

City of Huntington Beach

Single-Use Carryout Bag Ordinance

Final
**Environmental
Impact Report**

SCH #2011111053



January 2013

Environmental Scientists Planners Engineers

**Huntington Beach
Single-Use Carryout Bag Ordinance**

Final
Environmental Impact Report
SCH #2011111053

Prepared for:

City of Huntington Beach
Department of Planning and Building
2000 Main Street, PO Box 190
Huntington Beach, CA 92648
Contact: Mr. Hayden Beckman, Planning Aide
(714) 374-5317

Prepared with the assistance of:

Rincon Consultants, Inc.
180 North Ashwood Avenue
Ventura, California 93003

January 2013

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Huntington Beach Single-Use Carryout Bag Ordinance Final EIR

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8.0 INTRODUCTION TO THE FINAL EIR

This Final EIR has been prepared pursuant to the requirements of the California Environmental Quality Act (CEQA) with respect to the proposed Huntington Beach Single-Use Carryout Bag Ordinance (the “proposed project”). Section 15132 of the State CEQA Guidelines requires that a Final EIR contain the following:

- a) The Draft EIR or a revision of the draft;
- b) Comments and recommendations received on the Draft EIR either verbatim or in summary;
- c) A list of persons, organizations, and public agencies commenting on the Draft EIR;
- d) The responses of the Lead Agency to significant environmental points raised in the review and consultation process; and
- e) Any other information added by the Lead Agency.

This document, in conjunction with the February 2012 Draft EIR, which is bound separately, constitute the Final EIR for the Huntington Beach Single-Use Carryout Bag Ordinance. As described in detail in Chapter 2.0, *Project Description*, of the Draft EIR, the proposed project would prohibit distribution of plastic carry-out bags in commercial point of sale purchases within Huntington Beach, and would establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags at all stores that meet at least one of the criteria listed below. All stores affected by the proposed Ordinance would be required to provide reusable bags to customers either for sale or at no charge, and each store would be strongly encouraged to promote the use of reusable bags through staff education and customer outreach.

Pursuant to CEQA Guidelines Section 15063, the City prepared an Initial Study which concluded that the proposed project could result in potentially significant environmental impacts and an EIR would be required. The City circulated a Notice of Preparation (NOP) of a Draft EIR for the proposed project to the State Clearinghouse and interested agencies and persons on November 17, 2011 for a 32-day review period and a public scoping meeting was held December 7, 2011. Comments received on the NOP and comments received at the public scoping meeting were both considered in the preparation of the Draft EIR.

The Draft EIR was made available to various public agencies, citizen groups, and interested individuals for a 45-day public review period from February 9, 2012 through March 26, 2012. The Draft EIR was circulated to state agencies for review through the State Clearinghouse of the Governor’s Office of Planning and Research. Copies of a Notice of Availability (NOA) of the Draft EIR were also sent to interested State and local government agencies, and other interested parties. Copies of the Draft EIR were available for review at the City of Huntington Beach Planning and Building Department, City Clerk’s Office, Huntington Beach Central Library, and via the internet at www.huntingtonbeachca.gov.

Comment letters on the Draft EIR with specific responses are presented in Chapter 9.0, *Responses to Comments On the Draft EIR*, of this Final EIR. Any revisions to the Draft EIR based on these comments are contained in Chapter 10.0, *Corrections and Additions to the Draft EIR*, of this Final EIR in revision mode text (i.e., deletions are shown with ~~strike through~~ and additions are shown with underline).



9.0 RESPONSES TO COMMENTS

ON THE DRAFT EIR

CEQA Guidelines Section 15088 requires that the lead agency evaluate public comments on environmental issues included in a Draft EIR and prepare written responses to those comments. Pursuant to CEQA Guidelines Section 15088(b), “[t]he written responses shall describe the disposition of significant environmental issues raised (e.g., revisions to the proposed project to mitigate anticipated impacts or objections). In particular, the major environmental issues raised when the lead agency’s positions are at variance with recommendations and objections raised in the comments must be addressed in detail giving reasons why specific comments and suggestions were not accepted.” The CEQA Guidelines call for responses that contain a “good faith, reasoned analysis” with statements supported by factual information. Corrections or additional text discussed in the responses to comments are also shown in the text of the Final EIR’s Section 10.0, *Corrections and Additions to the Draft EIR*, in ~~strikethrough~~ (for deleted text) and underline (for added text) format.

The City of Huntington Beach received three comment letters on the Draft EIR for the Single-Use Carryout Bag Ordinance. The comment letters that the City received are listed below. The letters and responses follow.

<u>Commenter</u>	<u>Page</u>
1. Dave Singleton, Program Analyst, Native American Heritage Commission (NA)	9-2
2. Colin Kelly, Staff Attorney, Orange County Coastkeeper (OCC)	9-8
3. Sue Gordon, Chairman, Huntington Beach Environmental Board (HBEB)	9-13-



NATIVE AMERICAN HERITAGE COMMISSION

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SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
ds_nahc@pacbell.net



February 14, 2012

Mr. Hayden Beckman, Planning Aide

City of Huntington Beach Planning & Building Department

2000 Main Street, 3rd Floor
Huntington Beach, CA 92648

RECEIVED
FEB 17 2012

Re: SCH#2011111053 CEQA Notice of Completion; draft Environmental Impact Report (DEIR) for the "Huntington Beach Single Use Carry-out Bag Ordinance Project;" located in the City of Long Beach; Los Angeles County, California

Dear Mr. Beckman:

The Native American Heritage Commission (NAHC) is the State of California 'Trustee Agency' for the protection and preservation of Native American cultural resources pursuant to California Public Resources Code §21070 and affirmed by the Third Appellate Court in the case of EPIC v. Johnson (1985: 170 Cal App. 3rd 604). The court held that the NAHC has jurisdiction and special expertise, as a state agency, over affected Native American resources, impacted by proposed projects including archaeological, places of religious significance to Native Americans and burial sites. The NAHC wishes to comment on the proposed project.

This letter includes state and federal statutes relating to Native American historic properties of religious and cultural significance to American Indian tribes and interested Native American individuals as 'consulting parties' under both state and federal law. State law also addresses the freedom of Native American Religious Expression in Public Resources Code §5097.9.

NA-1

The California Environmental Quality Act (CEQA – CA Public Resources Code 21000-21177, amendments effective 3/18/2010) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the CEQA Guidelines defines a significant impact on the environment as 'a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ... objects of historic or aesthetic significance.' In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE), and if so, to mitigate that effect.

No NAHC Sacred Lands File (SLF) search was conducted for a project of this type; however, consultation with tribes to gain their opinion and support for the proposed project is advisable.

Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries of cultural resources or burial sites once a project is underway. Culturally affiliated tribes and individuals may have knowledge of the religious and cultural significance of the historic properties in the project area (e.g. APE). We strongly urge that you make contact with the list of Native American Contacts on the list of Native American contacts,

to see if your proposed project might impact Native American cultural resources and to obtain their recommendations concerning the proposed project. Special reference is made to the *Tribal Consultation* requirements of the California 2006 Senate Bill 1059: enabling legislation to the federal Energy Policy Act of 2005 (P.L. 109-58), mandates consultation with Native American tribes (both federally recognized and non federally recognized) where electrically transmission lines are proposed. This is codified in the California Public Resources Code, Chapter 4.3 and §25330 to Division 15.

Furthermore, pursuant to CA Public Resources Code § 5097.95, the NAHC requests that the Native American consulting parties be provided pertinent project information. Consultation with Native American communities is also a matter of environmental justice as defined by California Government Code §65040.12(e). Pursuant to CA Public Resources Code §5097.95, the NAHC requests that pertinent project information be provided consulting tribal parties pursuant to CA Public Resources Code §5097.95. The NAHC recommends *avoidance* as defined by CEQA Guidelines §15370(a) to pursuing a project that would damage or destroy Native American cultural resources and Section 2183.2 that requires documentation, data recovery of cultural resources.

Consultation with tribes and interested Native American consulting parties, on the NAHC list, if the project is under federal jurisdiction, should be conducted in compliance with the requirements of federal NEPA and Section 106 and 4(f) of federal NHPA (16 U.S.C. 470 *et seq*), 36 CFR Part 800.3 (f) (2) & .5, the President's Council on Environmental Quality (CSQ, 42 U.S.C 4371 *et seq.* and NAGPRA (25 U.S.C. 3001-3013) as appropriate. The 1992 *Secretary of the Interiors Standards for the Treatment of Historic Properties* were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including cultural landscapes. Also, federal Executive Orders Nos. 11593 (preservation of cultural environment), 13175 (coordination & consultation) and 13007 (Sacred Sites) are helpful, supportive guides for Section 106 consultation. The aforementioned Secretary of the Interior's *Standards* include recommendations for all 'lead agencies' to consider the historic context of proposed projects and to "research" the cultural landscape that might include the 'area of potential effect.'

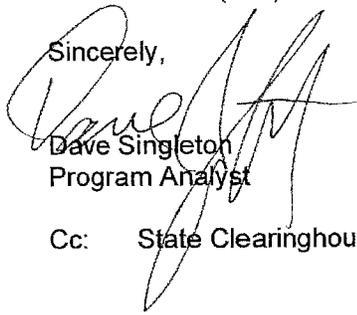
NA-1

Confidentiality of "historic properties of religious and cultural significance" should also be considered as protected by California Government Code §6254(r) and may also be protected under Section 304 of he NHPA or at the Secretary of the Interior discretion if not eligible for listing on the National Register of Historic Places. The Secretary may also be advised by the federal Indian Religious Freedom Act (cf. 42 U.S.C., 1996) in issuing a decision on whether or not to disclose items of religious and/or cultural significance identified in or near the APEs and possibility threatened by proposed project activity.

To be effective, consultation on specific projects must be the result of an ongoing relationship between Native American tribes and lead agencies, project proponents and their contractors, in the opinion of the NAHC. Regarding tribal consultation, a relationship built around regular meetings and informal involvement with local tribes will lead to more qualitative consultation tribal input on specific projects.

If you have any questions about this response to your request, please do not hesitate to contact me at (916) 653-6251.

Sincerely,



Dave Singleton
Program Analyst

Cc: State Clearinghouse

Attachment: Native American Contact List

Native American Contacts

Orange County
February 14, 2012

Ti'At Society/Inter-Tribal Council of Pimu
Cindi M. Alvitre, Chairwoman-Manisar
3098 Mace Avenue, Aapt. D Gabrielino
Costa Mesa, , CA 92626
calvitre@yahoo.com
(714) 504-2468 Cell

Tongva Ancestral Territorial Tribal Nation
John Tommy Rosas, Tribal Admin.
Private Address Gabrielino Tongva
tattnlaw@gmail.com
310-570-6567

Gabrielino/Tongva San Gabriel Band of Mission
Anthony Morales, Chairperson
PO Box 693 Gabrielino Tongva
San Gabriel , CA 91778
GTTribalcouncil@aol.com
(626) 286-1632
(626) 286-1758 - Home
(626) 286-1262 -FAX

Gabrielino Tongva Nation
Sam Dunlap, Chairperson
P.O. Box 86908 Gabrielino Tongva
Los Angeles , CA 90086
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(909) 262-9351 - cell

Juaneno Band of Mission Indians Acjachemen Nation
Anthony Rivera, Chairman
31411-A La Matanza Street Juaneno
San Juan Capistrano CA 92675-2674
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(949) 488-3484
(949) 488-3294 - FAX
(530) 354-5876 - cell

Gabrielino Tongva Indians of California Tribal Council
Robert F. Dorame, Tribal Chair/Cultural Resources
P.O. Box 490 Gabrielino Tongva
Bellflower , CA 90707
gtongva@verizon.net
562-761-6417 - voice
562-761-6417- fax

Juaneno Band of Mission Indians
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P.O. Box 25628 Juaneno
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alfredgacruz@sbcglobal.net
714-998-0721
714-998-0721 - FAX
714-321-1944 - cell

Juaneno Band of Mission Indians
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Santa Ana , CA 92799
bssepul@yahoo.net
714-838-3270
714-914-1812 - CELL
bsepul@yahoo.net

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable for contacting local Native Americans with regard to cultural resources for the proposed Huntington Beach Single Use Carry-Out Bag Ordinance Project; located in the City of Huntington Beach; Orange County, California. SCH#2011111053; CEQA Notice of Completion; draft Environmental Impact Report (DEIR).

Native American Contacts
Orange County
February 14, 2012

Juaneño Band of Mission Indians
Sonia Johnston, Tribal Chairperson
P.O. Box 25628 Juaneno
Santa Ana , CA 92799
sonia.johnston@sbcglobal.
(714) 323-8312

Juaneno Band of Mission Indians Acjachemen Nation
Joyce Perry; Representing Tribal Chairperson
4955 Paseo Segovia Juaneno
Irvine , CA 92612
949-293-8522

Juaneno Band of Mission Indians
Anita Espinoza
1740 Concerto Drive Juaneno
Anaheim , CA 92807
neta777@sbcglobal.net
(714) 779-8832

Gabrielino-Tongva Tribe
Linda Candelaria, Chairwoman
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Los Angeles , CA 90067 Gabrielino
lcandelaria1@gabrielinoTribe.org
626-676-1184- cell
(310) 587-0170 - FAX
760-904-6533-home

United Coalition to Protect Panhe (UCPP)
Rebecca Robles
119 Avenida San Fernando Juaneno
San Clemente CA 92672
rebroles1@gmail.com
(949) 573-3138

Gabrieleno Band of Mission Indians
Andrew Salas, Chairperson
P.O. Box 393 Gabirelino
Covina , CA 91723
(626) 926-4131
gabrielenoindians@yahoo.
com

Gabrielino-Tongva Tribe
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1875 Century Pk East #1500 Gabrielino
Los Angeles , CA 90067
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(310) 428-5690 - cell
(310) 587-0170 - FAX
bacuna1@gabrieinotribe.org

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable for contacting local Native Americans with regard to cultural resources for the proposed Huntington Beach Single Use Carry-Out Bag Ordinance Project; located in the City of Huntington Beach; Orange County, California. SCH#2011111053; CEQA Notice of Completion; draft Environmental Impact Report (DEIR).

Letter 1 (NA)

COMMENTER: Dave Singleton, Program Analyst, Native American Heritage Commission (NA)

DATE: February 14, 2012

Response NA-1

The commenter states that the Native American Heritage Commission (NAHC) is the “Trustee Agency” for the protection of Native American cultural resources and that consultation with tribes is advisable in order to avoid unanticipated discoveries of cultural resources or burial sites once the project is underway.

As described in the Initial Study (see Appendix A), the proposed project involves adoption of an ordinance that would prohibit the distribution of plastic carry-out bags in point of sale purchases citywide and would establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags. The project does not include any development or alterations of physical sites or structures. The project would not result in substantial adverse changes in the significance of a historical or archaeological resource, directly or indirectly destroy a unique paleontological resource or geologic feature, nor disturb any human remains. Therefore, no impacts related to any Native American cultural resources would occur and consultation with tribes is not warranted for the proposed Ordinance.



Letter 2 (OCC)

RECEIVED
MAR 23 2012
Dept of Planning
& Building



ORANGE COUNTY
COASTKEEPER

3151 Airway Avenue, Suite F-110
Costa Mesa, CA 92626
Phone 714-850-1965
Fax 714-850-1592
www.Coastkeeper.org

March 21, 2012

Sent via U.S. Postal Service

Mr. Hayden Beckman, Planning Aide
City of Huntington Beach Planning and Building Department
2000 Main Street
Huntington Beach, CA 92648

RE: Huntington Beach Single Use Carryout Bag Ordinance Draft EIR No. 11-002

Dear Mr. Beckman:

Orange County Coastkeeper ("Coastkeeper") is an environmental organization with the mission to preserve, protect and restore the watersheds and coastal environment of Orange County. As strong supporters of environmental quality and public health, we are writing to express our support for the Huntington Beach Single Use Carryout Bag Ordinance Draft EIR No. 11-002 ("DEIR"). As we will discuss in detail below, the DEIR accurately characterizes the potential impacts of the Proposed Huntington Beach Draft Ordinance ("Draft Ordinance") as being beneficial for the environment. Consequently, we urge the City of Huntington Beach City Council ("Council") to approve the DEIR and adopt the Proposed Ordinance.

I. The Draft Ordinance Will Have an Overall Beneficial Environmental Impact

The DEIR correctly describes the Draft Ordinance as having no significant adverse environmental impacts.¹ The DEIR discusses four types of potential impacts of the Draft Ordinance: Air Quality, Biological Resources, Greenhouse Gas Emissions and Hydrology/Water Quality.

A. Air Quality

The DEIR correctly concludes that the Draft Ordinance would have beneficial impacts on air quality² without any significant adverse impacts.³ The DEIR discusses two potential ways that the Draft Ordinance could adversely impact air quality. The first way is by increasing the use of paper single use bags, the manufacture of which has a higher per-bag air pollutant emission rate than plastic single use bags.⁴ However, as the DEIR notes, the Draft Ordinance would still have an overall beneficial impact on air quality because the number of plastic bags used would be greatly reduced.⁵ In addition, all paper bag manufacturing facilities would still be subject to emissions limitations by the South Coast Air Quality

¹ Huntington Beach Single-Use Carryout Bag Ordinance Draft EIR, ES-4 – ES-6.

² *Id.* at 4.1-9.

³ *Id.* at 4.1-12, 4.1-14.

⁴ *Id.* at 4.1-9.

⁵ *Id.* at 4.1-9.

OCC-
1

Management District (“SCAQMD”).⁶ Furthermore, the use of paper bags is expected to gradually decrease as consumers switch to reusable bags.⁷

The second way the DEIR stated the Draft Ordinance could potentially have an adverse impact on air quality is through, “an incremental increase in truck trips to deliver paper and reusable carryout bags to local retailers.”⁸ However, the DEIR correctly states that this will not have a significant adverse impact on air quality because the amount of additional truck trips would be negligible, amounting to only an extra half a truck trip per day.⁹ Because of the net increase in truck trips would be so small, emissions from those trips would be well within the limits set by SCAQMD.¹⁰

B. Biological Resources

The DEIR correctly concludes that the Draft Ordinance would have only beneficial impacts on biological resources.¹¹ Plastic bags pose a serious threat to aquatic life. Because they are so much lighter than paper bags, they are easily transported by wind to rivers, lakes, streams and the Pacific Ocean. Once they enter the aquatic environment, they can kill fish, birds, mammals and other organisms by causing entanglement or by poisoning them when ingested. A common way plastic bags are ingested is by large marine predators mistaking them for smaller prey animals and swallowing them. This problem is compounded by the fact that plastic bags are not bio-degradable. This means that once plastic bags enter the natural environment, they are there to stay.

