SECTION 4: CUMULATIVE IMPACTS

4.1 - CEQA Requirements

California Environmental Quality Act (CEQA) Guidelines Section 15130 requires the consideration of cumulative impacts within an EIR when a project's incremental effect is cumulatively considerable. Cumulatively considerable means that "the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." In identifying projects that may contribute to cumulative impacts, the CEQA Guidelines allow the use of either a list of past, present, and reasonably foreseeable future projects, producing related or cumulative impacts, including those that are outside of the control of the lead agency. The CEQA Guidelines also allow the use of a summary of projections contained in an adopted General Plan or related planning document, which is designed to evaluate regional or area-wide conditions.

In accordance with CEQA Guidelines Section 15130(b), "the discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, the discussion need not provide as great [a level of] detail as is provided for the effects attributable to the project alone." The discussion should be guided by standards of practicality and reasonableness, and it should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.

California Environmental Quality Act (CEQA) Guidelines Section 15130 provides the following guidance concerning the format and content of the cumulative impact analysis:

A) Cumulative impacts shall be discussed when they are significant.

B) The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not include as great of detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness. The following elements are necessary to an adequate discussion of cumulative impacts:

1. Either:
    a) A list of past, present, and reasonably anticipated future projects, producing related or cumulative impacts, including those projects outside the control of the agency, or

    b) A summary of projects contained in an adopted general plan or related planning document, which is designed to evaluate regional or area-wide conditions. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.

2. A summary of expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available; and

3. A reasonable analysis of the cumulative impacts of the relevant projects. An Environmental Impact Report (EIR) shall examine reasonable options for mitigating or avoiding any significant effects of the proposed Project.

For purposes of the proposed Redlands Crossings Project, criteria No. 1 was considered to identify the past, present, and reasonably foreseeable actions or projects that could, when combined with the proposed Project, result in cumulative impacts to the physical environment.

Table 4-1 identifies approved and pending projects that are in the Project vicinity that will be considered in the scope of this cumulative analysis. The cumulative development projects included in this analysis were provided within the Traffic Impact Analysis conducted for this Project. The cumulative development projects included in the analysis were provided by City of Redlands staff. Projects outside of the City of Redlands city limits have also been obtained from the County of San Bernardino, City of Highland and City of Loma Linda to include the future projects proposed within the study area, including the "Donut Hole" region.

Table 4-1: Cumulative Projects

No.	Project Location	Land Use[1]	Quantity	Unites[2]
1	East side of Research, south of Almond, n/o Lugonia	Industrial Park	880,118	TSF
2	South of I-10 & West of California St.	Commercial Retail Center	51,101	TSF
3	Northeast of Plum Ln. & Idaho St.	General Office	8,132	TSF
4	South side of Orange Tree Ln., West of Nevada St.	General Office	51,432	TSF
5	South side of Lugonia Ave. West of Nevada St.	Hotel	102	RMS
6	1776 Park Ave.	Medical-Dental Office	52,559	TSF
7	415-495 Park Ave.	Medical-Dental Office	122,604	TSF
8	Northeast of Alabama St. and Orange Ave.	Condo/Townhomes	77	DU
9	Northeast of Orange Ave. and Kansas St.	Senior Adult Housing-Attached	160	DU
10	East side of Alessandro, North of Sunset Hills Ln.	SFDR	27	DU

Table 4-1 (cont.): Cumulative Projects

No.	Project Location	Land Use[1]	Quantity	Unites[2]
11	Buckeye between Pioneer, Palmetto and Riverbluff	High-Cube Warehouse	1,100,000	TSF
12	Majestic Realty-Riverside and Buckeye	High-Cube Warehouse	205,000	TSF
13	Southwest of Tennessee St. and Lugonia Ave.	Commercial Retail Center	8,048	TSF
14	South side of Redlands Blvd., West of Kansas St.	Self-Service Car Wash	7	STALLS
15	708 Brookside Ave.	General Office	7,000	TSF
16	520 Brookside Ave.	Church	15,107	TSF
17	North of San Bernardino Ave. & East of #61	High-Cube Warehouse	500,000	TSF
18	Northeast corner of Texas St. & Pioneer Ave.	SFDR	12	DU
19	South of I-10 Fwy. & West of Eureka St.	Commercial Retail Center	150.300	TSF
20	South side of Pearl Ave. between Eureka St. & Third St.	Commercial Retail Center	18,200	TSF
21	500 East Citrus Ave.	Recreational Community Center	21,000	TSF
22	Southeast of Lugonia Ave. & Orange St.	Commercial Retail Center	6,750	TSF
23	1135 Orange St.	Commercial Retail Center	3,243	TSF
24	Southwest of Lugonia Ave. & Church St.	Condo/Townhomes	37	DU
25	Southeast of Lugonia Ave. & Occidental	SFDR	12	DU
26	South of San Bernardino Ave., West of Grove St.	SFDR	10	DU
27	Between San Bernardino & Pioneer, East of Deanna Wy.	SFDR	26	DU
28	North of San Bernardino Ave. & West of Judson St.	SFDR	74	DU
29	Southeast of Pioneer Ave. & Judson St.	SFDR	33	DU
30	South of Palmetto & East of Alabama	High-Cube Warehouse	200,000	TSF
31	North of San Bernardino Ave. & East of California St.	High-Cube Warehouse	500,000	TSF

