21, 2015, at a number of intersections in Long Beach and Seal Beach. In addition, existing midday (10:00 a.m. to 2:00 p.m.) weekend vehicle counts were taken on June 13, 2015, at these same intersections (see Appendix I). Additionally, vehicle counts were taken on July 14, 2015, for the *Southeast Area Specific Plan Draft EIR* (PlaceWorks 2016). Based on the site access shown in Figure 2-2 in Chapter 2, *Project Description*, vehicles accessing the various elements of the proposed project would travel through the following signalized intersections in the study area:⁷⁶

- **PCH/Studebaker Road (Long Beach)**—LOS B (AM peak hour); LOS C (PM peak hour);
- **PCH/2nd Street/Westminster Avenue (Long Beach)**—LOS E (AM and PM peak hours);
- **2nd Street/Westminster Avenue/Shopkeeper Road (Long Beach)**—LOS A (AM peak hour); LOS C (PM peak hour);
- **2nd Street/Westminster Avenue/Studebaker Road (Long Beach)**—LOS D (AM peak hour); LOS E (PM peak hour);
- **PCH/1st Street (Seal Beach)**—LOS B (AM peak hour); LOS C (PM peak hour); and
- **Seal Beach Boulevard/Westminster Avenue (Seal Beach)**—LOS E (AM peak hour); LOS E (PM peak hour).

The LOS rating shown above for these intersections is a qualitative letter grade that represents the operations of the intersection, from LOS A (minimal delay) to LOS F (excessive congestion). LOS E represents at-capacity operations. In Long Beach and Seal Beach, LOS D is generally considered the lowest acceptable level for operation of intersections that fall under its jurisdiction, and for Caltrans, LOS C is the lowest acceptable LOS on its facilities. The intersections located on PCH are within the jurisdiction of Caltrans. The 2nd Street/Westminster Avenue/Shopkeeper Road and 2nd Street/Westminster Avenue/Studebaker intersections are within Long Beach's jurisdiction, and the Seal Beach Boulevard/Westminster Avenue intersection is in

⁷⁶ For signalized intersections (except Caltrans-owned PCH intersections), the reported level of service (LOS) was evaluated in accordance with the CMP guidelines using the Intersection Capacity Utilization methodology. For Caltrans-owned intersections, the methodology consistent with the *Highway Capacity Manual 2010* (Transportation Research Board 2010) was used.

Seal Beach's jurisdiction. In following these LOS standards, the PCH/2nd Street/Westminster Avenue and Seal Beach Boulevard/Westminster Avenue intersections currently operate at a deficient LOS during both the AM and PM peak hours, while the remaining intersections currently operate at an acceptable LOS.

In addition to the analysis of the intersections described above, nearby freeway mainline segments and ramp junctions were also evaluated in the *Southeast Area Specific Plan Draft EIR* (PlaceWorks 2016). The freeway segments in the study area were analyzed for the basic, merge, and diverge components where capacity constraints typically occur on the freeway system, utilizing the Highway Capacity Manual (HCM) 2010 methodology. The LOS for each of these segments is defined by density (passenger cars per mile per lane). Using intersection count data and traffic data from the Caltrans Performance Measurement System (PeMS), the LOS was calculated. The locations most likely to be affected by vehicles accessing the various elements of the proposed project are:

- **Westbound SR-22**—LOS D (AM peak hour); LOS E (PM peak hour);
- **Eastbound SR-22**—LOS D (AM and PM peak hours);
- **SR-22/Studebaker Road Off-Ramp**—LOS C (AM and PM peak hours); and
- **SR-22/Studebaker Road On-Ramp**—LOS D (AM and PM peak hours).

Based on the Caltrans LOS thresholds established in the HCM 2010 for freeway mainline segments and ramp junctions, LOS C is the worst level considered acceptable. In following these LOS standards, all locations above with the exception of the SR-22/Studebaker Road Off-Ramp, currently operate at an unacceptable LOS.

3.15.2.2 Bicycle Facilities

The City of Long Beach is served by Class I, II, and III bicycle facilities, bicycle boulevards, and separated bikeways (Cycle Track or Class IV). Based on a review of the *City of Long Beach Draft Bicycle Master Plan* (City of Long Beach 2016), existing bicycle facilities in the study area include:

- Class II bikeways along 2nd Street west of PCH and 2nd Street/Westminster Avenue east of Studebaker Road;
- Class II bikeways on PCH both north and south of 2nd Street;
- Class II bikeways on Marina Drive south of 2nd Street; and
- Class II bikeways on Studebaker Road between 2nd Street and Loynes Drive.