OCC-1

The Draft Ordinance’s switch from plastic bags to reusable and paper bags is a major step toward correcting the problem of plastic bag pollution. Because paper and reusable bags are much heavier than plastic bags, they are much less likely to be blown by wind into waterways. Furthermore, if they do end up in waterways, paper bags, along with certain types of reusable bags, such as cotton, are biodegradable, and therefore will not persist in the environment as a threat to aquatic life for nearly as long as plastic bags. In addition, paper bags are much less likely to be mistaken for prey animals by predators than are plastic bags.

C. Greenhouse Gas Emissions

The DEIR correctly concludes that the Draft Ordinance would have no significant adverse impacts on Greenhouse Gas Emissions.¹² As explained above in our discussion of air quality, the Draft Ordinance could cause a slight increase in emissions. However, as the DEIR points out, the small increase in Greenhouse Gas Emissions is expected to be well within acceptable limits.¹³ Furthermore, the Draft Ordinance would be consistent with California laws which establish strategies for greenhouse gas reduction.¹⁴

⁶ *Id.* at 4.1-12.

⁷ *Id.* at 4.1-10.

⁸ *Id.* at 4.1-12.

⁹ *Id.* at 4.1-13.

¹⁰ *Id.* at 4.1-14.

¹¹ *Id.* at 4.2-17.

¹² *Id.* at 4.3-10, 4.3-14.

¹³ *Id.* at ES-5.

¹⁴ *Id.* at 4.3-14.

D. Hydrology / Water Quality

The DEIR correctly concludes that the Draft Ordinance would have beneficial impacts on hydrology/water quality¹⁵ without any significant adverse impacts.¹⁶ While the DEIR discusses the potential impact on water quality of increased use of paper and reusable bags, it correctly notes that this would represent a beneficial impact because the paper bag and reusable bag use would be replacing plastic bag use.¹⁷ As we discussed above in our discussion of biological resources, paper bags and some reusable bags pose a much smaller risk to aquatic organisms because of their weight, biodegradability and substantially smaller likelihood of being mistaken for prey by predators. These qualities make them a much smaller pollution risk for waterbodies than plastic bags. In addition, any increase in manufacturing of paper bags does not pose a significant risk to water quality because all manufacturing facilities are subject to the requirements of National Pollution Discharge Elimination System ("NPDES") permits under the Clean Water Act.¹⁸

OCC-1

II. The Draft Ordinance Will Have an Overall Beneficial Economic Impact for Huntington Beach

In addition to protecting environmental quality, the Draft Ordinance would have a beneficial impact on Huntington Beach's economy. Like many southern California cities, a significant portion of Huntington Beach's economy is dependent upon tourism. As a premiere coastal destination, Huntington Beach's tourism industry is dependent on the quality of its beaches. Through its reduction of plastic bag litter, the Draft Ordinance would improve the aesthetic quality of Huntington Beach's beaches. This, in turn, would attract more beachgoers, pumping additional money into Huntington Beach's economy through tourism.

OCC-2

The reduction in plastic bag litter could also lower beach cleanup costs for Huntington Beach, freeing up government funds. The 2011-2012 Budget for Huntington Beach allots \$3.2 million for Beach Operations,¹⁹ the division of Community Services which is responsible for cleaning the city's beaches. In addition, the budget sets aside \$143,000 for maintenance of the Beach Operations Fleet.²⁰ The substantial reduction in litter that is expected to result from this ban could reduce the number of man-hours required for the Beach Operations division to keep the city's beaches clean. Similarly, the reduction in litter could result in less wear and tear on Beach Operations vehicles, reducing the amount of money necessary for vehicle maintenance. The money saved by these reductions in costs could be used to make improvements to the city's beaches or purchase new fuel-efficient vehicles and other equipment for the Beach Operations division.

OCC-3

Conclusion

Coastkeeper urges the Council to approve the DEIR and adopt the Draft Ordinance. Too often, environmental and economic health are portrayed as diametrically opposed. Here, they are in perfect harmony. Despite the misleading claims made by industry groups like the Save the Plastic Bag Coalition, who are devoted only to their own bottom line, laws like Huntington Beach's Draft Ordinance are in the best interests of the cities that adopt them. That is why 41 cities and counties throughout California are now covered by similar ordinances. With its beneficial effects on both environmental quality and

OCC-4

¹⁵ *Id.* at 4.4-6.

¹⁶ *Id.* at 4.4-7, 4.4-11.

¹⁷ *Id.* at ES-5.

¹⁸ 33 U.S.C. §1251 et seq. (1972).

¹⁹ City of Huntington Beach Adopted Budget FY 2011/2012, Community Services, p. 8.

²⁰ *Id.* at 304.

Huntington Beach's economy, the Draft Ordinance represents a chance for Huntington Beach to join the growing number of California jurisdictions that are benefiting economically and environmentally from plastic bag bans. If you have any questions or concerns, please feel free to contact Coastkeeper at (714) 850-1965.

OCC-4

Sincerely,



Colin Kelly
Staff Attorney
Orange County Coastkeeper

Letter 2 (OCC)

COMMENTER: Colin Kelly, Staff Attorney, Orange County Coastkeeper (OCC)

DATE: March 23, 2012

Response OCC-1

The commenter states that the DEIR correctly describes the Draft Ordinance as having no significant adverse environmental impacts and reviews the conclusions of the DEIR pertaining to Air Quality, Biological Resources, Greenhouse Gas Emissions and Hydrology/Water Quality. The commenter also expresses support for the DEIR and urges the City Council to certify the DEIR and adopt the Proposed Ordinance. The agreement with the DEIR findings and support for the proposed Ordinance are noted and will be considered by City decision makers as they review the project.

Response OCC-2

The commenter suggests that the proposed Ordinance would have a beneficial impact on Huntington Beach's economy because the reduction in bag litter would improve the aesthetics of Huntington Beach's beaches, thus attracting more tourism. This opinion is noted and will be considered by City decision makers as they review the project. In accordance with CEQA, the DEIR focuses on the project's environmental impacts rather than economic impacts; however, it is anticipated that reducing litter would generally have benefits with respect to attracting tourism to the City.

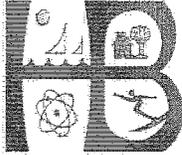
Response OCC-3

The commenter suggests that the reduction in plastic bag litter that would occur as a result of the proposed Ordinance could also lower beach cleanup costs for Huntington Beach, freeing up government funds. In addition, the commenter suggests that the money saved by these reductions in costs could be used to make improvements to the City's beaches or purchase new fuel-efficient vehicles and other equipment for the Beach Operations division. These suggestions are noted. Although cost savings have not been quantified, it is anticipated that a reduction in plastic bag litter would generally reduce beach cleanup costs.

Response OCC-4

The commenter urges the City Council to approve the DEIR and adopt the Draft Ordinance since the proposed Ordinance would have beneficial effects on both environmental quality and Huntington Beach's economy. The support for the proposed Ordinance is noted.





CITY OF HUNTINGTON BEACH

ENVIRONMENTAL BOARD

March 23, 2012

Hayden Beckman
City of Huntington Beach
Department of Planning and Building
2000 Main St
Huntington Beach, CA 92648

Subject: Draft EIR No. 2011-002

Dear Mr. Beckman:

At the March 3, 2012 Huntington Beach Environmental Board meeting, the members reviewed draft EIR No. 2011-002. The Board offers the following comments for your consideration.

General:

1. We appreciate that the consultants addressed all of the comments on the Environmental Checklist Form for Environmental Assessment No. 2011-002 that we provided in our letter to you dated December 15, 2011.

HBEB-1

2. We are also pleased with the EIR's conclusion that all Ordinance impacts – air quality, greenhouse gas emissions, hydrology, and biological resources - are either beneficial impacts or impacts that require no mitigation (class III or class IV impacts).

HBEB-2

3. We note that the EIR contains a number of extremely conservative assumptions. For instance, it states that the ordinance would only "incrementally reduce the amount of litter." While we do not agree with many of these conservative assumptions, we understand that their inclusion decreases litigation exposure and thus we are not requesting changes to these statements.

HBEB-3

Old Data:

We note that certain portions of the EIR rely on old data. For instance, the EIR cites the 2007 5% plastic bag recycling rate for California instead of the 2009 3% rate currently cited on the [CalRecycle](#) website. Because correcting these types of data errors would not have a significant impact on the conclusions reached in the EIR, we are not suggesting that you remedy the errors in this EIR. We note the errors for future reference.

Incomplete List of Bag Ban Locations:

The document lists of counties and cities in California that have adopted or are considering adopting plastic bag bans are incomplete.

Add references to the Orange County region and the cities of Dana Point, Laguna Beach, Carpinteria, Ojai, San Rafael, and Santa Barbara to all of the following sections: Section 1.1 on page 1-1, paragraph 2; Section 4.1, on page 4.1-14 at c. Cumulative Impacts; Section 4.2 on page 4.2-19 at c. Cumulative Impacts; Section 4.4 on page 4.4-11 at c. Cumulative Impacts; Section 4.3 on page 4.3-14 at c. Cumulative Impacts.

HBEB-4

Add reference to the cities of Dana Point, Laguna Beach, Carpinteria, Ojai, San Rafael, and Santa Barbara to Table 3-1 on page 3-2.

HBEB-4

Confusing Language:

1. Unclear that numbers refer to annual bag use

Insert "annually" after "used" in Section 4.1 on page 4.1-10, first full paragraph: "Thus, for this analysis it is assumed that 5,109,917 plastic bags would be used in Huntington Beach after implementation of the proposed Ordinance."

Insert "annually" after "used" in Section 4.4 on page 4.4-10, second full paragraph: "Even though the volume of a single paper carryout bag (20.48 liters) is generally equal to approximately 150% of the volume of a plastic bag (14 liters¹), for this analysis it is conservatively assumed that 45,989,254 plastic bags (45% of those currently used) would be replaced by the same number of paper bags."

HBEB-5

Insert "annually" after "manufactured" in Section 4.4 on page 4.4-10, third full paragraph: "With implementation of the proposed Ordinance, approximately 52 million carryout bags (including single-use paper, single-use plastic and reusable bags) would be manufactured for use in Huntington Beach..."

Insert "annually" after "reusable" in Section 6.0 on page 6-8, second full sentence: "In total, Alternative 3 would result in 10,023,299 fewer bags (including single-use plastic, single-use paper, and reusable) than the proposed Ordinance."

2. Incorrectly implies that actual plastic bags remain in use

Section 4.1 on page 4.1-10, first full paragraph and Section 6.3 on page 6-7, second full paragraph: "...it is assumed that 5% of existing single-use plastic bags would remain in use..." is confusing since the actual plastic bags don't remain in use.

HBEB-6

In both instances, replace with, "It is assumed that the number of single-use plastic bags used annually in Huntington Beach after implementation of the proposed Ordinance would be equal to 5% of the total number of plastic carry out bags currently used annually in Huntington Beach...."

3. Incorrectly implies that Ordinance reduces use of bags

Section 4.4, second sentence of first full paragraph: "The Ordinance is anticipated to...reduce the use of all types of bags (including plastic, single-use paper, and reusable) by 49%" is confusing since the ordinance doesn't reduce the use of bags – it reduces the number of bags manufactured for use. It is also inconsistent with language used elsewhere in the EIR. Replace with "The Ordinance is anticipated to...reduce the number of all types of bags (including plastic, single-use paper, and reusable) manufactured for use in Huntington Beach by 49%".

HBEB-7

Inconsistencies:

1. Groceries versus items

Replace the word "groceries" with the word "items" in Section 4.1 on page 4.1-11: "This analysis assumes that as a result of the proposed Ordinance the existing total volume of groceries currently carried in approximately 102.2 million single-use plastic carryout bags would be carried within approximately 52 million single-use plastic, reusable and single-use paper bags" is inconsistent with terminology used elsewhere in the EIR.

HBEB-8

2. Increase versus decrease of greenhouse gas emissions

Delete "and associated greenhouse gas emissions" from the second sentence of Section 4.3 c. on page 4.3-14: "...such ordinances would be expected to generally reduce the overall number of bags manufactured and associated greenhouse gas emissions" is inconsistent with the EIR conclusion stated elsewhere in the EIR that the ordinances would result in a net increase of greenhouse gas emissions, albeit with less than significant impacts.

HBEB-9

Drafting Errors in Appendix C:

1. Section 1. 5.90.010: Reletter - there are two definitions labeled "b."

2. Section 5.90.020: Delete "b. This prohibition applies to bags provided for the purpose of carrying away goods from the point of sale and does not apply to produce bags or product bags." This is redundant – it's built into the definition of "plastic carryout bag" in Section 5.90.010 d.

3. Section 5.90.040 b.: Reference to subsection "A" should read subsection "a."

4. Section 5.90.040 e.: Insert "and" after "provided" in third line and delete comma after "provided".

HBEB-10

5. Section 5.90.040 f.: References to "provision of false information" and "such store" are unclear: "The provision of false information, including incomplete records or documents, to the City shall be a violation of this Section, and such store shall be subject to the fines set forth in Section 5.90.080." Replace entire phrase with "Any store that fails to maintain complete records or documents, maintains false records, or otherwise fails to comply with this Section shall be in violation of this Section, and such store shall be subject to the fines set forth in Section 5.90.080.

6. Section 5.90.080 c. (1): Replace dollar amount fine schedule with fine schedule that adjusts with inflation since dollar value changes over time.

We appreciate the opportunity to review and comment on this EIR. Please let us know if you have any questions regarding our comments.

Sincerely,



Sue Gordon
Chairman, Huntington Beach Environmental Board

Letter 3 (HBEB)

COMMENTER: Sue Gordon, Chairman, Huntington Beach Environmental Board (HBEB)

DATE: March 23, 2012

Response HBEB-1

The commenter expresses appreciation that the DEIR addresses the comments provided by HBEB during the NOP comment period (letter dated December 15, 2012).

Comment is noted.

Response HBEB-2

The commenter is pleased that the environmental impacts of the proposed Ordinance analyzed in the DEIR (including air quality, biological resources, greenhouse gas emissions and hydrology/water quality) are either beneficial impacts or impacts that require no mitigation (less than significant).

The comment is consistent with the findings of the DEIR.

Response HBEB-3

The commenter notes that the DEIR utilizes data for plastic bag recycling rates from 2007 and states that more updated data on the "CalRecycle" website is available for use. However, the commenter does not suggest that the EIR be updated. Rather, the commenter simply requests that the more updated data be utilized for future reference.

In regard to plastic bag recycling rates, as stated on page 2-4 of the DEIR, "Approximately 5% of single-use plastic bags in California are recycled (US EPA, 2005; Green Cities California MEA, 2010; and Boustead, 2007)." As the commenter notes, CalRecycle also provides data on its website, which states that "The 2009 statewide recycling rate for regulated plastic carryout bags was calculated by dividing the total amount of regulated bags collected for recycling (1,520 tons) by the total amount of regulated bags purchased (52,765 tons). The resulting recycling rate is about 3 percent"

(<http://www.calrecycle.ca.gov/Plastics/AtStore/AnnualRate/2009Rate.htm#Rate>). While the 3% recycling rate suggested by the commenter would be another valid rate to use in the DEIR analysis, the DEIR utilized the higher recycling rate of 5% in order to provide a conservative estimate of impacts associated with the proposed Ordinance. Use of the 3% rate suggested by the commenter in place of the 5% rate used in the DEIR would not change any of the DEIR conclusions.



Response HBEB-4

The commenter suggests that the EIR update the cumulative projects list to include other California cities that are considering adopting plastic bag bans. Cities include Dana Point, Laguna Beach, Carpinteria, Ojai, San Rafael, and Santa Barbara.

Although the cities listed above did not have adopted ordinances prior to the release of the NOP for the proposed Ordinance (November 17, 2011), the cumulative projects list was updated in the Final EIR to include the cities listed above. The additional six cities included as part of the cumulative projects list are reflected in the Final EIR's Section 10.0, *Corrections and Additions to the Draft EIR*, in ~~strikeout~~ and underline and they relate to the following pages of the DEIR where cumulative projects and cumulative impacts are discussed:

- Page 1-1: Discussion of other agencies that have adopted or are considering single-use bag ordinances
- Pages 3-4 and 3-5: Table 3-1
- Page 4.1-14: Cumulative impacts related to Air Quality
- Pages 4.2-18 and 4.2-19: Cumulative impacts related to Biological Resources
- Page 4.3-14: Cumulative impacts related to Greenhouse Gas Emissions
- Page 4.4-11: Cumulative impacts related to Hydrology/Water Quality

Inclusion of the six additional jurisdictions listed above in the cumulative projects list does not affect the overall cumulative impacts identified in the DEIR.

Response HBEB-5

The commenter suggests several minor edits in order to clarify numbers referring to annual bag use.

The following shows the changes (in ~~strikeout~~ and underline) reflected in the Final EIR's Section 10.0, *Corrections and Additions to the Draft EIR*, based on the commenter's suggestions:

- Page 4.1-10: "Thus, for this analysis it is assumed that 5,109,917 plastic bags would be used annually in Huntington Beach after implementation of the proposed Ordinance."
- Page 4.4-10: "Even though the volume of a single paper carryout bag (20.48 liters) is generally equal to approximately 150% of the volume of a plastic bag (14 liters¹), for this analysis it is conservatively assumed that 45,989,254 plastic bags (45% of those currently used annually) would be replaced by the same number of paper bags."
- Page 4.4-10: "With implementation of the proposed Ordinance, approximately 52 million carryout bags (including single-use paper, single-use plastic, and reusable bags) would be manufactured annually for use in Huntington Beach – a decrease of 49% compared to existing conditions."
- Page 6-8: "In total, Alternative 3 would result in 10,023,299 fewer bags (including single-use plastic, single-use paper, and reusable) annually than the proposed Ordinance."