Table 4-1 (cont.): Cumulative Projects

No.	Project Location	Land Use[1]	Quantity	Unites[2]
32	121 SFDR Housing Gated Community	SFDR	121,000	DU
33	CUP No. 10-04	General Light Industrial	42,005	TSF
34	CUP No. 10-02	Self-Service Car Wash	3	STALLS
35	North of Palmetto between Nevada & Alabama	High-Cube Warehouse	535.000	TSF
36	Mountain Grove - San Bernardino & Alabama	Shopping Center Hotel Theatre	595,000 78 3,500	TSF RMS SEATS
37	Stone Creek - NW corner of Almond and Alabama	Commercial Retail Center High-Turnover (Sit-Down) Restaurant General Office Hotel	11,500 15,000 149,000 180	TSF TSF TSF RMS
38	Redlands Commerce Center -Lugonia between Alabama & Nevada	General Office Commercial Retail Center Hotel	60,800 60,800 244	TSF TSF RMS
39	Northeast of Orange St. & Lugonia Ave.	SFDR	228	DU
40	1020-1050 Nevada	Industrial Park	63,638	TSF
41	Madeira Ave., West of Sapphire	SFDR	27	DU
42	Center St., East of Burke St.	SFDR	15	DU
43	Southwest corner of San Bernardino Ave. & Wabash Ave.	SFDR	76	DU
44	Southeast corner of Grove St. & Sylvan Blvd.	Condo/Townhomes	40	DU
45	Southeast corner of Citrus & Iowa	Industrial Park	141,000	TSF
46	Santa Fe Depot	Commercial Retail Center Fast-Food Restaurant with Drive-Thru	2,554 3,105	TSF TSF
47	Greenspot Village & Marketplace CMP	Planning Area 1 (Commercial) Superstore Anchor Retail Gas/Service Station w/ Convenience Market Bank with Drive-Thru Fast-Food Restaurant with Drive-Thru High-Turnover (Sit-Down) Restaurant Sit-Down Restaurants Planning Area 2 (Residential) Apartments Condo/Townhomes	 200,000 355,000 3,600 10,000 12,000 25,000 40,000	 TSF TSF TSF TSF TSF TSF TSF

Table 4-1 (cont.): Cumulative Projects

No.	Project Location	Land Use[1]	Quantity	Unites[2]
		Planning Area 3 (Village Center-Mixed Use) Daycare Shopping Center Sit-Down Restaurants Hotel (includes 20 TSF Conference Center) General Office Apartments Condo/Townhomes	378 172 7,000 80,000 7,000 240 60,000 172 78	DU DU TSF TSF TSF RMS TSF DU DU
48	1222 Indiana Ct.	General Light Industrial	5,550	TSF
49	Northeast corner of Ford St. & Patricia	Church	20,500	TSF
50	Northeast Wabash Ave. & Nice Ave.	Mini-Warehouse General Light Industrial	60,857 48,045	TSF TSF
51	North of Palmetto & West of Alabama St.	High-Cube Warehouse	275,000	TSF
52	Regency Center	Fast-Food Restaurant with Drive-Thru Shopping Center	3,417 42,840	TSF TSF
53	Nevada St. & Palmetto Ave. (Newcastle)	High-Cube Warehouse	400,000	TSF
54	Jack in the Box Center	Fast-Food Restaurant with Drive-Thru Shopping Center Retail	6,280 7,065 13,771	TSF TSF TSF
55	133 SFD Housing (SE corner of Orange St. & Greenspot)	SFDR	133	DU
56	Blossom Trails	SFDR Condo/Townhomes	14 306	DU DU

[1] SFDR = Single Family Detached Residential
[2] DU = Dwelling Units; TSF = Thousand Square Feet; VFP = Vehicle Fueling Position
* See Exhibit 4-5 for an illustration of cumulative development project locations.
Source: UC 2011, Table 4-3

4.2 - Cumulative Impact Analysis

The following sections evaluate cumulative impacts of the Project and other development projects in the order that Project-specific impacts were analyzed in this Section. Recent CEQA case law requires a Draft Environmental Impact Report (DEIR) to identify the "universe" of projects for the particular

impact being evaluated. To comply with this requirement, the "universe" of projects specific to each impact being evaluated is identified.

4.2.1 - Aesthetics

The geographic scope of the cumulative aesthetics, light, and glare analysis is the area surrounding the Project site. This is the area within view of the Project; therefore, the area most likely to experience changes in visual character or experience light and glare impacts. As shown in Table 4-1, there are several development projects in the Project vicinity (e.g., Cumulative Numbers 11, 13, 36, etc.) that have the potential to alter the visual character of the area. These projects would be subject to design and landscaping requirements to ensure that they do not degrade visual character and comply with applicable General Plan and Zoning Ordinance standards.

The design guidelines the City has adopted in its General Plan address various land use classifications within the City, including commercial development located within the East Valley Corridor Specific Plan (on which the Project site and area is located). The East Valley Corridor Specific Plan (EVCSP) is consistent with the land use map and land use element of the General Plan; however, the standards of development established by the general provisions, community design, overlay districts, and community facility sections of the EVCSP are covered in the Specific Plan and are not expressly part of the General Plan. The EVSP address building scale, setbacks, parking, landscaping, signs, and lighting, and are designed to encompass a large geographic area, and ensures that projects within this area aesthetically integrate with the character of the adjacent neighborhood. The EVSP's design guidelines therefore contemplate an evaluation of how the Project would integrate with existing and future development that would occur over a broad area. At the same time, the purpose of the City's zoning ordinances is to protect the character of all areas of the City and encourage the orderly and beneficial development of the City. This includes ensuring that projects are compatible with the aesthetic quality and character of the adjacent neighborhood. Therefore, the governing land use regulations would ensure that the proposed Project, in conjunction with other planned or approved projects, would not have cumulatively considerable aesthetic impacts.

The proposed Project has the potential to introduce new sources of light and glare, but mitigation is proposed requiring that fixtures be shielded, recessed, or directed downward to prevent spillage onto neighboring properties. Consequently, the amount of light spillage onto neighboring roads would be extremely insignificant, and the existing streetlights are brighter than the light halos of Project and thus would render any contribution to be indiscernible. To some extent, other City requirements, such as those pertaining to landscaping, would further reduce impacts. As such, given the small amount of spillover and intervening landscaping, the proposed Project would not have the potential to have a cumulative contribution to a light and glare impact.

Mitigation Measures

None other than project level measures.

Level of Significance After Mitigation

No significant contribution to cumulatively considerable impacts.