Additionally, there is a Class I bikeway (San Gabriel River Trail) that runs along the San Gabriel River. It extends 28 miles from the Pacific Ocean to Whittier Narrows and connects to the Rio Hondo River Trail, Bellflower Bike Trail, and Coyote Creek Bikeway, forming the backbone of a large regional trail system.

3.15.2.3 Pedestrian Facilities

Existing pedestrian facilities in the study area are extensive; all major roadways have sidewalks on both sides of the street. Shopkeeper Road, which provides access to the east side of the Marketplace Long Beach (shopping center), only has a sidewalk on the west side of the street. All major intersections have crosswalks and appropriate pedestrian crossing controls, allowing for connectivity to local activity centers. At the intersection of 2nd Street/Westminster Avenue and Studebaker Road, all pedestrians crossing 2nd Street / Westminster Avenue must use the crosswalk on the east side of the intersection, as there is no crosswalk or

pedestrian crossing control on the west side of the intersection. Similarly, pedestrians crossing PCH from Studebaker Road must use the crosswalk at the north side of the intersection, as there is no crosswalk or pedestrian crossing control on the south side of the intersection.

3.15.2.4 Public Transit

The study area is serviced by three Long Beach Transit bus routes and one Orange County Transportation Authority bus route. The routes, which operate at various headways 7 days a week, and their nearest bus stop to the project site are as follows:

- Long Beach Transit:
 - **Route 121 (Ocean/Belmont Shore/CSULB/PCH at Ximeno Avenue)**—Bus stop located at intersection of 2nd Street/Westminster Avenue and PCH.
 - **Route 131 (Redondo Avenue to Seal Beach)**—Bus stops located along PCH at Studebaker Road and at the Marketplace Long Beach.
 - **Route 171 (PCH to Seal Beach)**—Bus stops located along PCH at Studebaker Road, at the Marketplace Long Beach, and at 2nd Street/Westminster Avenue.
- Orange County Transit Authority:
 - **Route 1 (Long Beach to San Clemente)**—Bus stops located along PCH at Studebaker Road (northbound) and at 2nd Street/Westminster Avenue (southbound).

3.15.3 Regulatory Framework

This section summarizes state and local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project.

3.15.3.1 Federal

Federal Aviation Administration

All airports and navigable airspace not administered by the United States Department of Defense are under the jurisdiction of the Federal Aviation Administration (FAA). Federal Regulation Title 14 Section 77 establishes the standards and required notification for objects affecting navigable airspace. In general, projects involving features exceeding 200 feet in height above ground level or extending at a ratio greater than 50:1 (horizontal to vertical) from a public or military airport runway less than 3,200 feet long out to a horizontal distance of 20,000 feet are considered potential obstructions, and require notification to the FAA. In addition, the FAA requires a congested area plan (CAP) for operating a helicopter (with external load) near residential dwellings.

Transportation of Hazardous Materials

The U.S. Department of Transportation (USDOT) is the administering agency for the following regulations:

- Title 49 Code of Federal Regulations (CFR) Sections 171 through 177 (49 CFR 171–177), which govern the transportation of hazardous materials, the types of materials defined as hazardous, and the marking of transportation vehicles.
- Title 49 CFR 350–399 and Appendices A through G, Federal Motor Carrier Safety Regulations, which address safety considerations for the transport of goods, materials, and substances over public highways.

- Title 49 CFR 397.9, the Hazardous Materials Transportation Act of 1974, which directs USDOT to establish criteria and regulations for the safe transportation of hazardous materials.

3.15.3.2 State

The California Department of Transportation (Caltrans) is responsible for planning and maintaining state routes, highways, and freeways. Caltrans maintains jurisdictional authority of PCH, I-405, and SR-22 in the study area. Caltrans has developed Transportation Impact Analysis Guidelines for use when assessing state facilities.

Assembly Bill 1358: The California Complete Streets Act

The California Complete Streets Act (Assembly Bill [AB] 1358) of 2008 was also signed into law on September 30, 2008. Beginning January 1, 2011, AB 1358 requires circulation elements to address the transportation system from a multimodal perspective. The bill states that streets, roads, and highways must “meet the needs of all users in a manner suitable to the rural, suburban, or urban context of the general plan.” Essentially, this bill requires a circulation element to plan for all modes of transportation where appropriate, including walking, biking, car travel, and transit.

