



626 Wilshire Boulevard
Suite 1100
Los Angeles, CA 90017
213.599.4300 **phone**
213.599.4301 **fax**

memorandum

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to City of Long Beach, Planning Department

from Kimberly Comacho, ESA

subject Land Use Equivalency Program for the Downtown Plan Program Environmental Impact Report

Introduction

This Land Use Equivalency Program (LUEP) has been prepared to provide development flexibility so that the project could respond to market conditions over the build-out duration of the development. Land uses to be developed would be allowed to be reallocated among the permitted land uses so long as the limitations of the LUEP are satisfied and do not exceed the analyzed upper levels of environmental impacts that are identified in the Program Environmental Impact Report (Certified PEIR) or exceed the maximum Floor Area Ratio (FAR)¹. Increases in permitted land uses can be reallocated for corresponding decreases of other permitted land uses under the proposed LUEP.

A new residential project, when considered with projects that have been completed, under construction, or approved, would exceed the 5,000 residential units contemplated in the Certified PEIR. However, the Certified PEIR also evaluated impacts from the construction and operation of 480,000 square feet of retail/commercial space, 1,500,000 square feet of office space, and 800 hotel rooms. To date, approximately 203,710 square feet of retail/commercial space and 490,000 square feet of office space, and 223 hotel rooms have been completed, is under construction, or approved. Given that there is a demand for new housing units in the Downtown Plan Area and decreased demand for new commercial,² office, and hotel uses, a Land Use Equivalency Program analysis has been prepared as a part of this Addendum to characterize the extent of additional residential development that could occur within the Downtown Plan Area.

To determine the reallocation rates, a Downtown Plan Equivalency Calculator (DPEC),³ included as Attachment A, has been developed to allow for the City to easily track the approved projects and to reduce available commercial, office, and/or hotel space to accommodate increased demand for residential housing units. The DPEC has developed a conservative exchange rate to allow for the reallocation of commercial, office, and/or hotel space as residential units such that applicable regulations are satisfied and no additional significant environmental impacts or substantially greater impacts would occur than previously identified in the Certified

¹ Maximum Floor Area Ratios (FARs) in the three Downtown Plan Area height districts would be 2.25 FAR in the 38-foot height area, 4.0 FAR in the 80-foot height area, and 5.0 FAR in the 150-foot height area.

² Note that commercial land use includes restaurant and retail uses.

³ Environmental Science Associates (ESA). *Downtown Plan Equivalency Calculator Memorandum*. April 2021.

PEIR. The DPEC provides for the initial reallocation of non-residential land use to account for an additional 3,260 housing units to be developed within the City.

Existing Build-Out Conditions

Figure 1 illustrates the projects that have been approved to-date in the Downtown Plan area since 2012 when the PEIR was certified. These projects fall into the following categories: completed, under construction, and approved. A detailed list of approved projects, and the year they were approved, is provided in Table 1. This list includes the Traffic Study Zone (TSZ) where each project is located, which is an artificial boundary used in the traffic analysis conducted for the Certified PEIR. While this information can be useful in characterizing intersection-level traffic operations, it is not a part of the overall Downtown Plan area equivalency analysis. Table 2 shows a comparison of land uses between the Certified PEIR and those approved to date organized by traffic study zones.

TABLE 1
APPROVED PROJECTS IN THE DOWNTOWN COMMUNITY PLAN ^a

Name	Location	Land Use	Traffic Study Zone
2020/2021			
636 Locust Avenue Addendum	636 Locust Avenue	108 DU 1,19 Rest/Ret	11
525 E. Broadway Addendum	525 E. Broadway	48 DU 5.09 Rest/Ret	18
Pine	711 Pine Avenue	24 DU	10
1811-11	1028 10 th Street	5 DU	20
1705-19	538 Golden Avenue	3 DU	2
1803-23	949 Pacific Avenue	6 DU	5
1610-04	825 E. 7 th Street	27 DU	20
2019			
Anastasi Project	507 Pacific Ave.	157 DU Res 9K Ret/Rest	7
Mixed-Use Project	600 W. Broadway	756 DU Res 3K Ret/Rest	4
Third & Pacific Project	131 W. 3 rd St.	271 DU Res 14.5K Ret/Rest	12
2018			
Harvey Milk Promenade Park	185 E. 3 rd St.	n/a	12
Table 301 (closed)	301 The Promenade N.	3.9K Rest	12
Huxton	227 Elm Ave.	40 DU Res	18
Long Beach Civic Center Project			
-City Hall Building	401 W. Ocean Blvd.	143K Office ^b	9
-Port Administration Building	415 W. Ocean Blvd.	134K Office ^b	9
-Main Library Building	200 W. Broadway	-44.3K Office ^b	9
-Mid-Block Mixed-Use Building	411 W. Ocean Blvd.	580 DU Res 40K Ret/Rest	9
Hotel Project	107 Long Beach Blvd.	34 rooms	14
The Alamitos	101 Alamitos Ave.	136 DU Res 2.6K Ret/Rest	24
The Beacon	1201-1235 Long Beach Blvd.	160 DU Res 6K Ret/Rest	N/A ^c
The Pacific	230 W. 3 rd St.	163 DU Res	8
The Place	495 The Promenade N.	20 DU Res 5.2K Ret/Rest	12
AMLI Park Broadway	245 W. Broadway	222 DU Res 8.5K Ret/Rest	8

