PLANNING DEPARTMENT
Date of Notice: MARCH 23, 2016
PUBLIC NOTICE OF AVAILABILITY FOR RECIRCULATED
SECTIONS OF A DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT
Internal Order Number: 21003516

The City of San Diego Planning Department has determined that various sections of the Draft Environmental Impact Report (EIR) for the above project should be revised and recirculated in accordance with Section 15088.5(a) of the State CEQA Guidelines which requires that an EIR be recirculated for an additional public review when significant new information is added to the EIR after public notice is given of the availability of the draft EIR for public review, but before certification. This determination was made in response to comments received during public review of the draft EIR regarding greenhouse gas emissions that would result from the adoption of the proposed ordinance. Public review concluded on January 19, 2016. This Recirculated draft EIR is consistent with the requirements of Section 15088.5(a) of the CEQA Guidelines.

As a result, the following sections or chapters of the draft EIR have been revised to include additional information and analysis regarding Greenhouse Gas Emissions:

- Executive Summary, sections on Environmental Impacts and Alternatives to the Project
- Section 3, Environmental Impact Analysis, Greenhouse Gas Emissions
- Section 4, Alternatives to the Project
- Section 5, Significant Environmental Effects that Cannot Be Avoided If the Project Is Implemented
- Section 6, Significant Irreversible Environmental Changes
- Section 8, Cumulative Impacts

The revised sections of the draft EIR have been placed on the City of San Diego Planning Department website under the heading "Draft CEQA Documents" and can be accessed using the following link:

http://www.sandiego.gov/planning/programs/ceqa/index.shtml

The DEIR public notice has also been placed on the City Clerk website at:

http://www.sandiego.gov/city-clerk/officialdocs/notices/index.shtml

In accordance with CEQA Section 15088.5(f)(1), the City is inviting the public to review the Recirculated EIR sections. **Please note that comments will only be accepted for the revised portions of the sections noted above and recirculated under this notice. Your comments must be received by MAY 9, 2016 to be included in the final document considered by the decision-making authorities.** The Final EIR will include responses to comments from the original EIR public review and that of the current effort.

Please send your written comments to the following address: **Susan Morrison, Environmental Planner, City of San Diego Planning Department, 1010 2nd Avenue, Suite 1200, East Tower, MS 413, San Diego, CA 92101 or email your comments to PlanningCEQA@sandiego.gov with the Project Name (CITY OF SAN DIEGO SINGLE-USE CARRYOUT BAG REDUCTION ORDINANCE) and Project Number (412659) in the subject line.**

General Project Information:

- Project: **CITY OF SAN DIEGO SINGLE-USE CARRYOUT BAG REDUCTION ORDINANCE**
- Project No. **412659**, SCH No. **2015051034**
- Community Plan Area: **CITYWIDE**
- Council District: **ALL COUNCIL DISTRICTS**

Applicant: City of San Diego, Environmental Services Department

Subject: **CITY COUNCIL APPROVAL for the Adoption and Implementation of an ordinance restricting the use of plastic and paper single-use carryout bags, and promoting the use of reusable bags. This proposed ordinance would amend Chapter 6, Article 6 of the San Diego Municipal Code, adding new Division 8, Sections 66.0801, 66.0802, 66.0803, 66.0804, 66.0805, 66.0806, 66.0807, and 66.0808.**

The City of San Diego (City) is proposing to reduce the adverse environmental impacts associated with single-use plastic carryout bags, including plastic bag litter. The City proposes to adopt and implement the Single-Use Carryout Bag Reduction Ordinance (project or ordinance) to regulate the use of single-use plastic carryout bags and promote the use of reusable bags within the City. The ordinance would: prohibit stores subject to the ordinance from distributing plastic single-use carryout bags and non-recyclable paper single-use carryout bags at the point of sale to customers, require stores subject to the ordinance to only provide recyclable paper single-use carryout bags or reusable bags at the point of sale to customers, and require stores subject to the ordinance to collect a charge at the point of sale of $0.10 for each recyclable paper single-use carryout bag provided to a customer and a minimum charge of $0.10 for each reusable carryout bag provided to a customer. More specifically, the ordinance would:

1. Prohibit the distribution of plastic single-use carryout bags and paper single-use carryout bags that do not qualify as "recyclable paper single-use carryout bags" to point-of-sale customers at stores subject to the ordinance.

2. Require stores subject to this ordinance to collect a $0.10 charge for each recyclable paper single-use carryout bag provided to point-of-sale customers.

   Participants in the Women, Infant and Children (WIC) or Supplemental Food Programs would be exempt from this requirement. (The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) provides federal grants to states for supplemental foods, health care referrals, and nutrition education for low-income pregnant, breastfeeding, and non-breastfeeding postpartum women, and to infants and children up to age five who are found to be at nutritional risk.)

3. Apply to the following:

   a. Full-line retail stores with two million dollars or more in gross annual sales that offer for sale perishable items in addition to a line of dry groceries, canned goods, or non-food items (Category A stores).

b. Stores of at least 10,000 square feet of retail space that generate sales or use tax pursuant to the Bradley-Burns Uniform Local Sales and Use Tax Law and that have a pharmacy licensed pursuant to the Pharmacy Law (Category B stores).
c. Supermarkets, grocery stores, drug stores, convenience food stores, food marts, pharmacies, or other entities engaged in the retail sale of goods that include milk, bread, soda, and snack foods, including those retail establishments with a Type 20 or 21 license issued by the California Department of Alcoholic Beverage Control (Category C stores).

4. Not regulate:

   a. "Product bags" - these include plastic or paper bags without handles, that are provided to a customer to carry meat, produce, or other food items to the point of sale, or to protect food or merchandise from being damaged or contaminated by other food or merchandise when items are placed together in a reusable bag or a recyclable paper single-use carryout bag at the point of sale.
   b. Restaurants.
   c. Non-profit stores that sell used goods.

5. Require stores subject to the ordinance to provide or make available to customers only recyclable paper single-use carryout bags or reusable bags for carrying away goods or materials from the point of sale.

6. Require stores subject to the ordinance to charge at least $0.10 per reusable bag at the point of sale to customers.

7. Allow stores subject to the ordinance to provide reusable bags for free to customers during an infrequent and limited time promotion that cannot exceed a total of 90 calendar days within any consecutive 12-month period.

8. Require stores subject to the ordinance to keep complete and accurate records of the number of recyclable paper single-use carryout bags provided each calendar month, both at a cost and for free to customers, and the total amount of monies collected each calendar month for the sale of recyclable paper single-use carryout bags to customers.

9. Not require periodic reporting, although the City may request data.

10. Phase implementation to allow for the transitional use of remaining single-use plastic and non-recyclable paper carryout bag inventories.

The ordinance would not prohibit a store from providing "product bags" to protect or contain meat or prepared food; or for bagging fruits, vegetables, and other fresh produce; or for other goods that must be protected from moisture, damage or cross-contamination, and which are typically placed inside a single-use carryout bag at the point of sale. Restaurant, City farmers market vendor, pharmacy, clothing, and dry cleaner bags would be exempt from the ordinance. A grace period of six months for large retailers (Category A and B stores) and one year for small retailers (Category C stores) would be provided to allow retailers to phase out stocks of plastic single-use carryout bags and paper bags that do not qualify as "recycled paper single-use carryout bags". Upon completion of the applicable grace period, retailers would have to charge $0.10 per recyclable paper single-use carryout bag, which would be retained by the retailer.

The City's Environmental Services Department (ESD) has conducted a public education program for several years, and would continue these activities through the grace period.

Recommended Finding: The draft EIR concludes that the project would result in significant unavoidable impacts in the area of **Greenhouse Gas Emissions**, and less than significant or beneficial effects with regard to **Air Quality, Hydrology/Water Quality**, and **Energy**. All other impacts analyzed in this EIR were found to be less than significant.

Availability in Alternative Format: To request this Notice, the Recirculated Environmental Impact Report (EIR) Sections, and/or supporting documents in alternative format call the Planning Department at 619-235-5200 or (800) 735-2929 (TEXT TELEPHONE).

Additional Information: For information regarding public hearings on this project, contact Project Manager Jennifer Ott at (858) 573-1285. For environmental review information, contact Susan Morrison, Environmental Planner at (619) 533-6492. The draft EIR, Initial Study, and supporting documents may be reviewed or purchased for the cost of reproduction, in the Planning Department.

This public notice for the Recirculated draft EIR sections was published in the SAN DIEGO DAILY TRANSCRIPT, posted at the County of San Diego, distributed for public review, and posted on the following City of San Diego web-sites on **MARCH 23, 2016**:

http://www.sandiego.gov/planning/programs/ceqa/index.shtml

http://www.sandiego.gov/city-clerk/officialdocs/notices/index.shtml

Alyssa Muto
Deputy Director

City of San Diego
PLANNING DEPARTMENT

Environmental & Resource Analysis Division
619-235-5200

RECIRCULATED DRAFT ENVIRONMENTAL IMPACT REPORT SECTIONS

Project No. 412659
SCH No. 2015051034

SUBJECT: CITY OF SAN DIEGO SINGLE-USE CARRYOUT BAG REDUCTION ORDINANCE. CITY COUNCIL APPROVAL **for the Adoption and Implementation of an ordinance restricting the use of plastic and paper single-use carryout bags, and promoting the use of reusable bags. This proposed ordinance would amend Chapter 6, Article 6 of the San Diego Municipal Code, adding new Division 8, Sections 66.0801, 66.0802, 66.0803, 66.0804, 66.0805, 66.0806, 66.0807, and 66.0808.**

APPLICANT: CITY OF SAN DIEGO, ENVIRONMENTAL SERVICES DEPARTMENT

UPDATE - MARCH 18, 2016

The City of San Diego Planning Department has determined that various sections of the Draft Environmental Impact Report (EIR) for the above project should be revised and recirculated in accordance with Section 15088.5(a) of the State CEQA Guidelines which requires that an EIR be recirculated for an additional public review when significant new information is added to the EIR after public notice is given of the availability of the draft EIR for public review, but before certification. This determination was made in response to comments received during public review of the draft EIR regarding the potential increase in greenhouse gas emissions that would result from the adoption of the proposed ordinance. Public review concluded on January 19, 2016.

As a result, the following sections or chapters of the draft EIR have been revised to include additional information and analysis regarding Greenhouse Gas Emissions:

- Executive Summary, sections on Environmental Impacts and Alternatives to the Project
- Section 3, Environmental Impact Analysis, Greenhouse Gas Emissions
- Section 4, Alternatives to the Project
- Section 5, Significant Environmental Effects that Cannot Be Avoided If the Project Is Implemented
- Section 6, Significant Irreversible Environmental Changes
- Section 8, Cumulative Impacts

This Recirculated draft EIR is consistent with the requirements of Section 15088.5(a) of the CEQA Guidelines.

PROJECT DESCRIPTION

The City of San Diego (City) is proposing to reduce the adverse environmental impacts associated with single-use plastic carryout bags, including plastic bag litter. The City proposes to adopt and implement the Single-Use Carryout Bag Reduction Ordinance (project or ordinance) to regulate the use of single-use plastic carryout bags and promote the use of reusable bags within the City. The ordinance would: prohibit stores subject to the ordinance from distributing plastic single-use

carryout bags and non-recyclable paper single-use carryout bags at the point of sale to customers, require stores subject to the ordinance to only provide recyclable paper single-use carryout bags or reusable bags at the point of sale to customers, and require stores subject to the ordinance to collect a charge at the point of sale of $0.10 for each recyclable paper single-use carryout bag provided to a customer and a minimum charge of $0.10 for each reusable carryout bag provided to a customer. More specifically, the ordinance would:

1. Prohibit the distribution of plastic single-use carryout bags and paper single-use carryout bags that do not qualify as "recyclable paper single-use carryout bags" to point-of-sale customers at stores subject to the ordinance.

2. Require stores subject to this ordinance to collect a $0.10 charge for each recyclable paper single-use carryout bag provided to point-of-sale customers.

   Participants in the Women, Infant and Children (WIC) or Supplemental Food Programs would be exempt from this requirement. (The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) provides federal grants to states for supplemental foods, health care referrals, and nutrition education for low-income pregnant, breastfeeding, and non-breastfeeding postpartum women, and to infants and children up to age five who are found to be at nutritional risk.)

   Apply to the following:

   a. Full-line retail stores with two million dollars or more in gross annual sales that offer for sale perishable items in addition to a line of dry groceries, canned goods, or non-food items (Category A stores).
   b. Stores of at least 10,000 square feet of retail space that generate sales or use tax pursuant to the Bradley-Burns Uniform Local Sales and Use Tax Law and that have a pharmacy licensed pursuant to the Pharmacy Law (Category B stores).
   c. Supermarkets, grocery stores, drug stores, convenience food stores, food marts, pharmacies, or other entities engaged in the retail sale of goods that include milk, bread, soda, and snack foods, including those retail establishments with a Type 20 or 21 license issued by the California Department of Alcoholic Beverage Control (Category C stores).

3. <u>Not</u> regulate:

   a. "Product bags" - these include plastic or paper bags without handles, that are provided to a customer to carry meat, produce, or other food items to the point of sale, or to protect food or merchandise from being damaged or contaminated by other food or merchandise when items are placed together in a reusable bag or a recyclable paper single-use carryout bag at the point of sale.
   b. Restaurants.
   c. Non-profit stores that sell used goods.

4. Require stores subject to the ordinance to provide or make available to customers only recyclable paper single-use carryout bags or reusable bags for carrying away goods or materials from the point of sale.

5. Require stores subject to the ordinance to charge at least $0.10 per reusable bag at the point of sale to customers.

6. Allow stores subject to the ordinance to provide reusable bags for free to customers during an infrequent and limited time promotion that cannot exceed a total of 90 calendar days within any consecutive 12-month period.

7. Require stores subject to the ordinance to keep complete and accurate records of the number of recyclable paper single-use carryout bags provided each calendar month, both at a cost and for free to customers, and the total amount of monies collected each calendar month for the sale of recyclable paper single-use carryout bags to customers.

8. Not require periodic reporting, although the City may request data.

9. Phase implementation to allow for the transitional use of remaining single-use plastic and non-recyclable paper carryout bag inventories.

The ordinance would not prohibit a store from providing "product bags" to protect or contain meat or prepared food; or for bagging fruits, vegetables, and other fresh produce; or for other goods that must be protected from moisture, damage or cross-contamination, and which are typically placed inside a single-use carryout bag at the point of sale. Restaurant, City farmers market vendor, pharmacy, clothing, and dry cleaner bags would be exempt from the ordinance. A grace period of six months for large retailers (Category A and B stores) and one year for small retailers (Category C stores) would be provided to allow retailers to phase out stocks of plastic single-use carryout bags and paper bags that do not qualify as "recycled paper single-use carryout bags". Upon completion of the applicable grace period, retailers would have to charge $0.10 per recyclable paper single-use carryout bag, which would be retained by the retailer. The City's Environmental Services Department (ESD) has conducted a public education program for several years, and would continue these activities through the grace period.

BACKGROUND

In California, nearly 20 billion (20,000,000,000) single-use plastic carryout bags are used annually, and most end up as litter or in landfills. Based on a City of San Diego (City) population of approximately 1,326,238 persons in January 2013 and a statewide estimate of approximately 531 plastic single-use carryout bags used per person per year, retail customers in the City currently use an estimated 700,000,000 plastic single-use carryout bags per year. These millions of single-use plastic bags impact local communities and the environment, especially when littered. Less than five (5) percent of used single-use plastic carryout bags are returned for recycling. The City spends millions of dollars each year on prevention, cleanup, and other activities to reduce litter.

For decades, the City has proactively addressed waste reduction and litter control, with planning including the City Council approved "Recycling and Waste Reduction Plan" in 1988, the "Source Reduction and Recycling Element" in 1992, updated in 1994 and annually thereafter, and, in July 2015, as the City of San Diego City Council unanimously approved a "Zero Waste Plan," which includes plastic bag reduction as one of its components.

In 2014, the California legislature passed, and Governor Brown signed, Senate Bill SB 270, which imposed statewide regulations on retailer provision of plastic single-use carryout bags. SB 270 preempts any local ordinance adopted on or after September 1, 2014 that is related to single-use carryout bag reduction. However, on February 24, 2015 California Secretary of State Alex Padilla certified a referendum for the November 8, 2016, General Election ballot to repeal the requirements of SB 270. Thus, if the ordinance is approved by the City of San Diego City Council and the referendum fails in November 2016, the City's ordinance, if approved, would be preempted by state law and retail stores within the City would be regulated under SB 270. If the referendum succeeds in

overturning SB 270, then the City's ordinance, if approved, would regulate single-use carryout bags in the City.