The Complete Streets Act also requires circulation elements to consider the multiple users of the transportation system, including children, adults, seniors, and the disabled. AB 1358 tasks the Governor’s Office of Planning and Research (OPR) to release guidelines for compliance, which are so far undeveloped.

Sustainable Communities and Climate Protection Act

The Sustainable Communities and Climate Protection Act of 2008 or Senate Bill (SB) 375 was signed into law on September 30, 2008. The SB 375 regulation provides incentives for cities and developers to bring housing and jobs closer together and to improve public transit. The goal behind SB 375 is to reduce automobile commuting trips and length of automobile trips, thus helping to meet the statewide targets for reducing greenhouse gas emissions set by AB 32.

SB 375 requires each metropolitan planning organization to add a broader vision for growth, called a “Sustainable Communities Strategy” (SCS), to its transportation plan. The SCS must lay out a plan to meet the region’s transportation, housing, economic, and environmental needs in a way that enables the area to lower greenhouse gas emissions. The SCS should integrate transportation, land use, and housing policies to plan for achievement of the emissions target for their region. On April 7, 2016, the Southern California Association of Governments’ (SCAG) Regional Council adopted the 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS).

Senate Bill 743

The legislature found that with the adoption of the SB 375, the state had signaled its commitment to encourage land use and transportation planning decisions and investments that reduce vehicle miles traveled (VMT) and thereby contribute to the reduction of greenhouse gas emissions (GHG), as required by the California Global Warming Solutions Act of 2006 (AB 32). Additionally, AB 1358, described above, requires local governments to plan for a balanced, multimodal transportation network that meets the needs of all users.

On September 27, 2013, SB 743 was signed into law. SB 743 started a process that could fundamentally change transportation impact analysis as part of CEQA compliance. These changes will include the elimination of auto delay, LOS, and other similar measures of vehicular capacity or traffic congestion as a

basis for determining significant impacts in many parts of California (if not statewide). As part of the new *CEQA Guidelines*, the new criteria “shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses” (Public Resources Code [PRC] Section 21099(b)(1)). OPR is in the process of developing alternative metrics and thresholds based on VMT. OPR has published the final draft of changes to the *CEQA Guidelines*, which will require certification and adoption by the California Secretary for Natural Resources before they go into effect. This may take several months depending on the input received during the review process. Once the guidelines are prepared and certified, “automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment” (PRC Section 21099(b)(2)). Because OPR has not yet amended the *CEQA Guidelines* to implement this change, automobile delay is still considered a significant impact, and the City of Long Beach will continue to use the established LOS criteria.

3.15.3.3 Regional and Local

SCAG’s 2016 RTP/SCS

Every 4 years, SCAG updates the RTP for the six-county region that includes Los Angeles, San Bernardino, Riverside, Orange, Ventura, and Imperial counties. Current and recent transportation plan goals generally focus on balanced transportation and land use planning that:

- Maximize mobility and accessibility for all people and goods in the region.
- Ensure travel safety and reliability for all people and goods in the region.
- Preserve and ensure a sustainable regional transportation system.
- Maximize the productivity of our transportation system.
- Protect the environment and health of residents by improving air quality and encouraging active transportation (e.g., bicycling and walking).

Though many projects are scheduled through the RTP throughout Long Beach, none of them is in the project area.

Los Angeles County Metropolitan Transportation Authority

Los Angeles County Metropolitan Transportation Authority (Metro) serves as transportation planner and coordinator, designer, builder, and operator for Los Angeles County. Metro funds improvements to all modes of transportation through several programs, including the Transportation Improvement Program, the Congestion Management Program, and Bicycle Transportation Strategic Plan. Metro operates rail and bus transit services throughout Los Angeles County, including the City of Long Beach.

Los Angeles County Congestion Management Program

In 2010, the County of Los Angeles updated its CMP to assess the overall performance of the highway system, which provides quantitative input for funding improvements and programs. This is the eighth CMP adopted for Los Angeles County since the requirement became effective with the passage of Proposition 111 in 1990. The CMP covers approximately 500 miles of freeway facilities, which are divided into 81 key segment pairs (eastbound/westbound or northbound/ southbound). The traffic operations at each segment are evaluated every 2 years by Caltrans and published in the CMP. The CMP arterial streets in Long Beach consist of PCH, 7th

Street, Alamitos Avenue, and Lakewood Boulevard. The CMP freeway segments in Long Beach include I-710, I-605, I-405, and SR-91.