¹ The Ordinances to Ban Plastic Carryout Bags in Los Angeles County Final Environmental Impact Report (SCH #2009111104). Adopted by the County of Los Angeles Board of Supervisors on November 16, 2010.



The edits listed above do not affect the DEIR analysis or impact determinations contained in sections 4.1, *Air Quality*, 4.4, *Hydrology and Water Quality*) or 6.0, *Alternatives*.

Response HBEB-6

The commenter suggests minor edits in order to clarify that after implementation of the proposed Ordinance the number of single-use plastic bags used annually in Huntington Beach would be equal to 5% of the total number of plastic carry out bags currently used annually in Huntington Beach.

The following shows the changes (in ~~strikeout~~ and underline) reflected in the Final EIR's Section 10.0, *Corrections and Additions to the Draft EIR*, based on the commenter's suggestion:

- Page 4.1-10: "As shown therein, it is assumed that the number of single-use plastic bags used annually in Huntington Beach after implementation of the proposed Ordinance would be equal to 5% of the total number of plastic carry out bags used annually in Huntington Beach ~~5% of existing single-use plastic bags would remain in use~~ since the Ordinance does not apply to some retailers who distribute plastic bags (e.g., restaurants) and these retailers would continue to distribute plastic bags after the Ordinance is implemented."
- Page 6-7: "It is assumed that the number of single-use plastic bags used annually in Huntington Beach after implementation of the proposed Ordinance would be equal to 5% of the total number of plastic carry out bags used annually in Huntington Beach ~~5% of existing single-use plastic bags would remain in use~~, similar to the proposed Ordinance, since the alternative would not apply to some retailers who distribute plastic bags (e.g. restaurants)."

The above changes do not affect the DEIR analysis or impact determinations in sections 4.1, *Air Quality* or 6.0, *Alternatives*.

Response HBEB-7

The commenter suggests minor edits in order to clarify that the proposed Ordinance would reduce the number of bags manufactured for use rather than "reducing the use of bags."

Contrary to the commenter's suggested edits, bag use in Huntington Beach would be altered as a result of the proposed Ordinance as the number of plastic bags used by customers at retailers in Huntington Beach would be reduced by approximately 95%. In addition, the proposed Ordinance would indirectly reduce the number of bags manufactured for use within Huntington Beach. However, it should be noted, that no bag manufacturers currently exist within Huntington Beach. The following shows the changes (in ~~strikeout~~ and underline) reflected in the Final EIR's Section 10.0, *Corrections and Additions to the Draft EIR*, based on the comment received:

- Page 4.4-8: "The Ordinance is anticipated to reduce single-use plastic bags in Huntington Beach by 95% and reduce the use of all types of bags (including plastic,



single-use paper, and reusable by 49%. In addition, although there are no bag manufacturing facilities located within Huntington Beach, the proposed Ordinance is anticipated to indirectly reduce the number of bags manufactured that would have been used within Huntington Beach."

The above change does not affect the DEIR analysis or impact determinations in Section 4.4, *Hydrology and Water Quality*.

Response HBEB-8

The commenter suggests replacement of the word "groceries" with "items" in Section 4.1 on page 4.1-11.

The following shows the changes (in ~~strikeout~~ and underline) reflected in the Final EIR based on the commenter's suggestion:

- Page 4.1-11: "This is a conservative estimate as a reusable bag, as required by the Ordinance, must have the capability of being used 125 times (see Appendix C for complete Draft Ordinance). Nevertheless, for this analysis, in order to replace the volume of ~~groceries~~ items contained in the 51,099,171 single-use plastic bags that would be removed as a result of the Single-Use Carryout Bag Ordinance, an increase of approximately 982,676 reusable bags per year would be purchased by customers at retail stores. Based on the estimate of 982,676 reusable bags, each Huntington Beach resident (191,677 in 2011) would purchase around five reusable bags per year. This analysis assumes that as a result of the proposed Ordinance the existing total volume of ~~groceries~~ items currently carried in approximately 102.2 million single-use plastic carryout bags would be carried within approximately 52 million single-use plastic, reusable and single-use paper bags."

The above change does not affect the DEIR analysis or impact determinations in Section 4.1, *Air Quality*.

Response HBEB-9

The commenter suggests minor edits in order to clarify that although carryout bag ordinances would result in a net increase of greenhouse gas emissions, the impacts would be less than significant.

The following shows the changes (in ~~strikeout~~ and underline) reflected in the Final EIR based on the commenter's suggestion:

- Page 4.3-14: "Similar to the proposed Huntington Beach Ordinance, such ordinances would be expected to generally reduce the overall number of bags manufactured ~~and associated greenhouse gas emissions.~~"

The above change does not affect the DEIR analysis or cumulative impact determinations related to greenhouse gas emissions contained in Section 4.3, *Greenhouse Gas Emissions*.



Response HBEB-10

The commenter suggests edits related to the "Draft Ordinance" contained in Appendix C of the DEIR.

This comment does not suggest corrections or edits to the environmental analysis contained in the DEIR, and therefore no changes to the EIR analysis are warranted. The suggested corrections/edits to the Draft Ordinance contained in Appendix C of the DEIR will be evaluated and forwarded to the City's decision makers.



10.0 CORRECTIONS AND ADDITIONS TO THE DRAFT EIR

10.1 Introduction

This chapter presents minor changes to the Final EIR since the publication of the Draft EIR and revisions that have been made to the Draft EIR as a result of comments received from organizations and individuals on the document. Staff-initiated changes include minor corrections and clarification to the text to correct typographical errors. None of the changes affect the analysis or conclusions of the Draft EIR as described for each change which is summarized and shown below.

10.2 Changes to the Final EIR and Environmental Analysis

10.2.1

A minor revision to the cumulative project list was suggested by a commenter (see Comment HBEB-3 in Section 9.0, *Responses to Comments on the Draft EIR*). The changes made to the DEIR as they relate to the addition of six cities included as part of the cumulative projects list are reflected below in ~~strikeout~~ and underline:

- Page 1-1: Discussion of other agencies that have adopted or are considering single-use bag ordinances:
 - “A number of cities and counties have considered or passed similar ordinances within their respective jurisdictions. These include, but are not limited to: the City of San Francisco, the City of Seattle, the County of Los Angeles, the City of Berkeley, the City of San Jose, the City of Manhattan Beach, the City of Palo Alto, Marin County, the City of Malibu, the City of Santa Monica, Santa Clara County, the City of Sunnyvale, ~~and the City of Long Beach,~~ the City of Dana Point, the City of Laguna Beach, the City of Carpinteria, the City of Ojai, the City of San Rafael, and the City of Santa Barbara.”
- Pages 3-4 and 3-5: Table 3-1:
 - “As shown in Table 3-1, ~~4723~~ carryout bag ordinances have been adopted or are proposed or pending (not including the proposed Huntington Beach Single-Use Carryout Bag Ordinance) throughout California.



**Table 3-1
 Planned and Pending Carryout Bag Ordinances in California**

Ordinance Location	Proposed Action	Status
City of Berkeley	This ordinance would prohibit retail product stores from making plastic bags available at checkout stands, and would require a mandatory charge of 25 cents on each paper checkout bag. Paper checkout bags would be required to have minimum post consumer recycled content.	On hold
City of Calabasas	This ordinance bans the issuance of plastic carryout bags and imposes a ten (10) cent charge on the issuance of recyclable paper carryout bags at regulated stores.	Adopted February 2011 Effective July 2011
City of Fairfax	This ordinance allows all stores, shops, eating places, food vendors and retail food vendors, to provide only recyclable paper or reusable bags as checkout bags to customer.	Adopted August 2007 After legal challenge, adopted by voter initiative November 2008
City of Long Beach	This ordinance bans plastic carryout bags at all supermarkets and other grocery stores, pharmacies, drug stores, convenience stores, food marts, and farmers markets and would place a ten (10) cent charge on the issuance of recyclable paper carryout bags by an affected store, as defined. The ordinance would also require a store to provide or make available to a customer only recyclable paper carryout bags or reusable bags.	Ordinance adopted and Addendum to the County of Los Angeles Final EIR certified May 2011 Effective August 2011
City of Los Angeles	The Los Angeles City Council voted to ban plastic carryout bags in the city's supermarkets and stores by July 2010 -- but only if the state fails to impose a 25-cent fee on every shopper who requests them.	Pending
City of Malibu	This ordinance bans the use of non-compostable and compostable plastic shopping bags for point-of-sale distribution.	Adopted May 2008 Effective November 2009
City of Manhattan Beach	This ordinance bans the distribution of plastic bags at the point-of-sale for all retail establishments in Manhattan Beach.	Adopted July 2008 On hold pending lawsuit
City of Oakland	This ordinance bans the use of plastic bags within the City.	Adopted July 2007 In April 2008, a judge sided with a challenge to the ordinance filed by an industry group
City of Palo Alto	This ordinance bans large grocery stores in Palo Alto from distributing single-use plastic check out bags. Only reusable bags (preferred) or paper bags can be distributed. Single-use plastic bags can	Adopted March 2009 Effective September 2009



**Table 3-1
 Planned and Pending Carryout Bag Ordinances in California**

Ordinance Location	Proposed Action	Status
	still be used in produce and meat departments.	
City of San Francisco	Retail stores governed by the ordinance can only provide the following types of bags: a. compostable plastic b. recyclable paper c. reusable bag of any material	Adopted April 2007
City of San Jose	This ordinance prohibits the distribution of single-use carryout paper and plastic bags at the point of sale (i.e., check-out) for all commercial retail businesses in San José except restaurants. An exception is made for "green" paper bags containing at least 40 percent recycled content, accompanied by a charge of 10 cents to the customer, with the charge retained by the retailer.	Adopted January 2011 Effective January 2012
City of Santa Monica	This ordinance: (1) prohibits retail establishments in Santa Monica from providing "single-use plastic carryout bags" to customers at the point of sale; (2) prohibits the free distribution of paper carryout bags by grocery stores, convenience stores, mini-marts, liquor stores and pharmacies; and (3) requires stores that make paper carryout bags available to sell recycled paper carryout bags to customers for not less than ten cents per bag.	Adopted January 2011 Effective September 2011
City of Sunnyvale	This ordinance would prohibit specified retail establishments Sunnyvale from providing single-use plastic carryout bags to customers at the point of sale, and would create a mandatory 10 cent (\$0.10) charge for each paper bag distributed by these stores.	Adopted December 2011 Effective June 2012
County of Alameda	This ordinance would prohibit the distribution of single-use carryout paper and plastic bags at the point of sale (i.e., check-out) for all commercial retail businesses in Alameda County. Exception would be made for "green" paper bags containing a specified minimum percentage of recycled content, which can only be provided to customers for a nominal charge to cover the cost to the business of providing the bags.	Pending environmental review under CEQA
County of Los Angeles	This ordinance would ban the issuance of plastic carryout bags and impose a ten (10) cent charge on the issuance of recyclable paper carryout bags at all supermarkets	Adopted November 2010 Effective July 2011

**Table 3-1
 Planned and Pending Carryout Bag Ordinances in California**

Ordinance Location	Proposed Action	Status
	and other grocery stores, pharmacies, drug stores, convenience stores, and foodmarts, in unincorporated Los Angeles County. The ordinance would require a store to provide or make available to a customer only recyclable paper carryout bags or reusable bags. The ordinance would also encourage a store to educate its staff to promote reusable bags and to post signs encouraging customers to use reusable bags in the unincorporated areas of the County of Los Angeles.	
County of Marin	This ordinance prohibits the distribution of plastic carryout bags and would charge at least \$0.05 for a recycled paper bag.	Adopted January 2011 Effective January 2012
County of Santa Clara	This ordinance allows affected retail establishments to distribute either a 'green' paper bag or a reusable bag. Reusable bags may be given away or sold and are initially defined (until January 2013) as bags made of cloth or other machine washable fabric that has handles; or a durable plastic bag with handles that is at least 2.25 mils thick and is specifically designed and manufactured for multiple use. 'Green' paper bags may be sold to customers for a minimum charge of \$0.15 and are defined as paper bags that are 100% recyclable and are made from 100% recycled material.	Adopted April 2011 Effective January 2012
<u>City of Dana Point</u>	<u>The City of Dana Point adopted a ban on single-use plastic bags from all retail stores within city limits.</u>	<u>Adopted on March 6, 2012. Effective in larger stores April 1, 2013, and all other stores October 1, 2013.</u>
<u>City of Laguna Beach</u>	<u>The Laguna Beach City Council unanimously adopted a plastic bag ban in all retail stores. Grocery stores, pharmacies, and convenience/liquor stores must include a 10 cent minimum price requirement on paper bags distributed.</u>	<u>Adopted February 2012. Effective January 1, 2013.</u>
<u>City of Carpinteria</u>	<u>Carpinteria adopted the first double bag ban in the state on March 12, 2012. Starting in July 2012, large retailers as specified are prohibited from distributing single-use paper and plastic bags. Starting in April 2013, plastic bags are banned in all other retail stores including restaurants.</u>	<u>Adopted March 2012. Effective July 2012.</u>
<u>City of Ojai</u>	<u>An ordinance that bans plastic shopping bags and levy a 10-cent fee on paper bags was first approved Feb. 28, 2012. As of July 2012, the ordinance is effective.</u>	<u>Adopted February 2012. Effective July 2012.</u>

**Table 3-1
 Planned and Pending Carryout Bag Ordinances in California**

Ordinance Location	Proposed Action	Status
<u>City of San Rafael</u>	<u>City currently developing a proposed ordinance, though at this time an ordinance has not yet been proposed or adopted.</u>	<u>Still in draft stage.</u>
<u>City of Santa Barbara</u>	<u>On March 13, 2102, the City Council voted to start work on a single-use bag ordinance in coordination with member agencies of the Beach Erosion Authority for Clean Oceans and Nourishment (BEACON). The draft ordinance, would likely ban plastic bags and place a 10 cent price requirement on paper bags in all retail stores with some exemptions. A draft ordinance has not yet been released.</u>	<u>Still in draft stage.</u>

Source: Californians Against Waste, http://www.cawrecycles.org/issues/plastic_campaign/plastic_bags/local, accessed July 2011; City of San Jose, City of Palo Alto, City of Berkeley, City of Los Angeles, County of Los Angeles, City of Malibu, City of Manhattan Beach, City of San Francisco, Marin County, City of Santa Monica, City of Calabasas, Santa Clara County, City of Long Beach Homepages, December 2011; City of Huntington Beach Environmental Board Comment Letter – March 23, 2012.”

- Page 4.1-14: Cumulative impacts related to Air Quality:
 - “~~Nine Six~~ other agencies in South Coast Air Basin region (County of Los Angeles, City of Long Beach, City of Manhattan Beach, City of Calabasas, City of Santa Monica, City of Malibu, ~~and~~ the City of Los Angeles, the City of Dana Point, and the City of Laguna Beach) have either adopted or are considering such ordinances. However, based on the incremental increase in air pollutant emissions associated with the proposed Huntington Beach Ordinance (increase of ¼ pound per day or less of each criteria pollutant), the other ordinances are not expected to generate a cumulative increase in emissions that would exceed SCAQMD thresholds or adversely affect regional air quality. Therefore, cumulative air quality impacts would not be significant.”

- Pages 4.2-18 and 4.2-19: Cumulative impacts related to Biological Resources:
 - “At least ~~nine six~~ other agencies in Los Angeles region (County of Los Angeles and the cities of Long Beach, Los Angeles, Malibu, Manhattan Beach, Calabasas, and Santa Monica, Dana Point, and Laguna Beach) have either adopted or are considering such ordinances. Similar to the proposed Huntington Beach Ordinance, these other adopted and pending ordinances could incrementally reduce the number of plastic bags entering the environment, including the Pacific Ocean, as litter. These other ordinances would be expected to have similar beneficial effects. Therefore, there would be no cumulative impacts related to biological resources.”



- Page 4.3-14: Cumulative impacts related to Greenhouse Gas Emissions:
 - “At least nine ~~six~~ other agencies in Los Angeles region (County of Los Angeles and the cities of Long Beach, Los Angeles, Malibu, Manhattan Beach, Calabasas, ~~and~~ Santa Monica, Dana Point, and Laguna Beach) have either adopted or are considering such ordinances. However, based on the incremental increase in per capita emissions, the other ordinances are not expected to generate a cumulative increase in GHG emissions. For these reasons, cumulative significant impacts associated with implementation of carryout bag ordinances throughout the state are not anticipated.”

- Page 4.4-11: Cumulative impacts related to Hydrology/Water Quality:
 - “At least nine ~~six~~ other agencies in southern California region (County of Los Angeles and the cities of Long Beach, Los Angeles, Malibu, Manhattan Beach, Calabasas, ~~and~~ Santa Monica, Dana Point, and Laguna Beach) have either adopted or are considering such ordinances. These ordinances would be expected to result in similar reductions in the amount of litter entering storm drains, local creeks or watersheds, thereby improving water quality.

Inclusion of the six additional jurisdictions listed above in the cumulative projects list does not affect the overall cumulative impacts identified in the DEIR.

10.2.2

A comment received during the public review period for the Draft EIR (see Comment HBEB-5 in Section 9.0, *Responses to Comments on the Draft EIR*) suggested minor edits to clarify that bag use estimates are “annual” estimates. The following shows the changes (in ~~strikeout~~ and underline) based on the commenter’s suggestions:

- Page 4.1-10:
 - “Thus, for this analysis it is assumed that 5,109,917 plastic bags would be used annually in Huntington Beach after implementation of the proposed Ordinance.”

- Page 4.4-10:
 - “Even though the volume of a single paper carryout bag (20.48 liters) is generally equal to approximately 150% of the volume of a plastic bag (14 liters¹), for this analysis it is conservatively assumed that 45,989,254 plastic bags (45% of those currently used annually) would be replaced by the same number of paper bags.”

¹ The Ordinances to Ban Plastic Carryout Bags in Los Angeles County Final Environmental Impact Report (SCH #2009111104). Adopted by the County of Los Angeles Board of Supervisors on November 16, 2010.



- Page 4.4-10:
 - “With implementation of the proposed Ordinance, approximately 52 million carryout bags (including single-use paper, single-use plastic, and reusable bags) would be manufactured annually for use in Huntington Beach – a decrease of 49% compared to existing conditions.”
- Page 6-8:
 - “In total, Alternative 3 would result in 10,023,299 fewer bags (including single-use plastic, single-use paper, and reusable) annually than the proposed Ordinance.”