The intent of the ordinance is to significantly reduce the amount of litter in the City attributable to single-use carryout bags and their associated adverse environmental impacts. The City's objectives for the Single-Use Carryout Bag Reduction Ordinance include:

- Reducing the millions of plastic single-use carryout bags currently used in the City;
- Reducing the adverse environmental impacts associated with plastic single-use carryout bags, including impacts to air quality, biological resources (including marine environments), water quality, and solid waste;
- Deterring the use of paper single-use carryout bags by retail customers in the City;
- Promoting a shift toward the use of reusable carryout bags; and
- Reducing litter and the associated adverse impacts to storm water facilities, aesthetics, and the environment.

The ordinance would apply throughout the City, which encompasses approximately 372 square miles, from Rancho Bernardo in the northern part of the City to the Pacific Ocean on the west, east to the communities of Encanto, Navajo, and City Heights, and south to Otay Mesa and the International Border. Adjoining jurisdictions include unincorporated San Diego County, and the cities of Solana Beach, Del Mar, Escondido, Poway, La Mesa, El Cajon, Santee, Lemon Grove, Coronado, National City, Chula Vista, and Imperial Beach.

CONCLUSIONS:

Based on the analysis conducted for the project described ~~in the subject block~~ above, including the revised Draft EIR sections being recirculated pursuant to Section 15088.5(a) of the CEQA Guidelines, ~~the City has prepared the following Environmental Impact Report (EIR) in accordance with the California Environmental Quality Act (CEQA) to inform public agency decision-makers and the public of the significant environmental effects that could result if the project is approved and implemented, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project (State CEQA Guidelines Section 15121). As further described in the attached EIR,~~ the City has determined that the project would result in significant unavoidable impacts in the area of **Greenhouse Gas Emissions**, and less than significant or beneficial effects with regard to **Air Quality, Hydrology/Water Quality**, and **Energy**. All other impacts analyzed in this revised Draft EIR were found to be less than significant. ~~No m~~Mitigation measures are required (Chapter 3) to reduce program-level impacts, but not to below a level of significance.

The attached Draft EIR sections and previous DEIR documents the reasons to support the above Determination.

MITIGATION, MONITORING AND REPORTING PROGRAM:

Mitigation measures have been incorporated into the project which reduce potentially significant impacts in the area of Greenhouse Gas Emissions, but not to below a level of significance.

RECOMMENDED ALTERNATIVES FOR REDUCING SIGNIFICANT UNMITIGATED IMPACTS

Based on the requirement that alternatives reduce significant impacts associated with the proposed project, the EIR considers the following Project Alternatives which are further detailed in the Executive Summary and Chapter 4 of the EIR:

1. No Project
2. Apply the Single-Use Carryout Bag Reduction Ordinance to All Retail Vendors Alternative
3. Apply the Single-Use Carryout Bag Reduction Ordinance to Only Large ("Big-Box") Retail Vendors Alternative
4. Apply the Single-Use Carryout Bag Reduction Ordinance, but Impose a Higher Fee on Recyclable Paper Single-Use Carryout Bags Alternative

The EIR identified Alternative 4, Apply the Single-Use Carryout Bag Reduction Ordinance, but Impose a Higher Fee on Recyclable Paper Single-Use Carryout Bags as the environmentally superior alternative which was based on a comparison of the alternatives' overall environmental impacts. Alternative 4 would achieve the objective of promoting a shift to reusable bags more rapidly and to a greater extent than under the project. However, no jurisdiction has implemented this option or provided data on the effectiveness; therefore, the effect of increasing the fee on recyclable paper single-use carryout bags can only be very broadly estimated. Of the remaining alternatives, Alternatives 2 and 3 have very similar levels of impact to the project.

PUBLIC REVIEW DISTRIBUTION:

Individuals, organizations, and agencies that received a copy or notice of the Recirculated Draft EIR sections and were invited to comment on its accuracy and sufficiency is provided below. Copies of the EIR may be reviewed in the office of the Planning Department, or purchased for the cost of reproduction.

RESULTS OF PUBLIC REVIEW:

( ) No comments were received during the public input period.

( ) Comments were received but did not address the accuracy or completeness of the Draft Environmental Impact Report (EIR). No response is necessary and the letters are attached at the end of the EIR.

( ) Comments addressing the accuracy or completeness of the Draft Environmental Impact Report (EIR) were received during the public input period. The letters and responses are located immediately after the EIR Distribution List.

Alyssa Muto, Deputy Director
Planning Department

November 19, 2015
Date of Draft Report

March 23, 2016
Date of Recirculation of Draft EIR Sections

Date of Final Report

Analyst: Susan Morrison

DISTRIBUTION OF RECIRCULATED DRAFT ENVIRONMENTAL IMPACT REPORT SECTIONS

Copies of the Recirculated Draft EIR Sections were distributed to the following agencies, organizations and individuals:

United States Government
Federal Aviation Administration (1)
Naval Facilities Engineering Command, SW Division, Environmental Planning (12)
MCAS Miramar (13)
Marine Corps Recruit Depot Facilities Div. (14)
Environmental Protection Agency (19)
U. S. Fish and Wildlife Service (23)
USDA Natural Resources Conservation Services (25)
Army Corps of Engineers (26)

State of California
Caltrans District 11 (31)
Department of Fish and Wildlife (32)
Cal Recycle (35)
California Environmental Protection Agency (37A)
Department of Toxic Substance Control (39)
Natural Resources Agency (43)
Regional Water Quality Control Board, Region 9 (44)
Department of Water Resources (45)
State Clearinghouse (46A)
California Coastal Commission (47)
California Air Resources Board (49)
State Coastal Conservancy (54)
State Water Resources Control Board Division of Clean Water Programs (55)
Native American Heritage Commission (56)
California Energy Commission (59)
California Dept. of Conservation (60)

San Diego County
Agriculture Department (64)
Air Pollution Control Board (65)
Planning and Land Use (68)
Parks Department (69)
Public Works (72)
County Water Authority (73)
Department of Environmental Health (76)

City of San Diego
Office of the Mayor (91)
Scott Chadwick
Stacey LoMedico
David Graham
Ron Villa
Mike Hansen
Council President Lightner, District 1
Councilmember Zapf, District 2
Councilmember Gloria, District 3
Councilmember Cole, District 4

Councilmember Kersey, District 5
Councilmember Cate, District 6
Councilmember Sherman, District 7
Councilmember Alvarez, District 8
Council President Pro Tem Emerald, District 9

Office of the City Attorney
Shannon Thomas
Amanda Guy

Environmental Services Department (Applicant)
Mario Sierra, Director
Darren Greenhalgh, Deputy Director
David Weil
Mary Valerio
Ken Prue
Jennifer Ott-Rol
Lisa Wood
Burton Ewert
Andrea Altman
Gavin Broatch
Meghan Cannis
Ana Carvalho
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Bill Harris
Jose Ysea
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Public Utilities Department
Keli Balo

Public Works Department
James Nagelvoort, Director

Economic Development
Erik Caldwell, Director
Cody Hooven
Russ Gibbon
Jim Davies

Park and Recreation Department
Herman Parker, Director
Andrew Field
Chris Zirkle

Transportation & Storm Water Department
Kris McFadden, Director
Andrew Kleis
Ruth Kolb

City Government
Civic San Diego (242)
San Diego Housing Commission (88)

City Advisory Boards or Committees
Mission Bay Park Committee (318A)
Park and Recreation Board (83)
Community Forest Advisory Board (90)

Historical Resources Board (87)
Wetland Advisory Board (91A)
La Jolla Shores PDO Advisory Board (279)
Sustainable Energy Advisory Board

Libraries
Central Library, Government Documents (81 & 81A)
Balboa Branch Library (81B)
Beckwourth Branch Library (81C)
Benjamin Branch Library (81D)
Carmel Mountain Ranch Branch Library (81E)
Carmel Valley Branch Library (81F)
City Heights/Weingart Branch Library (81G)
Clairemont Branch Library (81H)
College-Rolando Branch Library (81I)
Kensington-Normal Heights Branch Library (81K)
La Jolla/Riford Branch Library (81L)
Linda Vista Branch Library (81M)
Logan Heights Branch Library (81N)
Malcolm X Library & Performing Arts Center (81O)
Mira Mesa Branch Library (81P)
Mission Hills Branch Library (81Q)
Mission Valley Branch Library (81R)

North Clairemont Branch Library (81S)
North Park Branch Library (81T)
Oak Park Branch Library (81U)
Ocean Beach Branch Library (81V)
Otay Mesa-Nestor Branch Library (81W)
Pacific Beach/Taylor Branch Library (81X)
Paradise Hills Branch Library (81Y)
Point Loma/Hervey Branch Library (81Z)
Rancho Bernardo Branch Library (81AA)
Rancho Peñasquitos Branch Library (81BB)
READ San Diego (81CC)
San Carlos Branch Library (81DD)
San Ysidro Branch Library (81EE)
Scripps Miramar Ranch Branch Library (81FF)
Serra Mesa Branch Library (81GG)
Skyline Hills Branch Library (81HH)
Tierrasanta Branch Library (81II)
University Community Branch Library (81JJ)
North University Branch Library (81JJJ)
University Heights Branch Library (81KK)

Other City Governments
City of Chula Vista (94)
City of El Cajon (97)
City of Escondido (98)
City of Imperial Beach (99)
City of National City (102)
City of Poway (103)
City of Santee (104)
San Diego Association of Governments (108)
San Diego Unified Port District (109)
San Diego County Regional Airport Authority (110)
Metropolitan Transit System (112/115)
San Diego Gas & Electric (114)
San Dieguito River Park JPA (116)

School Districts
Chula Vista School District (118)
Grossmont Union High School District (120)
La Mesa-Spring Valley School District (121)
National City School District (123)
Poway Unified School District (124)
San Diego Unified School District (125)
San Ysidro School District (127)
Santee School District (128)
South Bay Unified School District (130)
San Diego Community College District (133)
UCSD (134)

Community Planning Groups or Committees
Community Planners Committee (194)
Balboa Park Committee (226, MS 35)
Black Mountain Ranch –Subarea I (226C)

Otay Mesa - Nestor Planning Committee (228)
Otay Mesa Planning Committee (235)
Clairemont Mesa Planning Committee (248)
Greater Golden Hill Planning Committee (259)
Serra Mesa Planning Group (263A)
Kearny Mesa Community Planning Group (265)
Linda Vista Community Planning Committee (267)
La Jolla Community Planning Association (275)
City Heights Area Planning Committee (287)
Kensington-Talmadge Planning Committee (290)
Normal Heights Community Planning Committee (291)
Eastern Area Planning Committee (302)
Midway/Pacific Highway Community Planning Group (307)
Mira Mesa Community Planning Group (310)
Mission Beach Precise Planning Board (325)
Mission Valley Unified Planning Organization (331)
Navajo Community Planners Inc. (336)
Carmel Valley Community Planning Board (350)
Del Mar Mesa Community Planning Board (361)
North Park Planning Committee (363)
Ocean Beach Planning Board (367)
Old Town Community Planning Committee (368)
Pacific Beach Community Planning Committee (375)
Pacific Highlands Ranch – Subarea III (377A)
Rancho Peñasquitos Planning Board (380)
Peninsula Community Planning Board (390)
Rancho Bernardo Community Planning Board (400)
Sabre Springs Community Planning Group (406B)
San Pasqual - Lake Hodges Planning Group (426)
San Ysidro Planning and Development Group (433)
Scripps Ranch Community Planning Group (437)
Miramar Ranch North Planning Committee (439)
Skyline - Paradise Hills Planning Committee (443)
Torrey Hills Community Planning Board (444A)
Southeastern San Diego Planning Committee (449)
Encanto Neighborhoods Community Planning Group (449A)
College Area Community Planning Board (456)
Torrey Highlands – Subarea IV (467)
Torrey Pines Community Planning Board (469)
University City Community Planning Group (480)
Uptown Planners (498)

Community Councils
Town Council Presidents Association (197)
Barrio Station, Inc. (241)
Downtown Community Council (243)
Harborview Community Council (245)
Clairemont Town Council (257)
Serra Mesa Community Council (264)
La Jolla Town Council (273)
Rolando Community Council (288)
Oak Park Community Council (298)
Darnell Community Council (306)
Mission Valley Community Council (328C)

San Carlos Area Council (338)
Carmel Mountain Ranch Community Council (344)
Ocean Beach Town Council, Inc. (367 A)
Pacific Beach Town Council (374)
Rancho Penasquitos Town Council (383)
Rancho Bernardo Community Council, Inc. (398)
San Dieguito Planning Group (412)
United Border Community Town Council (434)
Tierrasanta Community Council (462)
Murphy Canyon Community Council (463)

Other Agencies, Organizations and Individuals
San Diego Chamber of Commerce (157)
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Mike Bullock
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Executive Summary, section on Environmental Impacts, pages ES-3 to ES-7.

- Table S-1 has been modified to change the identification of GHG-related impacts to potentially significant and not mitigated to a level below significance.

Executive Summary, section on Alternatives to the Project, pages ES-7 to ES-8.

- This section has been changed to describe an additional alternative, Alternative 5, Apply the Single-Use Carryout Bag Reduction Ordinance to Both Plastic Single-Use Carryout Bags and Paper Single-Use Carryout Bags

Section 3, Environmental Impact Analysis, Greenhouse Gas Emissions, Section 3.2, pages 3-17 to 3-27.

- Page 3-23 has been modified to clarify that the City of San Diego's screening criteria are currently under development.

- Section 3.2.3.1 has been modified to determine that GHG-related impacts may be considered potentially significant.

- Section 3.2.4 has been modified to describe the mitigation measures that the City plans to implement.

- Section 3.2.5 has been modified to conclude that GHG-related impacts may be potentially significant and cannot be mitigated to a level below significance.

Section 4, Alternatives to the Project.

- Introduction, page 4-1, has been modified to indicate that alternatives would result in a potentially significant GHG-related impact. Also, added Alternative 5: Apply the Single-Use Carryout Bag Reduction Ordinance to Both Plastic Single-Use Carryout Bags and Paper Single-Use Carryout Bags

- Section 4.2.2, page 4-3 has been modified to determine that this alternative would have potential GHG impacts.

- Section 4.2.3, page 4-5, has been modified to clarify local-government level California ordinances.

- Section 4.3.2, page 4-6, has been modified to determine that this alternative would have potential GHG impacts.

- Section 4.4.2, page 4-8, has been modified to determine that this alternative would have a GHG-related benefit.

- Section 4.5, page 4-10 has been changed to add a new alternative, Alternative 5: Apply the Single-Use Carryout Bag Reduction Ordinance to Both Plastic Single-Use Carryout Bags and Paper Single-Use Carryout Bags

- Section 4.6, page 4-12, (previously Section 4.5) has been modified to indicate that all alternatives except the No Project, Alternative 4, and Alternative 5 would result in a potentially significant GHG-related impact.

- Table 4-13 (formerly Table 4-10) has been edited to include Alternative 5

Section 5, Significant Environmental Effects that Cannot Be Avoided If the Project Is Implemented.

- This section, page 5-1, was modified to reflect potentially significant impacts related to GHG.

Section 6. Significant Irreversible Environmental Changes.

- This section was modified to reflect potentially significant impacts related to GHG.

Section 8. Cumulative Impacts.

Section 8.1.2 was modified to reflect potentially significant cumulative impacts related to GHG.

EXECUTIVE SUMMARY

ENVIRONMENTAL IMPACTS

This Environmental Impact Report (EIR) has been prepared to analyze the potentially significant ~~environmental~~ impacts associated with the Single-Use Carryout Bag Reduction ordinance project. The analysis contained in this EIR indicates ~~that the ordinance would result in the possibility for~~ less than significant ~~impacts in addition to~~ or potentially beneficial effects with regard to air quality, water quality, and energy. Without a specific project-level GHG threshold it is difficult to determine with certainty whether the GHG impacts for this particular project would be below a level of significance. Therefore, GHG impacts are considered potentially significant for this project. All other impacts analyzed in this EIR were found to be less than significant. Table S-1 summarizes the environmental impacts associated with the adoption and implementation of the ordinance.