The county's traffic congestion management policy is intended to determine appropriate transportation planning actions in response to a particular LOS; however, a particular LOS at an intersection does not necessarily preclude additional development at or around that intersection. Instead, the local agency responds with a three-tiered approach that emphasizes:

1. Managing speeds and motorist behavior at intersections with high LOS.
2. Reviewing traffic growth patterns when congestion begins to appear and planning for appropriate ways to address additional congestion.
3. Taking steps to manage congestion, including moving from intersection-specific metrics to LOS for an entire corridor.

City of Long Beach

The City of Long Beach Mobility Element outlines the vision, goals, policies, and implementation measures required to improve and enhance the City's local and regional transportation system. The vision for the future of City's transportation system includes:

- Flexible, convenient, affordable, and energy-efficient transportation options.
- Mobility practices that maintain and enhance safety while strengthening community, sense of place, urban design, and the natural environment.
- The most efficient and convenient mode of travel for any particular trip.
- Innovation and appropriate transportation technology.
- Professional standards in transportation planning and traffic engineering, with safety as the highest priority.
- Land use planning integrated with a multimodal mobility network, providing people with options to choose various forms of convenient transportation.
- Mobility systems that are planned, maintained, and operated consistent with the principles of complete streets, active living, and sustainable community design.

The mobility element proposes several "big moves" to realize the City's vision, including those detailed here:

- **Balance the needs of all mobility users.** Goals, policies, and implementation measures would be designed to create a system of complete streets that support and encourage all mobility users, regardless of age or ability, including pedestrians, bicyclists, transit riders, motorists, and truckers. Some streets would be redesigned to create corridors that prioritize walking, bicycling, and/or transit services (that is, "street character change"). On street segments where automobile travel is not emphasized or where intersection or roadway widening is not practical, the City may accept a level of service below its standard of LOS "D" in exchange for pedestrian, bicycle, and/or transit improvements.
- **Implement a context-sensitive and multimodal approach to street planning and design.** In the past, the City of Long Beach has classified streets by their function rather than their context. A context-sensitive street classification system categorizes a jurisdiction's streets by both function and community context, taking into account all road users and the character of adjacent properties and buildings. This approach will help create a more balanced mobility system; give people more transportation choices; and help integrate mobility, land use, and urban design for better "placemaking."

- **Increase the efficiency of the roadway and highway system through innovative facilities and programs.** Long Beach is a nearly built-out city with a developed mobility network. As the population grows, there will be limited opportunities to acquire additional right-of-way for vehicular traffic. Instead, future improvements will be aimed at making the mobility network more efficient by encouraging other modes of transportation and by using innovation and technology to improve the flow of traffic along corridors.
- **Provide multimodal connectivity to create a seamless mobility system.** The City’s goal is a seamless link between all modes of transportation so that trips are not disrupted by system delays, burdensome ticketing procedures, unreasonable waiting times, and extended loading and unloading periods.
- **Support active transportation and active living.** Active transportation uses the energy of the human body to get from place to place—such as walking, bicycling, roller skating, and skateboarding. By making active transportation a viable option for everyday travel, the City of Long Beach can help alleviate roadway congestion, reduce greenhouse gas emissions, improve physical health and wellness, and reduce obesity rates.

In addition, the City’s municipal code includes regulations related to pedestrian, bicycle, and vehicular mobility:

- Chapter 10.08 (Traffic Control Devices);
- Chapter 10.58 (Pedestrians);
- Chapter 10.48 (Bicycles); and
- Chapter 18.17 (Transportation Improvement Fee).