4.2.2 - Agricultural Resources

The "universe" for agricultural resource impacts is the current agricultural land uses within the City of Redlands. Projects within Table 4-1 are included in the "universe." The proposed Project has not been used for agricultural operations in the recent past (i.e., at least eight years), however, it may have been used for some type of agriculture before that time. According to state resource maps, the site contains Prime Farmland and Farmland of Statewide Importance. However, due to the significant duration of absence of agricultural production (i.e. over eight years) at the Project site, impacts to Prime Farmland and Farmland of Statewide Importance are considered less than significant.

In addition, the City of Redlands General Plan proposes to preserve approximately 500 acres of citrus in agricultural lands of Prime Agricultural Land, Unique Agricultural Land, and Agricultural Lands of Statewide Importance. The Project site is not designated within the City of Redlands General Plan as an area preserved for agricultural lands. Consequently, development of the Project site will be not cumulatively considerable impacts on agriculture.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

No significant contribution to cumulatively considerable impacts.

4.2.3 - Air Quality

The "universe" for this issue is the South Coast Air Basin, as that is the area in which air pollutants circulate and are at times trapped. Cumulative Air Quality Impacts are addressed in Section 3.3 of this EIR, specifically under Impact AIR-3. Analysis in this section of the EIR determined the Project would result in a cumulatively significant impact during operation because of the exceedances of the South Coast Air Quality Management District (SCAQMD's) regional emission thresholds for VOC, NO_x, PM_{10}, and CO. During construction, before mitigation, emissions of VOC and NOx would exceed the regional significance thresholds.

Regarding toxic air contaminants, the health risk assessment summarized in Impact AIR-4 in Section 3.3 of the EIR indicates that the incremental increase in cancer risk at the nearby sensitive receptors (0.8 in one million) is below the SCAQMD's cancer threshold of 10 in one million. The SCAQMD does not have a cumulative risk threshold. As discussed in the Air Quality and Greenhouse Gas Analysis Report, the South Coast Air Basin has many sources of toxic air contaminants, which results in an overall cancer risk over 10 in one million throughout the Basin. The Project's minor increase in cancer risk at the sensitive receptors would not result in a significant cumulative risk because the

emissions are minor and because the concentrations would be below the individual cancer risk threshold.

Mitigation Measures

Mitigation measures AQ-1 through AQ-12.

Level of Significance After Mitigation

The Project would result in a cumulatively significant impact even after mitigation by exceedances of the SCAQMD's regional emission thresholds during operation for VOC, NO_x, CO, and PM10. This cumulative impact could result in cumulative health effects from exposure to ozone, PM_{10}, and $PM_{2.5}$. Mitigation measures would reduce impacts during construction to less than significant.

4.2.4 - Biological Resources

The "universe" for this issue is the general Project area, but any potential impacts must be viewed in the context of available natural areas/habitat, and any planned regional habitat preservation programs such as the Multi-Species Habitat Conservation Plan (MSHCP) for Western Riverside County. San Bernardino County has not yet developed a similar type MSHCP for this portion of the County. The general area contains a number of vacant upland areas to the north and east that contain native vegetation. In addition, the Santa Ana River is located one mile north of the Project site.

The "universe" area contains significant regional biological resources. Continued development in this portion of the City, mainly commercially zoned areas to the north and southeast, may cause cumulative impacts to local flora and fauna. Impacts may cause an incremental loss of native vegetation and habitat from encroachment along the Santa Ana River, and by the contribution of additional sediments and other urban pollutants into the river from local runoff. From impacts, local wildlife will have less resource areas to use, although much of the land already supports development. In contrast, the Project site and surrounding area have been largely impacted by industry (i.e. agricultural uses) and human activity, so their loss does not represent a regional or cumulative impact to plants or wildlife.

Development projects in the Project vicinity would be contiguous to existing development. Of the potentially impacted species at the Project site, including the Burrowing Owl, (*Athene cunicularia*) (BUOW) and nesting birds, the focused surveys conducted at the Project site did not detect any occurrences of the species (see Section 3.4, Biological Resources). Note that the Project site was previously used for agricultural uses, which involved regular disking and tilling of the soil. As such, the Project site is in a disturbed state, which limits the potential for special-status species to be present on-site. Still, the other cumulative projects may contain nesting and foraging habitat for the above species, and so the potential to result in a loss of individual specimens and the loss of species habitat.

The loss of individual specimens would most likely occur as a result of construction activities. To the extent there is potential for cumulative project's to result in a loss of individual specimens and the

loss of species habitat, mitigation measures in the form of pre-construction surveys can be proposed to reduce potential impacts on these species to a less than significant level. Future development projects would be required to mitigate for impacts on special-status species in a manner similar to the Project. Given there is only a low to moderate likelihood of encountering the above-listed species, the disturbed nature of the Project site, and the comprehensive nature of the construction mitigation programs, cumulative impacts to special-status species would be less than significant.

With regard to the loss of habitat, the Project impact was deemed less than significant owing to the fact that it formerly was used for agricultural production. The Project would not make a cumulatively considerable contribution to any cumulative impact because of this reason, and because it sits on the edge of an urbanized area and adjacent to Tennessee Street and SR-210 Freeway, a major thoroughfare in the City. Thus, given the level of existing development in the area, and the relatively small likelihood of these species frequenting the vicinity of the Project and the nearby probable future projects, there would not be a cumulatively significant impact and sits at the edge of an urbanized area.

Mitigation Measures

None other than Project-level measures.

Level of Significance After Mitigation

No significant contribution to cumulatively considerable impacts.

4.2.5 - Cultural Resources

The geographic scope of the cumulative cultural resources analysis is the Project vicinity, which includes projects located within Table 4-1, above. Cultural resource impacts tend to be localized because the integrity of any given resource depends on what occurs only in the immediate vicinity around that resource, such as disruption of soils; therefore, in addition to the Project site itself, the area near the Project site would be the area most affected by Project activities (i.e., generally within a 500-foot radius).