The Linden	434 E. 4 th St.	49 DU Res 2.5K Ret/Rest	17
Shoreline Gateway	777 E. Ocean Blvd.	315 DU Res 6.7K Ret/Rest	24
Inkwell	127-135 E. Broadway	189 DU Res 10K Ret/Rest	13
Pacific-Pine	635 Pine Ave./636 Pacific Ave.	271 DU Res 1.4K Ret/Rest	11
Locust Long Beach Apartments	1112 Locust Ave.	97 DU Res	N/A ^c
Broadway Block	200-256 Long Beach Blvd.	432 DU Res 33K Ret/Rest	18
Mixed-Use Project	1101-1157 Long Beach Blvd.	120 DU Res 6K Ret/Rest	N/A ^c
Aster	125 Long Beach Blvd.	218 DU Res 7.3K Ret/Rest	14
2017			
210 Third Lofts	210 E. 3 rd St.	Façade Remodel Only	13
Mixed-Use Project	135 Linden Ave.	82 DU Res 4.1K Ret/Rest	19
Broadway & Magnolia	500 W. Broadway	142 DU Res 3.5K SF Ret/Rest	4
Residential Project	320 Alamitos Ave.	77 DU Res	26
2016			
The Current	707 E. Ocean Blvd.	223 DU Res 6.8K Ret/Rest	24
Edison	100 Long Beach Blvd.	156 DU Res 3.6K Ret/Rest	19
Pacific Court Apartments	250 Pacific Ave.	69 DU Res	13
Newberry Lofts	433 N. Pine Ave.	28 DU Res 6.5K Ret/Rest	12
Studio One Eleven	245 E. 3 rd St.	34.3K Office	12
Mixed-Use Project	137 W. 6 th St.	10 DU Res 1.2K Ret/Rest	11
4 th and Olive Restaurant	743 E. 4 th St.	3.7K Ret/Rest	22
Mixed-Use Project	437 E. 5 th St.	18 DU Res 0.23k Ret/Rest	17
Security Pacific Nat'l Bank Building	110 Pine Ave.	189 DU Res	14
2015			
Psychic Temple/American Hotel	228-230 E. Broadway	7K Office 3.7K Ret/Rest	14
Beachwood Blendery	247 N. Long Beach Blvd.	4.5K Ret/Rest	13
Sixth Street Lofts	431 E. 6 th St.	30 DU Res	16
2014			
Meeker-Baker Building	650 Pine Ave.	127K Office	11
Off Broadway ^d	125 Linden Ave.	82 DU Res 2.7K Ret/Rest	19
2012-2013			
Press-Telegram Building	604 Pine Ave.	89K Office	11

Notes:

DU = dwelling unit; ksf = 1,000 square feet

^a Includes developments that were either completed, under construction, or approved as of October 2020.^b Land Use values provided are net values (proposed land use – existing land use).^c Development is located within Downtown Plan Area, but not within a Traffic Study Zone.^d Development not constructed and replaced by the 2017 Mixed-Use Project located at 135 Linden Avenue. The 2017 Project information supersedes this Project and this project is not counted in the total unit count.

SOURCES: Long Beach Development Services, 2021; ESA, 2021.

TABLE 2
LAND USE COMPARISON

Traffic Study Zone	Certified PEIR				Approved to Date ^a				Remaining			
	Residential (DUs)	Office (KSF)	Commercial (KSF)	Hotel (Rooms)	Residential (DUs)	Office (KSF)	Commercial (KSF)	Hotel (Rooms)	Residential (DUs)	Office (KSF)	Commercial (KSF)	Hotel (Rooms)
2	40	0	0	0	3	0	0	0	37	0	0	0
3	0	150	5	0	0	0	0	0	0	150	5	0
4	500	250	15	60	898	0	7	0	-398	250	9	60
5	80	0	0	0	6	0	0	0	74	0	0	0
6	20	0	0	0	0	0	0	0	20	0	0	0
7	280	0	60	0	157	0	9	0	123	0	51	0
8	320	0	0	0	385	0	9	0	-65	0	-9	0
9	800	460	80	0	580	233	40	0	220	227	40	0
10	320	55	0	0	24	0	0	0	296	55	0	0
11	280	60	0	0	389	216	4	0	-109	-156	-4	0
12	340	110	0	0	319	34	30	0	21	76	-30	0
13	320	175	125	0	258	0	15	0	62	175	111	0
14	180	175	0	0	218	7	11	223	-38	168	-11	-223
15	120	0	0	0	0	0	0	0	120	0	0	0
16	20	0	0	0	30	0	0	0	-10	0	0	0
17	280	0	80	60	67	0	3	0	213	0	77	60
18	20	0	35	120	520	0	38	0	-500	0	-3	120
19	220	0	80	240	238	0	8	0	-18	0	72	240
20	110	65	0	0	32	0	0	0	78	65	0	0
21	20	0	0	0	0	0	0	0	20	0	0	0
22	240	0	0	40	0	0	4	0	240	0	-4	40
23	140	0	0	120	0	0	0	0	140	0	0	120
24	180	0	0	100	674	0	16	0	-494	0	-16	100
25	20	0	0	20	0	0	0	0	20	0	0	20
26	40	0	0	0	77	0	0	0	-37	0	0	0
27	110	0	0	40	0	0	0	0	110	0	0	40
Other ^b	0	0	0	0	377	0	12	0	-377	0	-12	0
Total	5,000	1,500	480	800	5252	490	204	223	-252	1010	276	577
	% approved vs. PEIR				105%	33%	42%	28%				

TABLE 2
LAND USE COMPARISON

Traffic Study Zone	Certified PEIR				Approved to Date ^a				Remaining			
	Residential (DUs)	Office (KSF)	Commercial (KSF)	Hotel (Rooms)	Residential (DUs)	Office (KSF)	Commercial (KSF)	Hotel (Rooms)	Residential (DUs)	Office (KSF)	Commercial (KSF)	Hotel (Rooms)

Notes:

DU = dwelling unit; ksf = 1,000 square feet

^a Includes developments that were either completed, under construction, or approved as of October 2020.

^b Development is located within Downtown Plan Area, but not within a Traffic Study Zone.

SOURCES: Long Beach Downtown Community Plan Program EIR Traffic Impact Analysis, 2010; Long Beach Development Services, 2021; ESA, 2021.