City of Long Beach Local Coastal Program

The City of Long Beach Local Coastal Program includes the following measures and restrictions related to traffic and transportation regarding oil drilling operations in the City’s coastal zone that apply to the proposed project:

- A. In the interest of preserving the character, of the residential area and property values, as well as the requirement for consolidation of oil activities in the coastal zone, access to and egress from all oil operations in the coastal zone be limited to the use of streets specified in permits for operations. Access to oil operations need not impact residential streets. In the SEADIP area, Bellflower Boulevard, Pacific Coast Highway, Loynes westerly extension, and Eliot Street should carry oil trucks involved in oil operations.
- B. All driveway access roads shall be of sufficient length to allow all trucks and machinery to enter, depart, and park without impacting public streets.
- C. Gates of access roads shall be kept closed and be placed a sufficient distance from the public street so that all entering and departing vehicles and machinery can safely stop to secure such gate without extending onto the shoulder of any public street.
- D. Any violation of these mitigating conditions shall carry substantial fines and continued violations shall result in revocation of operating permits.

3.15.4 Analysis of Impacts

This section describes the impact analysis relating to transportation and traffic for the proposed project. It describes the methods and applicable thresholds used to determine the impacts of the proposed project.

3.15.4.1 Significance Criteria

CEQA Guidelines Appendix G provides that a project would have a significant transportation and traffic impact if it would:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;
- Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- Result in inadequate emergency access; or
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

As part of the Initial Study (see Appendix A3), it was determined that the proposed project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities.

Accordingly, this issue is not further analyzed in the EIR.

3.15.4.2 Methodology

The evaluation of transportation and traffic impacts is based on the development assumptions for the proposed project, as described in Chapter 2, *Project Description*, and a review of four technical memoranda prepared by Pirzadeh Associates, Inc.; these memoranda are included as Appendix I of this document. The number of construction trips associated with the proposed project was quantified, taking into account the estimated construction schedule and the number of truck trips and worker trips assumed to occur in each construction phase. Per the City's direction, a traffic impact analysis evaluating the potential operational impacts of the proposed project was not conducted due to the minimal number of new vehicle trips that would be generated during the AM and PM peak hours. As such, the impact evaluation for operational activities is predominantly qualitative in nature.

Based upon the City's traffic study guidelines, the City has established a screening criterion of 50 or more net new peak-hour trips at which point projects that exceed that criterion are required to be assessed based on the City's guidelines. Projects that generate less than that criterion are determined to have a less-than-significant impact.

As stated in Chapter 1, *Introduction*, on April 21, 2016, the City sent an NOP to responsible, trustee, and federal agencies, as well as to organizations and individuals potentially interested in the proposed project to identify the relevant environmental issues that should be addressed in the EIR. Comments received that are relevant to transportation and circulation include consideration of how the construction and operation of the proposed project may affect peak-hour traffic conditions on nearby roadways, intersections, and freeway off-ramps, as well as detailed information on how construction vehicles would access the project site and how

construction activities would be managed to minimize interruptions to nearby transportation facilities. These issues are addressed in this section.

3.15.4.3 Impact Evaluation

Impact TRA-1: The project would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit. (Less than Significant)

Construction

Construction of the proposed project has the potential to affect the transportation system through the hauling of excavated materials and debris, the transport of construction equipment, the delivery of construction materials, and travel by construction workers to and from the project site. A detailed description of project phasing and specific construction activities at each of the individual sites is provided in Chapter 2.5.1, Project Phasing. Construction traffic generated by the proposed project is provided in Appendix I2 of this document and is summarized below.

The project components that would add temporary construction-related traffic to nearby roadways would occur over the course of the construction period at the Synergy Oil Field, City Property, Pumpkin Patch, and Los Cerritos Wetlands Authority (LCWA) sites. Initial construction activity may entail the removal of trash from, and the import of fill material (dirt) to, the Pumpkin Patch site. This export/import activity would occur before any grading or construction operations begin. There would be a period of about 10 days when the export and import operations overlap, when there would be approximately 594 daily trips (566 by haul trucks and 28 by construction workers). Although subsequent construction activities would be phased over the course of the overall construction period, the analysis of potential impacts assumed that they would all occur simultaneously, in order to evaluate a worst-case scenario with the maximum number of workers and trucks accessing the project site. This conservative approach yielded a total of approximately 556 daily trips that could be generated by the up to 160 workers (320 daily trips) and up to 118 trucks (236 daily trips) accessing the project site. Therefore, the maximum trip generation associated with construction activity would be approximately 594 daily trips for about 10 days. It should be noted that due to typical construction start and finish times, these trips would occur outside the heavily-congested peak traffic periods and would, therefore, not contribute to delay currently experienced by vehicles traveling through the study area. Additionally, trucks accessing the project site would use City-designated truck routes (e.g., PCH, Bellflower Boulevard, 7th Street) to the extent feasible (LBDPW 2006); the Applicant has agreed to work with City staff to avoid sensitive areas and/or areas of concern to avoid any impacts to the highway network and adjacent properties.