Construction activities associated with development projects in the Project vicinity may have the potential to encounter undiscovered cultural resources. These projects would be required to mitigate for impacts through compliance with applicable federal and state laws governing cultural resources. Even if a significant cumulative impact could be found, the Project would not make a cumulatively considerable impact. The Project site was previously used for agricultural uses, which involved regular disking and tilling of the soil. As such, the Project site is in a disturbed state, which limits the potential for undiscovered resources to be encountered.

The Phase I Cultural Resource Survey indicated that three known historical cultural resources are located within the Project site and 15 sites are located within one mile of the Project area boundary. Thus, Phase II testing was carried out for each of the individual sites. Phase II testing at the Project

site indicated that none of the sites meets any of the significant criteria established by CEQA Guidelines Section 15064.5 to be considered "unique historic properties" (MBA 2009b). One new cultural resource site (P#36-013622) was identified during Phase II Survey. However, recordation of the feature exhausted the data set associated with this historic cultural resources, thereby mitigating for impacts if the site is altered or destroyed by construction.

The Cultural Resource Survey (MBA 2009b) indicated the Project site is located within a moderately sensitive cultural resource area. Therefore, mitigation measures CR-1a through CR-1c were recommended to reduce the potential significant cultural resource impact to less than significant level.

Although there is the possibility that previously undiscovered resources could be encountered by subsurface earthwork activities, the implementation of standard construction mitigation measures would ensure that undiscovered cultural resources are not adversely affected by project-related construction activities, which would prevent the destruction or degradation of potentially significant cultural resources in the Project vicinity. Given the low potential for disruption, and the comprehensiveness of mitigation measures that would apply to this Project and those in the vicinity, the residual, insignificant impacts of the projects would not combine to make a significant cumulative impact and, even if the combine impact was significant owing to substantial resources on a different project site, the Project would fail to make a cumulatively considerable contribution given previous disruptions to its ground and the lack of any significant resource within its boundaries.

Mitigation Measures

None other than Project -level measures.

Level of Significance After Mitigation

No significant contribution to cumulatively considerable impacts.

4.2.6 - Geology and Soils

The "universe" for this issue is development in the City of Redlands and western San Bernardino County, within the larger context of Southern California due to regional seismicity. Development projects in the Project vicinity may have the potential to be exposed to seismic hazards. However, there is a less than significant potential of the projects in combination to expose people or structure to substantial adverse affects, including the risk of loss, injury, or death in the event of a major earthquake, fault rupture, groundshaking, seismic related ground failure, landslide, or liquefaction. There are no active or potentially active faults in the Project area and, though the Project site might be exposed to strong ground shaking during an earthquake from faults that lie further afield, continued construction of buildings and other structures to current development codes would minimize the potential for severe damage and loss of life. Seismic design criteria account for peak ground acceleration, soil profile, and other site conditions, and they establish corresponding design standards intended primarily to protect public safety and secondly to minimize property damage.

Regarding liquefaction and soil stability, the topography of the Project site and the sites of the projects listed in Table 4-1 is relatively flat. At the same time, there is only a remote possibility that disruption of soils at one site would increase the risk of liquefaction and soil stability at another site, as soil stability is largely unaffected by instability at another site, especially in cases where there exist intervening roads between sites, as is the case for adjacent Tennessee Street and San Bernardino Avenue. Thus, there is little potential of projects to cumulate in this regard, and so a less-than-significant cumulative impact would result.

Regarding soil erosion, groundbreaking that could lead to increased erosion rates on-site soils, which in turn could cause unstable ground surfaces and increased sedimentation in nearby streams and drainage channels. However, Project construction activities would implement standard stormwater pollution prevention mitigation measures to ensure that earthwork activities do not result in substantial erosion off-site. This mitigation, in turn, would have to comply with the NPDES stormwater permitting program, which regulates water quality originating from construction sites. The National Pollutant Discharge Elimination System (NPDES) program, which governs projects statewide (and nationwide), requires the preparation and implementation of Stormwater Pollution Prevention Programs for construction activities that disturb more than one acre, and implement Best Management Practices (BMP) that ensure the reduction of pollutants during stormwater discharges, as well as compliance with all applicable water quality requirements. Thus, given the Project and nearby projects would have to comply with federal and state regulations that are designed to minimize impacts to projects on a wide geographic scale, this Project would make no cumulatively considerable contribution to any significant cumulative impact.

Mitigation Measures

None other than Project -level measures.

Level of Significance After Mitigation

No significant contribution to cumulatively considerable impacts.

4.2.7 - Greenhouse Gases

The universe for this issue is the planet Earth. By its nature, climate change is a global and cumulative issue, as greenhouse gases combine with other greenhouse gases and this increase is believed to result in climate change. As discussed in Section 3.17, the Project would emit greenhouse gases during construction and operation. These emissions are potentially significant without the implementation of State regulation, Project design features, and mitigation measures.

Mitigation Measures

GHG-1 Walmart shall use refrigerants in its refrigerator and freezer system with an average global warming potential of 1,893 or lower. Mitigation Measures AQ-5, AQ-7, AQ-8, AQ-9, AQ-10, AQ-11, HYD-2a, HYD-2b, and T-6a are required.

Level of Significance After Mitigation

Less than significant.

4.2.8 - Hazards and Hazardous Materials

The universe for this issue is the Project area but within a context of western San Bernardino County, and the northern portion of the City of Redlands in terms of transport of hazardous materials. As development of the identified Commercial project occurs, the area will experience an increase in the use of hazardous materials (i.e. automotive fluids, brake dust, oil, etc.). Growth may also increase the amount of these hazardous materials in the area, which may be especially destructive to natural waterways such as the Santa Ana River. However, it is expected that these materials will be handled, transported, and disposed of properly, according to existing City and State regulations.