As shown in Table 2, the number of residential units approved to-date (5,252 dwelling units) exceeds the number that were evaluated in the Certified PEIR (5,000 dwelling units). However, the amount of office and commercial square footage and hotel rooms that have been approved to date are substantially lower than what was evaluated in the Certified PEIR. Therefore, some reallocation among land uses can occur – meaning that residential units may continue to be approved by the City under the Downtown Community Plan by reallocating some portion of the large amount of undeveloped office, commercial, and hotel uses within the Downtown Plan area can be subject to approval within the Downtown Plan.

The DPEC provides exchange rates of approximately 0.315 thousand square feet (KSF) of office space, 0.082 KSF of commercial space, and 0.629 hotel rooms per dwelling unit. Based on the impact analysis below and using the DPEC, the 3,260 additionally approved residential units can be accommodated by reducing office by 417,060 square feet, commercial uses by 135,320 square feet, and hotel uses by 177 rooms. Taking into account the already approved development, this leaves a balance of 3,008 dwelling units, 592,95 KSF office space, 140.97 KSF commercial space, and 400 hotel rooms. As described further in Appendix A, *Downtown Plan Equivalency Calculator Memorandum*.

Impact Analyses under the LUEP

Aesthetics

The Certified PEIR determined that the Downtown Plan would result in less-than-significant impact to scenic vista. In addition, the Certified PEIR determined that no state scenic highway exists within the project area or within any area where development within the project area would affect views from a state scenic highway. Thus, the Certified PEIR concluded that the Downtown Plan would result in no impact to scenic resources. Exchanging retail/commercial or hotel square footage with residential square footage, would not alter these conclusions, as the overall project would be within the defined Downtown Plan Area and development parameters considered in the Certified PEIR and would not allow for development at a greater density/intensity than previously considered. Therefore, impacts would remain less than significant under the equivalency scenario.

As described in the Certified PEIR, the visual character of the Downtown Plan Area would be altered through the introduction of additional high-rise structures and full-block complexes at locations within the Downtown Plan area. However, with implementation of the Downtown Plan's Design Guidelines and the City's Design Review process, future development would be compatible with existing development patterns and enhance the visual environment. Thus, the Certified PEIR determined that impacts would be less than significant. Exchanging retail/commercial or hotel square footage with residential square footage would also not change this conclusion, as all proposed project's under the Downtown Plan would be subject to the same Downtown Plan Design Guidelines as well as the City's Design Review process. This would ensure that all projects are compatible with existing development patterns, as well as serve to enhance the visual environment. Therefore, impacts would remain less than significant under the equivalency scenario.

Regarding light and glare, the Certified PEIR states that future development within the Downtown Plan area would introduce new sources of light and glare due to the increased height and scale of future development. Projects would also increase the proportion of glazing on building façades and potential use of reflective materials. Potential sources of lighting include the windows of the residential units and ground-floor commercial/institutional space, and spillover of light onto the street from the illumination of the high-rise structures and podium development during the nighttime hours. Glare sources also include the sun's reflection from metallic or glass surfaces on vehicles parked in surface parking lots and along the roadways. The introduction of such materials would be a potentially significant impact. However, this impact would be reduced through the implementation of Certified PEIR Mitigation Measures AES-2(a), Lighting Plans and Specifications; AES-2(b), Building Material Specifications; AES-2(c), Light Fixture Shielding; and AES-2(d), Window Tinting, identified in the Certified PEIR. Exchanging retail/commercial or hotel square footage with residential square footage would also not change this conclusion as the Certified PEIR Mitigation Measures would still be implemented. Therefore, impacts would remain less than significant with mitigation under the equivalency scenario.

Agriculture and Forestry Resources

The Certified PEIR determined that the Downtown Plan would result in no impact to agricultural and forest resources. Exchanging retail/commercial or hotel square footage with residential square footage would not alter this conclusion as the project footprint would remain the same regardless of the proposed uses. Therefore, impacts would remain less than significant under the equivalency scenario.

Air Quality

As detailed under the LUEP process and as shown in Table 2, above, the number of residential dwelling units approved to-date exceeds the number that were evaluated in the Certified PEIR. However, the floor area of office and commercial uses and the number of hotel rooms that have been approved to date are substantially lower than what was evaluated in the Certified PEIR. From an air quality perspective, air pollutant emissions generated by all the land uses developed in the Downtown Plan area must not be exceeded by new projects under consideration for approval under the Downtown Community Plan.

The DPEC was developed to allow for reallocation of land uses while ensuring the impacts from the reallocation do not exceed the air quality emissions for the Downtown Plan area that were determined in the Certified PEIR. As detailed in Attachment A, the 3,260 additional residential units can be accommodated by the reallocation of other land uses. The 3,260 additional residential units would result in a reduction of available non-residential development of 417,060 square feet of office; 135,320 square feet of commercial; and 177 hotel rooms. This

reallocation will not result in any additional impacts than what was described in the Certified PEIR. Therefore, impacts would remain less than significant under the equivalency scenario.

Biological Resources

The Certified PEIR determined that the Downtown Plan is located within an urbanized area with no sensitive habitat or animal species present. In addition, the Certified PEIR stated that the Downtown Plan would not propose to alter existing parks or open space where native or migratory bird species could be present. Therefore, the Certified PEIR determined that the Downtown Plan would result in no impact to biological resources. Exchanging retail/commercial or hotel square footage with residential square footage would not alter this conclusion as the project footprint would remain the same regardless of the proposed uses. Therefore, impacts would remain less than significant under the equivalency scenario.