In summary, because the temporary construction trips generated by the proposed project would occur outside of the peak traffic hours, and the Applicant would avoid sensitive areas and/or areas of concern with respect to nearby roadway operations, construction of the proposed project would result in a less-than-significant impact to operating conditions for the existing area roadway system.

While construction impacts would be less than significant, the City is proposing the following standard Condition of Approval for a CTMP for the project. The CTMP shall be submitted to the City's Development Services Department for review, and issuance of demolition, grading, or building permits is subject to approval

of the CTMP. The City is proposing the following Conditions of Approval as part of its Conditional Use Permit procedures:

Condition of Approval TRA-1: Construction Traffic Management Plan

The following conditions are recommended:

- A flagman shall be placed at the truck entry and exit from the project site.
- To the extent feasible, truck trips (i.e., hauling of export and import materials, and deliveries and pickups of construction materials) shall be scheduled during non-peak travel periods and coordinated to reduce the potential of trucks waiting to load or unload for protracted periods of time.
- Access shall remain unobstructed for land uses in proximity to the project site during project construction.
- Minimize lane and sidewalk closures to the extent feasible. In the event of a temporary lane or sidewalk closure, a worksite traffic control plan, approved by the City of Long Beach, shall be implemented to route traffic, pedestrians, or bicyclists around any such lane or sidewalk closures.
- A CTMP shall be developed by the contractor and approved by the City of Long Beach. In addition to the measures identified above, the CTMP shall include the following:
 - Schedule vehicle movements to ensure that there are no vehicles waiting off site and impeding public traffic flow on the surrounding streets.
 - Establish requirements for the loading, unloading, and storage of materials on the project site.
 - Coordinate with the City and emergency service providers to ensure adequate access is maintained to the project site and neighboring businesses.
 - Establish hotline operating 24 hours per day, 7 days per week that concerned citizens can contact to lodge construction traffic-related concerns.
 - Maintain a daily log of which trucks and equipment are used on site.
 - Pre- and post-construction surveys of site-adjacent City roadways and properties in order to identify and repair any damage caused by construction activities.

Operation

Operational trip generation characteristics of the proposed project are included in Appendix II of this document and are provided as worst-case estimates. Operation and maintenance of the proposed oil production facilities, would generate a total of 61 daily trips with approximately five trips during the AM and PM peak hours. The other trip-generating component of the proposed project is the visitors center, which would provide access to the restored wetlands at the Synergy Oil Field site, and would provide about 50 parking spaces for employees and visitors. There is no quantitative information regarding the trips associated with the visitors center;⁷⁷ however, the on-site parking supply would not be expected to accommodate a high number of daily vehicle trips, and based on knowledge of operations at similar, nearby visitors centers such as the San Joaquin Marsh in Irvine, the Back Bay in Newport Beach, and the Bolsa Chica State Park in Huntington Beach, it is assumed that the majority of these trips would not occur during the peak traffic hours.

⁷⁷ It is noted that the Noise Analysis report (June 21, 2017, by Greve & Associates, LLC) makes reference to up to 500 vehicle trips per day for the proposed visitors center; however, that estimate was used as an outer-bound number to judge increases in off-site traffic noise and potential impacts, and it was characterized as a very high (worst-case) estimate.

Additionally, the drilling of wells would occur at the Pumpkin Patch and LCWA sites, which could be considered as construction, but because drilling operations would occur throughout the life of the project (i.e., initially the drilling of new wells, and eventually the reworking of existing wells), drilling activities were considered under operational impacts. During the drilling process there would be approximately 40 to 60 total personnel per day (20 to 30 drilling personnel per site per day), and would generate between 80 and 120 total daily vehicle trips. Also, there would be ancillary truck traffic to support each well. It is expected that there would be approximately 26 to 36 total trucks per day (13 to 18 trucks per site per day), and would generate between 52 and 72 total daily truck trips. Combined personnel and truck trips related to drilling the wells would be 132 to 192 trips per day. Because oil drilling operations occur throughout the day, it is assumed that the majority of these trips would not occur during the peak traffic hours. Once the wells have been drilled, they would require periodic maintenance and workover operations. Vehicle trips associated with these activities are much less than those required during the active drilling process, particularly because workover operations are restricted to 50 hours per week (as opposed to drilling, which is conducted 24 hours a day, 7 days a week). Consistent with well drilling activities, the majority of these trips would be outside of the peak traffic periods.