The edits listed above do not affect the DEIR analysis or impact determinations contained in sections 4.1, *Air Quality*, 4.4, *Hydrology and Water Quality*) or 6.0, *Alternatives*.

10.2.3

A comment received during the public review period for the Draft EIR (see Comment HBEB-6 in Section 9.0, *Responses to Comments on the Draft EIR*) suggested minor edits to clarify that after implementation of the proposed Ordinance the number of single-use plastic bags used annually in Huntington Beach would be equal to 5% of the total number of plastic carry out bags currently used annually in Huntington Beach. The following shows the changes (in ~~strikeout~~ and underline) based on the commenter’s suggestions:

- Page 4.1-10:
 - “As shown therein, it is assumed that the number of single-use plastic bags used annually in Huntington Beach after implementation of the proposed Ordinance would be equal to 5% of the total number of plastic carry out bags used annually in Huntington Beach ~~5% of existing single-use plastic bags would remain in use~~ since the Ordinance does not apply to some retailers who distribute plastic bags (e.g., restaurants) and these retailers would continue to distribute plastic bags after the Ordinance is implemented.”
- Page 6-7:
 - “It is assumed that the number of single-use plastic bags used annually in Huntington Beach after implementation of the proposed Ordinance would be equal to 5% of the total number of plastic carry out bags used annually in Huntington Beach ~~5% of existing single-use plastic bags would remain in use~~, similar to the proposed Ordinance, since the alternative would not apply to some retailers who distribute plastic bags (e.g. restaurants).”

The above changes do not affect the DEIR analysis or impact determinations in sections 4.1, *Air Quality* or 6.0, *Alternatives*.



10.2.4

A comment received during the public review period for the Draft EIR (see Comment HBEB-7 in Section 9.0, *Responses to Comments on the Draft EIR*) suggested minor edits to clarify that the proposed Ordinance would reduce the number of bags manufactured. The following shows the changes (in ~~strikeout~~ and underline) based on the comment received:

- Page 4.4-8: “The Ordinance is anticipated to reduce single-use plastic bags in Huntington Beach by 95% and reduce the use of all types of bags (including plastic, single-use paper, and reusable by 49%. In addition, although there are no bag manufacturing facilities located within Huntington Beach, the proposed Ordinance is anticipated to indirectly reduce the number of bags manufactured that would have been used within Huntington Beach.”

The above change does not affect the DEIR analysis or impact determinations in Section 4.4, *Hydrology and Water Quality*.

10.2.5

A comment received during the public review period for the Draft EIR (see Comment HBEB-8 in Section 9.0, *Responses to Comments on the Draft EIR*) suggested replacement of the word “groceries” with “items” in Section 4.1 on page 4.1-11. The following shows the changes (in ~~strikeout~~ and underline) based on the commenter’s suggestion:

- Page 4.1-11:
 - “This is a conservative estimate as a reusable bag, as required by the Ordinance, must have the capability of being used 125 times (see Appendix C for complete Draft Ordinance). Nevertheless, for this analysis, in order to replace the volume of ~~groceries~~ items contained in the 51,099,171 single-use plastic bags that would be removed as a result of the Single-Use Carryout Bag Ordinance, an increase of approximately 982,676 reusable bags per year would be purchased by customers at retail stores. Based on the estimate of 982,676 reusable bags, each Huntington Beach resident (191,677 in 2011) would purchase around five reusable bags per year. This analysis assumes that as a result of the proposed Ordinance the existing total volume of ~~groceries~~ items currently carried in approximately 102.2 million single-use plastic carryout bags would be carried within approximately 52 million single-use plastic, reusable and single-use paper bags.”

The above change does not affect the DEIR analysis or impact determinations in Section 4.1, *Air Quality*.

10.2.6

A comment received during the public review period for the Draft EIR (see Comment HBEB-9 in Section 9.0, *Responses to Comments on the Draft EIR*) suggested minor edits in order to clarify that although carryout bag ordinances would result in a net increase of greenhouse gas



emissions, the impacts would be less than significant. The following shows the changes (in ~~strikeout~~ and underline) based on the commenter's suggestion:

- Page 4.3-14:
 - “Similar to the proposed Huntington Beach Ordinance, such ordinances would be expected to generally reduce the overall number of bags manufactured ~~and~~ associated ~~greenhouse gas emissions.~~”

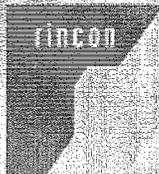


City of Huntington Beach

Huntington Beach Single-Use Carryout Bag Ordinance

Draft
**Environmental
Impact Report**

SCH #2011111053



February 2012

Environmental Scientists Planners Engineers

**Huntington Beach
Single-Use Carryout Bag Ordinance**

Draft
Environmental Impact Report
SCH #2011111053

Prepared for:

City of Huntington Beach
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February 2012

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Huntington Beach Single-Use Carryout Bag Ordinance EIR

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EXECUTIVE SUMMARY

This section summarizes the characteristics of the proposed ordinance and the significant environmental impacts, mitigation measures, and residual impacts associated with the proposed Single-Use Carryout Bag Ordinance.

PROJECT SYNOPSIS

Project Applicant

City of Huntington Beach
2000 Main Street
Huntington Beach, CA 92648

Project Characteristics

The City of Huntington Beach proposes to adopt a Single-Use Carryout Bag Ordinance that would prohibit distribution of plastic carry-out bags in commercial point of sale purchases within Huntington Beach, and establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags at all stores that meet at least one of the criteria listed below. All stores affected by the proposed ordinance would be required to provide reusable bags to customers either for sale or at no charge, and each store would be strongly encouraged to promote the use of reusable bags through staff education and customer outreach.

Stores located within Huntington Beach that would be affected include the following:

1. Full-line, self-service retail stores with gross annual sales of two million dollars (\$2,000,000), or more, that sell a line of dry goods, canned goods, or nonfood items and some perishable items;
2. Stores of at least ten thousand (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 (Part 1.5 (commencing with Section 7200) of Division 2 of the Business and Professions Code) and that have a pharmacy licensed pursuant to Chapter 9 (commencing with Section 4000) of Division 2 of the Business and Professions Code; or
3. Drug stores, pharmacies, supermarkets, grocery stores, convenience food stores, food marts, or other entities engaged in the retail sale of a limited line of goods that includes milk, bread, soda, snack foods, including those stores with a Type 20 or 21 license issued by the Department of Alcoholic Beverage Control.

The Ordinance would prohibit the distribution of compostable and biodegradable plastic carry-out bags, as they are included in the definition of a plastic carry-out bag. The Ordinance would impose a ten (10) cent charge on recyclable paper carry-out bags, and requires that the paper bags be one hundred percent (100%) recyclable overall, contain a minimum of forty percent (40%) post-consumer recycled material, and be accepted for recycling in curbside programs within the City, among other criteria. The Ordinance further requires that reusable bags be specifically designed and manufactured for a minimum lifetime of 125 uses, be machine



washable or made from a material that can be cleaned or disinfected, does not contain lead, cadmium, or other heavy element in toxic amounts, among other criteria. Plastic bags that are a minimum of 2.25 mils thick are considered to be reusable bags per the definition in the Ordinance.

The Ordinance would exempt from the ten (10) cent charge those customers who are participating in either the California Special Supplemental Food Program for the Women, Infants, and Children or the Supplemental Food Program. All applicable stores must provide at the point of sale, free of charge, either reusable bags or recyclable paper carry-out bags or both, to these customers, at the store's option. Customers would have the option to use their own reusable bags, or no bag at all.

The intent of the Ordinance is to reduce the environmental impacts related to the use of single-use carryout bags, and to promote a shift toward the use of reusable bags. It is anticipated that by prohibiting single-use plastic carryout bags and creating a mandatory charge for each paper bag distributed by retailers, the proposed Ordinance would reduce the number of single-use bags consumed within the City while promoting a shift to the use of reusable bags by Huntington Beach retail customers.

Under the proposed Ordinance, single-use plastic carryout bags are defined as bags made from petroleum or bio-based plastic (i.e., bags made with at least 90% starch from renewable resources such as corn, potato, tapioca, or wheat, or from polyesters, manufactured from hydrocarbons, or starch-polyester blends) that are less than 2.25 mils thick. The proposed Single-Use Carryout Bag Ordinance would prohibit retailers from distributing both petroleum and bio-based single-use carryout plastic bags at the point of sale. The proposed Ordinance would not prohibit the distribution of plastic "product bags," as defined, which include bags without handles provided to a customer to carry produce, meats, or other food items to the point of sale inside a store or to prevent such food items from coming into contact with other purchased items.

The Ordinance would not apply to stores of less than 10,000 square feet that are not included in one of the three specified categories. It also would not apply to restaurants and other food service providers; therefore, it would allow these retailers to continue to provide plastic bags to customers for prepared take-out food intended for consumption off of the food provider's premises.

The Single-Use Carryout Bag Ordinance would also impose a mandatory charge of ten cents (\$0.10) for paper carryout bags at Huntington Beach stores covered by the Ordinance. The mandatory charge is intended to provide a disincentive to customers to request paper bags when shopping at regulated stores and is intended to promote a shift toward the use of reusable bags by Huntington Beach consumers.

The mandatory charge would bill customers for each paper carryout bag provided by the affected stores. Revenues generated from the charge would be used to compensate the affected stores for increased costs related to compliance with the Ordinance, actual costs associated with providing recyclable paper carryout bags or reusable bags, or costs associated with a store's educational materials or education campaign encouraging the use of reusable bags. All stores would be required to keep complete and accurate records or documents, for a minimum period



of three years from the date of sale, of the total number of recyclable paper carryout bags provided, and the total amount of monies collected for providing recyclable paper carryout bags. The records completed by the store would be available for inspection at no cost to the City during regular business hours by any City employee authorized to enforce the Ordinance.

PROJECT OBJECTIVES

The City's objectives for the proposed Ordinance include:

- Reducing the number of single-use plastic bags distributed by retailers and used by customers in Huntington Beach
- Deterring the use of paper bags by customers in Huntington Beach
- Promoting a shift toward the use of reusable carryout bags by retail customers in Huntington Beach
- Reducing the environmental impacts related to single-use plastic carryout bags, such as impacts to biological resources (including marine environments) and water quality
- Avoiding litter and the associated adverse impacts to stormwater systems, aesthetics and the marine environment (Pacific Ocean and Bolsa Chica Ecological Reserve)

ALTERNATIVES

As required by CEQA, the EIR examines a range of alternatives to the proposed project that feasibly attain most of the basic project objectives. These alternatives are described and evaluated in Section 6.0, *Alternatives*. Studied alternatives include:

- **Alternative 1: No Project** - *The no project alternative assumes that the Huntington Beach Single-Use Carryout Bag Ordinance would not occur. The existing retail stores would continue to provide single-use plastic bags and would continue to provide single-use paper bags free of charge to the customers.*
- **Alternative 2: Ban on Single-Use Plastic Bags at all Retail Establishments** - *This alternative would prohibit all retail establishments in Huntington Beach from providing single-use plastic carryout bags to customers at the point of sale, including restaurants and other retailers not covered by the proposed ordinance.*
- **Alternative 3: Mandatory Charge of \$0.25 for Paper Bags** - *This alternative would continue to prohibit three specified categories of retail establishments in Huntington Beach from providing single-use plastic carryout bags to customers at the point of sale, but would increase the mandatory charge for single-use paper bags from \$0.10 to \$0.25.*



SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Table ES-1 includes a brief description of the environmental issues relative to the proposed ordinance, the identified significant environmental impacts, proposed mitigation measures, and residual impacts. Impacts are categorized by classes. Class I impacts are defined as significant, unavoidable adverse impacts which require a statement of overriding considerations to be issued pursuant to the *CEQA Guidelines* §15093 if the project is approved. Class II impacts are significant adverse impacts that can be feasibly mitigated to less than significant levels and which require findings to be made under Section 15091 of the *CEQA Guidelines*. Class III impacts are considered less than significant impacts, and Class IV impacts are beneficial impacts.

Table ES-1 Summary of Significant Environmental Impacts, Mitigation Measures, and Residual Impacts		
Impact	Mitigation Measures	Significance After Mitigation
AIR QUALITY		
Impact AQ-1 A shift toward reusable bags could potentially alter processing activities related to bag production, which has the potential to increase air pollutant emissions. However, the proposed Single-Use Carryout Bag Ordinance is expected to substantially reduce the number of single-use plastic carryout bags, thereby reducing the total number of bags manufactured and overall emissions associated with bag manufacture and use. Therefore, air quality impacts related to alteration of processing activities would be Class IV, <i>beneficial</i> .	Mitigation is not required.	The impact would be beneficial without mitigation.
Impact AQ-2 Implementation of the proposed Single-Use Carryout Bag Ordinance would generate air pollutant emissions associated with an incremental increase in truck trips to deliver paper and reusable carryout bags to local retailers. However, emissions would not exceed SCAQMD operational significance thresholds. Therefore, operational air quality impacts would be Class III, <i>less than significant</i> .	Mitigation is not required.	Impacts would be less than significant without mitigation.
BIOLOGICAL RESOURCES		
Impact BIO-1 The proposed Single-Use Carryout Bag Ordinance would incrementally increase the number of paper and reusable bags within Huntington Beach. However, the reduction in the amount of single-use plastic bags would be expected to incrementally reduce the amount of	Mitigation is not required.	The impact would be beneficial without mitigation.



**Table ES-1
 Summary of Significant Environmental Impacts,
 Mitigation Measures, and Residual Impacts**

Impact	Mitigation Measures	Significance After Mitigation
litter entering coastal and marine habitats, thus reducing litter-related impacts to sensitive species, plant communities, and coastal wetland areas. This is a Class IV, <i>beneficial</i> , effect.		
GREENHOUSE GAS EMISSIONS		
Impact GHG-1 The proposed Single-Use Carryout Bag Ordinance would reduce the number of single-use carryout bags used in Huntington Beach and promote reusable bags, which are intended to be used multiple times. Implementation of the proposed Ordinance would incrementally increase GHG emissions compared to existing conditions. However, emissions would not exceed recommended SCAQMD thresholds and would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases. Impacts would be Class III, <i>less than significant</i> .	Mitigation is not required.	The impact would be less than significant without mitigation.
HYDROLOGY/WATER QUALITY		
Impact HWQ-1 Although the proposed Single-Use Carryout Bag Ordinance would incrementally increase the number of single-use paper and reusable bags used in Huntington Beach, the overall reduction in the total amount of carryout bags would incrementally reduce the amount of litter and waste entering storm drains, water ways and receiving waters such as the Pacific Ocean, improving water quality. This would be a Class IV, <i>beneficial</i> , effect.	Mitigation is not required.	The impact would be beneficial without mitigation.
Impact HWQ-2 A shift toward reusable bags could potentially alter processing activities related to bag production, which could potentially degrade water quality in some instances and locations. However, bag manufacturers would be required to adhere to existing regulations including NPDES Permit requirements, AB 258 and the California Health and Safety Code. Therefore, impacts to water quality	Mitigation is not required.	Impacts would be less than significant without mitigation.



**Table ES-1
Summary of Significant Environmental Impacts,
Mitigation Measures, and Residual Impacts**

Impact	Mitigation Measures	Significance After Mitigation
from altering bag processing activities would be Class III, <i>less than significant.</i>		



1.0 INTRODUCTION

This document is a Draft Environmental Impact Report (EIR) for the proposed Huntington Beach Single-Use Carryout Bag Ordinance. The Ordinance would prohibit specified retail establishments in Huntington Beach from providing single-use plastic carryout bags to customers at the point of sale, and would create a mandatory ten cent (\$0.10) charge for each recyclable paper bag distributed by these stores. The intent of the Single-Use Carryout Bag Ordinance is to reduce the number of single-use carryout bags used in the City and to promote the use of reusable bags by Huntington Beach retail customers. The Single-Use Carryout Bag Ordinance would apply to three specified categories of retail establishments located within Huntington Beach's corporate limits, including: (1) full-line, self-service retail stores with gross annual sales of two million dollars (\$2,000,000), or more, that sell a line of dry grocery, canned goods, or nonfood items and some perishable items; (2) stores of at least 10,000 square feet of retail space that sell any perishable or non-perishable goods, including, but not limited to, clothing, food, or personal items, and generates sales or use tax pursuant to the Bradley-Burns Uniform Local Sales and Use Tax Law [Part 1.5 (commencing with Section 7200) of Division 2 of the Revenue and Taxation Code]; or (3) drug stores, pharmacies, supermarkets, grocery stores, convenience food stores, foodmarts, or other entities engaged in the retail sale of a limited line of goods that includes milk, bread, soda, and snack foods, including those stores with a Type 20 or 21 license issued by the Department of Alcoholic Beverage Control. The Ordinance is described in greater detail in Section 2.0, *Project Description*. This section discusses:

- *The project background;*
- *The legal basis for preparing an EIR;*
- *The scope and content of the EIR;*
- *Lead, responsible, and trustee agencies; and*
- *The environmental review process required under the California Environmental Quality Act (CEQA).*

1.1 PROJECT BACKGROUND

In response to concerns regarding the environmental impacts related to single-use carryout bags, the Huntington Beach City Council on October 3, 2011 directed city staff to prepare a Single-Use Carryout Bag Ordinance that would ban the distribution of single-use plastic carryout bags. City staff has prepared a draft Single-Use Carryout Bag Ordinance consistent with the Council's direction. This document is an EIR that analyzes the proposed Ordinance's environmental impact in accordance with CEQA requirements.

A number of cities and counties have considered or passed similar ordinances within their respective jurisdictions. These include, but are not limited to: the City of San Francisco, the City of Seattle, the County of Los Angeles, the City of Berkeley, the City of San Jose, the City of Manhattan Beach, the City of Palo Alto, Marin County, the City of Malibu, the City of Santa Monica, Santa Clara County, the City of Sunnyvale, and the City of Long Beach.

A Notice of Preparation (NOP) of an EIR was prepared for the proposed Ordinance and distributed on November 17, 2011 for agency and public review for a 32-day review period.