Cultural Resources

As discussed in the Certified PEIR, adoption of the Downtown Plan may result in redevelopment of properties considered to be eligible for listing on the National Register or the California Register, or that is determined eligible for listing as a City Landmark. The Historic Survey Report, prepared for the Certified PEIR, identified 58 properties presently listed as local landmarks within the Downtown Plan area. Compliance with Mitigation Measures CR-1(a) through CR-1(b), identified in the Certified PEIR, which encourage the identification and preservation of cultural and historic resources in the Downtown Plan area, would provide an opportunity to avoid or reduce impacts to historic properties. However, it is not feasible to fully implement the Downtown Plan without impacting historic resources. Therefore, the Certified PEIR found that impacts to historic resources would be significant and unavoidable. Exchanging retail/commercial or hotel square footage with residential square footage would not alter this conclusion as the project footprint and location would remain the same regardless of the proposed uses. Therefore, impacts would remain significant and unavoidable under the equivalency scenario.

Furthermore, as discussed in the Certified PEIR, due to the lack of natural ground surfaces in the project area, no surveys would be conducted prior to onset of demolition or other ground-disturbing activities. Nearly all properties (with the exception of parks and natural resource preserves) have been previously disturbed by grading and other prior development activities. Therefore, near-surface archeological or paleontological resources, or human remains, on previously developed properties that may have existed are likely to have been disturbed or removed. Despite this, the potential still exists for development activities to encounter and damage archaeological or paleontological resources, or encounter human remains and, thus, impacts would be potentially significant. However, impacts would be mitigated by complying with Mitigation Measures CR-2(a) through CR-2(c), as well as Mitigation Measure CR-3(a) and Mitigation Measure CR-3(b), as identified in the Certified PEIR. Mitigation Measures CR-2(a) through CR-2(c), as well as Mitigation Measure CR-3(a) and Mitigation Measure CR-3(b), as identified in the Certified PEIR require the project proponent to hire a qualified archaeologist, paleontologist, and Native American representative to monitor the project site during construction and address preservation of any identified resources that may be encountered during project implementation. Exchanging retail/commercial or hotel square footage with residential square footage would not alter this conclusion as the project footprint would remain the same regardless of the proposed uses. Therefore, impacts would remain less than significant with mitigation under the equivalency scenario.

Geology and Soils

As described in the Certified PEIR, seismically induced ground shaking could damage existing and proposed structures in the Downtown Plan area and could expose people or structures to potential substantial risk of loss, injury, or death. The Newport-Inglewood Fault Zone, which is mapped as an Alquist-Priolo Earthquake Fault Zone, is located within approximately 2 miles of the Downtown Plan area. Several other fault zones located within approximately 5 to 30 miles have the potential to impact the Downtown Plan area. The Downtown Plan area is located at an elevation of approximately 30 feet above mean sea level with essentially flat topography. Groundwater associated with sea level has recently been encountered at between 29 and 35 feet below ground level (City of Long Beach, 2010). These conditions create the potential for substantial adverse effects associated with seismic activity. However, this impact would be reduced through the implementation of Certified PEIR Mitigation Measures Geo-1. Furthermore, exchanging retail/commercial or hotel square footage with residential square footage would not alter this conclusion as the project footprint would remain the same regardless of the proposed uses. Therefore, impacts would remain less than significant with mitigation under the equivalency scenario.

The Certified PEIR also determined that the Downtown Plan would result in no impact to the risk of loss, injury, or death involving landslides and less-than-significant impact associated with soil erosion or the loss of topsoil. Exchanging retail/commercial or hotel square footage with residential square footage would not alter this conclusion as the project footprint would remain the same regardless of the proposed uses.

Furthermore, as described in the Certified PEIR, seismic activity could induce ground shaking that could cause structural failure and potential subsidence risk of loss, injury, or death. The Seismic Safety Element maps a portion of the Downtown Plan area, immediately adjacent to the Los Angeles River, as an area of highest potential impact. However, even within the central Downtown Plan area, groundwater may occur at depths of 20 feet and subterranean structures, such as parking garages and basements, could extend to depths at which groundwater is encountered. This creates the potential for a significant impact associated with liquefaction for projects in the Downtown Plan area. However, the Certified PEIR found this impact would be reduced through the implementation of Mitigation Measure Geo-2, which requires the preparation of a comprehensive geotechnical investigation for projects. Similar to the above discussion regarding ground shaking, exchanging retail/commercial or hotel square footage with residential square footage would not alter impacts to liquefaction as the project footprint would remain the same regardless of the proposed uses. Therefore, impacts would remain less than significant with mitigation under the equivalency scenario.

As described in the Certified PEIR, the potential exists within the Downtown Plan area to encounter expansive soils or soils that are unstable or would become unstable as a result of new development. These conditions could result in onsite or offsite lateral spreading or subsidence. Although native soils in the Downtown Plan area typically have low expansion potential, soil characteristics vary widely and clay deposits may occur on project sites. This variation creates the potential for a significant impact associated with expansive or unstable soils in the Downtown Plan area. However, this impact would be reduced through the implementation of Mitigation Measure Geo-3, as identified in the Certified PEIR. Exchanging retail/commercial or hotel square footage with residential square footage would not alter this conclusion as the project footprint would remain the same regardless of the proposed uses. Therefore, impacts would remain less than significant with mitigation under the equivalency scenario.

Lastly, regarding wastewater disposal, the Certified PEIR determined that the Downtown Plan would result in no impact to the risk associated with soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems. Thus, exchanging retail/commercial or hotel square footage with residential square footage would not alter impacts to wastewater disposal as the project footprint would remain the same regardless of the proposed uses. Therefore, impacts would remain less than significant with mitigation under the equivalency scenario.

Greenhouse Gas Emissions

As detailed under the LUEP process and as shown in Table 2, above, the number of residential dwelling units approved to-date exceeds the number that were evaluated in the Certified PEIR. However, the floor area of office and commercial uses and the number of hotel rooms that have been approved to date are substantially lower than what was evaluated in the Certified PEIR. From a greenhouse gas (GHG) emissions perspective, GHG emissions generated by all the land uses developed in the Downtown Plan area must not be exceeded by new projects under consideration for approval under the Downtown Plan.