Based on the above, the proposed project would not generate 50 or more net new peak-hour trips, which is the screening criterion for which impacts are required to be assessed based on the City's guidelines. Therefore, the operation of the proposed project would result in a less-than-significant impact to operating conditions for the existing area roadway system.

Mitigation Measures: None required.

Significance Determination: Less than Significant.

Impact TRA-2: The project would not conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways. (Less than Significant)

Construction

As described above in Section 3.15.3, Regulatory Framework, Metro is responsible for implementing the CMP for the County of Los Angeles. The CMP for Los Angeles County requires an analysis of any project that could add 50 or more trips to any CMP intersection or more than 150 trips to a CMP mainline freeway location in either direction during either the AM or PM weekday peak hours. The only CMP facility located in the vicinity of the proposed project is the intersection of PCH and 2nd Street/Westminster Avenue, which currently operates at LOS E during both the AM and PM peak hours. As stated above in the discussion of Impact TRA-1, a maximum of approximately 566 average daily trips could be generated by workers and trucks accessing the project site during the peak of construction activity; however, because these trips would occur outside of the AM and PM peak traffic hours, construction of the proposed project would result in a less-than-significant impact to nearby CMP facilities. The implementation of Condition of Approval TRA-1, described above under impact discussion TRA-1, would further reduce this less-than-significant construction impact.

Operation

As stated in the discussion Construction impacts above, the only CMP facility located in the vicinity of the proposed project is the intersection of PCH and 2nd Street/Westminster Avenue, which currently operates at LOS E during both the AM and PM peak hours. As stated above in the discussion of Impact TRA-1, implementation of the proposed project would not generate more than 50 trips to a CMP roadway intersection or more than 150 trips to a CMP freeway segment. Therefore, operation of the proposed project would result in a less-than-significant impact to nearby CMP facilities.

Mitigation Measures: None required.

Significance Determination: Less than Significant.

Impact TRA-3: The project would not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks. (No Impact)

The proposed project is located within the airport influence area of the Joint Forces Training Base (JFTB) Los Alamitos (OCALUC 2016); however, as established in the *Southeast Area Specific Plan Draft EIR* (PlaceWorks 2016), the project site is not within safety hazard zones or noise contours of the JFTB. Further, the proposed project would not include any height elements that would conflict with height restrictions identified in the Airport Environs Land Use Plan (OCALUC 2016). Therefore, implementation of the proposed project would not result in any impacts to air traffic patterns.

Mitigation Measures: None required.

Significance Determination: No Impact.

Impact TRA-4: The project would not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). (Less than Significant)

Construction

Trucks accessing the project site would use City-designated truck routes (e.g., PCH, Bellflower Boulevard, 7th Street) to the extent feasible. Additionally, the Applicant has agreed to avoid sensitive areas and/or areas of concern to avoid any impacts to the highway network and adjacent properties. Therefore, construction of the proposed project would result in a less-than-significant impact with regard to hazards and incompatible uses. The implementation of Condition of Approval TRA-1, described above under impact discussion TRA-1, would further reduce this less-than-significant construction impact.

Operation

As described in Chapter 2, *Project Description*, the proposed project would include the following new driveways:

- **Pumpkin Patch Site:** a new 24-foot-wide access driveway off of Studebaker Road with access to the two-story office building; two new one-way driveways (33.5 feet wide for ingress, 31 feet wide for egress) off Studebaker Road with access to the warehouse and oil production facilities; and
- **LCWA Site:** replacement of the existing driveway with a new 30-foot-wide access driveway off Studebaker Road; a new 30-foot-wide access driveway (right in/right out) off Westminster Avenue.

On-site traffic signing and striping would be implemented in conjunction with detailed construction plans for the project. Sight distance at the project accesses would comply with standard California Department of Transportation and City of Long Beach sight distance standards. The final grading, landscaping, and street improvement plans would demonstrate that sight distance standards are met. Such plans would be reviewed by the City and approved as consistent with this measure prior to issue of grading permits.