Table S-1
Summary of Potential Environmental Impacts

	Environmental Impact	Mitigation Measures	Level of Impact after Mitigation
Air Quality	The ordinance would reduce emissions that contribute to ground-level ozone by at least 45% and atmospheric acidification by 36%. Under the "worst case" scenario where all recyclable paper single-use carryout bags and reusable bags are delivered to retail stores in separate truck loads, the implementation of the ordinance has a potential to add approximately 1.64 truck trips per day. However, the bags are typically delivered to supermarkets and retail stores as part of larger mixed loads of groceries and merchandise. Therefore, there may not be an actual net increase in truck traffic from the change in bag use, particularly since recyclable paper single-use carryout bags and reusable bags could be included in regular mixed load deliveries to the grocery stores, supermarkets, and other retail stores.	Impact would be insignificant or beneficial; no mitigation is required.	Impact would be insignificant or beneficial; no mitigation is required.
Greenhouse Gas Emissions	Some reports estimate a beneficial effect, but for this analysis, which utilizes conservative assumptions, it is anticipated that as a result of the ordinance, within one year, greenhouse gas (GHG) emissions increases associated with the manufacturing, transportation and disposal of carryout bags used in the City would be approximately 8,498 metric tons of carbon dioxide (CO_2) per year. This represents an increase of approximately 0.006 CO_2 metric tons per capita over the ~~, which would be far less than the City's threshold of 4.46 metric tons of CO_2 per capita and the~~ State 2020 target emission rate of 9.6 metric tons of CO_2 per capita. However, without a specific	The City will: • Provide an education program regarding the ordinance, including for Town Councils and Community Groups, • Provide outreach regarding reusable bags at major events, • Promote consumer paper bag recycling, • Find partners to donate and then	Impact would remain significant after mitigation. ~~Impact would be less than significant and no mitigation is required.~~

	Environmental Impact	Mitigation Measures	Level of Impact after Mitigation
	project-level GHG threshold for comparison, it is difficult to determine with certainty that this emission rate is below a level of significance for this particular project. Therefore, GHG impacts are considered potentially significant for this project.	distribute reusable bags free of charge, • Promote consumer transition to reusable bags, the reduction of double bagging, and reuse and in-store recycling of paper bags. • Consider increasing the $0.10 paper bag fee if paper bag use increases. ~~Impact would be less than significant and no mitigation is required.~~	
Forest and Agricultural Resources	Under a worst case scenario, the ordinance may result in increase in the use of paper single-use carryout bags, which are manufactured from wood pulp and recycled materials. Overall, trees cut down for virgin material to manufacture paper single-use carryout bags are those trees that are commercially grown for paper manufacturing. Therefore, there would be no increase in cutting of old-growth forest. In addition, the ordinance requires recyclable paper single-use carryout bags to have no less than 40% recycled content (and currently, there are paper bags on the market that contain 100% recycled content), which would reduce the loss of trees as a result of any fluctuations in demand for paper single-use carryout bags in the City.	No significant impact would occur and no mitigation is required.	No significant impact would occur and no mitigation is required.
Hazards and Hazardous Materials	1. None of the commonly used carryout bags possess any of the four characteristics of hazardous wastes (ignitability, corrosivity, reactivity, or toxicity) and do not appear on special U.S. Environmental Protection Agency lists.[1] The ordinance would not involve the routine transport, use, or disposal of hazardous materials as defined by the Hazardous Materials Transportation Uniform Safety Act.[2] The usual practice of placing produce and meat into plastic bags to prevent contamination would continue if the ordinance is adopted, although there is a potential for bacterial continuation in reusable bags. Additional studies show	No significant impact would occur and no mitigation is required.	No significant impact would occur and no mitigation is required.

[1] City of Los Angeles FEIR citing Code of Federal Regulations, Title 40, Chapter 1, Part 261: "Identification and Listing of Hazardous Waste."
[2] City of Los Angeles FEIR citing Code of Federal Regulations, Title 40, Chapter 1, Parts 106–180.

	Environmental Impact	Mitigation Measures	Level of Impact after Mitigation
	that bacteria are present in kitchens in the US.[3] However, even if bacteria occur in reusable bags, studies suggest that no illness would result.		
Hydrology and Water Quality	Surface Waters: The implementation of the ordinance would reduce the amount of litter that could enter storm drains, local waterways, and the Pacific Ocean by reducing plastic single-use carryout bag litter, thus improving water quality. Although there is no local manufacturing of carryout bags, impacts due to potential increases in eutrophication due to manufacturing would be less than significant in a worst-case scenario.	Impact would be beneficial; no mitigation is required.	Impact would be beneficial; no mitigation is required.
	Groundwater: The ordinance does not involve any construction of new structures, such as manufacturing facilities, that could result in an increase in impervious surfaces that would potentially reduce ground-water levels. There are no known reusable bag manufacturing facilities in San Diego, and future facilities manufacturing reusable bags, if any, would use water supplied by the San Diego County Water Authority (SDCWA) from its portfolio of water sources and be subject to the SDCWA's water allocations, as applicable.	Impact would be less than significant and no mitigation is required.	Impact would be less than significant and no mitigation is required.
Utilities and Service Systems	*Water:* Reusable bags do not require special washing care and would likely be washed on a regular basis along with a household's regular laundry load.[4] Since few if any families have (or are likely to ever have) a large supply of reusable shopping bags that would require laundering all at once, it is anticipated that the reusable bags would be washed in regular laundry loads as needed. This would not result in increased water use, as the wash loads would occur with or without the bags and such bags are not washed often (typically once a month). Additionally, most of the new reusable bags distributed by retailers and others are made from plastics that can be easily cleaned with a damp sponge. Nonetheless, in order to consider the most conservative, albeit unlikely, scenario, even if every reusable bag is washed once per year, the potential increase in water demand due to implementation of the ordinance is within the capacity of San Diego's water supply.	Impact would be less than significant and no mitigation is required.	Impact would be less than significant and no mitigation is required.

[3] City of Los Angeles FEIR citing San Jose DEIR citing Josephson, K.L., Rubino, J.R., Pepper, I.L. "Characterization and quantification of bacterial pathogens and indicator organisms in household kitchens with and without the use of a disinfectant cleaner." *Journal of Applied Microbiology*, Vol. 83 No.6, pp.737-50. 1997.
[4] Master Environmental Assessment on Single Use and Reusable Bags, Green Cities California, March 2010.

	Environmental Impact	Mitigation Measures	Level of Impact after Mitigation
	Manufacturing processes for paper single-use carryout bags require more water than manufacturing processes for plastic single-use carryout bags, and the project could potentially, under a worst case scenario, increase the number of paper single-use carryout bags used. Some paper single-use carryout bag manufacturing facilities use "closed loop" water recycling, but not all. If retailers choose a supplier from the State of California, and if that manufacturer increases its water consumption as a result of increased demand, that could result in increased water consumption within the state, a critical issue, especially during drought periods. All manufacturers would be required to comply with local water planning and conservation requirements, and any new facilities would be subject to review under CEQA. Suppliers may include out of state facilities. The source of the bags is speculative, and the nature of the impacts, if any, cannot be determined.	Impact would be less than significant and no mitigation is required.	Impact would be less than significant and no mitigation is required.
	Wastewater: The additional wastewater generation under this scenario would not exceed the remaining capacity of the treatment plants serving the City as there is adequate capacity to treat the additional wastewater, and no new facilities would be necessary.	Impact would be less than significant and no mitigation is required.	Impact would be less than significant and no mitigation is required.
	Solid Waste: A worst case scenario analysis of the solid waste impacts of carryout bag use indicates up to an additional 1,490 tons of solid waste may be generated due to the ordinance, which amounts to less than .002% of the capacity of Miramar Landfill.	Impact would be less than significant; no mitigation is required.	Impact would be less than significant; no mitigation is required.
Mineral Resources	The ordinance would not result in impacts to mineral resources in relation to the loss of availability of a known mineral resource recovery site. There are three areas within the City with mineral resources (sand and gravel) of statewide or regional importance; however, the regulation of single-use carryout bags at retail stores would not affect these locally-important sand and gravel mineral resources.	There would be no impact to mineral resources recovery sites.	There would be no impact to mineral resources recovery sites; no mitigation is required.
Energy	Recyclable paper single-use carryout bag use may increase with the ordinance, and paper bags have a higher energy consumption rate than plastic bags. However, with the overall reduction in use of all types of bags, the expected energy consumption from the project is expected to decrease. No local increased demand for energy is expected.	Impact would be beneficial and no mitigation is required.	Impact would be beneficial and no mitigation is required.

	Environmental Impact	Mitigation Measures	Level of Impact after Mitigation
	Reusable non-woven plastic polypropylene bags are produced using a by-product of gas or oil refining. While there are no known reusable bag manufacturing facilities in San Diego, the manufacture of these bags for use within the City would involve petroleum and/or natural gas. However, any potential use of petroleum in the manufacturing process of reusable bags is anticipated to be offset by the reduction of natural gas/petroleum used in single-use plastic bag manufacture.	Impact would be less than significant and no mitigation is required	Impact would be less than significant and no mitigation is required.
	Under the "worst case" scenario where all recyclable paper single-use carryout bags and reusable bags are delivered to retail stores in separate truck loads, the implementation of the ordinance has a potential to add approximately 1.64 truck trips per day which would result in use of an additional 1,993 gallons of diesel fuel per year. However, the bags are typically delivered to supermarkets and retail stores as part of larger mixed loads of groceries and merchandise. Therefore, there may not be an actual net increase in truck traffic from the change in bag use.	Impact would be less than significant and no mitigation is required	Impact would be less than significant and no mitigation is required.

Alternatives to the Project

The analysis in this Draft EIR indicates that the ordinance project would result in less than significant or beneficial effects with regard to air quality, water quality, and energy. Without a specific project-level GHG threshold it is difficult to determine with certainty whether the GHG impacts for this particular project would be below a level of significance. Therefore, GHG impacts are considered potentially significant for this project. The project was found to result in either a less than significant impact or no impact on other environmental factors analyzed in the EIR.

~~Therefore, the discussion of the alternatives to the project focuses on whether the alternatives could achieve the project objectives to a greater or lesser extent.~~

The alternatives considered and compared to the project in the EIR include:

Alternative 1: "No Project" alternative

Alternative 2: Apply the Single-Use Carryout Bag Reduction Ordinance to All Retail Vendors

Alternative 3: Apply the Single-Use Carryout Bag Reduction Ordinance to Only Large ("Big-Box") Retail Vendors

Alternative 4: Apply the Single-Use Carryout Bag Reduction Ordinance, but Impose a Higher Fee on Recyclable Paper Single-Use Carryout Bags

Alternative 5: Apply the Single-Use Carryout Bag Reduction Ordinance to Both Plastic Single-Use Carryout Bags and Paper Single-Use Carryout Bags

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Alternative 1, the "No Project" would not achieve any of the project objectives.

Alternative 2, Apply the Single-Use Carryout Bag Reduction Ordinance to All Retail Vendors is not environmentally superior to the project, and would achieve all project objectives.

Alternative 3, Apply the Single-Use Carryout Bag Reduction Ordinance to Only Large ("Big-Box") Retail Vendors is not environmentally superior to the project. In the long term, Alternative 3 would only partially achieve the objectives of the ordinance due to the fewer number of vendors covered by the ordinance and the larger number of single-use carryout bags that would still be used within the City.

Alternative 4, Apply the Single-Use Carryout Bag Reduction Ordinance, but Impose a Higher Fee on Recyclable Paper Single-Use Carryout Bags, is considered environmentally superior to the project because it would result in greater beneficial environmental effects and achievement of all of project objectives, and would reduce or eliminate most impacts associated with the project.

Alternative 5, Apply the Single-Use Carryout Bag Reduction Ordinance to Both Plastic Single-Use Carryout Bags and Paper Single-Use Carryout Bags, is considered environmentally superior to the project because it would result in greater beneficial environmental effects and achievement of all of the project objectives, and would reduce or eliminate most impacts associated with the project, to the greatest extent of all the alternatives.

Areas of Controversy and Issues to be Resolved

The Notice of Preparation (NOP) process raised the potential for the project to result in an increase in water consumption because of the potential for increased consumption of paper bags. Paper bags require more water in their manufacturing process than plastic bags. The analysis in this EIR includes a consideration of potential impacts associated with water used during bag manufacturing. Because no manufacturing facilities are located in the project area, and it is not known what specific facilities are, or would be, the source of bags, the exact nature of the impacts is speculative, and may not occur within California. However, the potential for this impact is considered in general terms in the Utilities/Public Service Systems section.

3.2 GREENHOUSE GAS EMISSIONS

This section provides an overview of existing greenhouse gas (GHG) conditions and evaluates the climate change impacts associated with the ordinance.

3.2.1 Environmental Setting

The greenhouse effect refers to a planet-wide, overall warming that results when the atmosphere traps heat radiating from Earth toward space. Certain gases in the atmosphere act like the glass in a greenhouse, allowing sunlight in, but blocking heat from escaping. The gases that contribute to the greenhouse effect include water vapor, CO_2, methane (CH_4), nitrogen dioxide (NO_2), hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride (SF_6), and chlorofluorocarbons. While the greenhouse effect is essential to life on earth, emissions from burning fossil fuels, deforestation, and other causes have increased the concentration of GHGs to dangerous levels.

Of all the GHGs, CO_2 is the most abundant pollutant that contributes to climate change through fossil fuel combustion. CO_2 comprised 84 percent of the total GHG emissions in California in 2002.[5] The other GHGs are less abundant but have higher global warming potential (GWP) than CO_2. To account for their higher potential, emissions of other GHGs are frequently expressed in the equivalent mass of CO_2, denoted as CO_{2e}. The CO_{2e} of CH_4 and NO_2 represented 6.4 percent and 6.8 percent, respectively, of the 2002 California GHG emissions. Other high GWP gases represented 3.5 percent of these emissions. In addition, there are several human-made pollutants such as carbon monoxide, nitrogen oxides, and sulfur dioxide that have indirect effects on terrestrial or solar radiation absorption by influencing the formation or destruction of other GHGs.

3.2.1.1 Effects of Climate Change

Globally, climate change has the potential to affect environmental resources through potential impacts related to future air temperatures and precipitation (rain/hail/snow) patterns. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. Scientists have projected that the average global surface temperature could rise by 1.0 to 4.5 degrees Fahrenheit (°F) in the next 50 years, and the increase may be as high as 2.2 to 10°F in the next century.[6] According to the California Environmental Protection Agency (CalEPA) 2010 Climate Action Team Biennial Report, potential impacts of climate change in California may include loss of snow pack (which serves as water storage), sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years.[7] Below is a summary of some of the most important and far-reaching potential effects that could occur in California as a result of climate change. Scientific modeling tools are unable to predict

[5] http://www.arb.ca.gov/cc/inventory/data/data.htm
[6] http://www.epa.gov/climatechange/science/future.html
[7] California Environmental Protection Agency, Climate Action Team Biennial Report, April 2010.

specifically what impacts would occur locally within a similar degree of accuracy. In general, regional and local predictions are made based on downscaling statewide models.[8]

Sea Level Rise. A sea level rise of eight inches has occurred along the California coast over the last century, and climate change has the potential to induce up to 55 inches of additional sea level rise in the coming century.[9] Sea level rise may be a product of climate change through two main processes: expansion of sea water as the oceans warm and melting of ice over land. A rise in sea levels could result in coastal flooding and erosion and could jeopardize California's water supply due to salt water intrusion.

Air Quality. Higher temperatures are conducive to air pollution formation, and could worsen air quality. Climate change may increase the concentration of ground-level ozone, but the magnitude of the effect, and therefore its indirect effects, are uncertain. If higher temperatures are accompanied by drier conditions, the potential for large wildfires could increase, which, in turn, would further worsen air quality. Additionally, severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout California.[10]

Water Supply. Analysis of paleoclimatic (pre-historic) data such as tree-ring reconstructions of stream flow and precipitation indicates a history of widely varying hydrologic conditions in California, including a pattern of recurring drought. In the last century, California's temperature has risen about 1°F, mostly at night and during the winter, with higher elevations experiencing the greatest increase.[11] Warmer winter storms result in less snowfall at lower elevations, reducing the total snowpack. The average spring snowpack in the Sierra Nevada decreased by about 10 percent, a loss of 1.5 million acre-feet (AF) of snowpack storage increase.[12] The Sierra snowpack provides the majority of California's water supply by accumulating snow during our wet winters and releasing it slowly during our dry springs and summers. The California Department of Water Resources reports that the snowpack is at historic lows.[13]

Hydrology. Climate change could potentially affect: the amount of snowfall, rainfall, and snow pack; the intensity and frequency of storms; flash floods, extreme rain or snow events; coincidental high tide and high runoff events; sea level rise and coastal flooding; coastal erosion; and the potential for salt water intrusion. Increased storm intensity and frequency could affect the ability of flood-control facilities, including levees, to handle storm events.