The City received letters from the City of Huntington Beach Environmental Board and the Department of Transportation (DOT) in response to the NOP. The Department of Transportation did not have any comments specific to the environmental analysis. The City of Huntington Beach Environmental Board's comments included concerns related to hydrology (which are addressed in Section 4.4, *Hydrology and Water Quality*), air quality (which are addressed in Section 4.1, *Air Quality*), biological resources (which are addressed in Section 4.2, *Biological Resources*), and greenhouse gas emissions (which are addressed in Section 4.3, *Greenhouse Gas Emissions*). The Environmental Board also suggests that "robust models" of analysis in addition to Life Cycle Analysis be included in the EIR. This comment is addressed in Section 4.1, *Air Quality* and Section 4.3, *Greenhouse Gas Emissions* in the Methodology section which identifies how impacts related to carryout bags are calculated. Finally, the Environmental Board suggests that recreation impacts be further discussed in the EIR. However, as stated in the Initial Study (see Appendix A) the project would not require the construction or expansion of recreational facilities, and would reduce negative impacts on existing recreational facilities relating to the visibility and amount of litter (thus somewhat improving recreation facilities). Because it is anticipated that recreation facilities would be improved as a result of the proposed Ordinance, impacts are considered less than significant and no further analysis is required in the EIR. The City also conducted a public scoping meeting during the NOP comment period, which took place on December 7, 2011 at 6:00 p.m. The NOP and Initial Study prepared for the project are presented in Appendix A.

1.2 PURPOSE AND LEGAL AUTHORITY

The proposed Single-Use Carryout Bag Ordinance requires the discretionary approval of the Huntington Beach City Council. Therefore, it is subject to the requirements of CEQA. In accordance with Section 15121 of the *CEQA Guidelines*, the purpose of this EIR is to serve as an informational document that:

...will inform public agency decision-makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project.

This EIR has been prepared as a Project EIR pursuant to Section 15161 of the *CEQA Guidelines*. A Project EIR is appropriate for a specific development project. As stated in the *CEQA Guidelines*:

This type of EIR should focus primarily on the changes in the environment that would result from the development project. The EIR shall examine all phases of the project, including planning, construction, and operation.

This EIR is to serve as an informational document for the public and City of Huntington Beach decision-makers. The process will culminate with City Council hearings to consider certification of a Final EIR and approval of the Ordinance. Section 2.6 in Section 2.0, *Project Description*, provides a detailed description of approvals that may be necessary for the proposed project.



1.3 SCOPE AND CONTENT

This EIR addresses the issues that the City of Huntington Beach determined could potentially have significant effects. The issues addressed in this EIR include:

- *Air Quality*
- *Biological Resources*
- *Greenhouse Gas Emissions*
- *Hydrology/Water Quality*

This EIR addresses the issue areas referenced above that were identified in an Initial Study as having potentially significant environmental impacts. The Initial Study is included in Appendix A.

The EIR references pertinent City policies and guidelines, certified EIRs and other adopted CEQA documents, and background documents prepared by the City in preparing the proposed Ordinance. A full reference list is contained in Section 7.0, *References and Report Preparers*.

The alternatives section of the EIR (Section 6.0) was prepared in accordance with Section 15126.6 of the *CEQA Guidelines*. The alternatives discussion evaluates the CEQA-required “no project” alternative and two alternative scenarios for the Ordinance. It also identifies the environmentally superior alternative among the alternatives assessed.

The level of detail contained throughout this EIR is consistent with the requirements of CEQA and applicable court decisions. The *CEQA Guidelines* provide the standard of adequacy on which this document is based. The *CEQA Guidelines* state:

An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of the proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection, but for adequacy, completeness, and a good faith effort at full disclosure. (Section 15151)

1.4 LEAD, RESPONSIBLE, AND TRUSTEE AGENCIES

The *CEQA Guidelines* define lead, responsible and trustee agencies. The City of Huntington Beach is the lead agency for the project because it holds principal responsibility for approving the Ordinance.

A responsible agency refers to a public agency other than the lead agency that has discretionary approval over the project, and a trustee agency refers to a state agency having jurisdiction by law over natural resources affected by a project. There are no responsible or trustee agencies for the proposed project.



1.5 ENVIRONMENTAL REVIEW PROCESS

The major steps in the environmental review process, as required under CEQA, are outlined below. The steps are presented in sequential order.

1. **Notice of Preparation (NOP).** After deciding that an EIR is required, the lead agency must file an NOP soliciting input on the EIR scope to the State Clearinghouse, other concerned agencies, and parties previously requesting notice in writing (*CEQA Guidelines* Section 15082; Public Resources Code Section 21092.2). The NOP must be posted in the County Clerk's office for 30 days. The NOP may be accompanied by an Initial Study that identifies the issue areas for which the proposed project could create significant environmental impacts.

2. **Draft Environmental Impact Report.** The Draft EIR must contain:
 - a) Table of contents or index;
 - b) Summary;
 - c) Project description;
 - d) Environmental setting;
 - e) Discussion of significant impacts (direct, indirect, cumulative, growth-inducing and unavoidable impacts);
 - f) Discussion of alternatives;
 - g) Mitigation measures; and
 - h) Discussion of irreversible changes.

3. **Notice of Completion/Notice of Availability of Draft EIR.** A lead agency must file a Notice of Completion with the State Clearinghouse when it completes a Draft EIR and prepare a Public Notice of Availability for the Draft EIR. The lead agency must place the Notice in the County Clerk's office for 45 days (Public Resources Code Section 21092) and send a copy of the Notice to anyone requesting it (*CEQA Guidelines* Section 15087). Additionally, public notice of Draft EIR availability must be given through at least one of the following procedures: a) publication in a newspaper of general circulation; b) posting on and off the project site; and c) direct mailing to owners and occupants of contiguous properties. The lead agency must solicit input from other agencies and the public, and respond in writing to all comments received (Public Resources Code Sections 21104 and 21253). The minimum public review period for a Draft EIR is 30 days. When a Draft EIR is sent to the State Clearinghouse for review, the public review period must be 45 days unless the Clearinghouse (Public Resources Code 21091) approves a shorter period.

4. **Final EIR.** A Final EIR must include: a) the Draft EIR; b) copies of comments received during public review; c) list of persons and entities commenting; and d) responses to comments.

5. **Certification of Final EIR.** Prior to making a decision on a proposed project, the lead agency must certify that: a) the Final EIR has been completed in compliance with CEQA; b) the Final EIR was presented to the decision-making body of the lead agency; and c) the decision-making body reviewed and considered the information in the Final EIR prior to approving a project (*CEQA Guidelines* Section 15090).



6. **Lead Agency Project Decision.** A lead agency may: a) disapprove a project because of its significant environmental effects; b) require changes to a project to reduce or avoid significant environmental effects; or c) approve a project despite its significant environmental effects, if the proper findings and statement of overriding considerations are adopted (*CEQA Guidelines* Sections 15042 and 15043).
7. **Findings/Statement of Overriding Considerations.** For each significant impact of the project identified in the EIR, the lead or responsible agency must find, based on substantial evidence, that either: a) the project has been changed to avoid or substantially reduce the magnitude of the impact; b) changes to the project are within another agency's jurisdiction and such changes have or should be adopted; or c) specific economic, social, or other considerations make the mitigation measures or project alternatives infeasible (*CEQA Guidelines* Section 15091). If an agency approves a project with unavoidable significant environmental effects, it must prepare a written Statement of Overriding Considerations that sets forth the specific social, economic, or other reasons supporting the agency's decision.
8. **Mitigation Monitoring Reporting Program.** When an agency makes findings on significant effects identified in the EIR, it must adopt a reporting or monitoring program for mitigation measures that were adopted or made conditions of project approval to mitigate significant effects.
9. **Notice of Determination.** An agency must file a Notice of Determination after deciding to approve a project for which an EIR is prepared (*CEQA Guidelines* Section 15094). A local agency must file the Notice with the County Clerk. The Notice must be posted for 30 days and sent to anyone previously requesting notice. Posting of the Notice starts a 30-day statute of limitations on CEQA legal challenges (Public Resources Code Section 21167(c)).



2.0 PROJECT DESCRIPTION

This section describes the proposed project, including information about the project applicant, project location, a description of the major project characteristics, project objectives, and a list of discretionary approvals needed for project approval.

2.1 PROJECT APPLICANT

City of Huntington Beach
2000 Main Street
Huntington Beach, CA 92648

2.2 PROJECT LOCATION

The Single-Use Carryout Bag Ordinance would apply to three specified categories of retail establishments, as described in Section 2.4, located within the City of Huntington Beach's corporate limits. Huntington Beach is located in Orange County and is approximately 32 square miles in size. The City is bordered by the Pacific Ocean to the southwest, by Seal Beach to the northwest, by Costa Mesa to the east, by Newport Beach to the southeast, by Westminster to the north, and by Fountain Valley to the northeast. Huntington Beach contains a variety of land uses, including residential (single- and multi-family), commercial, industrial, office, and public facilities. Figure 2-1 illustrates the location of Huntington Beach in its regional context, and Figure 2-2 shows an aerial of the City and surrounding communities.

2.3 EXISTING CHARACTERISTICS

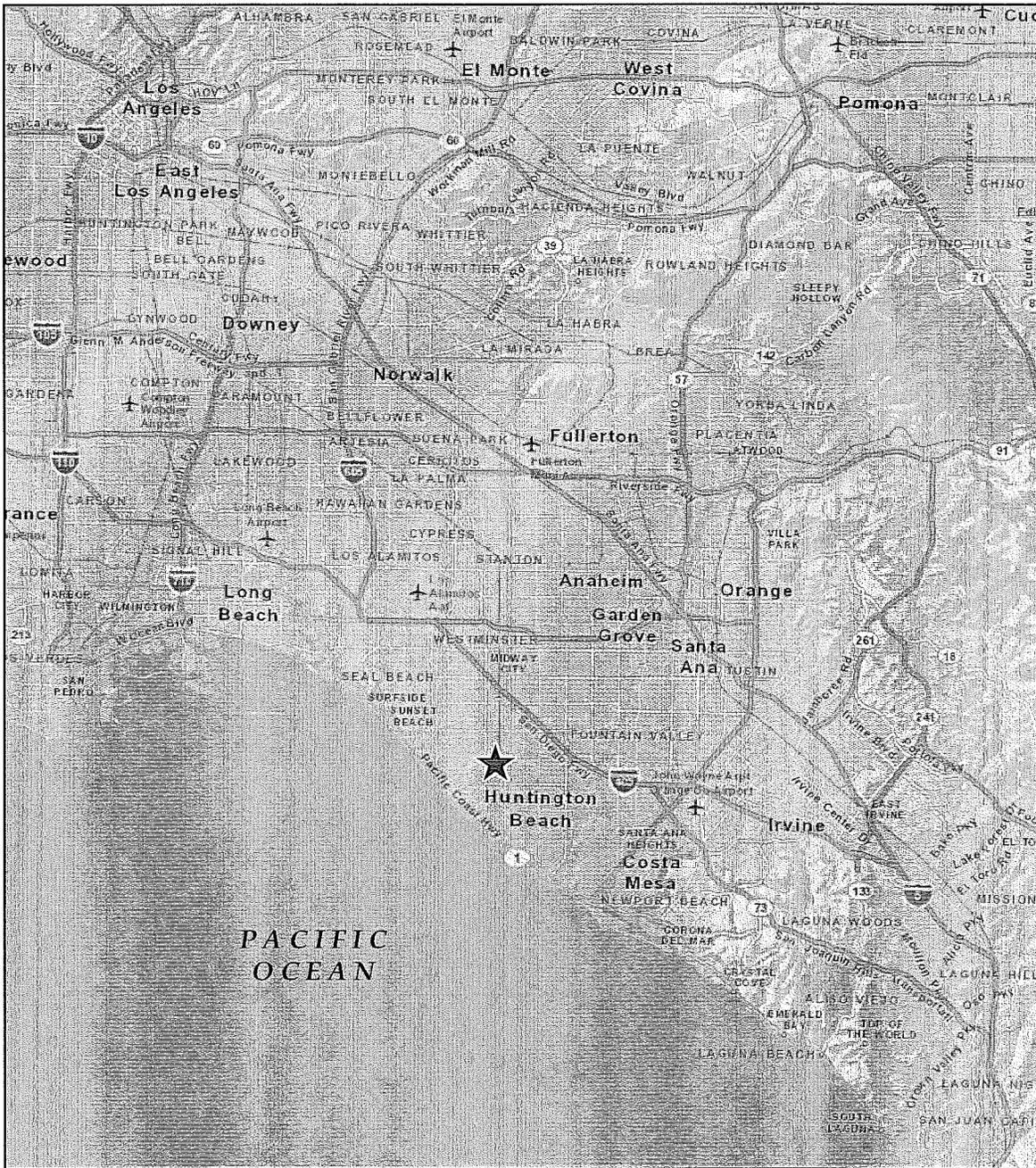
2.3.1 Carryout Bags in Huntington Beach

In response to concerns regarding the environmental impacts related to single-use carryout bags, the Huntington Beach City Council directed City staff to prepare a Single-Use Carryout Bag Ordinance. Based on existing conditions, it is expected that the proposed Ordinance would apply to approximately 133 retailers in Huntington Beach. A list of stores that the Ordinance would potentially pertain to is included in Appendix D. The following describes the various types of carryout bags currently used in Huntington Beach.

Types of Carryout Bags. Single-use disposable plastic grocery bags are typically made of thin, lightweight high density polyethylene (HDPE) (Hyder Consulting, 2007). For consumers, they offer a hygienic, odorless, waterproof and sturdy carrying sack, but are intended for one use before disposal. According to recent estimates, almost 20 billion of these plastic grocery bags are consumed annually in California (CIWMB, 2007). Conventional single-use plastic bags are a product of the petrochemical industry. It is also claimed that conventional single-use plastic bags are manufactured by independent manufacturers who purchase virgin

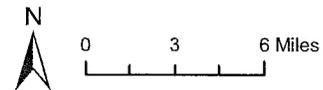


Huntington Beach Single-Use Carryout Bag Ordinance EIR
Section 2.0 Project Description



Imagery provided by ESRI and its licensors, 2011.

★ Project Location

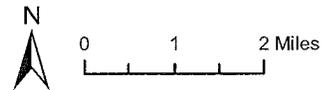


Regional Location

Figure 2-1



Imagery provided by ESRI and its licensors, 2011.



City of Huntington Beach Aerial

Figure 2-2

resin from petrochemical companies or obtain non-virgin resin from recyclers or other sources and that 85% of plastic bags used in the United States are made in the United States (Stephen L. Joseph, July 22, 2010). Their life cycle begins with the conversion of crude oil or natural gas into hydrocarbon monomers, which are then further processed into polymers (Herrera et al, 2008; County of Los Angeles, 2009). These polymers are connected with heat to form plastic resins, which are then blown through tubes to create the air pocket of the bag. Once cooled, the plastic film is stretched to the desired size of the bag and cut into individual bags. Typical single-use plastic bags are approximately five to nine grams in weight, and can be purchased in bulk for approximately two to five cents per bag (AEA Technology, 2009). Single-use plastic bags can be reused by customers and are recyclable. Approximately 5% of single-use plastic bags in California are recycled (US EPA, 2005; Green Cities California MEA, 2010; and Boustead, 2007).

Like plastic grocery shopping bags, single-use paper bags are usually distributed free of charge to customers at grocery stores, and are intended for one use before disposal. However, paper bags are recyclable and can be reused by customers. Approximately 21% of paper bags nationwide are recycled (CIWMB, 2009). Paper grocery bags are typically produced from kraft paper and weigh between 50 and 100 grams, depending on whether or not the bag includes handles (AEA Technology, 2009). These bags can be purchased in bulk for approximately 15 to 25 cents per bag (City of Pasadena, 2008). Kraft paper bags are manufactured from a pulp that is produced by digesting a material into its fibrous constituents via chemical and/or mechanical means (FRIDGE, 2002). Kraft pulp is produced by chemical separation of cellulose from lignin (Environmental Paper Network, 2007). Chemicals used in this process include caustic sodas, sodium hydroxide, sodium sulfide, and chlorine compounds (Environmental Paper Network, 2007). Processed and then dried and shaped into large rolls, the paper is then formed into bags, baled, and then distributed to grocery stores.

Multiple types of single-use biodegradable bags are currently available, distinguished by their material components. Biodegradable bags are composed of thermoplastic starch-based polymers, which are made with at least 90% starch from renewable resources such as corn, potato, tapioca, or wheat, or from polyesters, manufactured from hydrocarbons, or starch-polyester blends (James and Grant, 2005). These bags are approximately the same size and weight as HDPE plastic bags, but are more expensive. They can be purchased in bulk for approximately 12 to 30 cents per bag (www.ecoproducts.com, 2009).

Reusable bags can be made from plastic or a variety of cloths such as vinyl or cotton. These bags differ from the single-use bags in their weight and longevity. Built to withstand many uses, they typically cost approximately three dollars wholesale, weigh at least ten times what an HDPE plastic bag weighs and two times what a paper bag weighs, and require greater material consumption on a per bag basis than HDPE plastic bags (ExcelPlas Australia, 2004; City of Pasadena, 2008). Many types of reusable bags are available today. These include: (1) non-woven polypropylene (100% recyclable) ranging from \$1-\$2.50 per bag; (2) cotton canvas bags, which are approximately \$5.00 per bag; (3) bags made from recycled water/soda bottles, which are approximately \$6.00 per bag; (4) polyester and vinyl, which are approximately \$10.00 per bag; and (5) 100% cotton, which are approximately \$10.00 per bag.



The production stages in reusable bag life cycles depend on the materials used. Once used, these bags are reused until worn out through washing or multiple uses, and then typically disposed either in a landfill or recycling facility.

Huntington Beach Carryout Bag Consumption. As shown in Table 2-1, based on the statewide data that almost 20 billion plastic grocery bags (or approximately 533 bags per person) are consumed annually in California (Green Cities California MEA, 2010; and CIWMB, 2007), retail customers in Huntington Beach currently use about 102 million plastic bags per year. Retail customers in Huntington Beach may include residents of other communities and residents of Huntington Beach may not necessarily be customers of retailers in the City. However, for this analysis, in order to estimate the existing number of plastic bags used annually in Huntington Beach, the statewide data was utilized to apply the number of bags used per person per year rate to the number of residents in Huntington Beach. This estimate is considered reasonable for the purpose of analyzing the impacts of the proposed Ordinance.