Furthermore, two freeways, the SR-210 (approximately 170 feet west) and Interstate 10 (I-10) Freeway (approximately 0.6 mile south), serve the area, both of which can provide routes for evacuation out of the area in all directions. If the area were to experience a major disaster (e.g., major flood, fire, or earthquake), evacuation of several thousand residents and employees via the current road system would probably take several hours, which is marginal even assuming there is adequate warning. Based on available information, evacuation routes for this area appear to be adequate for planned growth, so the Project will not create any cumulatively considerable impacts related to hazards. Therefore, no mitigation is required.

Mitigation Measures

None other than Project-level measures.

Level of Significance After Mitigation

No significant contribution to cumulatively considerable impacts.

4.2.9 - Hydrology and Water Quality

The larger "universe" for this issue is Southern California, which is largely dependent on imported water to support existing development and planned growth. By comparison, the local universe for these impacts is the water service areas of the City of Redlands and other providers within the west San Bernardino County. In terms of construction, implementation of all the projects would require grading and construction. While potential to degrade water quality exists, the projects would have to comply with the NPDES stormwater permitting program, which regulates water quality originating from construction sites. The NPDES program requires the preparation and implementation of Stormwater Pollution Prevention Programs for construction activities that disturb more than one acre, and implement Best Management Practices that ensure the reduction of pollutants during stormwater discharges, as well as compliance with all applicable water quality requirements.

From an operational standpoint, the Project, in combination with other planned and approved projects, would not violate water quality standards or waste discharge requirements because it would implement the pollution prevention measures listed in Mitigation Measure HYD-1a and HYD-1b.

The Project, in combination with other planned and approved projects, would not substantially alter the existing drainage pattern of the area in a manner that would result in substantial erosion or siltation on- or off-site. While the Project includes installation of a new drainage system, the new facilities would be designed to handle erosion and siltation efficiently and to the satisfaction of the City of Redlands Municipal Utilities and Engineering Department. Thus, the Project would make no cumulatively considerable contribution to any cumulative impact.

The Project, in combination with other planned and approved projects, would substantially deplete groundwater supplies. The majority of water, over 40 percent delivered to the City in 2007, was from groundwater sources pumping from the Bunker Hill groundwater basin (CRCCR 2008). To facilitate groundwater recharge, the permeable areas on-site have been maximized through site design considerations, including vegetated swales, a nutrient separating baffle box and inlet inserts before discharging into one of five infiltration basins. The design feature allows the majority of drainage from impervious surface to permeable areas for on-site infiltration. One surface level infiltration basin and four (4) underground infiltration basins have been incorporated into the site plan to maximize on-site infiltration. In addition, various BMPs have been incorporated in the Project design (AE 2007). Implementation of the BMPs as described in the Preliminary WQMP will improve the groundwater recharge in the local aquifer. Since the Project will not deplete groundwater in the local area and is not expected to lower the groundwater recharge rate to any measurable degree, impacts will be less than significant. Nonetheless, long-term water supply is a significant concern in California, and the Project can reduce its demand on water supply through the implementation of water conservation measures. Mitigation is proposed that would require the Project applicant to implement outdoor irrigation and indoor domestic water conservation measures and practices. These measures would reduce overall Project demand for potable water and ensure that long-term water supply impacts are less than significant.

Development projects in the Project vicinity may have the potential to increase impervious surface coverage and, therefore, may result in increased runoff volumes in downstream waterways. These projects would be required to provide drainage facilities that collect and detain runoff such that off-site releases are controlled and do not create flooding. The Project would install an on-site storm drainage system consisting of inlets and piping. The Project drainage plan allows the majority of drainage from impervious surface to permeable areas for on-site infiltration. One surface level infiltration basin and four (4) underground infiltration basins have been incorporated into the site plan to reduce the runoff water (AE 2007). In addition, the drainage report indicates that the proposed drainage system (pond, sediment pond and underground systems) will control the total peak flow volume of runoff to level similar to the pre-development runoff levels. With the installation of these

improvements, project-level drainage impacts would be reduced to a level of less than significant; therefore, no cumulative contribution would occur.

Development projects in the Project vicinity may have the potential to increase impervious surface coverage and, therefore, may result in increased runoff volumes in downstream waterways. Applicants for these projects would be required (as would the applicant for the Project) to provide stormwater quality management plans to the City for review and approval prior to the issuance of building permits for the Project. Each plan must include the various control measures that will be in effect during Project operations to ensure that water quality in downstream water bodies is not degraded. Compliance with the aforementioned federal and State and local requirements will avoid significant adverse cumulative hydrology and water quality impacts in the Project area.

Mitigation Measures

None other than Project -level measures.

Level of Significance After Mitigation

No significant contribution to cumulatively considerable impacts.

4.2.10 - Land Use and Planning

The potential "universe" for this issue ranges from the local Project area (i.e., the City of Redlands) to the western portion of San Bernardino County. Development of the area will eventually modify hundreds of acres of vacant land into additional commercial uses and suburban-type neighborhoods. The Project has existing residential uses to the east and southeast, with new residential uses being developed approximately 0.60 miles northeast of the site (Beazer Homes). Additionally, existing commercial uses (i.e. Citrus Plaza and Homes Depot Center) are to the east and south of the Project site. This and other planned development projects will eventually change the fundamental character of the area. However, the City of Redlands's General Plan has anticipated this type of change.

On a broader scale, countywide growth will add tens of thousands of new homes, residents, businesses, and jobs in the future. This growth is not expected to have cumulatively considerable impacts related to land use and planning as long as it occurs according to the City of Redlands General Plan. The Project site is zoned for commercial uses and is consistent with the General Plan. Due to the size of the Project, the Project is expected to create substantial contribution to new jobs, and will also help meet at least one of the City of Redlands General Plan job goals. The Project area already supports a wide variety and density of land uses, and the implementation of commercial uses is not expected to be cumulatively considerable in terms of land use impacts. Therefore, implementation of the Project will be consistent with the City's General Plan and will not make a significant contribution to cumulatively considerable land use impacts. Furthermore, as long as growth continues according to established plans, no cumulatively considerable impacts to land use and planning will occur. Because the Project would not result in a significant impact with respect to mineral resources, it would not contribute to cumulatively considerable regional impacts to mineral

resources. These other impacts have separate regional mitigation programs that will be presented in each section.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

No significant contribution to cumulatively considerable impacts.