Agriculture. California has a $30 billion agricultural industry that produces half of the country's fruits and vegetables.[14] Higher CO_2 levels can stimulate plant production and increase plant water-use efficiency.[15]

[8] California Energy Commission, Inventory Draft 2009 Biennial Report to the Governor and Legislature. Staff Draft Report, March 2009.
[9] California Climate Change Center, The Impacts of Sea-Level Rise on the California Coast, May 2009.
[10] California Energy Commission, Inventory Draft 2009 Biennial Report to the Governor and Legislature, Staff Draft Report, March 2009.
[11] California Energy Commission, Inventory Draft 2009 Biennial Report to the Governor and Legislature, Staff Draft Report, March 2009 and http://www.epa.gov/climatechange/science/indicators/weather-climate/temperature.html
[12] California Energy Commission, Inventory Draft 2009 Biennial Report to the Governor and Legislature, Staff Draft Report, March 2009 and http://www.epa.gov/climatechange/science/indicators/weather-climate/temperature.html and http://www.usda.gov/wps/portal/usda/usdahome?contentid=2015/03/0062.xml
[13] http://www.water.ca.gov/news/newsreleases/2015/040115snowsurvey.pdf
[14] http://www.cdfa.ca.gov/Statistics/

However, if temperatures rise and drier conditions prevail: water demand could increase; crop-yield could be threatened by a less reliable water supply; and greater air pollution could render plants more susceptible to pest and disease outbreaks. In addition, temperature increases could change the time of year certain crops, such as wine grapes, bloom or ripen, and thereby affect their quality.[16]

Ecosystems and Wildlife. Climate change and the potential resulting temperature increases, changes in weather patterns and soil moisture changes could have four major impacts on plants and animals: (1) timing of ecological events; (2) geographic range; (3) species' composition within communities; and (4) ecosystem processes, such as carbon cycling and storage.[17] [18]

3.2.1.2 Global Greenhouse Gas Concentrations

Data describing atmospheric GHG concentrations over the past 800,000 years show that concentrations of CO_2 have increased since pre-industrial times, from approximately 280 parts per million (ppm) to approximately 353 ppm in 1990 and approximately 379 ppm in 2005.[19] In 2000, the United Nations International Panel on Climate Change described potential global emission scenarios for the coming century. The scenarios vary from a best case characterized by low population growth, clean technologies, and low GHG emissions, to a worst case where high population growth and fossil fuel dependence result in extreme levels of GHG emissions. While some degree of climate change is inevitable, most climate scientists agree that to avoid dangerous climate change, atmospheric GHG concentrations need to be stabilized at 350 to 400 ppm.[20]

3.2.1.3 California Greenhouse Gas Emissions

According to CARB's California Greenhouse Gas Inventory for 2000-2009,[21] California produced 457 million metric tons of CO_2e in 2009. The major source of GHG in California is transportation, contributing 38 percent of the state's total GHG emissions. Electricity generation is the second largest source, contributing 23 percent of California's GHG emissions, with industrial sources of GHG, dominated by the cement industry, producing most of the remaining emissions.

3.2.1.4 Greenhouse Gas Emissions from Carryout Bags

Carryout bags have the potential to contribute to the generation of GHGs through emissions associated with the manufacturing process, truck trips delivering bags to retailers, and as a result of recycling or disposal at the end of life.

[15] http://www.omafra.gov.on.ca/english/crops/facts/00-077.htm
[16] California Climate Change Center, Climate Scenarios for California, 2006.
[17] Parmesan, C., Ecological and Evolutionary Responses to Recent Climate Change, 2004.
[18] Parmesan C, Galbraith H., Observed Ecological Impacts of Climate Change in North America, Pew Center for Global Climate Change, 2004.
[19] City of West Hollywood, Climate Action Plan, September 6, 2011.
[20] www.fs.fed.us/sustainableoperations/documents/ghg, **and** http://unfccc.int/resource/docs/2009/awg7/eng/crp01.pdf.
[21] CARB Greenhouse Gas Inventory http://www.arb.ca.gov/cc/inventory/data/data.htm

Manufacturing Process. GHG emissions differ depending on the manufacturing process and material type. For plastic carryout bags, whether single-use or reusable, manufacturing starts with petroleum and/or natural gas, and consumes energy that generates GHG emissions. Energy consumption varies depending on if the process is from virgin materials, or from recycled feedstocks. For bags made from wood or plant fibers, fertilizers also generate GHG emissions.

Truck Trips. Delivery trucks that transport carryout bags from manufacturers or distributors to local retailers also generate GHG emissions.

GHG Emission Rates per Bag. The Boustead Report, commissioned by the Progressive Bag Alliance, a consortium of plastic bag manufacturers, compared single-use plastic and paper carryout bags and assumed that one single-use paper bag could carry the same volume of groceries as 1.5 single-use plastic bags.[22] The Boustead Report estimates that 1,500 single-use plastic bags would generate 0.04 metric tons of CO_2e as a result of manufacturing, transport, and disposal. It estimates that single use paper and reusable LDPE would generate 0.132 and 0.104 metric tons of CO_{2e} emissions per 1,000 bags, respectively. Table 3-8 lists the GHG emissions using the per-bag impact rates discussed above and the estimated number of existing plastic single-use carryout bags used in the City. Manufacturing and transportation of plastic single-use carryout bags, paper single-use carryout bags, and reusable LDPE bags currently used in the City each year generates an estimated 22,572 metric tons of CO_2e per year.

Table 3-8
Current Greenhouse Gas Emissions from Carryout Bags

Bag Type	Number of Bags Used per Year	CO_{2e} Emissions (metric tons) per Number of Bags[a]	CO_{2e} per Year (metric tons)	CO_{2e} per Person[b] (metric tons)
Single-Use Plastic	700,000,000	0.04 per 1,500 bags	18,667	0.014
Single-Use Paper	29,474,000	0.132 per 1,000 bags	3,891	0.003
Reusable LDPE	142,000	0.104 per 1,000 bags	15	0.00001
Total			22,572	0.017

a. Based on Boustead Report, 2007 and AEA Technology Scottish Report, 2005.
b. Based on the 2013 City population of 1,326,238 residents.

3.2.1.5 Greenhouse Gas Emissions and Climate Change Regulations

Federal

Energy Independence and Security Act. The Energy Independence and Security Act of 2007 includes provisions that will increase energy efficiency and the availability of renewable energy, which are

[22] Boustead Consulting and Associates Ltd., Life Cycle Assessment for Three Types of Grocery Bags – Recyclable Plastic; Compostable, Biodegradable Plastic; and Recycled, Recyclable Paper, 2007.

expected to reduce GHG emissions.[23] First, the Act sets a Renewable Fuel Standard that requires fuel producers to use at least 36 billion gallons of biofuel by 2022. Second, it increased Corporate Average Fuel Economy Standards to require a minimum average fuel economy of 35 miles per gallon for the combined fleet of cars and light trucks by 2020. Third, the Act includes new standards for lighting and for residential and commercial appliance equipment.

National Fuel Efficiency Policy. The National Fuel Efficiency Policy requires a fleet-wide average of 35.5 miles per gallon by 2016 starting with model years 2012.[24] The Policy is expected to increase fuel economy by more than five (5) percent. However, federal fuel economy standards have not yet been promulgated to establish specific benchmarks.

State

CEQA. Courts have upheld a requirement that GHG impacts must be considered in CEQA documents. CARB has developed draft interim thresholds of significance for GHGs that may be adopted by local agencies for their own use. The interim thresholds focus on common project types that, collectively, are responsible for substantial GHG emissions – specifically, industrial, residential, and commercial projects. CARB is developing thresholds in these sectors to advance climate objectives, streamline project review, and encourage consistency and uniformity in analysis.

Executive Order (EO) S-3-05. EO S-3-05 set the following GHG emission reduction targets: by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels. It calls for the Secretary of the CalEPA to be responsible for coordination of state agencies and progress reporting. A recent California Energy Commission (CEC) report concludes that the primary strategies to achieve this target should be a major "decarbonization" of electricity supplies and fuels, and major improvements in energy efficiency.[25]

In response to the Executive Order, the Secretary of the CalEPA created the Climate Action Team (CAT). The CAT currently has members from 18 state agencies and departments, and ten working groups. The working groups focus on reducing GHG emissions and facilitating climate change adaptation in: Agriculture; Biodiversity; Energy; Forestry; Land Use and Infrastructure; Ocean and Coastal; Public Health; Water; State Government; and Research. The CAT is responsible for preparing reports that summarize California's progress in reducing GHG emissions. The most recent CAT Report was published in December 2010 and discusses mitigation and adaptation strategies, state research programs, policy development, and future efforts.

Assembly Bill 32 (AB 32). The California Global Warming Solutions Act of 2006, also known as AB 32, requires CARB to adopt rules and regulations that achieve GHG emissions reductions of 1990 levels by 2020. It requires that CARB establish a quantified emissions cap, institute a schedule to meet the cap, implement regulations to reduce statewide GHG emissions from stationary sources, and develop tracking,

[23] http://www2.epa.gov/laws-regulations/summary-energy-independence-and-security-act
[24] The White House Office of the Press Secretary, President Obama Announces National Fuel Efficiency Policy, May 2009: http://www.whitehouse.gov/the_press_office/President-Obama-Announces-National-Fuel- Efficiency-Policy/
[25] California Energy Commission, California's Energy Future – The View to 2050, May 2011.

reporting, and enforcement mechanisms to ensure that reductions are achieved. Because AB 32 requires 2020 emissions to be reduced to the level of 1990 emissions, it is expected that the regulations will affect many existing sources of GHG emissions and not just new projects. Senate Bill (SB) 1368, a companion bill to AB 32, requires the California Public Utilities Commission (PUC) and the CEC to establish GHG emission performance standards for the generation of electricity. These standards will also apply to power that is generated outside of California and imported into the state.

On June 1, 2007, CARB adopted three measures to reduce GHG emissions: setting a low carbon fuel standard (LCFS), reducing refrigerant loss from motor vehicle air conditioning maintenance, and increasing methane capture from landfills.[26]

CARB has determined that the total statewide aggregated GHG 1990 emissions level is 427 million metric tons of CO_2.[27] CARB's 2020 target reductions are currently estimated to be 174 million metric tons of CO_2.

In 2008, CARB developed a Climate Change Scoping Plan (Scoping Plan) to achieve the 2020 GHG reduction target.[28] The Scoping Plan proposes actions to reduce carbon emissions, improve the environment, reduce oil dependency, diversify energy sources, and enhance public health while creating new jobs and improving the state economy. The GHG reduction strategies contained in the Scoping Plan include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system. Key approaches for reducing GHG emissions to 1990 levels by 2020 include:

- Expanding and strengthening existing energy efficiency programs and building and appliance standards.
- Achieving a statewide renewable electricity standard of 33 percent.
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system.
- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets.
- Adopting and implementing measures to reduce transportation sector emissions.

CARB has also developed GHG reporting regulations for facilities that generate more than 25,000 metric tons of CO_2 per year. These facilities include cement plants, which are the single largest industrial GHG generators, oil refineries, electric generating facilities, co-generation facilities, hydrogen plants, and other stationary combustion sources.

Senate Bill 375 (SB 375). SB 375 (Steinberg, Chapter 728, Statutes of 2008) requires a reduction in emissions from cars and light trucks. It requires new Regional Transportation Plans (RTPs) to include

[26] California Air Resources Board, Proposed Early Action Measures to Mitigate Climate Change.
[27] http://www.arb.ca.gov/cc/inventory/1990level/1990level.htm
[28] http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm

Sustainable Communities Strategies (SCSs). This legislation also allows the development of an Alternative Planning Strategy (APS) if the targets cannot be feasibly met through an SCS.

Executive Order (EO) S-1-07, the Low Carbon Fuel Standard. EO S-1-07 calls for a reduction of at least 10 percent in the carbon intensity of California's transportation fuels by 2020.[29] Implementation of the LCFS has been assigned to CARB, and CARB has identified it as an early action item in the Scoping Plan. CARB expects the LCFS to achieve the minimum 10 percent reduction goal.

Executive Order S-13-08. This order directed the California Natural Resources Agency to coordinate with ten state agencies, multiple scientists, a consulting team, and stakeholders to develop the 2009 California Climate Adaptation Strategy.[30] This Strategy describes the vulnerability of California to climate change impacts and outlines possible solutions that can promote resiliency. Adaptation in this context refers to preparation for the impacts of climate change and adjustments in natural or human systems.

Senate Bill 1368 (SB 1368). SB 1368 (Perata, Chapter 598, Statutes of 2006) directs the CEC and the PUC to adopt a performance standard for GHG emissions for the future electricity used in California, regardless of whether it is generated in-state or purchased from other states.[31]

Local

City Climate Action Plan (CAP).[32] The City has developed a draft Climate Action Plan. The 2015 draft CAP addresses the importance of energy and water efficient buildings; clean and renewable energy; bicycling, walking, transit, and land uses that promote GHG reduction and alternative transportation; "zero waste" or waste minimization; and climate resiliency. It provides a baseline emissions inventory and establishes GHG reduction targets for 2020 and 2035. The City projects GHG emissions of approximately 14.0 million metric tons (MMT) of CO_{2e} in 2020 and 16.4 MMT in 2035. To achieve its proportional share of GHG reduction, the City would need to reduce GHG emissions to approximately 11.9 MMT of CO_{2e} in 2020 and 8.4 MMT of CO_{2e} in 2035. In addition, it provides a framework for providing actions that implement the plan, methods to monitor progress, as well as including considerations of social equity, job creation, and also adaptation strategies for climate change.

GHG CEQA Screening Criteria. The Environmental and Economic Sustainability Task Force (EESTF) of the City is developing ~~has developed~~ recommended screening criteria for GHGs from projects in the City.[33] These criteria are intended to be used in the review of discretionary projects pursuant to CEQA.

[29] http://www.arb.ca.gov/fuels/lcfs/eos0107.pdf
[30] http://www.gov.ca.gov/news.php?id=11036
[31] http://www.energy.ca.gov/emission_standards/index.html
[32] City of San Diego, Climate Action Plan.
http://www.sandiego.gov/planning/genplan/cap/pdf/sd_cap_032515_draft.pdf
[33] GHG Significance Thresholds, Environmental and Economic Sustainability Task Force, City of San Diego. 2015

3.2.2 Impact Criteria

The project would have a significant impact related to GHG emissions if it would:

- Generate GHG emissions, either directly or indirectly, that may have a cumulatively significant impact on the environment; and/or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.

CARB has not developed significance thresholds for evaluating potential impacts on GHG; however, it has determined that the total statewide aggregated GHG 1990 emissions level and 2020 emissions limit is 427 million metric tons of CO_2 per year. This equates to a statewide target emission rate of 9.6 metric tons of CO_2 per capita per year.

3.2.3 Environmental Impact Analysis

Would the proposed project generate GHG emissions, either directly or indirectly, that may have a cumulatively significant impact on the environment?

Would the proposed project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of GHG?

3.2.3.1 Greenhouse Gas Emissions

The intent of the ordinance is to reduce the number of plastic single-use carryout bags in trash loads, reduce the environmental impacts related to plastic single-use carryout bags, deter the use of paper single-use carryout bags, and promote the use of reusable bags by retail customers.

On a per bag basis, plastic single use carryout bags produce the least GHGs; paper single-use carryout bags produce 3.3 times as much per bag (slightly less if made with recycled paper), and reusable LDPE bags generate 2.6 times the GHG emissions of one plastic single-use carryout bag. However, reusable bags are intended to be used multiple times. Taking into account the reuse of reusable bags, the total number of carryout bags that would be manufactured, transported and disposed of under the ordinance would be reduced. Under conservative assumptions, the ordinance would result in the reduction of plastic single-use carryout bags currently used in the City from approximately 700 million annually to approximately 35 million continuing to be used each year in the City.

A study prepared by the Equinox Center on economic and environmental impacts concludes that plastic bag bans have a beneficial effect on GHGs. However, this conclusion depends on many factors assumed during the manufacturing process, and may overstate GHG-related benefits of ordinances.[34]

A report prepared by the United Kingdom's Environment Agency, "Life Cycle Assessment of Supermarket Carrier Bags: a Review of the Bags Available in 2006," evaluated the environmental impacts of various types of "supermarket carrier bags" using the thin HDPE plastic carryout bag as a

[34] Plastic Bag Bans: Analysis of Economic and Environmental Impacts. Equinox Center. October 23, 2013.

baseline for estimating other bags' "global warming potential (GWP)." The UK study estimates how many times reusable bags of various types would need to be used in order to take them "below the GWP of HDPE bags." The UK report indicates that LDPE reusable bags have lower global warming potential than HDPE carryout bags after four uses, non-woven polypropylene (PP) bags after 11 uses, and cotton bags after 131 uses. Even if as many as 40.3 percent of HDPE carryout bags are re-used as "bin liners" (trash can liners), the report states that LDPE reusable bags have lower GWP after five (5) uses, non-woven PP bags after 14 uses, and cotton bags after 173 uses. The levels for LDPE and non-woven PP are within LDPE reusable bags' design life of 125 uses. Cotton bags are expected conservatively to be used at least 52 times per year, and last many years, such that they would likely exceed the 173 uses to equal the GWP of HDPE.

The UK study concludes that reusable bags of any type initially require more "upstream" material and energy resources as they are designed to be more durable than single-use carryout bags, but since the reusable bags' higher production impacts are distributed over multiple uses, they have a lower overall impact over time on climate change.

Another study, prepared by the Australia Department of Environment and Heritage, 2002, shows that over the course of a year, virtually any type of reusable bag is environmentally superior to single-use plastic carryout bags with respect to GHG emissions, material consumption, litter, and primary energy use.[35]

This EIR primarily uses a 1:1 ratio of single-use plastic to paper bags for its analysis although most studies use 1:1.5, since paper bags hold more than plastic bags. The use of a 1:1 ratio is more conservative than a 1:1.5 ratio used by most studies.