The DPEC was developed to allow for reallocation of land uses while ensuring the impacts from the reallocation do not exceed the GHG emissions for the Downtown Plan area that were determined in the Certified PEIR. As detailed in Attachment A, the 3,260 additional residential units can be accommodated by the reallocation of other land uses. The 3,260 additional residential units would result in a reduction of available non-residential development of 417,060 square feet of office; 135,320 square feet of commercial; and 177 hotel rooms. This reallocation will not result in any additional impacts than what was described in the Certified PEIR. Therefore, impacts would remain less than significant under the equivalency scenario.

Hazards and Hazardous Materials

As described in the Certified PEIR, the types of commercial and residential land uses envisioned for the Downtown Plan area would not typically contain businesses involved in the transport, use, or disposal of substantial quantities of hazardous materials. Therefore, hazardous material impacts to residences, schools, or other properties would not be expected to result from transport, use, or disposal of hazardous materials from business anticipated to locate within the Downtown Plan area. However, future development projects would involve the demolition of existing structures, some of which, may contain asbestos and lead-based paint materials. Additionally, the historic activity involving industrial uses and storage of hydrocarbons, heavy metals, and acids on properties within the Downtown Plan area may have contaminated onsite soils and/or groundwater quality. Any disturbances to ground surfaces associated with new development may disturb surface or near-surface contaminants, and excavation and transport of such contaminants could result in exposure of workers to public health hazards. This creates the potential for significant impacts associated with the transport, use, disposal, upset or accidental release of hazardous materials. These impacts would be reduced with the implementation of Mitigation Measures Haz-1(a) through Haz-1(c) as identified in the Certified PEIR, which would require that all demolition, renovation, and excavation projects survey and remove any lead or asbestos found in their project sites in accordance with proper abatement procedures in compliance with California, federal OSHA, and SCAQMD requirements. The materials would be hauled to a licensed receiving facility by a certified transportation company and an abatement report submitted to the City, prior to the issuance of construction or demolition permits. Additionally, implementation of Mitigation Measures Haz-3(a) through Haz-3(c), as identified in the Certified PEIR, would require all projects to prepare and implement a contingency plan, coordinate with local regulatory agencies for review and approval of remedial activities, prepare a report, and

conduct soil and groundwater sampling assessments. Exchanging retail/commercial or hotel square footage with residential square footage would not alter this conclusion as construction and operational activities under both equivalency scenarios would require use of similar quantities and types of potentially hazardous materials. Furthermore, regardless of uses, all projects would be required to implement Mitigation Measures Haz-1(a) through Haz-1(c) and Haz-3(a) through Haz-3(c), which would further ensure that impacts would remain less than significant with mitigation.

As discussed in the Certified PEIR, a total of six schools are located within the Downtown Plan area and three others are within 0.25 mile of downtown. Demolition, renovation, or excavation activities within 0.25 mile of these schools could expose children to release of hazardous materials, particularly which walking to and from school and during time spent outside classrooms. As such implementation of Mitigation Measures Haz-1(a) through Haz-1(c), as identified in the Certified PEIR, would require all projects to prepare a lead based paint and asbestos survey and remove (if identified) all asbestos-containing material in compliance with California and federal OSHA and SCAQMD requirements, prior to issuance of a demolition or renovation permit. Additionally, implementation of Mitigation Measures Haz-3(a) through Haz-3(c), as identified in the Certified PEIR, would require all projects to prepare and implement a contingency plan, coordinate with local regulatory agencies for review and approval of remedial activities, prepare a report, and conduct soil and groundwater sampling assessments. As discussed above, exchanging retail/commercial or hotel square footage with residential square footage would not alter this conclusion as construction and operational activities under both equivalency scenarios would require use of similar quantities and types of potentially hazardous materials. Furthermore, regardless of uses, all projects would be required to implement Mitigation Measures Haz-1(a) through Haz-1(c) and Haz-3(a) through Haz-3(c), which would further ensure that impacts would remain less than significant with mitigation.

As described in the Certified PEIR, it is possible that projects in the Downtown Plan area would be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, therefore, would pose a potentially significant impact to risks associated with contaminated sites. However, Mitigation Measures Haz-1(a) through Haz-1(c) and Mitigation Measures Haz-3(a) through Haz-3(c), as identified in the Certified PEIR, would require that all demolition, renovation, and excavation projects perform surveys to determine whether hazardous materials exist on the project sites and would require that the project to remove the materials in accordance with proper abatement procedures. As discussed above, exchanging retail/commercial or hotel square footage with residential square footage would not alter this conclusion as construction and operational activities under both equivalency scenarios would require use of similar quantities and types of potentially hazardous materials. Furthermore, regardless of uses, all projects would be required to implement Mitigation Measures Haz-1(a) through Haz-1(c) and Haz-3(a) through Haz-3(c), which would further ensure that impacts would remain less than significant with mitigation.

The Certified PEIR determined that the Downtown Plan would result in no impact to airport safety, emergency preparedness, or wildland resources. Exchanging retail/commercial or hotel square footage with residential square footage would not alter this conclusion as the project footprint and location would remain the same regardless of the proposed uses. Therefore, impacts would remain less than significant under the equivalency scenario.

Hydrology and Water Quality

As discussed in the Certified PEIR, construction activities associated with future developments could result in discharges of urban pollutants into the City drainage systems. This would include runoff from excavation and

grading; fuel, lubricants, and solvents from construction vehicles and machinery; and trash and other debris. These factors would potentially result in a significant adverse impact on water quality. However, construction impacts would be reduced with the implementation of Mitigation Measure Hydro-1, as identified in the Certified PEIR, which will determine the need for the developer to prepare a Storm Water Pollution Prevention Plan (SWPPP) and require the implementation of BMPs or equivalent measures to reduce erosion and sedimentation and control pollutant runoff to the maximum extent practicable. Thus, with implementation of Mitigation Measure Hydro-1 impacts were determined to be less than significant with mitigation. Exchanging retail/commercial or hotel square footage with residential square footage would not alter this conclusion as the project footprint and location would remain the same regardless of the proposed uses. Therefore, impacts would remain less than significant with mitigation under the equivalency scenario.