4.2.11 - Mineral Resources

The universe for this issue is the general Project area (City of Redlands), but any potential impacts must be viewed in the context of available mineral resources within San Bernardino County, and the City of Redlands. As development increase in the City of Redlands, greater demand will be placed on mineral resources, especially sand and gravel from areas along local drainages, including the Santa Ana River watershed, north of the Project site. Data from the State indicates the Project site is within an MRZ-2 classification. As outlined within Section 3.1 (Mineral Resources) although the Project site contains significant aggregate resources, the Mentone Dam places flood control within the Project area, also known as Sector F, and puts a question on the future availability of much of the resource in this area. The MRZ-2 area designated as "F" is so large, that putting the Project site to use as commercial development will not result in the loss of availability of any resource or access to that resource. In addition, due to the water table and clay layers of this area, much of the younger sediments are not economical to mine for sand and gravel. Finally, as identified within Policy 7.42c of the City of Redlands General Plan, The city will reserve designated MRZ areas outside the Santa Ana Wash for agricultural or urban use. The Project is located outside of the Santa Ana Wash and will be consistent with designated land uses at the Project site (CP-4). Therefore, the City's General Plan designation and zoning classification do not permit mining activities on the Project site and development of the Project will not create cumulatively considerable regional impacts to mineral resources.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

No significant contribution to cumulatively considerable impacts.

4.2.12 - Noise

The universe for this issue is the City of Redlands, including the I-10 Freeway corridor. Noise impacts tend to be localized because ambient noise generally tends to dissipate within 0.25 mile, and existing noise from roadways tends to have a canceling effect on noise emanating from a project site; that is, the logarithmic properties of noise and distance usually mean there are no additive effects.

Therefore, the area near the Project site (i.e., generally 0.25 mile) would be the area most affected by Project activities.

Construction activities associated with the Project would result in substantial sources of noise. As discussed in Section 3.11, Noise, the construction activities for Project would exceed the noise thresholds for certain receivers. Mitigation is proposed that would require the contractor implement various sound control measures including limitation of construction hours, using noise attenuation devices on heavy equipment, and the use of a minimum 10-foot-high construction noise barrier along the perimeter of the Project site within 300 feet of any residences. Implementation of these mitigation measures would reduce impacts to a less than significant level.

The timing of construction activities associated with other development projects would overlap minimally, if at all, with the Project. Furthermore, because noise is a highly localized phenomenon, even if construction activities did overlap in time with the Project, the intervening distance and roadway noise would diminish any additive effects. Construction activities at these other planned and approved projects would be required to take place during daytime hours, and the City and project applicants would be required to evaluate construction noise impacts and implement mitigation, if necessary, to minimize noise impacts. Given these distances and the intervening structures and vegetation, no significant cumulative construction noise impact would be expected. In addition, as outlined within Section 3.11, Noise, cumulative noise impacts were analyzed for Year 2030. The results shown below in Section 3.11 shows that for the year 2030 weekday and Saturday conditions, noise level contributions from the proposed Project onto the nearby roadways would range from 0.0 to 0.7 dBA CNEL. A 0.7 dBA noise increase would be below the thresholds established within the Section 8.06.070 of the City of Redlands Municipal Code. Therefore, for the year 2030 weekday and Saturday conditions, it is reasonable to conclude that construction noise from the Project would not combine with noise from other development projects to cause cumulatively considerable noise impacts. The average equivalent A-weighted sound level during a 24-hour day was obtained by adding 10 decibels to the hourly noise levels measured during the night (from 10 pm to 7 am). In this way, Ldn takes into account the lower tolerance of people for noise during nighttime periods.

The Project's construction and operational vibration levels would not exceed annoyance thresholds. Because vibration propagates in waves through the soil, multiple pieces of equipment operating simultaneously would each produce vibration waves in different phases that typically would not increase the magnitude of the vibration. Furthermore, vibration is a highly localized phenomenon, and tends to dissipate to insignificant levels within dozens of feet, as explained in Section 3.11, Noise; thus, there would be no possibility for vibration associated with the Project to combine with vibration from other projects because of their distances from the Project site. Therefore, the Project would not contribute to a cumulatively considerable vibration impact.

In addition, as shown in Impact NOI-3 in Section 3.11, Noise evaluated the combined stationary and transportation noise levels under existing conditions. The increase in noise levels from the Project

would be the greatest when compared against the existing condition, since the without Project noise levels are lower than the year 2013 and 2030 conditions. Noise levels would not exceed 60 dBA CNEL at nearby sensitive receptors, the standard for normally acceptable noise levels. Therefore, the combined stationary and transportation noise impacts from the ongoing operations of the Project would be less than significant. In addition, other planned and approved projects would be required to mitigate for stationary- and transportation-related noise impacts at nearby sensitive receptors. Moreover, stationary noise and transportation noise are localized phenomena, and there is a very limited potential for other projects to contribute to cumulative noise impacts, beyond the transportation-related noise that is already analyzed above and found not to be cumulatively significant. As such, the Project, in conjunction with other projects, would not cause a cumulatively considerable, permanent increase in ambient noise levels in the Project vicinity.

Mitigation Measures

None other than Project -level measures.

Level of Significance After Mitigation

No significant contribution to cumulatively considerable impacts.