As shown in Table 3-9, the GHG emissions associated with the manufacturing, transportation and disposal of reusable and single-use carryout bags used in the City after implementation of the ordinance would be approximately 31,070 metric tons of CO_{2e} per year, as compared to the current level of 22,572 metric tons of CO_{2e} per year. This is an increase of 8,498 metric tons of CO_{2e} per year. The per capita increase of .006 metric tons of CO_{2e} per person would be less than one tenth of one percent (.06 percent) of the state target emission rate of 9.6 metric tons of CO_{2e} per capita~~, and is consistent with waste reduction goals and behaviors targeting GHG reductions~~. However, without a specific project-level GHG threshold for comparison, it is not possible to determine with certainty that this emission rate is below a level of significance. ~~It would therefore result in a less than significant impact related to GHG emissions.~~

[35] Plastic Shopping Bags –Analysis of Levies and Environmental Impacts, 2002, http://greenbag.com.au/UserFiles/AU_analysis.pdf

Table 3-9
Estimated Greenhouse Gas Emissions from Carryout Bags post Ordinance

Bag Type	Number of Bags Used per Year post Ordinance	Global Warming Impact Rate per Bag[a]	CO_2 Emissions (metric tons)	CO_2 per Year (metric tons)	CO_2 per Person (metric tons)
Single-Use Plastic	35,000,000	1.0	0.04 per 1,500 bags[a]	933	.001
Single-Use Paper	221,053,000	3.3[c]	0.132 per 1,000 bags[b]	29,179	.022
Reusable	9,211,000	2.6	0.104 per 1,000 bags[b]	958	.001
Total post Ordinance				31,070	.023[d]
Existing (pre Ordinance) from Table 3-8				22,572	.017
Net Change post Ordinance				8,498	.006

a. Relationship based on Boustead Report, 2007, as explained above.
b. Based on AEA Technology Scottish Report, 2005.
c. Slightly less impact associated with recycled paper bags.
d. .Due to rounding

3.2.3.2 Consistency with Adopted Plans, Policies, and Regulations

The CAT Report identifies strategies that California could pursue to meet the reduction levels established in EO S-3-05. These are strategies that could be implemented by various state agencies to ensure that the Governor's targets are met and can be met with the existing authority of the state agencies. In addition, in 2008 the California Attorney General published a document entitled: The California Environmental Quality Act: Addressing Global Warming Impacts at the Local Agency Level. Included in this document are various measures that may mitigate the global warming related impacts of a project. Table 3-10 illustrates that the ordinance would be consistent with these strategies. The City's CAP does not include specific CEQA thresholds, but does reference the City's Zero Waste Plan as one of its strategies.[36] The Zero Waste Plan identifies support for local, state and federal producer responsibility policies and laws targeting, among other materials, plastic film, and it promotes reuse policies such as distribution events for reusable bags, all of which are consistent with the project. The City's Conservation Element of its General Plan includes a significant component on GHG reduction for reducing waste (page CE-9), reducing potential for polluted runoff (page CE-23), and improving and maintaining urban runoff quality (page CE24), all of which the project is consistent with.[37] Therefore, the ordinance would not conflict with these adopted plans, policies, or regulations for reducing the emissions of GHGs.

[36] http://www.sandiego.gov/mayor/news/releases/20150713_ZeroWaste.shtml
[37] http://www.sandiego.gov/planning/genplan/index.shtml

3.2.4 Mitigation Measures

~~Impacts related to GHG emissions would be less than significant. No mitigation measures are required.~~

Under Section 15126.4(a)(1) of the State CEQA Guidelines, an EIR must propose and describe feasible mitigation measures that could minimize the project's significant adverse impacts. Under Section 15364 of the State CEQA Guidelines, feasible means "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors."

Actual paper single-use carryout bag usage is not expected to be as high as analyzed in this EIR, which utilizes conservative, worst case scenario assumptions. However, without a specific project-level GHG threshold it is difficult to determine with certainty whether the GHG impacts for this particular project would be below a level of significance. Therefore, GHG impacts are considered potentially significant for this project.

The indirect cumulative impacts to GHG emissions that may result from a potential increase in paper single-use carryout bag manufacturing is subject to the regulatory oversight authority in the location where manufacturing occurs. Similarly, indirect cumulative impacts to GHG emissions from the proposed ordinances may result from carryout bag degradation in landfills within the project area, but would be subject to regulations. With respect to bag manufacturing, it appears that there are no paper single-use carryout bag manufacturing facilities located within the project area, and the City does not have the ability to control or regulate GHG emissions from bag manufacturing facilities outside of its jurisdiction.

GHG emissions from any paper single-use carryout bag manufacturing facilities affected by the proposed ordinances will be controlled by the owners of the facilities in accordance with any applicable regional, state, and federal regulations pertaining to GHG emissions. It is unknown which manufacturing facilities, if any, would increase production of paper carryout bags as a result of the project. The location of any paper bag manufacturers that might increase production of paper carryout bags is not known to the City, and cannot be reasonably foreseen. In addition, the City has no ability to control interstate commerce activities such as carryout bag transportation.

Due to the foregoing, the City has determined that the impacts to GHG emissions resulting from paper single-use carryout bag manufacturing and transportation cannot be readily mitigated. Further, GHG emissions from landfills located in the project area are already controlled in accordance with applicable regional, state, and federal regulations. The City does not have the ability to control or regulate GHG emissions from landfills that are outside of its jurisdiction. Therefore, the impacts to GHG emissions resulting from decomposition of paper single-use carryout bags in landfills cannot be readily mitigated.

While not being proposed to serve as mitigation measures for this project, the City has numerous strategies outlined in its General Plan and Climate Action Plan to reduce GHG emissions. For example, the Climate Action Plan enumerates "five bold strategies" to reduce GHG emissions to achieve year 2020 and 2035 targets: 1) energy and water efficient buildings, 2) clean and renewable energy, 3) bicycling, walking, transit and land use, 4) zero waste (gas and waste management), which includes source

reduction, and 5) climate resiliency. The City is also in the process of developing an Urban Forest Management Plan designed to help reduce GHG emissions. In 2008 the California Attorney General published a document entitled: The California Environmental Quality Act: Addressing Global Warming Impacts at the Local Agency Level. Included in this document are various measures that may mitigate the global warming related impacts of a project. Table 3-10 illustrates that the ordinance would be consistent with these strategies.

Table 3-10
Ordinance Consistency with Applicable Climate Change Action Team Strategies

Strategy	Project Consistency
Vehicle Climate Change Standards AB 1493 (Pavley, Chapter 200, Statutes of 2002) requires the state to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions emitted by passenger vehicles and light duty trucks.	Consistent The trucks that deliver carryout bags to and from manufacturers, distribution centers, and stores within the City on public roadways would be subject to CARB vehicle standards that are in effect at the time of vehicle purchase.
Diesel Anti-Idling CARB Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling (§2485) limits diesel-fueled commercial motor vehicle idling to five minutes or less.	Consistent Current California law restricts diesel truck idling to five minutes or less. Diesel trucks operating from and making deliveries within the City are subject to this law.
Alternative Fuels: Biodiesel Blends Require the use of 1% to 4% biodiesel displacement of California diesel fuel.	Consistent The diesel vehicles that deliver carryout bags to and from manufacturers, distribution centers, and stores within the City on public roadways will be required to use this fuel once it is commercially available.
Alternative Fuels: Ethanol Increased use of E-85 fuel.	Consistent Truck drivers delivering carryout bags could choose to purchase flex-fuel vehicles and use this fuel once it is commercially available regionally and locally.
Heavy-Duty Vehicle Emission Reduction Measures Increased efficiency in the design of heavy duty vehicles and an education program for the heavy-duty vehicle sector.	Consistent The heavy-duty trucks that deliver carryout bags to and from manufacturers, distribution centers, and stores within the City on public roadways would be subject to all applicable CARB efficiency standards that are in effect at the time of vehicle manufacture.
50% Diversion of Waste Required at the City-level; 75% Diversion Statewide Goal. The Integrated Waste Management Act of 1989, (AB 939, Sher, Chapter 1095, Statutes of 1989), will reduce climate change emissions associated with energy intensive material extraction and production and methane emission from landfills.	Consistent The City has completed a Source Reduction and Recycling Plan in compliance with California law, and is working toward "zero waste" concepts. Reduction in disposal of carryout bags would be consistent with these strategies.
Fuel-Efficient Replacement Tires & Inflation Programs State legislation established a statewide program to encourage the production and use of more efficient tires.	Consistent Carryout bag delivery drivers could purchase tires for their vehicles that comply with state programs for increased fuel efficiency.

Strategy	Project Consistency
Alternative Fuels: Non-Petroleum Fuels Increasing the use of non-petroleum fuels in California's transportation sector, as recommended in the California Energy Commission's 2003 and 2005 Integrated Energy Policy Reports.	Consistent Carryout bag delivery drivers could purchase alternative fuel vehicles and use these fuels once they are commercially available regionally and locally.

Mitigation Measures

The City has conducted a public and retailer education program related to reusable bags for several years and would continue these activities through the ordinance's grace periods and into its implementation phase. Public education program activities shall include:

- Disseminating information about the ordinance to the public and providing that information to the City's Community Town Councils and Planning Groups,
- Promoting the use of reusable bags at major events throughout the City,
- Promoting the recycling of paper carryout bags on the City web site and with promotional campaigns,
- Finding partners to donate and then distributing reusable bags within the City free of charge, and
- Promoting consumer transition to reusable bags, reducing in-store double bagging of paper bags, and encouraging reuse and in-store recycling of paper carryout bags,

The City shall also consider revisiting the $0.10 paper bag fee if paper bag use increases within the City after implementation of the ordinance. ESD shall utilize the auditing provisions of the ordinance in order to track whether paper bag use increases actually occur.

These measures would be expected to reduce the project's impacts related to GHG emissions, however they cannot be readily quantified. Therefore, it cannot be determined whether the anticipated reductions of GHG emissions that would result from these mitigation measures would reduce the GHG-related impacts of the project to a level below significance.

3.2.5 Level of Impact after Mitigation

~~No significant impacts were identified; therefore, no mitigation measures are required.~~

Despite the inclusion of mitigation measures, the impacts to GHG emissions would remain significant and unavoidable after mitigation.

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SECTION 4 ALTERNATIVES TO THE PROJECT

The following discussion considers alternatives to the City Single-Use Carryout Bag Reduction Ordinance project. The CEQA Guidelines state that an EIR need not consider every conceivable alternative to the project [Section 15126.6(a)], or an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative [Section 15126.6(f)(3)]. The Guidelines require that a range of alternatives be addressed "governed by 'a rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice." The discussion of alternatives must focus on alternatives that are potentially feasible and capable of achieving major project objectives while avoiding or substantially lessening any significant environmental effects of the project [CEQA Guidelines, Section 15126.6(f)].

The City's primary objectives for the ordinance are to:

- Reduce the millions of plastic single-use carryout bags currently used and disposed of in the City each year;
- Reduce litter and the associated adverse impacts to storm water systems, aesthetics, and the environment;
- Reduce the adverse environmental impacts associated with single-use carryout bags, including impacts to air quality, water quality, and solid waste;
- Deter the use of paper single-use carryout bags by retail customers in the City; and
- Promote a shift toward the use of reusable carryout bags.

The analysis in this EIR indicates that the ordinance would result in less than significant or beneficial effects with regard to air quality, water quality, and energy. Without a specific project-level GHG threshold it is difficult to determine with certainty whether the GHG impacts for this particular project would be below a level of significance. Therefore, GHG impacts are considered potentially significant for this project. The project was found to result in either a less than significant impact, ~~or~~ no impact, or beneficial impact in the other environmental issue areas analyzed in the EIR. ~~Therefore, the discussion of the alternatives to the project focuses on the alternatives that could achieve the project objectives to a greater or lesser extent.~~

The alternatives considered and compared to the project in the EIR include:

Alternative 1: "No Project" alternative

Alternative 2: Apply the Single-Use Carryout Bag Reduction Ordinance to All Retail Vendors

Alternative 3: Apply the Single-Use Carryout Bag Reduction Ordinance to Only Large ("Big-Box") Retail Vendors

Alternative 4: Apply the Single-Use Carryout Bag Reduction Ordinance, but Impose a Higher Fee on Recyclable Paper Single-Use Carryout Bags

Alternative 5: Apply the Single-Use Carryout Bag Reduction Ordinance to Both Plastic Single-Use Carryout Bags and Paper Single-Use Carryout Bags

4.1 ALTERNATIVE 1: NO PROJECT

The No Project alternative, required to be evaluated in the EIR, considers "existing conditions…as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services" [CEQA Guidelines Section 15126.6(e)(2)].

The ordinance was found to have both beneficial and negative effects, but no significant impacts. Possible negative effects were identified in the issue areas of Hazards and Hazardous Materials and also Agricultural and Forest Resources. In contrast, the No Project alternative would have no such potential negative effects. However, the No Project alternative would also fail to provide the anticipated benefits associated with other issue areas analyzed for this report.

Under the No Project alternative, no Single-Use Carryout Bag Reduction Ordinance would be enacted, and the existing use of carryout bags in the City would remain unchanged. Impacts associated with plastic single-use carryout bags would remain at current levels, increasing proportionately with increases in the City's population size. The City's objectives for the project would not be achieved with the No Project alternative.

4.2 ALTERNATIVE 2: APPLY THE SINGLE-USE CARRYOUT BAG REDUCTION ORDINANCE TO ALL RETAIL VENDORS

To simplify enforcement and public information campaigns, the ordinance proposes to regulate only the categories of retail establishments that are responsible for the majority of single-use carryout bags. It is anticipated that this approach would be broadly accepted, and customers would not find it overly inconvenient. In contrast, under Alternative 2, the ordinance's restrictions would be applied to all retailers in the City.

4.2.1 Bag Use Effects

The ordinance is assumed to result in a 95 percent reduction in plastic single-use carryout bags used in the City, with five percent of plastic single-use carryout bags continuing to be used annually because the ordinance does not apply to all retail stores. This assumption is based on assumptions used for the cities of Los Angeles and San Jose.[38] Los Angeles is a large jurisdiction with many similarities with the City, as explained in section 2.6 of this EIR. San Jose is smaller, and surpasses San Diego on a "sustainability" score,[39] but still provides a useful precedent. Alternative 2 would capture most or all of the remaining approximately five percent of single-use plastic bags not covered by the ordinance. Table 4-1 provides the projected bag consumption under this alternative.

[38] City of Los Angeles FEIR citing Single-Use Carryout Bag Ordinance Draft EIR; City of San Jose, July 2010.
[39] http://www.sandag.org/uploads/publicationid/publicationid_1637_14034.pdf

Table 4-1
Estimated Single-Use Carryout Bag Use: Alternative 2 versus Ordinance

Type of Bag	Alternative 2*	Proposed Ordinance	Explanation
Single-Use Plastic	0	35,000,000	The ordinance does not apply to all retailers; therefore some plastic single-use carryout bags would remain in circulation.
Single-Use Paper	257,895,000	221,053,000	Although the volume of a paper single-use carryout bag is generally 150% of the volume of a plastic single-use carryout bag and fewer paper bags would be needed to carry the same number of items, it is conservatively assumed that paper would replace plastic at a 1:1 ratio. It is assumed that if plastic single-use bags are removed from all retail stores, 35% of all bag use will be paper bags. Numbers of bags expected under this alternative are calculated utilizing trips per week since reusable bags are assumed to be used 52 times per year.
Reusable	9,211,000	9,211,000	It is assumed that if plastic single-use bags are removed from all retail stores, 65% of all bag use will be reusable bags. These calculations conservatively assume that a reusable bag would be used by a customer only once per week for one year (52 times).
Total	**267,105,000**	**265,264,000**	

*City of San Jose, 2010
Estimates rounded to nearest 1,000 bags

4.2.2 Environmental Effects

With the ordinance, the ozone and atmospheric acidification pollutants, and energy use would be reduced as compared to existing conditions. As shown in Table 4-2, Alterative 2 would result in slightly higher ozone emission levels (8,032 kg/yr as compared to 7,731 kg/year), atmospheric acidification (561,218 kg/year versus 523,263 kg/year) and GHG levels (35,000 metric tons per year versus 31,070 metric tons per year), although the two alternatives are very close.

In comparison to the ordinance, Alternative 2 would have a higher water consumption rate (approximately 258 million gallons/year, compared to approximately 213 million gallons/year), as shown in Table 4-3. This amount of additional wash is not considered a significant impact given the region's overall water supply. Overall, the two alternatives are very close in their projected impacts. Given the variability of the data, the differences are not significant, thus the two alternatives can be considered virtually environmentally comparable.

Alternative 2 would virtually eliminate plastic single-use carryout bags and thus would promote the shift towards reusable bags to a greater extent than the ordinance. ~~Similar to the ordinance, it would have no significant impacts.~~ Alternative 2 would result in a larger increase of GHG emissions over the statewide AB 32 year 2020 per capita target as compared to the ordinance and, thus, may result in a significant GHG impact based upon this EIR's conservative analysis and due to the lack of a project-level threshold for GHG impacts.