As discussed in the Certified PEIR, future development in the Downtown Plan area would generate various urban pollutants such as soil, herbicides, and pesticides that could adversely affect surface water and groundwater quality in the project area watershed. These factors would potentially result in a significant impact on water quality. However, operational impacts would be reduced through the implementation of Mitigation Measure Hydro-2, as identified in the Certified PEIR, which will determine the need for the developer to prepare a Standard Urban Stormwater Mitigation Plan (SUSMP). Thus, with implementation of Mitigation Measure Hydro-2 impacts were determined to be less than significant with mitigation. Exchanging retail/commercial or hotel square footage with residential square footage would not alter this conclusion as construction and operational activities under both equivalency scenarios would require use of similar quantities and types of potential contaminants. Furthermore, regardless of uses, all projects would be required to implement Mitigation Measures Hydro-2, which would further ensure that impacts would remain less than significant with mitigation under the equivalency scenario.

As discussed in the Certified PEIR, future development within the Downtown Plan area would result in an incremental increase in water demand due to the intensification of development in the Downtown Plan area. Although the majority of the City's water supply consists of imported water purchased from the Metropolitan Water District of Southern California, a significant portion is extracted from the local groundwater basin. Exchanging retail/commercial or hotel square footage with residential square footage would not substantially alter this conclusion as construction and operational activities under both equivalency scenarios would require use of similar quantities of water in the context of the overall Downtown Plan area. In addition, all proposed projects would be required to obtain a will serve letter stating that sufficient water supplies are available to serve the proposed project. Therefore, impacts would remain less than significant under the equivalency scenario.

As discussed in the Certified PEIR, future development within the Downtown Plan area would result in an incremental increase in water usage due to the intensification of development in the Downtown Plan area. Although the Downtown Plan area is substantially urbanized, the Downtown Plan would convert areas of relatively low-intensity development into more intensely developed land. This conversion would create a potentially significant impact to existing drainage patterns for projects located within the Downtown Plan area. However, operational impacts would be reduced through the implementation of Mitigation Measure Hydro-3, as identified in the Certified PEIR, which would determine the need for the developer to conduct an analysis of the existing stormwater drainage system and to identify improvements needed to accommodate any projected increased runoff that would result from the proposed project. Exchanging retail/commercial or hotel square footage with residential square footage would not alter this conclusion as the project footprint and location would remain the same regardless of the proposed uses. Furthermore, regardless of uses, all projects would be required

to implement Mitigation Measures Hydro-3, which would further ensure that impacts would remain less than significant with mitigation under the equivalency scenario.

The Certified PEIR determined that the Downtown Plan would result in no impact to risks associated with flooding, or inundation by seiche, tsunami, or mudflow. Exchanging retail/commercial or hotel square footage with residential square footage would not alter this conclusion as the project footprint and location would remain the same regardless of the proposed uses. Therefore, impacts would remain less than significant under the equivalency scenario.

Land Use and Planning

The Certified PEIR determined that the Downtown Plan would result in a less-than-significant impact to community cohesion. Exchanging retail/commercial or hotel square footage with residential square footage would not alter this conclusion as the project footprint and location would remain the same regardless of the proposed uses. Therefore, impacts would remain less than significant under the equivalency scenario.

As described in the Certified PEIR, future development within the Downtown Plan area is subject to consistency with the Land Use Element of the Long Beach General Plan, which designates the majority of the Downtown Plan area as LUD No. 7 Mixed Use District and PD-30 zoning region, which allows for a mix of commercial and high density residential uses. The Certified PEIR determined that since the Downtown Plan would adopt updated plans and development regulations, future development subject to the Downtown Plan would be consistent with the existing and planned zoning and development district regulations. No other land use plans or regulations exist within the Downtown Plan area. Thus, the Downtown Plan would result in a less than significant impact to land use compatibility. Exchanging retail/commercial or hotel square footage with residential square footage would not alter this conclusion as the project footprint and location would remain the same regardless of the proposed uses. Therefore, impacts would remain less than significant under the equivalency scenario.

The Certified PEIR determined that the Downtown Plan would result in no impact to habitat conservation. As stated above, exchanging retail/commercial or hotel square footage with residential square footage would not alter this conclusion as the project footprint and location would remain the same regardless of the proposed uses. Therefore, impacts would remain less than significant under the equivalency scenario.

Mineral Resources

The Certified PEIR determined that the Downtown Plan would result in no impact to mineral resources. Exchanging retail/commercial or hotel square footage with residential square footage would not alter this conclusion as the project footprint and location would remain the same regardless of the proposed uses. Therefore, impacts would remain less than significant under the equivalency scenario.

Noise

As detailed under the LUEP process and as shown in Table 2, above, the number of residential dwelling units approved to-date exceeds the number that were evaluated in the Certified PEIR. However, the floor area of office and commercial uses and the number of hotel rooms that have been approved to date are substantially lower than what was evaluated in the Certified PEIR. From a noise perspective, an equivalency scenario considers community-wide noise generated by all the land uses developed in the Downtown Plan area. Differences in community-wide noise from land use development would result from differences in trip generation and the resultant traffic noise levels from various land use types on an equivalent floor area or unit basis.

The DPEC was developed to allow for reallocation of land uses while ensuring the impacts from the reallocation do not exceed the noise impacts for the Downtown Plan area that were determined in the Certified PEIR. As detailed in Attachment A, the 3,260 additional residential units can be accommodated by the reallocation of other land uses. The 3,260 additional residential units would result in a reduction of available non-residential development of 417,060 square feet of office; 135,320 square feet of commercial; and 177 hotel rooms. This reallocation will not result in any additional impacts than what was described in the Certified PEIR. Therefore, impacts would remain less than significant under the equivalency scenario.