**Table 2-1
 Estimated Single-Use Plastic Bag Use in Huntington Beach**

Area	Population*	Number of Plastic Bags Used per Person**	Total Bags Used Annually
City of Huntington Beach	191,677	533.18	102,198,343
Total			102,198,343

* California Department of Finance, "City/County Population and Housing Estimates" (2011). Please note that this total also includes approximately 1,300 residents of Sunset Beach which was annexed into the City in August 2011.

**Based on annual statewide estimates of plastic bag use from the CIWMB (2007) - 533 bags per person = 20 billion bags used statewide per year (CIWMB, 2007) / 37,510,766 people statewide (California's current population according to the State Department of Finance, 2011).

2.3.2 Regulatory Setting

In 2006, California enacted AB 2449 (Chapter 845, Statutes of 2006), which became effective on July 1, 2007. The statute states that stores providing plastic carryout bags to customers must provide at least one plastic bag collection bin in an accessible location to collect used bags for recycling. The store operator must also make reusable bags available to shoppers for purchase. AB 2449 applies to retail stores of over 10,000 square feet that include a licensed pharmacy and to supermarkets with gross annual sales of \$2 million or more that sell dry groceries, canned goods, nonfood items or perishable goods. Stores are required to maintain records of their AB 2449 compliance and make them available to the California Integrated Waste Management Board (CIWMB) or local jurisdiction.

AB 2449 further requires the manufacturers of plastic carryout bags to develop educational materials to encourage the reducing, reusing, and recycling of plastic carryout bags, and to make the materials available to stores. Manufacturers must also work with stores on their at-store recycling programs to help ensure the proper collection, transportation and recycling of the plastic bags.



Finally, AB 2449 restricts the ability of cities (including charter cities) and counties to regulate single-use plastic grocery bags through imposition of a fee. Public Resources Code Section 42254(b) provides as follows:

Unless expressly authorized by this chapter, a city, county, or other public agency shall not adopt, implement, or enforce an ordinance, resolution, regulation, or rule to do any of the following:

- (1) Require a store that is in compliance with this chapter to collect, transport, or recycle plastic carryout bags.*
- (2) Impose a plastic carryout bag fee upon a store that is in compliance with this chapter.*
- (3) Require auditing or reporting requirements that are in addition to what is required by subdivision (d) of Section 42252, upon a store that is in compliance with this chapter.*

AB 2449 expires under its own terms on January 1, 2013, unless extended. There are no other California statutes that directly focus on carryout bags.

2.4 PROPOSED ORDINANCE CHARACTERISTICS

The City of Huntington Beach proposes to adopt a Single-Use Carryout Bag Ordinance that would prohibit distribution of plastic carry-out bags in commercial point of sale purchases within Huntington Beach, and establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags at all stores that meet at least one of the criteria listed below. All stores affected by the proposed ordinance would be required to provide reusable bags to customers either for sale or at no charge, and each store would be strongly encouraged to promote the use of reusable bags through staff education and customer outreach.

Stores located within Huntington Beach that would be affected include the following:

1. Full-line, self-service retail stores with gross annual sales of two million dollars (\$2,000,000), or more, that sell a line of dry goods, canned goods, or nonfood items and some perishable items;
2. Stores of at least ten thousand (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 (Part 1.5 (commencing with Section 7200) of Division 2 of the Business and Professions Code) and that have a pharmacy licensed pursuant to Chapter 9 (commencing with Section 4000) of Division 2 of the Business and Professions Code; or
3. Drug stores, pharmacies, supermarkets, grocery stores, convenience food stores, food marts, or other entities engaged in the retail sale of a limited line of goods that includes milk, bread, soda, snack foods, including those stores with a Type 20 or 21 license issued by the Department of Alcoholic Beverage Control.



The Ordinance would prohibit the distribution of compostable and biodegradable plastic carry-out bags, as they are included in the definition of a plastic carry-out bag. The Ordinance would impose a ten (10) cent charge on recyclable paper carry-out bags, and requires that the paper bags be one hundred percent (100%) recyclable overall, contain a minimum of forty percent (40%) post-consumer recycled material, and be accepted for recycling in curbside programs within the City, among other criteria. The Ordinance further requires that reusable bags be specifically designed and manufactured for a minimum lifetime of 125 uses, be machine washable or made from a material that can be cleaned or disinfected, does not contain lead, cadmium, or other heavy element in toxic amounts, among other criteria. Plastic bags that are a minimum of 2.25 mils thick are considered to be reusable bags per the definition in the Ordinance.

The Ordinance would exempt from the ten (10) cent charge those customers who are participating in either the California Special Supplemental Food Program for the Women, Infants, and Children or the Supplemental Food Program. All applicable stores must provide at the point of sale, free of charge, either reusable bags or recyclable paper carry-out bags or both, to these customers, at the store's option. Customers would have the option to use their own reusable bags, or no bag at all.

The intent of the Ordinance is to reduce the environmental impacts related to the use of single-use carryout bags, and to promote a shift toward the use of reusable bags. It is anticipated that by prohibiting single-use plastic carryout bags and creating a mandatory charge for each paper bag distributed by retailers, the proposed Ordinance would reduce the number of single-use bags consumed within the City while promoting a shift to the use of reusable bags by Huntington Beach retail customers.

Under the proposed Ordinance, single-use plastic carryout bags are defined as bags made from petroleum or bio-based plastic (i.e., bags made with at least 90% starch from renewable resources such as corn, potato, tapioca, or wheat, or from polyesters, manufactured from hydrocarbons, or starch-polyester blends) that are less than 2.25 mils thick. The proposed Single-Use Carryout Bag Ordinance would prohibit retailers from distributing both petroleum and bio-based single-use carryout plastic bags at the point of sale. The proposed Ordinance would not prohibit the distribution of plastic "product bags," as defined, which include bags without handles provided to a customer to carry produce, meats, or other food items to the point of sale inside a store or to prevent such food items from coming into contact with other purchased items.

The Ordinance would not apply to stores of less than 10,000 square feet that are not included in one of the three specified categories. It also would not apply to restaurants and other food service providers; therefore, it would allow these retailers to continue to provide plastic bags to customers for prepared take-out food intended for consumption off of the food provider's premises.

The Single-Use Carryout Bag Ordinance would also impose a mandatory charge of ten cents (\$0.10) for paper carryout bags at Huntington Beach stores covered by the Ordinance. The mandatory charge is intended to provide a disincentive to customers to request paper bags



when shopping at regulated stores and is intended to promote a shift toward the use of reusable bags by Huntington Beach consumers.

The mandatory charge would bill customers for each paper carryout bag provided by the affected stores. Revenues generated from the charge would be used to compensate the affected stores for increased costs related to compliance with the Ordinance, actual costs associated with providing recyclable paper carryout bags or reusable bags, or costs associated with a store's educational materials or education campaign encouraging the use of reusable bags. All stores would be required to keep complete and accurate records or documents, for a minimum period of three years from the date of sale, of the total number of recyclable paper carryout bags provided, and the total amount of monies collected for providing recyclable paper carryout bags. The records completed by the store would be available for inspection at no cost to the City during regular business hours by any City employee authorized to enforce the Ordinance.

The complete draft Ordinance is contained in Appendix C.

2.5 PROJECT OBJECTIVES

The City's objectives for the proposed Ordinance include:

- Reducing the number of single-use plastic bags distributed by retailers and used by customers in Huntington Beach
- Deterring the use of paper bags by customers in Huntington Beach
- Promoting a shift toward the use of reusable carryout bags by retail customers in Huntington Beach
- Reducing the environmental impacts related to single-use plastic carryout bags, such as impacts to biological resources (including marine environments) and water quality
- Avoiding litter and the associated adverse impacts to stormwater systems, aesthetics and the marine environment (Pacific Ocean and Bolsa Chica Ecological Reserve)

2.6 REQUIRED APPROVALS and PERMITS

The Single-Use Carryout Bag Ordinance would require an amendment to the Huntington Beach Municipal Code (Chapter 5.90) with discretionary approval by the Huntington Beach City Council. The following approvals would be required:

- Certification of the Final EIR (City Council)
- Adoption of an Ordinance amending the Municipal Code (City Council)

No other agencies have discretionary approval authority over any aspect of the proposed Single-Use Carryout Bag Ordinance.



3.0 ENVIRONMENTAL SETTING

This section provides a general overview of the environmental setting for the proposed ordinance. More detailed descriptions of the environmental setting germane to each environmental issue area can be found in Section 4.0, *Environmental Impact Analysis*.

3.1 REGIONAL SETTING

Huntington Beach is located in Orange County and is approximately 32 square miles in size. The City is bordered by the Pacific Ocean on the southwest, by Seal Beach on the northwest, by Costa Mesa on the east, by Newport Beach on the southeast, by Westminster on the north, and by Fountain Valley on the northeast. Huntington Beach contains a variety of land uses, including residential (single- and multi-family), commercial, industrial, office, and public facilities.

Huntington Beach has a Mediterranean climate, with mild, moist winters and comfortably warm, very dry summers. The City is located within the South Coast Air Basin (Basin), named so because its geographical formation is that of a basin, with the surrounding mountains trapping the air and its pollutants in the valleys or basins below. The Basin includes all of Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside counties. The regional climate within the Basin is considered semi-arid and is characterized by warm summers, mild winters, infrequent seasonal rainfall, moderate daytime onshore breezes, and moderate humidity. The annual average temperature varies little throughout the Basin, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). Coastal areas have a more pronounced oceanic influence, and show less variability in annual minimum and maximum temperatures than inland areas. The City of Huntington Beach is located in northern coastal Orange County, which is in the southern portion of the Basin. The annual average temperature in the City ranges from approximately 47.0°F in December and January to 73.5°F in August (Western Regional Climate Center 2008).

The current population of Huntington Beach is 191,677 (California Department of Finance, 2011). Based on existing conditions, the proposed Single-Use Carryout Bag Ordinance is expected to apply to approximately 133 retailers in Huntington Beach. Definitions of the store categories are included in Appendix D.

3.2 CUMULATIVE PROJECTS SETTING

CEQA defines cumulative impacts as two or more individual actions that, when considered together, are considerable or will compound other environmental impacts. Cumulative impacts are the changes in the environment that result from the incremental impact of development of the proposed project and other nearby projects. For example, traffic impacts of two nearby projects may be insignificant when analyzed separately, but could have a significant impact when analyzed together. Cumulative impact analysis allows the EIR to provide a reasonable forecast of future environmental conditions and can more accurately gauge the effects of a series of projects.



Although CEQA analysis typically lists development projects in the vicinity of a project site, this document analyzes the environmental impacts associated with a proposed ordinance and does not include development or construction activity. As such, the cumulative significance of the proposed Single-Use Carryout Bag Ordinance has been analyzed within the context of other carryout bag ordinances that are approved or pending throughout California. Table 3-1 lists current adopted and pending ordinances in California. These ordinances are considered in the cumulative analyses in Section 4.0, *Environmental Impact Analysis*. As shown in Table 3-1, 17 carryout bag ordinances have been adopted or are proposed or pending (not including the proposed Huntington Beach Single-Use Carryout Bag Ordinance) throughout California.

**Table 3-1
 Planned and Pending Carryout Bag Ordinances in California**

Ordinance Location	Proposed Action	Status
City of Berkeley	This ordinance would prohibit retail product stores from making plastic bags available at checkout stands, and would require a mandatory charge of 25 cents on each paper checkout bag. Paper checkout bags would be required to have minimum post consumer recycled content.	On hold
City of Calabasas	This ordinance bans the issuance of plastic carryout bags and imposes a ten (10) cent charge on the issuance of recyclable paper carryout bags at regulated stores.	Adopted February 2011 Effective July 2011
City of Fairfax	This ordinance allows all stores, shops, eating places, food vendors and retail food vendors, to provide only recyclable paper or reusable bags as checkout bags to customer.	Adopted August 2007 After legal challenge, adopted by voter initiative November 2008
City of Long Beach	This ordinance bans plastic carryout bags at all supermarkets and other grocery stores, pharmacies, drug stores, convenience stores, food marts, and farmers markets and would place a ten (10) cent charge on the issuance of recyclable paper carryout bags by an affected store, as defined. The ordinance would also require a store to provide or make available to a customer only recyclable paper carryout bags or reusable bags.	Ordinance adopted and Addendum to the County of Los Angeles Final EIR certified May 2011 Effective August 2011
City of Los Angeles	The Los Angeles City Council voted to ban plastic carryout bags in the city's supermarkets and stores by July 2010 -- but only if the state fails to impose a 25-cent fee on every shopper who requests them.	Pending
City of Malibu	This ordinance bans the use of non-compostable and compostable plastic shopping bags for point-of-sale distribution.	Adopted May 2008 Effective November 2009
City of Manhattan Beach	This ordinance bans the distribution of plastic bags at the point-of-sale for all retail establishments in Manhattan Beach.	Adopted July 2008 On hold pending lawsuit



**Table 3-1
 Planned and Pending Carryout Bag Ordinances in California**

Ordinance Location	Proposed Action	Status
City of Oakland	This ordinance bans the use of plastic bags within the City.	Adopted July 2007 In April 2008, a judge sided with a challenge to the ordinance filed by an industry group
City of Palo Alto	This ordinance bans large grocery stores in Palo Alto from distributing single-use plastic check out bags. Only reusable bags (preferred) or paper bags can be distributed. Single-use plastic bags can still be used in produce and meat departments.	Adopted March 2009 Effective September 2009
City of San Francisco	Retail stores governed by the ordinance can only provide the following types of bags: a. compostable plastic b. recyclable paper c. reusable bag of any material	Adopted April 2007
City of San Jose	This ordinance prohibits the distribution of single-use carryout paper and plastic bags at the point of sale (i.e., check-out) for all commercial retail businesses in San José except restaurants. An exception is made for "green" paper bags containing at least 40 percent recycled content, accompanied by a charge of 10 cents to the customer, with the charge retained by the retailer.	Adopted January 2011 Effective January 2012
City of Santa Monica	This ordinance: (1) prohibits retail establishments in Santa Monica from providing "single-use plastic carryout bags" to customers at the point of sale; (2) prohibits the free distribution of paper carryout bags by grocery stores, convenience stores, mini-marts, liquor stores and pharmacies; and (3) requires stores that make paper carryout bags available to sell recycled paper carryout bags to customers for not less than ten cents per bag.	Adopted January 2011 Effective September 2011
City of Sunnyvale	This ordinance would prohibit specified retail establishments Sunnyvale from providing single-use plastic carryout bags to customers at the point of sale, and would create a mandatory 10 cent (\$0.10) charge for each paper bag distributed by these stores.	Adopted December 2011 Effective June 2012
County of Alameda	This ordinance would prohibit the distribution of single-use carryout paper and plastic bags at the point of sale (i.e., check-out) for all commercial retail businesses in Alameda County. Exception would be made for "green" paper bags containing a specified minimum	Pending environmental review under CEQA



**Table 3-1
 Planned and Pending Carryout Bag Ordinances in California**

Ordinance Location	Proposed Action	Status
	percentage of recycled content, which can only be provided to customers for a nominal charge to cover the cost to the business of providing the bags.	
County of Los Angeles	This ordinance would ban the issuance of plastic carryout bags and impose a ten (10) cent charge on the issuance of recyclable paper carryout bags at all supermarkets and other grocery stores, pharmacies, drug stores, convenience stores, and foodmarts, in unincorporated Los Angeles County. The ordinance would require a store to provide or make available to a customer only recyclable paper carryout bags or reusable bags. The ordinance would also encourage a store to educate its staff to promote reusable bags and to post signs encouraging customers to use reusable bags in the unincorporated areas of the County of Los Angeles.	Adopted November 2010 Effective July 2011
County of Marin	This ordinance prohibits the distribution of plastic carryout bags and would charge at least \$0.05 for a recycled paper bag.	Adopted January 2011 Effective January 2012
County of Santa Clara	This ordinance allows affected retail establishments to distribute either a 'green' paper bag or a reusable bag. Reusable bags may be given away or sold and are initially defined (until January 2013) as bags made of cloth or other machine washable fabric that has handles; or a durable plastic bag with handles that is at least 2.25 mils thick and is specifically designed and manufactured for multiple use. 'Green' paper bags may be sold to customers for a minimum charge of \$0.15 and are defined as paper bags that are 100% recyclable and are made from 100% recycled material.	Adopted April 2011 Effective January 2012

Source: Californians Against Waste, http://www.cawrecycles.org/issues/plastic_campaign/plastic_bags/local, accessed July 2011; City of San Jose, City of Palo Alto, City of Berkeley, City of Los Angeles, County of Los Angeles, City of Malibu, City of Manhattan Beach, City of San Francisco, Marin County, City of Santa Monica, City of Calabasas, Santa Clara County, City of Long Beach Homepages, December 2011.



4.0 ENVIRONMENTAL IMPACT ANALYSIS

This section discusses the possible environmental effects of the proposed Single-Use Carryout Bag Ordinance for the specific issue areas that were identified through the Initial Study and NOP process as having the potential to experience significant impacts. "Significant effect" is defined by the *CEQA Guidelines §15382* as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment, but may be considered in determining whether the physical change is significant."

The assessment of each issue area begins with a discussion of the setting relevant to that issue area. Following the setting is a discussion of the ordinance's impacts relative to the issue area. Within the impact analysis, the first subsection identifies the methodologies used and the "significance thresholds," which are those criteria adopted by the City, other agencies, universally recognized, or developed specifically for this analysis to determine whether potential impacts are significant. The next subsection describes each impact of the proposed Ordinance, mitigation measures for significant impacts, and the level of significance after mitigation. Each impact under consideration for an issue area is separately listed in bold text, with the discussion of the impact and its significance following. Each bolded impact listing also contains a statement of the significance determination for the environmental impact as follows:

Class I, Significant and Unavoidable: An impact that cannot be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires a Statement of Overriding Considerations to be issued if the project is approved.

Class II, Significant but Mitigable: An impact that can be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires findings to be made.