Table 4-2
Alternative 2 Emissions Compared to Project Emissions

Bag Type	Ordinance Ozone Emissions per Year (kg)	Alternative 2 Ozone Emissions per Year (kg)	Ordinance AA Emissions per Year (kg)	Alternative 2 AA Emissions per Year (kg)	Ordinance GHG CO_{2e} per Year (Metric Tons)	Alternative 2 GHG CO_{2e} per Year (Metric Tons)
Single-Use Plastic	805	0	37,940	0	933	0
Single-Use Paper	6,632	7,737	455,369	531,264	29,179	34,042
Reusable	295	295	29,954	29,954	958	958
Total	7,731	8,032	523,263	561,218	31,070	35,000

Source: Refer to **Table** 3-3 and 3-5 in Section 3.1, Air Quality and **Table** 3-9 in section 3.2, GHG Emissions

Table 4-3
Alternative 2 Water Consumption Compared with Project

	Alternative 2 Number of Single-Use Bags per Year	Gallons of Water per bag	Alternative 2 Gallons of Water per Year	Project Gallons of Water per Year
Single-Use Plastic	0	0.058	0	2,030,000
Single-Use Paper	257,895,000	1.00	257,895,000	211,053,000
Total	257,895,000		257,895,000	213,083,000

See Table 3-14 for source of the coefficients.

4.2.3 Relation to Project Objectives

Alternative 2 would contribute to the project objectives by further reducing the millions of plastic single-use carryout bags currently used in the City. There is a possibility, however, that if consumers found the ordinance overly burdensome, compliance and enforcement could become challenging, thereby reducing the beneficial effect of this alternative. Additionally, the project is the most consistent of all the alternatives when compared to other local-government level California ordinances, making it easier for the general population to understand and follow, and for chain stores to implement.

4.3 ALTERNATIVE 3: APPLY THE SINGLE-USE CARRYOUT BAG REDUCTION ORDINANCE TO ONLY LARGE ("BIG-BOX") RETAIL VENDORS

Under existing conditions, retailers typically provide single-use carryout bags for no charge, which means they must absorb the cost. Thus, for many retailers, the ordinance would be financially beneficial. However, under the ordinance, Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) participants are exempted from the charge and would be provided recyclable paper single-use carryout bags at no charge if they do not opt to provide their own reusable bag. This exemption contributes to the worst case scenario's possibility of increased paper single-use carryout bag use and may also cause a financial hardship on retailers because paper single-use carryout bags are more expensive than plastic single-use carryout bags. While financial hardship is not an environmental consideration, it may have an impact on the acceptance, and thus the effectiveness, of the ordinance. Therefore, it is appropriate to consider an option that would limit the ordinance to only the largest retailers, and compare the relative benefits and impacts. For Alternative 3, the ordinance would be applied to only large retail vendors that distribute large numbers of plastic bags (those defined as Category A and B stores in the ordinance).

4.3.1 Bag Use Effects

Under Alternative 3, the number of plastic single-use carryout bags precluded from distribution within the City would be less than the ordinance due to the exemption of small vendors (those defined as Category C

stores in the ordinance) from the ordinance requirements (Table 4-4). Based on staff research in San Diego using North American Industry Classification System (NAICS) codes, it is assumed that 280 large vendors would be subject to the ordinance, and at 2.21 million plastic single-use carryout bags each[40], there would be a remaining 81,200,000 plastic single-use carryout bags being distributed (700,000,000-618,800,000). Thus, under Alternative 3, 81.2 million plastic single-use carryout bags would be used annually, instead of 35 million under the ordinance. As a result, assuming that 35 percent of the remaining bags would be paper, based on weekly bag trips, the shift to paper would be reduced from approximately 221 million to approximately 216 million. While plastic single-use carryout bag use would be greater than the proposed project, under this alternative, paper single-use carryout bag use is anticipated to be less.

Table 4-4
Estimated Single-Use Carryout Bag Use: Alternative 3 Compared to Project

Type of Bag	Alternative 3*	Ordinance
Single-Use Plastic	81,200,000	35,000,000
Single-Use Paper	216,580,000	221,053,000
Reusable	7,735,000	9,211,000
Total	**305,515,000**	**265,264,000**

*City of San Jose, 2010

4.3.2 Environmental Effects

Alternative 3 would result in more emissions of all types compared to the proposed project. As shown in Table 4-5, this alternative would generate 8,613 kg per year ozone emissions, 559,330 kg per year of acidification emissions, and 31,558 metric tons per year of GHG emissions, compared to 7,731; 523,263; and 31,070, respectively. Thus, Alternative 3 would result in a larger increase of GHG emissions over the statewide AB 32 year 2020 per capita target as compared to the ordinance, and may result in a significant GHG impact based upon this EIR's conservative analysis and due to the lack of a project-level threshold for GHG impacts. ~~would have a greater impact on air quality, but is anticipated to still be less than significant.~~

Table 4-5
Alternative 3 Emissions Compared to Project Emissions

Bag Type	Ordinance Ozone Emissions per Year (kg)[a]	Alternative 3 Ozone Emissions per Year (kg)	Ordinance AA Emissions per Year (kg)	Alternative 3 AA Emissions per Year (kg)	Ordinance GHG CO_{2e} per year metric tons	Alternative 3 GHG CO_{2e} per year metric tons
Single-Use Plastic	805	1,868	37,940	88,021	933	2,165
Single-Use Paper	6,632	6,497	455,369	446,155	29,179	28,589
Reusable	295	248	29,954	25,154	958	804
Total	7,731	8,613	523,263	559,330	31,070	31,558

Source: Refer to **Table** 3-3 and 3-5 in Section 3.1, Air Quality and **Table** 3-9 in section 3.2, GHG Emissions

[40] City of Los Angeles Single-Use Carryout Bag Ordinance FEIR, May 2013

In comparison to the ordinance, Alternative 3 would have a higher water consumption rate (approximately 221 million gallons/year, compared to approximately 213 million gallons/year), as shown in Table 4-6. This increased water consumption due to additional wash is not considered a significant impact given the region's overall water supply.

Table 4-6
Alternative 3 Water Consumption Compared with Project

	Alternative 3 Number of Single-Use Bags per Year	Gallons of Water per bag	Alternative 3 Gallons of Water per Year	Ordinance Gallons of Water per Year
Single-Use Plastic	81,200,000	0.058	4,709,600	2,030,000
Single-Use Paper	216,580,000	1.00	216,580,000	211,053,000
Total	297,780,000		221,289,600	213,083,000

See Table 3-14 for source of the coefficients.

In terms of solid waste impacts, when compared to the ordinance, Alternative 3 would have slightly more impact than the proposed ordinance. Because the increase in paper bags is a worst case scenario, and could actually decrease due to the project, this impact may not occur.

Overall, the two alternatives are very close in their projected impacts. Given the variability of the data, the differences are not significant, thus the two alternatives can be considered virtually environmentally comparable.

4.3.2.1 Relation to Project Objectives

This alternative would partially achieve the objectives of the City's Single-Use Carryout Bag Reduction Ordinance. By limiting the application of the ordinance to only large retail vendors, it is anticipated that the consumption of single-use carryout bags would not be reduced as much as under the ordinance. As a result, the objectives of deterring the use of single-use carryout bags and promoting a shift to reusable bags would occur to a lesser extent under this alternative than with the ordinance.

4.4 Alternative 4: Apply the SINGLE-USE Carryout Bag Reduction Ordinance, but Impose a Higher Fee on RECYCLABLE PAPER Single-Use Carryout Bags

While the ordinance has not been found to have a significant impact in any issue area, it may increase paper single-use carryout bag consumption under a "worst case" scenario. Additional paper single-use carryout bag consumption increases GHG production on a per bag basis and uses a manufacturing process that consumes more water and energy per bag than plastic bag manufacture. Increasing the fee on recyclable paper single-use carryout bags could discourage a potential shift to consume more paper bags. The ordinance imposes a $0.10 fee on each recyclable paper single-use carryout bag at the point of sale; Alternative 4 imposes a $0.25 fee per recyclable paper single-use carryout bag and a minimum $0.25 fee for reusable carryout bags.

4.4.1 Bag Use Effects

With a higher fee, it is anticipated that the use of paper single-use carryout bags would be reduced in comparison to the ordinance. Other jurisdictions have included provisions for increasing the bag fee if consumers relied too heavily on paper bags; however, no jurisdiction has implemented this option or provided data on the effectiveness. Therefore, the effect of increasing the fee can only be very broadly estimated. According to a study commissioned by the City of San Jose,[41] if plastic bags are prohibited and paper bags cost $0.25 each, consumers will use 89 percent reusable bags and 11 percent paper single-use carryout bags; this assumption was applied to the number of plastic single-use bags that would be reduced through Alternative 4 (700,000,000 – 35,000,000 = 665,000,000). Those percentages were used to calculate the number of paper single-use carryout bags and reusable bags in Alternative 4 (Table 4-7) with the conservative assumption that a reusable bag is used once per week for a year.

Table 4-7
Estimated Annual Carryout Bag Use: Alternative 4 versus Ordinance

Type of Bag	Alternative 4	Ordinance
Single-Use Plastic	35,000,000	35,000,000
Single-Use Paper	73,150,000	221,053,000
Reusable	11,382,000	9,211,000
Total	**119,532,000**	**265,264,000**

4.4.2 Environmental Effects

Alternative 4 has lower ozone emissions (3,364 kg per year, compared with 7,731 per year), lower acidification emissions (225,643 kg per year compared to 523,263 kg per year), and lower GHG impacts (11,773 metric tons of CO_{2e} compared to 31,070 metric tons of CO_{2e}) as compared to the project impacts (Table 4-8), primarily due to the significant decrease in paper bags.

As shown in Table 4-9, the lesser consumption of paper bags would also reduce the overall water consumption associated with this Alternative. The increase in reusable bags per year under this Alternative could increase water consumption slightly, but would do relatively little to diminish the overall benefit to water consumption associated with this Alternative.

Alternative 4 would result in a beneficial effect of reducing solid waste by significantly reducing the number of recyclable paper single-use carryout bags as compared to the ordinance, and increasing the use of reusable bags, which may be recycled if they are made from LDPE, HDPE, or PP, or compostable if cotton or canvas. Additionally, Solid Waste litter will be reduced due to a decrease in plastic carryout bag litter. Overall, this Alternative would result in beneficial or less than significant environmental impacts in the areas of Air Quality, Energy, and Solid Waste. Because GHG emission levels would be reduced to below No Project level emissions, this alternative would also have a GHG-related benefit.

[41] Herrera 2010

Table 4-8
Alternative 4 Emissions Compared to Project Emissions

Bag Type	Ordinance Ozone Emissions per Year (kg)[a]	Alternative 4 Ozone Emissions per Year (kg)	Ordinance AA Emissions per Year (kg)	Alternative 4 AA Emissions per Year (kg)	Ordinance GHG CO_{2e} per year metric tons	Alternative 4 GHG CO_{2e} per year metric tons
Single-Use Plastic	805	805	37,940	37,940	933	933
Single-Use Paper	6,632	2,195	455,369	150,689	29,179	9,656
Reusable	295	364	29,954	37,014	958	1,184
Total	7,731	3,364	523,263	225,643	31,070	11,773

Source: Refer to **Table** 3-3 and 3-5 in Section 3.1, Air Quality and **Table** 3-9 in section 3.2, GHG Emissions

Table 4-9
Alternative 4 Water Consumption Compared with Project

	Alternative 4 Number of Single-Use Bags per Year	Gallons of Water per bag	Alternative 4 Gallons of Water per Year	Project Gallons of Water per Year
Single-Use Plastic	35,000,000	0.058	2,030,000	2,030,000
Single-Use Paper	73,150,000	1.00	73,150,000	211,053,000
Total	108,150,000		75,180,000	213,083,000

See Table 3-14 for source of the coefficients.

4.4.3 Relation to Project Objectives

Alternative 4 would achieve all objectives of the City's Single-Use Carryout Bag Reduction Ordinance. With a higher fee, it is anticipated that the use of recyclable paper single-use carryout bags would be reduced when compared to the ordinance because of the additional cost. As a result, the objective of deterring the use of paper single-use carryout bags would be achieved to a greater extent, and the objective of promoting a shift to reusable bags could occur more rapidly and to a greater extent than under the ordinance.

Table 4-13~~0~~ compares the impacts of each of the alternatives to the project. Benefits are notated with green (the environmentally preferable alternative for each issue area is denoted with darker green), neutral impacts are noted in white, and less than significant impacts are pink. Alternative 4 is the

environmentally superior alternative for most issue areas, while the project and Alternatives 2 and 3 have very similar levels of impact. Alternative 1 (no project) has the greatest impacts in several issue areas.

4.5 ALTERNATIVE 5: APPLY THE SINGLE-USE CARRYOUT BAG REDUCTION ORDINANCE TO BOTH PLASTIC SINGLE-USE CARRYOUT BAGS AND PAPER SINGLE-USE CARRYOUT BAGS

The ordinance may increase paper single-use carryout bag consumption based upon a worst-case scenario, as assumed in this EIR's analysis. Additional paper single-use carryout bag consumption would increase GHG production on a per bag basis and would use a manufacturing process that consumes more water and energy per bag than plastic bag manufacture. Prohibiting both paper and plastic single-use carryout bags would eliminate the possible impacts from consumers potentially switching from plastic to paper single-use bags. Alternative 5 would prohibit the distribution of both plastic and paper single-use carryout bags at the same types of stores that would be regulated under the proposed ordinance.

4.5.1 Bag Use Effects

Prohibiting both plastic and paper single-use carryout bags would substantially reduce both types of bags in circulation. As explained in Table 2-2 on page 2-12, it is assumed that as much as 5 percent of plastic bags may remain in circulation after the ordinance is implemented due to the plastic single-use carryout bags still being used in non-covered stores[42]. For this alternative, it is assumed that 5 percent of paper single-use carryout bags will also remain in use if paper single-use carryout bags are also prohibited. Table 4.10 below shows the approximate number of bags of each type expected to be used in the City under Alternative 5, with the conservative assumption that a reusable bag is used once per week for one year.

Table 4-10
Estimated Annual Carryout Bag Use: Alternative 5 versus Ordinance

Type of Bag	Alternative 5	Ordinance
Single-Use Plastic	35,000,000	35,000,000
Single-Use Paper	1,474,000	221,053,000
Reusable	12,788,000	9,211,000
Total	**49,262,000**	**265,264,000**

4.5.2 Environmental Effects

Alternative 5 has significantly lower ozone emissions (1,258 kg per year, compared with 7,731 per year), lower acidification emissions (82,563 kg per year compared to 523,263 kg per year), and lower GHG

[42] City of Los Angeles Single-Use Carryout Bag Ordinance FEIR, May 2013, San Jose Single-Use Carryout Bag Ordinance EIR, October 2010.

impacts (2,458 metric tons of CO_{2e} compared to 31,070 metric tons of CO_{2e}) as compared to the project impacts (Table 4-11), due to the elimination of paper bags at the same types of stores that would be regulated under the proposed ordinance.

As shown in Table 4-12, the elimination of paper bags would also significantly reduce the overall water consumption associated with this Alternative. The increase in reusable bags under this Alternative could increase water consumption slightly, but would do relatively little to diminish the overall benefit to water consumption associated with this Alternative as compared to the proposed ordinance.

Alternative 5 would result in a beneficial effect of reducing solid waste by significantly reducing the number of recyclable paper single-use carryout bags as compared to the ordinance, and increasing the use of reusable bags, which may be recycled if they are made from LDPE, HDPE, or PP, or compostable if cotton or canvas. Additionally, Solid Waste litter will be reduced due to a decrease in plastic carryout bag litter. Overall, this Alternative would result in beneficial or less than significant environmental impacts in the areas of Air Quality, GHG Emissions, Energy, Agricultural and Forest Resources, and Solid Waste.

Table 4-11
Alternative 5 Emissions Compared to Project Emissions

Bag Type	Ordinance Ozone Emissions per Year (kg)[a]	Alternative 5 Ozone Emissions per Year (kg)	Ordinance AA Emissions per Year (kg)	Alternative 5 AA Emissions per Year (kg)	Ordinance GHG CO_{2e} per year metric tons	Alternative 5 GHG CO_{2e} per year metric tons
Single-Use Plastic	805	805	37,940	37,940	933	933
Single-Use Paper	6,632	44	455,369	3,036	29,179	195
Reusable	295	409	29,954	41,587	958	1,330
Total	7,731	1,258	523,263	82,563	31,070	2,458

Source: Refer to **Table** 3-3 and 3-5 in Section 3.1, Air Quality and **Table** 3-9 in section 3.2, GHG Emissions

Table 4-12
Alternative 5 Water Consumption Compared with Project

	Alternative 5 Number of Single-Use Bags per Year	Gallons of Water per bag	Alternative 5 Gallons of Water per Year	Project Gallons of Water per Year
Single-Use Plastic	35,000,000	0.058	2,030,000	2,030,000
Single-Use Paper	1,474,000	1.00	1,474,000	211,053,000
Total	36,474,000		3,504,000	213,083,000

See Table 3-14 for source of the coefficients.