4.2.13 - Population and Housing

On the local scale, the potential "universe" for this issue includes the City of Redlands, while the larger universe encompasses western San Bernardino County. From 2000 to 2030, the population of the City of Redlands is expected to grow from 63,591 to 89,288 residents. The Redlands Crossing Walmart would be expected to create approximately 206 new job positions. This includes the creation of 85 new job positions at the new Walmart store and approximately 121 new job positions for Parcels 1-9. In addition, 230 of the existing jobs at the existing Walmart store would be moved to the new Walmart store, from the potential closure of the existing Walmart store. Consequently, the Project would provide an overall of 436 jobs at the Project site. Most of the new employment opportunities created by the Project would be entry-level. However, a portion of these employees can be expected to move into the City. The addition of new residences in the City would be an incremental growth. By comparison, the population of San Bernardino County area is expected to grow from 1.7 to 2.7 million over the same period; however, the Project would represent a minimal increase to this planned growth. Furthermore, the Project contains commercial uses, and will improve the jobs/housing balance for the City and County, as encouraged by the Regional Comprehensive Plan and the Compass Plan prepared by the SCAG in conjunction with the San Bernardino County General Plan. Therefore, the Project is expected to contribute minimal growth into the area, and will not create cumulatively considerable population and housing impacts in the region.

Mitigation Measures

None mitigation is necessary.

Level of Significance After Mitigation

No significant contribution to cumulatively considerable impacts.

4.2.14 - Public Services

The City of Redlands provides the various public services available to the Project site and surrounding area. The most appropriate "universe" for this issue is therefore the City of Redlands, but more specifically the northern portions of the City and east of the SR-210 Freeway. The City of Redlands requires new development projects to pay their share of fire, police and school Facility Fees. Compliance with payment of fair share fees will provide adequate funding for fire, police and school services for the City of Redlands. Therefore, with payment of fair share fees, the Project and future projects will reduce cumulative impacts to a less than significant level.

Mitigation Measures

None mitigation is necessary.

Level of Significance After Mitigation

No significant contribution to cumulatively considerable impacts.

4.2.15 - Recreation

The City of Redlands provides the various public services available to the Project site and surrounding area. The most appropriate "universe" for this issue is therefore the City of Redlands, but more specifically the northern portions of the City and east of the SR-210 Freeway. As the City of Redlands grows, the increased population will require additional parkland and recreational opportunities. New development projects are required to pay fees (i.e., Quimby) that typically mitigate any potential impact. The planned growth in the area will eventually generate hundreds of new residents who will need additional parkland based on the City's Quimby standard. Parks built within other projects, plus collection of anticipated in lieu fees, will allow the City to continue providing parkland and improvements within the surrounding area. As long as future projects continue to provide onsite parks or in lieu fees, there should be no cumulatively considerable impacts to recreational services. Therefore, no additional mitigation is required.

Mitigation Measures

None mitigation is necessary.

Level of Significance After Mitigation

No significant contribution to cumulatively considerable impacts.

4.2.16 - Transportation

Opening Year 2013 and Horizon Year 2030 cumulative transportation impacts are addressed in Section 3.15 of this EIR. As outlined within Section 3.15, there are no additional ramp merge and diverge junctions anticipated to operate at unacceptable levels of service with the addition of Project

traffic, with the exception of the SR-210 Westbound on-ramp at San Bernardino Avenue and the I-10 Eastbound off-ramp to the SR-210 Westbound (upstream only). It should be noted that the I-10 Eastbound off-ramp to the SR-210 Westbound is a freeway-to-freeway diverge junction and is anticipated to operate at LOS "F" due to the addition of background growth and cumulative traffic in conjunction with Project traffic.

With respect to the significant impacts to the State facilities (mainline and ramp junctions) at the 2030 time horizon, no further mitigation measures or improvements are recommended. The I-10 Freeway and SR-210 Freeway would operate at LOS "F" even without the Project under Horizon Year 2030 traffic conditions. The Project's contribution to cumulative impacts under 2030 conditions is relatively minor, involving only a small percentage of the forecast traffic occurring on the identified segments at Horizon Year 2030 traffic conditions. Because the City has no control over State facilities, and because the State facilities funded and planned to be developed under 2030 conditions are already anticipated to operate at LOS "E" and "F" even without the Project, there are no further mitigation measures that can be imposed upon the Project to mitigate its small cumulative contribution to significant impacts to the identified segments of SR-210 Freeway and I-10 Freeway under 2030 conditions. Caltrans has exclusive control over State highway improvements and State highway improvements are by and large a matter of Statewide control. Thus, for the aforementioned reasons there are no available and feasible mitigation measures available to mitigate the Project's minor cumulative contribution to traffic on the SR-210 and I-10 Freeways under Horizon Year 2030 traffic conditions. Therefore, impacts in this regard will be significant and unavoidable and a Statement of Overriding Considerations will be developed for the deficient Caltrans facilities.

Moreover, mitigation for the cumulative transportation impacts the Project will have on intersections is provided under Mitigation Measure MM TRANS 2. As such, the Project is required to pay its fair share/DIF amount of the improvement costs of the impacted intersections to mitigate the Project's traffic impacts. Although these intersections may be improved by time that the various improvements identified are need to maintain acceptable LOS in support of the Project, there are many uncertainties related to the timing of the full funding and completion of such improvements including; payment of DIF fees/fair share payments by other development in the future, availability of non-DIF funding that may be available to the City in the future, and, for improvements located in County unincorporated areas, County decisions and funding availability for completing the necessary improvements. Due to these uncertainties, timely construction of improvements needed to address cumulative impacts cannot be guaranteed. Therefore, impacts in this regard will be cumulatively significant and unavoidable and a Statement of Overriding Considerations will be developed.

Mitigation Measures

None other than Project -level measures.

Level of Significance After Mitigation

Significant contribution to cumulatively considerable impacts with respect to the identified segments of SR-210 Freeway and I-10 Freeway under 2030 conditions and cumulative transportation impacts the Project will have on intersections. Therefore, impacts in this regard will be significant and unavoidable and a Statement of Overriding Considerations will be developed for the deficient Caltrans facilities and cumulative transportation impacts.

4.2.17 - Utilities

Potable Water

The geographic scope of the cumulative potable water analysis is the City of Redlands water service area, which encompasses the city limits.