Population and Housing

As discussed in the Certified PEIR, the Downtown Plan is intended to accommodate substantial population growth in the Downtown Plan area with the proposed addition of 5,000 dwelling units. Based on the City average of 2.90 persons per household (City of Long Beach, 2010), the proposed Downtown Plan area's 5,000 dwelling units would generate a net increase of approximately 14,500 new residents. The SCAG projections estimated the City's population growth to be 6 percent during 2005 to 2015 and increase another 3 percent during 2015 to 2020. This represents an annual growth rate of less than 1 percent per year over the next two decades. According to the 2008 SCAG projections, the City was expected to increase in population to approximately 503,251 residents by 2010 and exceed 572,000 residents by 2035. The Downtown Plan area is expected to increase in population to approximately 70,091 residents by 2010 and nearly 80,000 residents by 2035. Thus, projected population increase in Downtown Plan is within the SCAG projections for the City. Although the area is presently zoned to permit densities of up to and exceeding 138 dwelling units per acre under the existing PD-30 zone, because implementation of the Downtown Plan would increase population growth substantially, the impact of this growth was determined to be significant and unavoidable. While exchanging retail/commercial or hotel square footage with residential square footage would increase the amount of residential units and residents generated, this increase is within SCAG's population projections for the City and the Downtown Plan area. Therefore, impacts would remain significant and unavoidable under the equivalency scenario.

As discussed in the Certified PEIR, implementation of the Downtown Plan would occur over a period of 25 years or longer and would potentially result in the displacement of existing housing and people, primarily housed in medium density multifamily dwelling units. Although new development would occur at higher densities and with more modern housing, frequently as part of a mixed-use development, residents would be displaced from their existing dwelling units and may be unable to obtain similar housing with respect to quality, price, and/or location. Therefore, housing displacement impacts were determined to be significant and unavoidable. As discussed above, exchanging retail/commercial or hotel square footage with residential square footage would not alter this conclusion despite differences in the amount of residents generated, due to the small percentage the additional residential units proposed under the equivalency scenario would comprise, when compared to the overall Downtown Plan projections. Therefore, impacts would remain significant and unavoidable under the equivalency scenario.

Public Services

As discussed in the Certified PEIR, fire protection services would be provided by the Long Beach Fire Department (LBFD), which maintains 24 fire stations in addition to its headquarters near Long Beach Airport. The LBFD employs a total of 527 fire fighters with 133 suppression fire fighters on duty at all times. Additionally, structural fire suppression in the Downtown Plan area would receive response from three stations (Fire Stations 1,2, and 3) and approximately 27 firefighters, as identified in the Certified PEIR. The standard

established by the National Fire Protection Association for response to emergency calls is 6 minutes from call initiation to arrival on-scene of the first appropriate unit 90 percent of the time. As stated in the Certified PEIR, the LBFD currently meets these standards. Exchanging retail/commercial or hotel square footage with residential square footage would not alter this conclusion as the project footprint and location would remain the same regardless of the proposed uses. Therefore, impacts would remain less than significant under the equivalency scenario.

As discussed in the Certified PEIR, police protection services would be provided by the Long Beach Police Department (LBPD), which maintains 40 sworn officers in the Downtown Plan area and approximately 800 sworn officers in the entire City, as identified in the Certified PEIR. LBPD's average response time for Priority One emergency calls is 4.2 minutes, meeting the target response time of 5 minutes. The Downtown Plan would incrementally increase demands on the LBPD and may require expansion facilities or replacement of existing facilities. However, as stated in the Certified PEIR, funding for the LBPD is not tied to individual development projects. Furthermore, the City of Long Beach Department of Development Services requires the payment of development impact fees for police facilities to ensure adequate service levels are maintained as per LBMC Chapter 18.15. Therefore, provided that additional funding is provided to the LBPD to support any expanded operations, the Downtown Plan's impact on police protection services would be less than significant. As discussed above, exchanging retail/commercial or hotel square footage with residential square footage would not alter this conclusion as the project footprint and location would remain the same regardless of the proposed uses. Therefore, impacts would remain less than significant under the equivalency scenario.

The Downtown Plan area is within the boundaries of the Long Beach Unified School District (LBUSD), which operates 52 elementary schools, 23 middle and K–8 schools, and 12 high schools. The total district enrollment for the 2005–2006 school year was approximately 83,691 students, as identified in the Certified PEIR. As discussed in the Certified PEIR, the Downtown Plan would generate an estimated 670 school-age student, which could adversely affect school facilities. However, as a condition of development, each individual project within the Downtown Plan area would be required to pay the applicable required State-mandated school impact fees under the provisions of SB 50. Therefore, impacts to school facilities and services in the Downtown Plan area would be reduced to a less-than-significant level. Exchanging retail/commercial or hotel square footage with residential square footage would not alter this conclusion as the project footprint and location would remain the same regardless of the proposed uses. Therefore, impacts would remain less than significant under the equivalency scenario.

As discussed in the Certified PEIR, the City of Long Beach is currently deficient in parkland by about 820 acres. With new development in the Downtown Plan area, the deficiency would likely increase with each subsequent project. The increased demand for recreational opportunities associated with the Downtown Plan would place additional stress on the City's recreation system. To reduce this stress, individual project approvals within the Downtown Plan area would be required to pay an in-lieu park and recreation facilities impact fee as a condition of approval. Although the collection of required fees would mitigate some of the overburden on the recreation system, it is not expected to be enough to meet the established standard of 8 acres of parkland per 1,000 residents. Therefore, the Certified PEIR found that the impact on park and recreation facilities from new development would be significant and unavoidable. As discussed above, exchanging retail/commercial or hotel square footage with residential square footage would not alter this conclusion as the project footprint and location would remain the same regardless of the proposed uses, and the overall condition of insufficient parkland throughout the

Downtown Plan area would remain the same. Therefore, impacts would remain significant and unavoidable under the equivalency scenario.