4.5.3 Relation to Project Objectives

It is anticipated that Alternative 5 would achieve all the objectives of the City's Single-Use Carryout Bag Reduction Ordinance, and to an even greater extent than the proposed ordinance. By prohibiting both paper and plastic single-use carryout bags at the same types of stores regulated under the proposed ordinance, customers of the regulated stores would have to use either reusable bags or no bag. There would be no negative impacts due to a potential increase in paper single-use carryout bag use.

Table 4-13 compares the impacts of each of the alternatives to the project. Benefits are notated with green (the environmentally preferable alternative for each issue area is denoted with darker green), neutral impacts are noted in white, and less than significant impacts are pink. Alternative 5 is the environmentally superior alternative, followed by Alternative 4. The project and Alternatives 2 and 3 have very similar levels of impact. Alternative 1 (no project) has the greatest impacts in several issue areas.

4.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Alternative 1, the "No Project" would not achieve any of the project objectives.

Alternative 2, Apply the Single-Use Carryout Bag Reduction Ordinance to All Retail Vendors is not environmentally superior to the project, and would achieve all project objectives.

Alternative 3, Apply the Single-Use Carryout Bag Reduction Ordinance to Only Large ("Big-Box") Retail Vendors is not environmentally superior to the project. In the long term, Alternative 3 would only partially achieve the objectives of the project due to the fewer number of vendors covered by the ordinance and the larger number of single-use carryout bags that would still be provided by vendors within the City.

Alternative 4, Apply the Single-Use Carryout Bag Reduction Ordinance, but Impose a Higher Fee on Recyclable Paper Single-Use Carryout Bags, is considered environmentally superior to the project because it would result in greater beneficial environmental effects and would achieve all of the project objectives, and would reduce or eliminate all impacts associated with the project.

Alternative 5, Apply the Single-Use Carryout Bag Reduction Ordinance Both Plastic Single-Use Carryout Bags and Paper Single-Use Carryout Bags, is considered environmentally superior to the project because it would result in greater beneficial environmental effects and would achieve all of the project objectives, and would reduce or eliminate all impacts associated with the project, to the greatest extent of all the alternatives.

Table 4-13~~10~~
Comparison of Alternatives

Alternative	Ozone (kg/yr)	AA Emissions (kg/yr)	GHG Emissions (metric tons/yr)	Forest and Agricultural Resources	Hazards and Hazardous Materials	Water consumption (gallons per year)	Energy (million mega joules)	Solid Waste (tons/yr)	Project Purpose
Project	7,731	523,263	31,070	Less than significant.	Less than significant.	213,083,000	Less than significant	5,708	Achieves
No Project	16,969	818,567	22,572	No change.	No change.	40,600,000	No change	4,219	Does not achieve.
Alternative 2 - All Retail Vendors	8,032	561,218	35,000	Less than significant.	Less than significant.	257,895,000	Slightly more than project impact (less than significant)	6,766	Achieves
Alternative 3 - Large Retailers-Only	8,613	559,330	31,558	Less than significant.	Less than significant.	221,289,600	Slightly more than project impact (less than significant)	6,082	Partially achieves
Alternative 4- Increase Fee	3,364	225,643	11,773	Less than significant.	Less than significant	75,180,000	50% of the energy used by the project	2,901	Achieves.
Alternative 5 – Prohibit Paper and Plastic	1,258	82,563	2,458	Less than significant.	Less than significant.	3,504,000	20% of the energy used by the project	211	Achieves.

Source: Summary of Tables in Section 4.

Nature of Impact or Beneficial Effect	Color Code
Best benefit	
Benefit	
Neutral	
Less than Significant Impact	
Potentially Significant Impact	

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SECTION 5 SIGNIFICANT ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED IF THE PROJECT IS IMPLEMENTED

~~No significant environmental effects have been identified.~~

This section of the EIR summarizes an analysis of the potential for the project to result in significant environmental effects that cannot be avoided. Consistent with the requirements of Section 15126.2(b) of the State CEQA Guidelines, significant impacts, including those that can be mitigated but not reduced to the level below significance, are described in this section of the EIR. Where there are impacts that cannot be alleviated without imposing an alternative design, the impacts' implications and reasons why the project is being proposed, notwithstanding its effects, are also described. In addition, State CEQA Guidelines Section 15093(a) allows the decision-making agency to determine if the benefits of a project outweigh the unavoidable adverse environmental impacts of implementing the project. The City can approve a project with unavoidable adverse impacts if it prepares and adopts a "Statement of Overriding Considerations" setting forth the specific reasons for making such a judgment.

As discussed in Chapter 3.0, Environmental Impact Analysis, the proposed project is expected to result in beneficial or less than significant impacts related to air quality, water quality, and energy. All other impacts analyzed in this EIR, other than GHG impacts, were found to be less than significant.

As discussed in Section 3.2, Greenhouse Gas Emissions, the project has the potential to have significant GHG-related impacts based on the worst case scenario parameters utilized for this EIR's analysis. It is not considered likely that the conservative parameters, such as the particular increase in paper single-use carryout bag use, will occur to the extent analyzed. However, without a specific project-level GHG threshold it is difficult to determine whether the GHG impacts for this particular project would be below a level of significance. Therefore, GHG impacts are considered potentially significant for this project. Additionally, the potentially significant GHG impacts cannot be mitigated with certainty to a level below significance. Notwithstanding these effects, the project is being pursued because it is anticipated to reduce the adverse environmental impacts associated with single-use plastic carryout bags, including impacts to air quality, biological resources (including marine environments), water quality and solid waste, and to reduce litter and the associated adverse impacts to storm water facilities, aesthetics, and the environment.

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SECTION 6 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Public Resources Code Section 21100(b)(2) requires that an EIR include a discussion of significant irreversible environmental changes that would result from implementation of a project. Section 15126.2(c) of the State CEQA Guidelines describes an irreversible environmental changes as follows:

> Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

In addition, Public Resources Code Section 21100(b)(3) requires that lead agencies consider "measures to reduce the wasteful, inefficient, and unnecessary consumption of energy." Appendix F of the CEQA Guidelines further states, "Potentially significant energy implications of a project shall be considered in an EIR to the extent relevant and applicable to the project."

The ordinance would preclude specified retail establishments in the City from distributing plastic single-use carryout bags, or providing paper single-use carryout bags that do not qualify as "recyclable." The ordinance would institute a 10 cent ($0.10) charge for each recyclable paper single-use carryout bag and at least a $0.10 charge for each reusable bags at the point of sale. The objective of the ordinance is to reduce adverse environmental impacts related to single-use carryout bags and promote a shift toward the use of reusable bags. Implementation of the ordinance to reduce single-use carryout bags in specified retail stores would not result in any changes in the existing land uses or new physical development within the City. Therefore, the ordinance would not alter or cause irreversible physical alterations to existing land uses.

As discussed in Chapter 3.0, Environmental Impact Analysis, the shift toward reusable bags within the City ~~would not result in any significant adverse impact on the environment and~~ would incrementally reduce air pollutant emissions, be consistent with applicable plans and policies, ~~and regulations related to reducing GHG emissions,~~ and is anticipated to result in beneficial or less than significant effects on air quality, ~~hydrology and~~ water quality, and energy. Paper utilized for any increase in the number of single-use paper bags is expected to be produced from recycled materials and sustainable forest practices, and no significant impacts to forest resources were identified in this EIR. The EIR's analysis also found that impacts to energy would be less than significant or beneficial, thus, no unnecessary consumption of energy is expected. Overall the project would not result in the inefficient, wasteful, and unnecessary consumption of energy or other resources and no significant irreversible environmental changes related to energy use is expected to occur. All other impacts analyzed in this EIR, other than GHG impacts, were found to be less than significant.

The project has the potential to have significant GHG-related impacts based on the worst-case scenario parameters utilized for this EIR's analysis. It is not considered likely that the conservative parameters,

such as the particular increase in paper single-use carryout bag use, will occur to the extent analyzed. However, without a specific project-level GHG threshold it is difficult to determine whether the GHG impacts for this particular project would be below a level of significance. Therefore, GHG impacts are considered potentially significant for this project. However, this would not result in uses of nonrenewable resources during the project where their removal or nonuse thereafter is unlikely, in irreversible damage due to environmental accidents associated with the project, or in an irretrievable commitment of nonrenewable resources. Further, in order to reduce the potential GHG impacts of the project, the City would implement the mitigation measures identified in Section 3.2.4. These efforts, in addition to the GHG-reducing measures identified in the City's General Plan and Climate Action Plan, are expected to further prevent any irreversible environmental impacts due to climate change as a result of this project's potential contribution of GHG emissions. Therefore, the project would not result in significant irreversible environmental changes.

SECTION 8 CUMULATIVE IMPACTS

Per CEQA guidelines section 15065(a)(3), "Cumulatively considerable means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." Impacts are significant if:

1. The combined impact of the project and other projects is significant (14 Cal Code of Regulations section 15130(a)(2), and

2. The project's incremental effect is cumulatively considerable (14 Cal Code of Regulations section 15130(a)).

In many cases, the impact of an individual project may not be significant, but its cumulative impact may be significant when combined with those impacts from other related projects. Section 15355 of the CEQA Guidelines defines cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." CEQA Guidelines Section 15130(b) states that "the discussion [of cumulative impacts] need not provide as great detail as is provided for the effects attributable to the project alone." Section 15130(b) further states that a cumulative impacts discussion "should be guided by standards of practicality and reasonableness."

Cumulative impacts can occur from the interactive effects of a single project. For example, the combination of noise and dust generated during construction activities can be additive and can have a greater impact than either noise or dust alone. However, substantial cumulative impacts more often result from the combined effect of past, present, and future projects located in proximity to a proposed project. Thus, it is important for a cumulative impacts analysis to be viewed over time and in conjunction with other related past, present, and reasonably foreseeable future projects, the impacts of which might compound or interrelate with those of the project under review.

As provided by Section 15130(b) of the CEQA Guidelines, the following elements are necessary in 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 projections contained in an adopted general plan or related planning document that 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 the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available.

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

For the analysis of cumulative impacts associated with the single-use carryout bag ordinance, the subject area primarily includes the City of San Diego; however, in addition, single-use carryout bag and polystyrene ordinances elsewhere in California are considered. As listed in Table 2-1, many jurisdictions are passing ordinances regulating plastic single-use carryout bag use. In addition, many jurisdictions are

regulating polystyrene products, which are made from a non-biodegradable synthetic polymer and include Styrofoam and many hard plastics. Locally, Solana Beach is the only city in San Diego County that has passed a polystyrene ordinance[43]. Encinitas has discussed the possibility.[44]

The following jurisdictions have enacted ordinances for regulating polystyrene products:[45] Alameda (2008), Albany (2008), Aliso Viejo (2005), Arcata (2015), Belmont (2012), Berkeley (1988), Burlingame (2011), Calabasas (2008), Campbell (2014), Capitola (2012), Carmel, (1989), Carpentaria (2009), Cupertino (2014), Dana Point (2012), Del Ray Oaks (2010), El Cerrito (2014), Emeryville (2008), Fairfax (1993), Fort Bragg (2014), Foster City (2012), Fremont (2011), Gonzales (2015), Greenfield (2015), Half Moon Bay (2011), Hayward (2011), Hercules (2008), Hermosa Beach (2012), Huntington Beach (2005), Lafayette (2015), Laguna Beach (2008) Laguna Hills (2008), Laguna Woods (2004), Livermore (2010), Los Altos (2014), Los Altos Hills (2012), Los Angeles City (2008), Los Angeles County (2008), Los Gatos (2014), Malibu (2005), Manhattan Beach (2013), Marin County (2010), Marina (2011), Mendocino County (2015), Menlo Park (2012), Millbrae (2008) Mill Valley (2009), Monterey City (2009), Monterey County (2010), Morgan Hill (2014), Mountain View (2014), Newport Beach (2008), Novato (2013), Oakland (2007), Ojai (2014), Orange County (2005), Pacific Grove (2008), Pacifica (2010), Palo Alto (effective April 22, 2010), Pittsburg (1993), Portola Valley (2012), Redwood City (2013), Richmond (2014), Salinas (2011), San Bruno (2010), San Carlos (2012), San Clemente (2011), San Francisco (2007), San Jose (2014), San Juan Capistrano (2004), San Leandro (2012), San Luis Obispo City (2015), San Mateo City (2013), San Mateo County (2008 and 2011), San Rafael (2013), Santa Clara (2013), Santa Cruz City (2012, Santa Cruz County (2008 and 2012), Santa Monica (2007), Sausalito (2008), Scotts Valley (2009), Seaside (2010), Sonoma City (1989), Sonoma County (adopted 1989), South San Francisco (2008), Sunnyvale (2013), Ukiah (2015), Ventura County (2004), Walnut Creek (2014), Watsonville (2009 and 2014), West Hollywood (1990), and Yountville (1989). Most of these ordinances were enacted citing CEQA Guidelines section 15308, an exemption for actions taken for the protection of the environment, and did not identify any potential impacts.

A complete list of past, present, and probable future projects that could have impacts on all the issue areas addressed in this EIR would require a consideration of every project that might have an impact within each issue area, and would be both impossibly lengthy, unreasonable, and also speculative. However, consistent with Section 15130(b)(1)(B) of the CEQA Guidelines, the growth projections as provided in the San Diego Association of Governments (SANDAG) 2050 Regional Growth Forecast (SANDAG 2011),[46] and the potential cumulative impacts associated with this future population growth, can be factored into the cumulative impact discussion. The Regional Growth Forecast provides estimates and forecasts of employment, population, and housing for the period between 2008 and 2050. The growth forecast is completed in two stages. During the first stage, SANDAG produces a forecast for the entire San Diego region based on existing demographic and economic trends. During the second stage, SANDAG develops a subregional forecast by working with local jurisdictions to understand existing land

[43] http://www.delmarbeachclub.com/blog/2015/10/28/solana-beach-first-in-county-to-ban-polystyrene-the-san-diego-union-tribune-62/
[44] 2015 Encinitas Advocate http://www.encinitasadvocate.com/news/2014/jul/01/encinitas-polystyrene-styrofoam-ban/
[45] http://cawrecycle.org/issues/plastic_campaign/polystyrene/local
[46] SANDAG Regional Growth Forecast, http://www.sandag.org/index.asp?projectid=355&fuseaction=projects.detail

use plans. The Regional Growth Forecast's growth projections show 1,333,617 people in the City of San Diego in 2008, and 1,947,184 in 2050, for a 46 percent projected increase.[47]

8.1.1 Air Quality

If a project involves development that is greater than that anticipated in the local plan and SANDAG's growth projections, the project might be in conflict with the State Implementation Plan and RAQS and may contribute to a potentially significant cumulative impact on air quality. The project does not involve any development, thus it would be consistent with the existing zoning and General Plan land use designations which incorporate SANDAG's 46 percent growth forecast. Additionally, the project would not include a residential component that would increase local population growth, nor would the project provide additional water supplies that would result in growth-inducing effects. The project would not increase employment, nor would it cause impacts associated with increased employment.

If project emissions were to exceed applicable regional thresholds for any nonattainment pollutant, then the project could have the potential to result in a cumulatively considerable net increase in these pollutants and thus could have a significant impact on the ambient air quality. However, as explained in Section 3.1, the project would not exceed the City of San Diego's significance thresholds for criteria pollutants: VOCs, oxides of nitrogen (NO_x), CO, sulfur oxides (SO_x), particulate matter less than or equal to 10 microns in diameter (PM_{10}), or particulate matter less than or equal to 2.5 microns in diameter ($PM_{2.5}$).

Adopted and pending single-use carryout bag ordinances would continue to reduce the amount of single-use plastic and paper carryout bags used, and promote a shift toward reusable carryout bags. Similar to the proposed ordinance, other ordinances would be expected to generally reduce the overall number of bags manufactured and associated air pollutant emissions, while existing and future manufacturing facilities would continue to be subject to federal and state air pollution regulations. Similar to the proposed ordinance, other adopted and pending ordinances would be expected to result in less than significant or beneficial impacts, and could incrementally reduce the amount of emissions that contribute to ground-level ozone and atmospheric acidification, which would result in a significant beneficial effect on air quality.

The project would not be growth inducing and thus would not alter SANDAG's 46 percent growth forecast, project emissions are below regional thresholds, and other comparable projects would not be expected to have significant impacts. As shown in Table 4-13, the project is anticipated to result in a net reduction in air emissions, providing a benefit, and thus would not contribute to cumulatively significant air quality impacts.