Class III, Not Significant: An impact that may be adverse, but does not exceed the threshold levels and does not require mitigation measures. However, mitigation measures that could further lessen the environmental effect may be suggested if readily available and easily achievable.

Class IV, Beneficial: An impact that would reduce existing environmental problems or hazards.

Following each environmental impact discussion is a listing of recommended mitigation measures (if required) and the residual effects or level of significance remaining after the implementation of the measures. In those cases where the mitigation measure for an impact could have a significant environmental impact in another issue area, this impact is discussed as a residual effect.

The impact analysis concludes with a discussion of cumulative effects, which evaluates the impacts associated with the proposed Ordinance in conjunction with other adopted and pending carryout bag ordinances.



4.1 AIR QUALITY

This section analyzes the proposed Single-Use Carryout Bag Ordinance's long-term impacts on local and regional air quality. The analysis focuses on air quality impacts associated with carryout bag manufacturing facilities and the impacts associated with truck trips that deliver carryout bags in Huntington Beach. Impacts related to global climate change are addressed in Section 4.3, *Greenhouse Gas Emissions*.

4.1.1 Setting

a. Characteristics of Air Pollutants. Huntington Beach is located within the South Coast Air Basin. As a result of the climate and meteorology in the South Coast Air Basin, two types of temperature inversions (warmer air on top of colder air) are created in the area: subsidence and radiational (surface). The subsidence inversion is a regional effect created by the Pacific high in which air is heated as it is compressed when it flows from the high pressure area to the low pressure areas inland. This type of inversion generally forms at about 1,000 to 2,000 feet and can occur throughout the year, but is most evident during the summer months. Surface inversions are formed by the more rapid cooling of air near the ground during the night, especially during winter. This type of inversion is typically lower and is generally accompanied by stable air. Both types of inversions limit the dispersal of air pollutants within the regional airshed, with the more stable the air (low wind speeds, uniform temperatures), the lower the amount of pollutant dispersion. The primary air pollutant of concern during the subsidence inversions is ozone, while the greatest pollutant problems during winter inversions are carbon monoxide and nitrogen oxides. The general characteristics of ozone, carbon monoxide, nitrogen dioxide, and suspended particulates are described below.

Ozone. Ozone is produced by a photochemical reaction (triggered by sunlight) between nitrogen oxides (NO_x) and reactive organic gases (ROG). Nitrogen oxides are formed during the combustion of fuels, while reactive organic gases are formed during combustion and evaporation of organic solvents. Because ozone requires sunlight to form, it mostly occurs in concentrations considered serious between the months of April and October. Ozone is a pungent, colorless, toxic gas with direct health effects on humans including respiratory and eye irritation and possible changes in lung functions. Groups most sensitive to ozone include children, the elderly, persons with respiratory disorders, and people who exercise strenuously outdoors.

Carbon Monoxide. Carbon monoxide is a local pollutant that is found in high concentrations only near the source. The major source of carbon monoxide, a colorless, odorless, poisonous gas, is automobile traffic. Elevated concentrations, therefore, are usually only found near areas of high traffic volumes. Carbon monoxide's health effects are related to its affinity for hemoglobin in the blood. At high concentrations, carbon monoxide reduces the amount of oxygen in the blood, causing heart difficulties in people with chronic diseases, reduced lung capacity and impaired mental abilities.

Nitrogen Dioxide. Nitrogen dioxide (NO₂) is a by-product of fuel combustion, with the primary source being motor vehicles and industrial boilers and furnaces. The principal form of nitrogen oxide produced by combustion is nitric oxide (NO), but NO reacts rapidly to form



NO₂, creating the mixture of NO and NO₂ commonly called NO_x. Nitrogen dioxide is an acute irritant. A relationship between NO₂ and chronic pulmonary fibrosis may exist, and an increase in bronchitis in young children at concentrations below 0.3 parts per million (ppm) may occur. Nitrogen dioxide absorbs blue light and causes a reddish brown cast to the atmosphere and reduced visibility. It can also contribute to the formation of PM₁₀ and acid rain.

Suspended Particulates. PM₁₀ is particulate matter measuring no more than 10 microns in diameter, while PM_{2.5} is fine particulate matter measuring no more than 2.5 microns in diameter. Suspended particulates are mostly dust particles, nitrates and sulfates. Both PM₁₀ and PM_{2.5} are by-products of fuel combustion and wind erosion of soil and unpaved roads, and are directly emitted into the atmosphere through these processes. Suspended particulates are also created in the atmosphere through chemical reactions. The characteristics, sources, and potential health effects associated with the small particulates (those between 2.5 and 10 microns in diameter) and fine particulates (PM_{2.5}) can be very different. The small particulates generally come from windblown dust and dust kicked up from mobile sources. The fine particulates are generally associated with combustion processes as well as being formed in the atmosphere as a secondary pollutant through chemical reactions. Fine particulate matter is more likely to penetrate deeply into the lungs and poses a health threat to all groups, but particularly to the elderly, children, and those with respiratory problems. More than half of the small and fine particulate matter that is inhaled into the lungs remains there. These materials can damage health by interfering with the body's mechanisms for clearing the respiratory tract or by acting as carriers of an absorbed toxic substance.

b. Current Air Quality. The South Coast Air Quality Management District monitoring station located nearest to Huntington Beach is the Costa Mesa monitoring station, located at 2850 Mesa Verde Drive East in Costa Mesa. However, only the Costa Mesa monitoring station, does not measure particulate matter (PM₁₀ and PM_{2.5}). Therefore, data for particulate matter was taken from the next nearest monitoring station, located on Pampas Lane in Anaheim. Table 4.1-1, on the following page, indicates the number of days that each of the standards has been exceeded at these stations. As shown, the ozone concentration exceeded the state standard one day in 2010 but did not exceed the state standard in 2008 or 2009. The carbon monoxide and nitrogen dioxide concentrations did not exceed the state standard in any year between 2008 and 2010. The PM₁₀ concentration exceeded state standards three times in 2008, one time in 2009 and did not exceed the state standard in 2010. The PM_{2.5} concentration exceeded federal standards on five days 2008 and 2009, respectively, but did not exceed the federal standard in 2010.

c. Air Quality Management. Under state law, the SCAQMD is required to prepare a plan for air quality improvement for pollutants for which the District is in non-compliance. The SCAQMD updates the plan every three years. Each iteration of the SCAQMD's Air Quality Management Plan (AQMP) is an update of the previous plan and has a 20-year horizon. The plan was last comprehensively updated in 2007. The 2007 AQMP incorporates new scientific data and notable regulatory actions that have occurred since adoption of the 2003 AQMP. The SCAQMD adopted the 2007 AQMP on June 1, 2007. It was updated March 4, 2011 to include revisions to PM_{2.5} and Ozone State Implementation Plan for the Basin. The 2007 AQMP incorporates the revisions made in 2011.



**Table 4.1-1
 Ambient Air Quality Data**

Pollutant	2008	2009	2010
Ozone, ppm - Worst Hour	0.094	0.087	0.097
Number of days of State exceedances (>0.09 ppm)	0	0	1
Number of days of Federal exceedances (>0.12 ppm)	0	0	0
Carbon Monoxide, ppm - Worst 8 Hours	1.97	2.16	2.09
Number of days of State/Federal exceedances (>9.0 ppm)	0	0	0
Nitrogen Dioxide, ppm - Worst Hour	0.081	0.065	0.070
Number of days of State exceedances (>0.25 ppm)	0	0	0
Particulate Matter <10 microns, $\mu\text{g}/\text{m}^3$ Worst 24 Hours ^b	61.0	63.0	43.0
Number of samples of State exceedances (>50 $\mu\text{g}/\text{m}^3$)	3	1	0
Number of samples of Federal exceedances (>150 $\mu\text{g}/\text{m}^3$)	0	0	0
Particulate Matter <2.5 microns, $\mu\text{g}/\text{m}^3$ Worst 24 Hours	67.8	64.5	31.7
Number of samples of Federal exceedances (>35 $\mu\text{g}/\text{m}^3$)	5	5	0

^bData collected for the Costa Mesa monitoring station
 Source: CARB, 2008, 2009, & 2010 Annual Air Quality Data Summaries available at <http://www.arb.ca.gov>

The 2007 AQMP was prepared to ensure continued progress towards clean air and comply with state and federal requirements. This AQMP builds upon the approaches taken in the 2003 AQMP for the South Coast Air Basin for the attainment of the federal ozone air quality standard. This AQMP highlights the significant amount of reductions needed and the urgent need to identify additional strategies, especially in the area of mobile sources, to meet all federal criteria pollutant standards within the timeframes allowed under the Clean Air Act. New standards allow for a longer compliance schedule for federal fine particulates and 8-hour ozone but with more stringent PM₁₀ and 1-hour ozone standards. The 2007 AQMP proposes attainment demonstration of the federal PM_{2.5} standards through a more focused control of sulfur oxides (SO_x), directly-emitted PM_{2.5}, and nitrogen oxides (NO_x) supplemented with volatile organic compounds (VOC) by 2015. The 8-hour ozone control strategy builds upon the PM_{2.5} strategy, augmented with additional NO_x and VOC reductions to meet the standard by 2024 assuming a bump-up is obtained. Further, the 2007 AQMP aims to reduce mobile source emissions by discussing measures that would address the remaining air quality standard exceedances in the region. The 2007 AQMP is incorporated by reference and available to download at <http://www.aqmd.gov/aqmp/07aqmp/index.html>.

d. Air Quality and Carryout Bags. Carryout bags can affect air quality in two ways, either through emissions associated with manufacturing processes or through emissions associated with truck trips for the delivery of carryout bags to retailers. Each is summarized below.



Manufacturing Process. The manufacturing process to make carryout bags requires fuel and energy consumption, which generates air pollutant emissions. These may include particulate matter, nitrogen oxides, hydrocarbons, sulfur oxides, carbon monoxide, and odorous sulfur (Green Cities California MEA, 2010). The amount of emissions varies depending on the type and quantity of carryout bags produced. These emissions may contribute to air quality impacts related to acid rain (atmospheric acidification) or ground level ozone formation.

Although manufacturing facilities may emit air pollutant emissions in the production of carryout bags, manufacturing facilities are subject to air quality regulations, as described below in *e. Air Pollution Regulation*, which are intended to reduce the amount of emissions and the impacts related to air quality. For this EIR, the analysis is focused on the South Coast Air Basin, of which Huntington Beach is a part.

Truck Trips. Delivery trucks that transport carryout bags from manufacturers or distributors to the local retailers in Huntington Beach also contribute air emissions locally and regionally. Based on a baseline population in Huntington Beach of 191,677 persons and a statewide estimate of approximately 533 plastic bags used per person per year, retail customers in the City of Huntington Beach currently use an estimated 102,198,343 plastic bags per year. Assuming 2,080,000 plastic bags per truck load (City of Santa Monica Single-use Carryout Bag Ordinance Final EIR, January 2011), this number of plastic bags would require approximately 49 truck trips per year to deliver these carryout bags.

Diesel engines emit a complex mixture of air pollutants, composed of gaseous and solid material (ARB "Health Effects of Diesel Exhaust", 2010). The visible emissions in diesel exhaust are known as particulate matter or PM, which are very small and readily respirable. The particles have hundreds of chemicals adsorbed onto their surfaces, including many known or suspected mutagens and carcinogens. Diesel PM emissions are estimated to be responsible for about 70% of the total ambient air toxics risk. In addition to these general risks, diesel PM can also be responsible for elevated localized or near-source exposures ("hot-spots") (ARB, Health Effects of Diesel Exhaust", 2010).

Like manufacturing facilities, delivery trucks are also subject to existing regulations primarily related to diesel emissions, as described in *e. Air Pollution Regulation*. These regulations are intended to reduce emissions associated with fuel combustion and the impacts related to local and regional air quality.

Ground Level Ozone and Atmospheric Acidification. Various studies have estimated air emissions for the different carryout bags (single-use plastic, paper or reusable bags) to determine a per bag emissions rate. In order to provide metrics to determine environmental impacts associated with the proposed ordinance, reasonable assumptions based upon the best available sources of information have been established and are utilized in this EIR. Specific metrics that compare impacts on a per bag basis are available for single-use plastic, single-use paper and LDPE reusable bags. Air pollutant emissions associated with the manufacturing and transportation of one single-use paper bag result in 1.9 times the impact on atmospheric acidification as air emissions associated with one single-use plastic bag. Similarly, on a per bag basis, a reusable carryout bag that is made of LDPE plastic would result in 3 times the atmospheric acidification of a single-use plastic bag if the LDPE bag is only used only one time.



In addition, on a per bag basis, a single-use paper bag has 1.3 times the impact on ground level ozone formation of a single-use plastic bag. Finally, a reusable carryout bag that is made of LDPE plastic and only used one time would result in 1.4 times the ground level ozone formation of a single-use plastic bag (Stephen L. Joseph, 2009; Ecobilan, 2004; FRIDGE, 2002; Green Cities California MEA, 2010; City of Santa Monica Single-use Carryout Bag Ordinance Final EIR, January 2011; and, Sunnyvale Carryout Bag Ordinance Final EIR, December 2011).

The above statistics use the LDPE carryout bag as a representation of reusable bags in evaluating air quality impacts. There is no known available Life Cycle Assessment that evaluates all types of reusable bags (canvas, cotton, calico, etc.) with respect to potential air emissions. However, given the high rate of reuse of all types of reusable bags (usually at least one year, or 52 uses), the air emissions from these bags, when compared to the single-use plastic and paper carryout bags, are expected to be comparable to the LPDE bag or lower.

Table 4.1-2 lists the emissions associated contributing to ground level ozone and atmospheric acidification using the per-bag impact rates discussed above and the estimated existing plastic bags used in Huntington Beach. As shown in Table 4.1-2, the manufacturing and transportation of single-use plastic carryout bags currently used in Huntington Beach each year generates an estimated 2,351 kilograms (kg) of emissions associated with ground level ozone and 110,783 kg of emissions associated with atmospheric acidification.

**Table 4.1-2
 Existing Emissions from Ground Level Ozone and
 Atmospheric Acidification (AA) from Carryout Bags in Huntington Beach**

Bag Type	# of Bags Used per Year	Ozone Emission Rate per Bag*	Ozone Emissions (kg) per 1,000 bags**	Ozone Emissions per year (kg)	AA Emission Rate per Bag*	AA Emissions (kg) per 1,000 bags***	AA Emissions per year (kg)
Single-use Plastic	102,198,343	1.0	0.023	2,350.56	1.0	1.084	110,783
Total				2,351	Total		110,783

Source:

* Impact rate per bag as stated in Stephen L. Joseph, 2009; Ecobilan, 2004; FRIDGE, 2002; Green Cities California MEA, 2010; Santa Monica Single-use Carryout Bag Ordinance Final EIR, January 2011; and, Sunnyvale Carryout Bag Ordinance Final EIR, December 2011.

** Emissions per 1,000 bags from Ecobilan, 2004; Santa Monica Single-use Carryout Bag Ordinance Final EIR, January 2011; and, Sunnyvale Carryout Bag Ordinance Final EIR, December 2011.

*** Emissions per 1,000 bags from FRIDGE, 2002 and Green Cities California MEA, 2010; Santa Monica Single-use Carryout Bag Ordinance Final EIR, January 2011; and, Sunnyvale Carryout Bag Ordinance Final EIR, December 2011.

e. Air Pollution Regulation. Federal and state standards have been established for six criteria pollutants: ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulates less than 10 and 2.5 microns in diameter (PM₁₀ and PM_{2.5} respectively), and lead (Pb). California has also set standards for sulfates, hydrogen sulfide, vinyl chloride, and



visibility-reducing particles. Table 4.1-3 lists the current federal and state standards for criteria pollutants.

**Table 4.1-3
 Current Federal and State Ambient Air Quality Standards**

Pollutant	Federal Standard	California Standard
Ozone	0.075 ppm (8-hr avg)	0.09 ppm (1-hr avg) 0.07 ppm (8-hr avg)
Carbon Monoxide	9.0 ppm (8-hr avg) 35.0 ppm (1-hr avg)	9.0 ppm (8-hr avg) 20.0 ppm (1-hr avg)
Nitrogen Dioxide	53 ppb (annual avg) 100 ppb (1-hr avg)	0.030 ppm (annual avg) 0.18 ppm (1-hr avg)
Sulfur Dioxide	75 ppb (1-hr avg)	0.04 ppm (24-hr avg) 0.25 ppm (1-hr avg)
Lead	1.5 µg/m ³ (annual avg)	1.5 µg/m ³ (calendar qtr)
Particulate Matter (PM ₁₀)	150 µg/m ³ (24-hr avg)	20 µg/m ³ (annual avg) 50 µg/m ³ (24-hr avg)
Particulate Matter (PM _{2.5})	15 µg/m ³ (annual avg) 35 µg/m ³ (24-hr avg)	12 µg/m ³ (annual avg)

*ppm= parts per million ppb= parts per billion µg/m³ = micrograms per cubic meter
 Source: California Air Resources Board (2010), accessed online January 2012 at:
www.arb.ca.gov/research/aaqs/aaqs2.pdf*

As described above, Huntington Beach is located within the South Coast Air Basin, which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD is required to monitor air pollutant levels to ensure that air quality standards are met and, if they are not met, to develop strategies to meet the standards. Depending on whether the standards are met or exceeded, the local air basin is classified as being in "attainment" or "non-attainment." The South Coast Air Basin is a non-attainment area for both the federal and state standards for ozone and PM₁₀. Thus, the SCAQMD is required to implement strategies that would reduce the pollutant levels to recognized acceptable standards. The Basin is in attainment for the state and federal standards for nitrogen dioxide, and for carbon monoxide. The non-attainment status is a result of several factors, the primary ones being the naturally adverse meteorological conditions that limit the dispersion and diffusion of pollutants, the limited capacity of the local air shed to eliminate pollutants from the air, and the number, type, and density of emission sources within the South Coast Air Basin.

Regulations applicable to Manufacturing Facilities.