In addition to the driveways described above, on-site vehicular and pedestrian circulation would be accommodated by the proposed project, as shown in Chapter 2, *Project Description*. The proposed project would also upgrade the streets fronting all four properties of the project site with pedestrian and bikeway improvements.

All of the transportation facilities described above would be designed and constructed to comply with all relevant City standards to ensure that facilities operate safely and efficiently. The City and the Long Beach Fire Department (LBFD) have adopted roadway standards that preclude the construction of any unsafe design features. Compliance with these established design standards would ensure that operation of the proposed project would result in a less-than-significant impact with regard to hazards and incompatible uses.

Mitigation Measures: None required.

Significance Determination: Less than Significant.

Impact TRA-5: The project would not result in inadequate emergency access. (Less than Significant)

Construction

Construction activities for the proposed project would generate truck trips and employee trips, which could temporarily increase the daily traffic volumes on local roadways and intersections; however, as described above in the discussion of Impact TRA-1, construction-related truck and employee trips would occur outside the heavily-congested peak traffic hours and would, therefore, not contribute to delay currently experienced by emergency vehicles traveling on PCH or on 2nd Street/Westminster Avenue.

Construction staging would occur primarily on site and would not be expected to disrupt access to nearby uses. No road closures are anticipated. While roadway closures are not anticipated, any work within the existing right of way would have to comply with Caltrans permitting requirements. This includes a traffic control plan that adheres to the standards set forth in the California Manual on Uniform Traffic Control Devices (MUTCD) (Caltrans 2017). As part of these requirements, there are provisions for coordination with local emergency services, training for flagmen for emergency vehicles traveling through the work zone, temporary lane separators that have sloping sides to facilitate crossover by emergency vehicles, and vehicle storage and staging areas for emergency vehicles. MUTCD requirements also provide for construction work during off-peak hours and flaggers. Construction impacts are, therefore, considered less than significant. The implementation of Condition of Approval TRA-1, described above under impact discussion TRA-1, would further reduce this less-than-significant construction impact.

Operation

The proposed project would be designed and constructed in accordance with all applicable LBFD design standards for emergency access (e.g., minimum lane width and turning radius). Compliance with these codes and

standards is ensured through the City's and LBFD's development review and building permit process. Therefore, no significant emergency access impacts would occur with the project. Impacts would be less than significant.

Mitigation Measures: None required.

Significance Determination: Less than Significant.

3.15.4.4 Cumulative Impacts

Cumulative traffic impacts are generated when the proposed project, combined with traffic generated by complete buildout of the City's General Plan, contributes to unacceptable operating conditions on study area roadways. A significant cumulative impact would be identified when a facility is projected to operate below the LOS standards due to cumulative future traffic in combination with project-related traffic increases. As discussed above for Impact TRA-1, the proposed project would not generate 50 or more net new peak-hour trips, which is the screening criterion for which impacts are required to be assessed based on the City's guidelines. As such, the operation of the proposed project would result not result in a cumulatively considerable impact to the performance of nearby roadways.

3.15.5 References

- California Department of Transportation (Caltrans). 2017. *California Manual on Uniform Traffic Control Devices*. Revision 2. Available at <http://www.dot.ca.gov/trafficops/camutcd/>.
- City of Long Beach. 2016. *City of Long Beach Draft Bicycle Master Plan: A Supplement to the Mobility Element*, December. Available at http://www.lbds.info/bicycle_master_plan.asp
- Long Beach Department of Public Works—GIS (LBDPW). 2006. *Truck Routes*, October. Available at <http://www.longbeach.gov/pw/media-library/documents/resources/general/maps-and-gis/truck-route-map/>.
- Orange County Airport Land Use Commission (OCALUC). 2016. *Airport Environs Land Use Plan for Joint Forces Training Base, Los Alamitos*, Amended 2016.
- Pirzadeh Associates, Inc. 2015. *Lyon Communities, Wetlands Restoration Project Synergy Oil Field/Pumpkin Patch*, April.
- . 2016. *Pumpkin Patch, Construction Phase Traffic Generation*, June.
- . 2017a. *Pumpkin Patch, Construction Trip Generation Summary*, June.
- . 2017b. *Pumpkin Patch Trash Removal/Export Trip Generation*, March.
- PlaceWorks. 2016. *Southeast Area Specific Plan Draft Environmental Impact Report*. State Clearinghouse No. 2015101075, July.

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