8.1.2 GHG

Because of the broad nature of GHG emissions, it is not feasible to analyze GHG emissions solely on an individual, project-level basis. Unlike air quality impacts, which could result in more localized or location-specific effects, any discussion and evaluation of GHG emissions already involves a cumulative-

[47] SANDAG Regional Growth Forecast, http://www.sandag.org/index.asp?projectid=355&fuseaction=projects.detail

level assessment. As discussed and analyzed in Section 3.2, Greenhouse Gas Emissions, the project's GHG emissions were evaluated to determine whether they would have a significant ~~cumulative~~ impact on the environment, and it was determined that this possibility exists. ~~The project would not exceed the City's 900 MT CO_{2e} per year screening threshold that has been established for the purposes of assessing the GHG emissions of projects in the City.~~

The City's proposed CAP provides standards that are intended to reach rigorous GHG reduction targets even given SANDAG's 46 percent population increase projection. The CAP incorporates the City's Zero Waste Plan. The project is specifically addressed in the Zero Waste Plan, and thus is consistent with the Zero Waste Plan and the CAP.

Adopted and pending single-use carryout bag ordinances of more than 100 other jurisdictions within California would continue to reduce the amount of single-use plastic and paper carryout bags and promote a shift toward reusable carryout bags. ~~Each of these is expected~~ Although it is not expected that any of these ordinances will in practice ~~to result in insignificant, neutral, or beneficial~~ result in significant GHG impacts, the possibility cannot be completely eliminated. ~~All known ordinances combined would still be below all known thresholds, would not be inconsistent with any known plan, and are not expected to generate a significant cumulative increase in GHG emissions.~~ Thus, when using conservative, worst-case scenario assumptions as in this EIR's analysis, a potential for significant GHG cumulative impacts exists when this project is considered in conjunction with other past, present, and reasonably anticipated future projects.

~~Because the GHG analysis provided in Section 3.2 is, in essence, a cumulative impact analysis that finds this project not to have a significant effect, and because other comparable projects are also not anticipated to have a significant effect, and because the project is consistent with applicable planning documents, the proposed ordinance would not combine with other projects to result in a significant GHG emissions impact.~~

8.1.3 Agricultural and Forest Resources

Forest and agricultural impacts are generally considered as land use changes from agricultural or forest to another use, or as management activities. Product demand, and factors that influence product demand, are not typically analyzed, because the analysis includes features that are too broad and speculative to be considered realistically.

When there are management activities or land use changes associated with a project to analyze, these can have complex and long-lasting effects on terrestrial and aquatic resources. When considered in isolation, individual activities may appear to have minimal effects, but the overall consequences of recurring activities may be substantial.

The most common impacts to agricultural and forest resources considered under CEQA in the City include conversion of agricultural or forest land to other uses, and projects requiring brush management. The City balances fire safety with habitat via brush management guidelines within section 142.0412 of the Municipal Code.[48]

The proposed project includes no such change in land use, and involves no brush management. The proposed project would have no impact on any local forest or agricultural land within the City.

[48] City Municipal Code. http://www.sandiego.gov/development-services/industry/information/landscape/index.shtml

As previously stated, product demand is not typically analyzed in CEQA documents because it entails features that are too broad and speculative to be considered realistically. Market forces that influence product demand are also too broad and speculative to be considered realistically. Though not a typical consideration, the potential for this project to create a potentially greater demand for forest and/or farm products has been identified, but found in Section 3.3 to not result in significant impacts.

In order to consider the cumulative impacts of the project, other similar market forces that might alter demand for these common market products would need to be identified, but this effort would be speculative in the extreme. The SANDAG population data can be used to propose a 46 percent increase in consumption over time, spread over various projects, to approximate unknown market forces. Nationally, forest planning documents do not rely on SANDAG forecasts, but include comparable population and market demand factors. Management of production and market forces has prevented depletion of these resources.[49] The project would be consistent with SANDAG and comparable forecasts used to manage these resources.

Although an investigation of cumulative impacts associated with market forces from all cloth and paper production in the U.S. is beyond the scope of this EIR, this analysis can consider market forces associated with comparable projects. More than 100 California cities and counties, large and small, have adopted local ordinances restricting retailers from using plastic single-use carryout shopping bags.[50] Adopted and pending carryout bag ordinances generally have neutral effects with respect to agricultural and forest resources, especially if they contain postconsumer recycled content provision, such as the one in the ordinance. Most ordinances are intended to reduce the amount of plastic single-use carryout bags and deter the use of paper single-use carryout bags. Given the neutral or nearly neutral impact of these ordinances, and given that currently forests are sustainable, and the amount of forest land has remained about the same since 1900,[51] the proposed ordinance would not contribute to any significant cumulative impact to forest or agricultural lands.

8.1.4 Hazards and Hazardous Materials

As analyzed in Section 3.4, the project's individual impacts related to hazards and hazardous materials would be less than significant. Other projects located within the City would be required to comply with all applicable hazards materials regulations set forth by the appropriate federal, state, and local jurisdiction, which are intended to address and reduce the risk of hazards. All related projects, regardless of location, would be subject to the requirements set forth by the USEPA, Federal Aviation Administration, Department of Toxic Substances Control, California Department of Transportation, the San Diego County DEH, and local fire departments, all of which are designed to minimize impacts related to hazards and hazardous materials. No specific projects that would contribute to a cumulative significant impact in the project area have been identified.

It is highly speculative and virtually impossible to identify all projects that could have impacts associated with hazards and hazardous materials and consider potential cumulative impacts. However, related projects from outside the project area can be identified. More than 100 California cities and counties,

[49] http://forestry.about.com/library/bl_us_forest_acre_trend.htm
[50] CalRecycle. http://www.calrecycle.ca.gov/publiced/holidays/ReusableBags.htm
[51] About Forestry: http://forestry.about.com/library/bl_us_forest_acre_trend.htm

large and small, have adopted local ordinances restricting retailers from using plastic single-use carryout shopping bags.[52] The City's ordinance would not increase exposure to bacteria compared to what is typically found in a kitchen, and there is no reason to believe the proposed ordinance, or any other carryout bag reduction ordinance, would result in accumulations of paper single-use carryout bags that could harbor cockroaches. None of the ordinances involve the routine transport, use, or disposal of hazardous materials as defined by the Hazardous Materials Transportation Uniform Safety Act;[53] therefore, they do not contribute to a cumulative significant impact. Similarly, no hygiene-related hazards are associated with the proposed ordinance or with other carryout bag reduction ordinances, and therefore, they would not contribute to a cumulative significant impact.

8.1.5 Hydrology and Water Quality

The cumulative effects of past and current projects and practices have resulted in substantial water quality problems in the region's major waterways. Because water quality problems are generally cumulative in nature, all efforts must be made to reduce pollutant concentrations within storm water discharges to the maximum extent practicable, even if the impact of an individual project appears inconsequential. A cumulative significant impact may exist in those areas identified as "water quality limited" segments (or impaired water bodies) under CWA Section 303(d). As explained in Section 3.5 of this EIR, most of the major water bodies in the region are listed under CWA Section 303(d) as impaired for one or more pollutants. The project is expected to decrease plastic bag litter in these waterways. Combined with other anti-litter activities, a potentially significant beneficial effect is anticipated to be achieved. The potential less than significant impact associated with water consumption from bag manufacture would occur within the water system of the manufacturing facility. It is unlikely that one region would host more than one manufacturing facility, and thus the less than significant impacts associated with manufacturing would not be cumulatively significant.

Other projects in the City would be required to comply with applicable federal, state, and local water quality regulations. Development projects over one acre in size would be required to obtain coverage under the NPDES Construction General Permit, which requires project proponents to identify and implement storm water BMPs that effectively control erosion and sedimentation and other construction-related pollutants. The MS4 Permit and the City's storm water standards manual also require smaller projects of less than one acre to implement a minimum set of water quality BMPs. Because adverse water quality and major hydrologic alterations are linked to the large-scale, cumulative effects of development projects, as well as industrial and/or agricultural land uses, the provisions within the various NPDES permits, by their nature, address cumulative conditions. The project proposes no development, and would provide no cumulatively significant contribution to any cumulative significant effect such projects might have.

The typical long-term effect of substantial increases in impervious surfaces is that peak flows within the watershed's drainages are greater in magnitude, shorter in duration, and more responsive to storm events, since a greater portion of precipitation is carried by surface runoff rather than percolated into the soil. These effects are undesirable with respect to flood hazards, water quality, and habitat quality. However, the project proposes no development with impervious surfaces, and therefore would provide no

[52] CalRecycle. http://www.calrecycle.ca.gov/publiced/holidays/ReusableBags.htm
[53] City of Los Angeles FEIR citing Code of Federal Regulations, Title 40, Chapter 1, Parts 106–180.

contribution to any cumulative significant effect other projects might have. Furthermore, the project is anticipated to have a beneficial effect on water quality by reducing litter associated with plastic single-use carryout bags.

More than 100 California cities and counties, large and small, have adopted local ordinances restricting retailers from using plastic single-use carryout shopping bags. Prohibitions on plastic single-use carryout bags cover approximately one-third of California's population.[54] As summarized in Table 2-2, the annual number of bags generated for disposal/recycling would be reduced with implementation of the proposed ordinance, and the number of plastic single-use carryout bags entering the storm drain system as litter would be significantly reduced, thereby reducing water quality impacts associated with plastic single-use carryout bags and complying with applicable water quality standards and waste discharge requirements. In the U.S., manufacturing of carryout bags would continue to be regulated by applicable federal, state, and local water quality regulations, including applicable NPDES permits. Accordingly, implementation of the ordinance in combination with past, present, or reasonably foreseeable future ordinances would result in less than significant or beneficial cumulative impact on water quality. The adopted and reasonably foreseeable future ordinances in California, and the proposed ordinance, do not involve any construction of new structures, such as manufacturing facilities, that would result in an increase in impervious surfaces potentially reducing ground-water levels.

8.1.6 Utilities and Public Service Systems

8.1.6.1 Water

As analyzed in Section 3.6.1.1, the project's individual impacts related to water would be less than significant. Water providers prepare and adopt long-term master plans in order to respond to future demands with system-wide improvements. These plans are periodically updated based on both individual provider's projections and SANDAG population forecasts. Any new or expanded utilities as a result of cumulative growth is typically discussed and evaluated in these master plans. Regardless of land use type, most other related projects located within the City would be required to contribute their fair share of development impact fees or other mitigation fees. Those projects that would trigger the need for additional utilities would not only be required to pay their fair share to fund such facilities, but would be required to comply with the requirements of CEQA by analyzing the potential environmental impacts associated with implementation of such utilities.

Similar to the project, other adopted and pending single-use carryout bag reduction ordinances may incrementally increase water use associated with washing of reusable bags for hygienic purposes. However, because the incremental increase is so small, and because the impact associated with washing of reusable bags would be confined to the region in which the ordinance is proposed, each region with a different water supplier, impacts would not be cumulative. Also, water agencies already institute programs to educate people about washing with full loads and other conservation measures.

Therefore, the proposed ordinance does not contribute to a cumulative significant impact on water within the project area. Further, the proposed ordinance does not contribute to a cumulative significant impact outside the project area in combination with similar ordinances throughout the State.

[54] CalRecycle: http://www.calrecycle.ca.gov/publiced/holidays/ReusableBags.htm

8.1.6.2 Wastewater

As analyzed in Section 3.6.1.2, the project's individual impacts related to wastewater would be less than significant. On an individual basis, the project would not generate substantial quantities of wastewater. Utility providers prepare and adopt long-term master plans in order to respond to future demands with system wide improvements. These plans are periodically updated based on both individual provider's projections and SANDAG population forecasts. Any new or expanded utilities as a result of cumulative growth is typically discussed and evaluated in these master plans. Regardless of land use type, most other related projects located within the City would be required to contribute their fair share of development impact fees or other mitigation fees. Those projects that would trigger the need for additional utilities would not only be required to pay their fair share to fund such facilities, but would be required to comply with the requirements of CEQA by analyzing the potential environmental impacts associated with implementation of such utilities.

Similar to the proposed ordinance, other adopted and pending single-use carryout bag reduction ordinances may incrementally increase wastewater associated with washing of reusable bags. However, because other agencies have separate treatment plants than those that serve the City, the ordinance's increase in wastewater would not impact treatment plants in those areas. Also, water agencies already institute programs to educate people about washing with full loads and other conservation measures. These existing measures, if effective, would eliminate the contribution of reusable bags to wastewater systems.

Therefore, the proposed ordinance does not contribute to a cumulative significant impact on wastewater within the project area. Further, the proposed ordinance does not contribute to a cumulative significant impact outside the project area in combination with similar ordinances throughout the State.

8.1.6.3 Solid Waste

The City's Source Reduction and Recycling Element and Zero Waste Plan are based on SANDAG population forecasts, and include waste reduction measures to manage waste associated with anticipated growth. The cumulative effects of past and current projects have resulted in substantial generation of solid waste, and associated solid waste management challenges. In the City, proposals for facilities that generate 60 tons per year or more of waste must develop waste management plans targeting the Statewide 75 percent waste reduction goal.[55] All projects proposed in the City must comply with this requirement, and with local ordinances, which include an educational component, in addition to requirements for commercial and residential facilities to provide recycling services. Foreseeable development compliance with these requirements is anticipated to reduce cumulative impacts associated with the project, together with all other anticipated development within the City, to below a level of significance.

Other adopted and pending single-use carryout bag reduction ordinances in other jurisdictions throughout California may incrementally increase solid waste associated with carryout bags according to the Boustead study; however, these ordinances may also result in a reduction of solid waste based on the Ecobilan study.[56] Some of the ordinances include a public education component, as does the project. All

[55] City of San Diego CEQA Thresholds: http://www.sandiego.gov/development-services/pdf/news/sdtceqa.pdf
[56] CalRecycle: http://www.calrecycle.ca.gov/publiced/holidays/ReusableBags.htm

jurisdictions must take measures to comply with state law, and many are taking steps to contribute toward the statewide goal of 75 percent waste reduction, resulting in a statewide waste diversion rate of 65 percent.[57] Further, as public information and outreach becomes more effective, waste reduction rates are anticipated to improve. Therefore, the project is not anticipated to contribute to a cumulative significant solid waste impact.

8.1.7 Mineral Resources

The County's supply of mineral resources is exhaustible and the mineral resource deposits are essentially non-renewable. There is, however, a vast amount of mineral deposits. Mining has been authorized in only a fraction of the area that technically could be mined. Although plentiful in the eastern, desert portion of the County, in the western portion of the County, the rate of consumption of alluvial deposits outweighs natural rates of replenishment. Erosion of the foothills and mountains, transport by gravity and water, and deposition of this new material into the County's alluvial river valleys and basins only very slowly replenishes sands and gravels.[58] Conservation of the County's mineral resources is important to ensure that resources are available for future generations.[59]

The project would consume no aggregate resources, nor would it preclude the future mining of local aggregate or other mineral resources. It is expected to have no impacts on mineral resources. Therefore, no cumulative impact would be associated between the proposed ordinance and other projects, including ordinances in other jurisdictions outside the project area, which would also be expected to have no impact on mineral resources.

8.1.8 Energy Resources

As analyzed in Section 3.8, the project would not have an impact on electricity, natural gas, and petroleum consumption. The proposed ordinance is anticipated to have a beneficial effect on energy resources. Other projects in the City would be expected to comply with all applicable federal, state, and local regulations pertaining to energy efficiency, including the energy conservation requirements set forth by Title 24, Part 6, of the . Therefore, the proposed ordinance is not anticipated to contribute to a cumulatively significant impact on energy in combination with other projects in the project area, and it is anticipated that the proposed ordinance, in combination with other similar ordinances outside the project area, will result in a beneficial cumulative impact on energy.

According to Table 3.7, under a worst-case scenario, the potential increase in paper bag use could result in 598 additional truck trips per year. At 20 miles per trip, that would result in 11,960 additional miles driven per year. A typical, loaded tractor trailer gets about six miles per gallon[60] resulting in an increase of 1,993 gallons of diesel gasoline per year. This would amount to .00007 percent of the total diesel gasoline use in California (based on 2.7 billion gallons of diesel fuel used in California in the fiscal year ending

[57] CalRecycle: http://www.calrecycle.ca.gov/LGCentral/GoalMeasure/DisposalRate/Graphs/EstDiversion.htm
[58] *ibid*
[59] *ibid*
[60] http://www.fastcoexist.com/1678431/we-can-do-better-than-six-miles-per-gallon-redesigning-americas-truck-fleet

June 30, 2104).[61] Even if all of the bag ordinances enacted throughout the State resulted in a similar minor increase in diesel consumption, the increased demand would not result in any shortages in diesel availability. More than likely, however, bags would be delivered to stores as part of larger mixed loads of groceries and merchandise, and there may not be an actual net increase in truck traffic from the change in bag use. Cumulative impacts to energy related to truck trips are less than significant.

[61] http://www.sandiegouniontribune.com/news/2014/dec/02/california-burns-more-gasoline/