The Downtown Plan area is service by the Long Beach Public Library (LBPL) system, which is staffed by approximately 250 personnel at the Main library located in Downtown and the 11 branch libraries. Buildout of the Downtown Plan would incrementally increase demand for library services in the City, and may cause demands for library services to exceed the capacity of the Main Library and at branch libraries that serve the Downtown Plan Area. However, as stated in the Certified PEIR, funding for the LBPL is not tied to individual development projects. Therefore, provided that additional funding is provided to the LBPL to support any expanded operations, the Downtown Plan's impact on library services would be less than significant. Exchanging retail/commercial or hotel square footage with residential square footage would not alter this conclusion as the project footprint and location would remain the same regardless of the proposed uses. Therefore, impacts would remain less than significant under the equivalency scenario.

Recreation

Refer to discussion under Public Services, for a discussion on this topic.

Transportation and Traffic

The purpose of the transportation/traffic equivalency analysis is to provide a method by which additional residential development can occur within the Downtown Plan area despite the fact that the amount of residential development evaluated in the Certified PEIR has been exceeded.

The DPEC was developed to allow for reallocation of land uses while ensuring the impacts from the reallocation do not exceed the traffic impacts for the Downtown Plan area that was determined in the Certified PEIR. As detailed in Attachment A, the 3,260 additional residential units can be accommodated by the reallocation of other land uses. The 3,260 additional residential units would result in a reduction of available non-residential development of 417,060 square feet of office; 135,320 square feet of commercial; and 177 hotel rooms. This reallocation will not result in any additional impacts than what was described in the Certified PEIR. Therefore, impacts would remain less than significant under the equivalency scenario.

Utilities and Service Systems

As discussed in the Certified PEIR, buildout of the Downtown Plan would incrementally increase wastewater disposal demand in the City due to the increased demand for wastewater disposal and the increase in development activity in the Downtown Plan area. However, development projects built within the Downtown Plan area would generate an estimated 2.55 mgd of wastewater per day at peak flow, which would account for approximately 0.6 percent of the combined 400 mgd design capacity of the Joint Water Pollution Control Plant (JWPCP) and the Long Beach Reclamation Plant's (LBWRP) 25 mgd capacity. Due to sufficient capacity levels, the Certified PEIR determined that the Downtown Plan's impacts to wastewater would be less than significant. Exchanging retail/commercial or hotel square footage with residential square footage would not substantially alter this conclusion as construction and operational activities under both equivalency scenarios would generate similar quantities of wastewater in the context of the overall Downtown Plan area. In addition, all proposed projects would be required to obtain a will serve letter stating that sufficient wastewater services are available to serve the proposed project. Therefore, impacts would remain less than significant under the equivalency scenario.

As discussed in the Certified PEIR, buildout of the Downtown Plan would incrementally increase water supply and demand in the City. Due to the increased demand for water supply and the increase in development activity in the Downtown Plan area, the impact on water supply and demand would be considered potentially significant. However, the Certified PEIR evaluated the Long Beach Water Department (LBWD)'s capabilities and determined that the LBWD would have the resources to meet the demand of future projects in the Downtown Plan area. Therefore, development projects built within the Downtown Plan area that conform to the provisions of the Downtown Plan have been anticipated by the LBWD and impacts would be less than significant. As discussed above, exchanging retail/commercial or hotel square footage with residential square footage would not substantially alter this conclusion as construction and operational activities under both equivalency scenarios would require use of similar quantities of water in the context of the overall Downtown Plan area. In addition, all proposed projects would be required to obtain a will serve letter stating that sufficient water supplies are available to serve the proposed project. Therefore, impacts would remain less than significant under the equivalency scenario.

As discussed in the Certified PEIR, buildout of the Downtown Plan would incrementally increase solid waste disposal treatment demand in the City. However, the City has one of the highest landfill diversion rates of any large city in the United States, with an estimated 69 percent of the City's trash diverted from disposal through recycling, reuse, and waste reduction as of 2006 (the most recent year reported). Following collection, refuse within the City is transported directly to landfills or to landfills following combustion in the Southeast Resource Recovery Facility (SERRF), a publicly owned solid waste management facility. SERRF applies mass burn technology to reduce the volume of solid waste entering landfills by 80 percent this technology, generates electricity for operation of the SERRF and residual electricity is available for purchase by Southern California Edison (SCE) for use throughout the City and State. SERRF processes an average of 1,290 tons of municipal solid waste per day with a daily capacity for 1,380 tons. It has processed over 3.5 million tons of solid waste since it first opened and has reduced the volume of solid waste entering landfills by over 4 million cubic yards. Based on Los Angeles County Sanitation District's (LACSD) operation of the Mesquite Regional Landfill, which is permitted for up to 20,000 tons per day for approximately 100 years, adequate landfill capacity exists to accommodate solid waste disposal needs of the Downtown Plan. Due to the increased demand for solid waste disposal treatment and the increase in development activity in the Downtown Plan area, the impact on solid waste disposal systems would be considered potentially significant. However, this impact would be reduced to less than significant with the implementation of Mitigation Measures Utilities-3(a) through Utilities-3(d), as identified in the Certified PEIR.

Exchanging retail/commercial or hotel square footage with residential square footage would not substantially alter this conclusion as construction and operational activities under both equivalency scenarios would generate similar quantities of solid waste in the context of the overall Downtown Plan area. In addition, all proposed projects would be required to implement Mitigation Measures Utilities-3(a) through Utilities-3(d), which would further ensure impacts would remain less than significant. Therefore, impacts would remain less than significant with mitigation under the equivalency scenario.