The City has four main supply sources. The potable wells can produce about 34 million gallons per day (mgd) of supply. In addition, The City has numerous options for obtaining new potable water sources or managing demand. The potential options include (1) increased use of existing surface water sources through purchase of additional water rights; (2) increased production of water from the groundwater basin through well rehabilitation, contaminated flow treatment, or new well construction; (3) increased conservation practices; (4) continued expansion of its reclaimed water system; or (5) purchase of additional water from the State Water Project (SWP). The Water Supply Analysis within Section 3.16 concluded that the City of Redlands Utilities and Engineering Department has sufficient water supply to serve the Project between 2010 and 2030 in addition to all customers within the City of Redlands.

The Project is estimated to demand 14,817 gallons per day of potable water. Nonetheless, because long-term water supply is a significant concern in California, the Project would reduce its demand on water supply through the implementation of indoor and outdoor water conservation measures. An additional mitigation measure requires the applicant to plumb landscaped areas with “purple pipe” to allow for recycled water irrigation when this service becomes available. These measures would reduce overall Project demand for potable water and ensure that long-term water supply impacts are less than significant. All future projects also would be required to demonstrate that potable water supply sources are available, and these projects may be required to implement water conservation measures. Finally, the Urban Water Management Plan prepared for the City of Redlands (2005) concludes that sufficient supplies are available to serve growth contemplated by the General Plan, which accounts for most, if not all, of the projects listed in Table 4-1. Therefore, the Project, in conjunction with other planned and approved projects, would not have a cumulatively considerable impact on potable water supply.

Wastewater

The geographic scope of the cumulative wastewater analysis is the City of Redlands Wastewater Treatment Plant service area, which collects wastewater from Redlands. Those projects listed in

Table 4-1 that lie in the City of Redlands have the potential to combine with the Project to exert cumulative impacts.

All future projects would be required to demonstrate that sewer service is available to ensure that adequate sanitation can be provided. The estimated wastewater generation of the Project is 4,910 gallons of wastewater on a daily basis. The existing wastewater flows for the City's Water Reclamation Plant (WRP) are between 6 and 6.5 mgd. The overall capacity of the WRF is 9.5 mgd. Consequently, implementation of the Project will increase wastewater generation by approximately 0.001 percent over the existing 6.5 mgd, which is well below the 9.5 mgd overall capacity of the WRF. Based on current growth projections that include buildout of the Projects in Table 4.1, the WRP will have adequate capacity for the City (including the Project). Therefore, the Project, in conjunction with other planned and approved projects, would not have a cumulatively considerable impact on wastewater.

Storm Drainage

The geographic scope of the cumulative storm drainage analysis is the City of Redlands' storm drainage system, which generally encompasses lands within the city limits.

All future development projects in the Project vicinity would be required to provide drainage facilities that collect and detain runoff such that off-site releases are controlled and do not create flooding. The Project would be served by on-site drainage facilities that impound runoff and ensure that it is released at a rate no greater than the pre-development condition at the site. As such, the Project would ensure that no net increase in stormwater would leave the Project site and would avoid cumulatively considerable contribution of stormwater to downstream waterways. During construction, the Project would implement standard pollution prevention measures to ensure that downstream water quality impacts are minimized to the greatest extent possible. In addition, the Project would provide water quality measures to prevent pollution during store operations. Therefore, the Project, in conjunction with other planned and approved projects, would not have a cumulatively considerable impact on storm drainage.

Solid Waste

The geographic scope of the cumulative solid waste analysis comprises those projects contributing to the California Street Landfill and the San Timoteo Sanitary Landfill.

The California Street Landfill and San Timoteo Sanitary Landfill have a combined remaining capacity of more than 16 million cubic yards. Future development projects would generate construction and operational solid waste and, depending on the volumes and end uses, would be required to implement recycling and waste reduction measures. The Project is anticipated to generate 1,068 tons of solid waste annually during operations. Consequently, the potential impact associated with the solid waste generated from the Project is less than significant in comparison to the total remaining capacity of landfill sites.

In addition, actual solid waste generation would be expected to be less than 661 tons per annum as Walmart stores are generally equipped with recycling facilities and are designed to limit waste of recyclable material by implementing innovative strategies.

Walmart stores are equipped to recycle the following materials:

- Aluminum;
- Plastic (including bottles, bags, garment bags, shrink wrap, and bubble pack);
- Glass;
- Cardboard;
- Vegetable oil;
- Single-use cameras;
- Electronic waste; and
- Silver (from photo processing).

In addition, actual solid waste generation would be expected to be less than 661 tons per annum as Walmart stores are equipped with recycling facilities and are designed to limit waste of recyclable material by implementing innovative strategies.

Walmart stores are equipped to recycle the following materials:

- Aluminum;
- Plastic (including bottles, bags, garment bags, shrink wrap, and bubble pack);
- Glass;
- Cardboard;
- Vegetable oil;
- Single-use cameras;
- Electronic waste; and
- Silver (from photo processing).

Similarly, followings are some of the innovative strategies implemented to limit waste as standard features:

- All cardboard generated from delivery packages is segregated and sent to a recycling center.
- Each new store has an indoor tank used to collect oil from cooking processes for recycling.
- All Walmart photo-processing centers recycle single-use cameras after photo processing.
- Walmart collects and segregates all recyclable bottles and cans.
- Walmart currently implements a chain wide program for “sandwich bale” recycling of plastics, e.g., bags, garment bags, shrink wrap, bubble pack, etc.

- Walmart photo labs capture silver from the photo processing.

Therefore, as discussed above the landfill sites serving the Project has sufficient permitted capacity to accommodate the Project's solid waste disposal need and accordingly, the Project, in conjunction with other future projects, would not have a cumulatively considerable impact on solid waste.

Mitigation Measures

None other than Project -level measures.

Level of Significance After Mitigation

No significant contribution to cumulatively considerable impacts.

4.2.18 - Urban Decay

Cumulative Urban Decay impacts are addressed in Section 3.18 of this EIR. Analysis in this section of the EIR determined that cumulative Urban Decay impacts would be less than significant.

Mitigation Measures

None other than Project -level measures.

Level of Significance After Mitigation

No significant contribution to cumulatively considerable impacts.