EPA Title V Permit. Title V is a federal program designed to standardize air quality permits and the permitting process for major sources of emissions across the country. The name "Title V" comes from Title V of the 1990 federal Clean Air Act Amendments, which requires the EPA to establish a national, operating permit program. Accordingly, EPA adopted regulations [Title 40 of the Code of Federal Regulations, Chapter 1, Part 70 (Part 70)], which



require states and local permitting authorities to develop and submit federally enforceable operating permit programs for EPA approval. Title V only applies to "major sources." EPA defines a major source as a facility that emits, or has the potential to emit (PTE) any criteria pollutant or hazardous air pollutant (HAP) at levels equal to or greater than the Major Source Thresholds (MST). The MST for criteria pollutants may vary depending on the attainment status (e.g. marginal, serious, extreme) of the geographic area and the Criteria Pollutant or HAP in which the facility is located (EPA Title V Requirement, accessed March 2010). Carryout bag manufacturing facilities that emit any criteria pollutant or HAP at levels equal to or greater than the MST of the local air quality management district would need to obtain, and maintain compliance with, a Title V permit.

Local Air Quality Management District's Equipment Permits. Manufacturing facilities may also be required to obtain permits from the local air quality management district. A local air quality management district permit is a written authorization to build, install, alter, replace, or operate equipment that emits or controls the emission of air contaminants, like oxides of nitrogen (NO_x), carbon monoxide (CO), fine particulate matter (PM₁₀), oxides of sulfur (SO_x), or toxics. Permits ensure that emission controls meet the need for the local region to make steady progress toward achieving and maintaining federal and state air quality standards. The SCAQMD, the local air quality management district serving Huntington Beach, requires operators that plan to build, install, alter, replace, or operate any equipment that emits or controls the emission of air contaminants to apply for, obtain and maintain equipment permits. Equipment permits ensure that emission controls meet the need for the South Coast Region to make steady progress toward achieving and maintaining federal and state air quality standards (as shown in Table 4.1-3) (SCAQMD "Getting Permits", 2011). Permits also ensure proper operation of control devices, establish recordkeeping and reporting mechanisms, limit toxic emissions, and control dust or odors. In addition, the SCAQMD routinely inspects operating facilities to verify that equipment has been built and installed as required by the, and to confirm that the equipment operates in compliance with, SCAQMD rules and regulations.

Regulations applicable to Delivery Trucks.

On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation. On December 12, 2008, the ARB approved a new regulation to significantly reduce emissions from existing on-road diesel vehicles operating in California. The regulation requires affected trucks and buses to meet performance requirements between 2011 and 2023. By January 1, 2023 all vehicles must have a 2010 model year engine or equivalent. The regulation is intended to reduce emissions of diesel PM, oxides of nitrogen and other criteria pollutants (ARB "Truck and Bus Regulation, updated March 2010). All trucks making deliveries of carryout bags in California will be required to adhere to this regulation.

Diesel-Fueled Commercial Motor Vehicle Idling Limit. The purpose of this airborne toxic control measure is to reduce public exposure to diesel particulate matter and other air contaminants by limiting the idling of diesel-fueled commercial motor vehicles. The regulation applies to diesel-fueled commercial motor vehicles that operate in the State of California with gross vehicular weight ratings of greater than 10,000 pounds that are or must be licensed for operation on highways. The in-use truck requirements require operators of both in-state and out-of-state registered sleeper berth equipped trucks to manually shut down their engines when



idling more than five minutes at any location within California beginning in 2008 (ARB "Heavy-Duty Vehicle Idling Emission Reduction Program", updated March 2009). All trucks making deliveries in Huntington Beach are required to comply with the no-idling requirements.

4.1.2 Impact Analysis

a. Methodology and Significance Thresholds. The proposed Single-Use Carryout Bag Ordinance does not include any physical development or construction related activities; therefore, the analysis focuses on emissions related to carryout bag manufacturing processes and truck trips associated with delivering carryout bags to retailers in Huntington Beach. Operational emissions associated with the truck trips to deliver carryout bags to Huntington Beach retailers were calculated using the using the URBEMIS 2007 v. 9.2.4 computer program (Rimpo and Associates, 2007¹). The estimate of operational emissions by URBEMIS includes truck trips (assumed to be heavy trucks - 33,000 to 60,000 pounds) and utilizes the trip generation rates based on the increase of truck trips associated with the proposed Ordinance.

The proposed Ordinance would create an air quality significant impact if it would:

1. *Conflict with or obstruct implementation of the applicable air quality plan*
2. *Violate any air quality standard or contribute substantially to an existing or projected air quality violation*
3. *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors*
4. *Expose sensitive receptors to substantial pollutant concentrations*
5. *Create objectionable odors affecting a substantial number of people*

The Initial Study (see Appendix A) concluded that only the second and third criteria could potentially result in a significant impact, while the proposed Single-Use Carryout Bag Ordinance would result in a less than significant impact with respect to the first and fourth criteria, and would result in no impact with respect to the fifth criterion. Hence, only the second and third criteria are addressed in this section.

The SCAQMD has established the following significance thresholds for project operations within the South Coast Air Basin:

- *55 pounds per day of ROC*
- *55 pounds per day of NO_x*
- *550 pounds per day of CO*
- *150 pounds per day of SO_x*
- *150 pounds per day of PM₁₀*

¹ Please note that the California Emissions Estimator Model (CalEEMod), which is normally recommended for use by the SCAQMD, was considered for use as part of the analysis. However, because the truck trips associated with carryout bags were so few compared to larger projects normally analyzed with CalEEMod, the emissions output in CalEEMod did not yield any relevant results (all emissions were listed as 0.0 pounds per day). As stated by SCAQMD, the decision to continue using the URBEMIS model is up to the lead agency or other users (CalEEMod FAQ; www.aqmd.gov/calcemod/faq.htm). As such, the use of URBEMIS for this analysis is deemed reasonable and conservative.



- 55 pounds per day of PM_{2.5}

b. Project Impacts and Mitigation Measures.

Impact AQ-1 A shift toward reusable bags could potentially alter processing activities related to bag production, which has the potential to increase air pollutant emissions. However, the proposed Single-Use Carryout Bag Ordinance is expected to substantially reduce the number of single-use plastic carryout bags, thereby reducing the total number of bags manufactured and overall emissions associated with bag manufacture and use. Therefore, air quality impacts related to alteration of processing activities would be Class IV, *beneficial*.

The intent of the proposed Single-Use Carryout Bag Ordinance is to reduce the amount of single-use carryout bags, and to promote the use of reusable bags by Huntington Beach retail customers. The proposed Ordinance would incrementally reduce the number of single-use plastic carryout bags that are manufactured and would incrementally increase the number of single-use paper and reusable bags manufactured compared to existing conditions.

As described in the *Setting*, emissions associated with single-use paper bag production result in 1.9 times the impact on atmospheric acidification as a single-use plastic bag. On a per bag basis, a reusable carryout bag that is made of LDPE plastic results in three times the atmospheric acidification compared to a single-use plastic bag. Reusable bags may be made of various materials other than LDPE, including cloths such as cotton or canvas. However, because LDPE reusable bags are one of the most common types of reusable bags and are of similar durability and weight (approximately 50 to 200 grams) as other types of reusable bags, this EIR utilizes the best available information regarding specific metrics on a per bag basis to disclose environmental impacts associated with the proposed Ordinance. Further, given the high rate of reuse of all types of reusable bags (usually at least one year, or 52 times), the air pollutant emissions from these bags when compared to plastic and paper carryout bags are expected to be comparable (to the LPDE bag) or lower (Santa Clara County Single-Use Carryout Bag Initial Study, October 2010). Similarly, based on a per bag basis, a single-use paper bag has 1.3 times the impact on ground level ozone formation compared to a single-use plastic bag and a reusable carryout bag that is made of LDPE plastic would result in 1.4 times the ground level ozone formation compared to a single-use plastic bag (Stephen L. Joseph, 2009; FRIDGE, 2002; and Green Cities California MEA, 2010).

A reusable bag results in greater impacts to ground level ozone formation and atmospheric acidification than a single-use plastic bag on a per bag basis; however, unlike single-use plastic bags, reusable carryout bags are intended to be used multiple times (at least 125 uses as required by the proposed Ordinance).² Therefore, fewer total carryout bags would need to be manufactured as a shift toward the use of reusable bags occurs. As described in Section 2.0, *Project Description*, stores making available paper carryout bags would be required to sell

² For the purposes of this analysis, it is assumed that reusable bags would be used once per week for a year, or 52 times, before being replaced. However, for the purposes of the Ordinance, reusable bags *can* be used as many as 125 times.



recycled paper carryout bags made from 100% recycled material with a 40% post-consumer recycled content to customers for \$0.10 per bag. This mandatory charge would create a disincentive to customers to request paper bags when shopping at regulated stores and is intended to promote a shift toward the use of reusable bags by consumers in Huntington Beach. The proposed Ordinance may lead to some short-term increase in single-use paper bag use as consumers would be unable to get a free plastic bag while shopping, but may be willing to pay a charge to use paper bags.

Based on a mandatory charge of \$0.10 per bag, this analysis assumes that the total volume of plastic bags currently used in Huntington Beach (102,198,343 plastic bags per year as shown in Table 2-1) would be replaced by approximately 45% paper bags and 50% reusable bags as a result of the Single-Use Carryout Bag Ordinance, as shown in Table 4.1-4. As shown therein, it is assumed that 5% of the existing single-use plastic bags used in Huntington Beach would remain in use since the Ordinance does not apply to some retailers who distribute plastic bags (e.g., restaurants) and these retailers would continue to distribute plastic bags after the Ordinance is implemented. Thus, for this analysis it is assumed that 5,109,917 plastic bags would be used in Huntington Beach after implementation of the proposed Ordinance. In addition, it is assumed that approximately 45,989,254 paper bags would replace approximately 45% of the plastic bags currently used in the City. This 1:1 replacement ratio is considered conservative, because the volume of a single-use paper carryout bag (20.48 liters) is generally equal to approximately 150% of the volume of a single-use plastic bag (14 liters), such that fewer paper bags would ultimately be needed to carry the same number of items.

**Table 4.1-4
 Existing Plastic Bag Replacement Assumptions**

Type of Bag	Replacement Assumption	# of Bags used Per Year	Explanation
Single-use Plastic	5%	5,109,917	Because the Ordinance does not apply to all retailers, some single-use plastic bags would remain in circulation.
Single-use Paper	45%	45,989,254	Although the volume of a single-use paper carryout bag is generally 150% of the volume of a single-use plastic bag, such that 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.
Reusable	50%	982,676	Although a reusable bag can, by definition, be used 125 times, it is conservatively assumed that a reusable bag would be used by a customer once per week for one year, or 52 times.
Total		52,081,847	

In order to estimate the number of reusable carryout bags that would replace 51,099,171 plastic bags (50% of the existing number of plastic bags used in Huntington Beach per year), it is assumed that a reusable carryout bag would be used by a customer once per week for one year (52 times). This is a conservative estimate as a reusable bag, as required by the Ordinance, must have the capability of being used 125 times (see Appendix C for complete Draft Ordinance).



Nevertheless, for this analysis, in order to replace the volume of groceries contained in the 51,099,171 single-use plastic bags that would be removed as a result of the Single-Use Carryout Bag Ordinance, an increase of approximately 982,676 reusable bags per year would be purchased by customers at retail stores. Based on the estimate of 982,676 reusable bags, each Huntington Beach resident (191,677 in 2011) would purchase around five reusable bags per year. This analysis assumes that as a result of the proposed Ordinance the existing total volume of groceries currently carried in approximately 102.2 million single-use plastic carryout bags would be carried within approximately 52 million single-use plastic, reusable and single-use paper bags.

Table 4.1-5 estimates emissions that contribute to the development of ground level ozone and atmospheric acidification that would result from implementation of the proposed Single-Use Carryout Bag Ordinance. As shown, the increased use of reusable carryout bags in the City would reduce emissions that contribute to ground level ozone by approximately 822 kg per year (a 35% decrease) and atmospheric acidification by approximately 7,310 kg per year (a 7% decrease).

**Table 4.1-5
 Estimated Emissions that Contribute to Ground Level Ozone and
 Atmospheric Acidification (AA) from Carryout Bags in Huntington Beach**

Bag Type	# of Bags Used per Year*	Ozone Emission Rate per Bag**	Ozone Emissions (kg) per 1,000 bags***	Ozone Emissions per year (kg)	AA Emission Rate per Bag**	AA Emissions (kg) per 1,000 bags****	AA Emissions per year (kg)
Single-use Plastic	5,109,917	1.0	0.023	117.52	1.0	1.084	5,539.15
Single-use Paper	45,989,254	1.3	0.03	1,379.68	1.9	2.06	94,737.86
Reusable	982,676	1.4	0.032	31.45	3.0	3.252	3,195.66
Total				1,529	Total		103,473
Existing				2,351	Existing		110,783
Net Change				(822)	Net Change		(7,310)

Source:

* Refer to Table 4.1-4.

**Impact rate per bag as stated in Stephen L. Joseph, 2009; Ecobilan, 2004; FRIDGE, 2002; and Green Cities California MEA, 2010; Santa Monica Single-use Carryout Bag Ordinance Final EIR, January 2011.

*** Emissions per 1,000 bags from Ecobilan, 2004; Santa Monica Single-use Carryout Bag Ordinance Final EIR, January 2011.

**** Emissions per 1,000 bags from FRIDGE, 2002 and Green Cities California MEA, 2010; Santa Monica Single-use Carryout Bag Ordinance Final EIR, January 2011.



As discussed in the *Setting*, air pollutant emissions from manufacturing facilities are also regulated under the Clean Air Act and would be subject to requirements by the local air quality management district (in Orange County, the SCAQMD). Either a paper bag manufacturing facility or a reusable carryout bag manufacturing facility that emits any criteria pollutant or hazardous air pollutant (HAP) at levels equal to or greater than the Major Source Thresholds (MST) of the local air quality management district would need to obtain and maintain compliance with a Title V permit. Adherence to permit requirements would ensure that a manufacturing facility would not violate any air quality standard. Manufacturing facilities would also be required to obtain equipment permits for emission sources through the local air quality management district which ensures that equipment is operated and maintained in a manner that limits air emissions in the region. Compliance with applicable regulations would ensure that manufacturing facilities would not generate emissions conflicting with or obstructing implementation of the applicable air quality plan, violate any air quality standard or contribute substantially to an existing or projected air quality violation or result in a cumulatively considerable net increase of any criteria pollutant.

As described above, the proposed Single-Use Carryout Bag Ordinance would reduce emissions associated with ozone and atmospheric acidification. Therefore, the proposed ordinance would have a beneficial impact with respect to air quality.

Mitigation Measures. Mitigation is not necessary as impacts would be beneficial.

Significance After Mitigation. The impact would be beneficial without mitigation.

Impact AQ-2 **Implementation of the proposed Single-Use Carryout Bag Ordinance would generate air pollutant emissions associated with an incremental increase in truck trips to deliver paper and reusable carryout bags to local retailers. However, emissions would not exceed SCAQMD operational significance thresholds. Therefore, operational air quality impacts would be Class III, less than significant.**

Long-term emissions associated with the proposed Single-Use Carryout Bag Ordinance would include those emissions associated with truck trips to deliver carryout bags (paper and reusable) from manufacturing facilities or distributors to the local retailers in Huntington Beach. The URBEMIS computer program was used to calculate emissions for mobile emissions resulting from the number of trips generated by the proposed ordinance.

A temporary increase in single-use paper-bag use and a permanent increase in reusable bag use might lead to an increase in the frequency of truck trips needed to deliver a greater number of these bags to stores in Huntington Beach. However, any increase in truck trips related to paper and reusable bag delivery would be partially offset by the reduction in truck trips related to single-use plastic carryout bag delivery since under the proposed ordinance, plastic bags would be banned and therefore truck delivery would not be required. Nevertheless, as shown in Table 4.1-6, assuming a worst-case scenario that as a result of the proposed project the volume of existing plastic bags would be replaced by approximately 45% paper bags and 50% reusable



bags with 5% of the total plastic bags remaining in use, the net increase in truck traffic resulting from the change in bag use would be less than one truck trip per day.

**Table 4.1-6
 Estimated Truck Trips per Day
 Following Implementation of the Proposed Single-use Carryout Bag Ordinance**

Bag Type	Number of Bags per Year*	Number of Bags per Truck Load**	Truck Trips Per Year	Truck Trips per Day
Single-use Plastic	5,109,917	2,080,000	2.5	0.007
Single-use Paper	45,989,254	217,665	211	0.58
Reusable	982,676	108,862	9	0.025
Total			223	0.61
Existing Truck Trips for Plastic Bags (to be removed)			49	0.13
Net New Truck Trips			174	0.48

*Based on worst case scenario estimate of 5% existing plastic bag use in Huntington Beach (approximately 102,198,343 plastic bags per year) to remain, 45% conversion of the volume of existing plastic bag use in Huntington beach to paper bags and 50% conversion to reusable bags (based on 52 uses per year).

**City of Santa Monica Single-Use Carryout Bag Ordinance EIR (SCH #2010041004), January 2011; and City of Sunnyvale Carryout Bag Ordinance EIR (SCH#2011062032), December 2011.

As shown in Table 4.1-6, the change in truck traffic as a result of the proposed Ordinance would be a net increase of approximately 0.48 truck trips per day. Although the reduction in single-use plastic bag deliveries would reduce truck trips compared to existing conditions, the increase in single-use paper and reusable bags would cause a negligible net increase. Mobile emissions associated with such an increase in truck traffic are summarized in Table 4.1-7.

**Table 4.1-7
 Operational Emissions Associated with Proposed Ordinance**

Emission Source	Emissions (lbs/day)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Mobile Emissions (Truck Traffic)	0.01	0.2	0.05	0.01	0.01
Total Emissions	0.01	0.12	0.05	0.01	0.01
SCAQMD Thresholds	55	55	550	150	55
Threshold Exceeded?	No	No	No	No	No

Source: URBEMIS version 9.2.4 calculations for Truck Trips. See Appendix B for calculations



As indicated in Table 4.1-7, daily ROG emissions are estimated at <0.01 pounds, daily NO_x emissions are estimated at approximately 0.05 pounds, daily PM₁₀ emissions would be approximately 0.01 pounds, and daily PM_{2.5} emissions would be <0.01 pounds. The incremental increases in ROG, NO_x, PM₁₀, and PM_{2.5} emissions associated with the proposed project would be substantially less than the SCAQMD thresholds of 55 pounds per day of ROG, NO_x, or PM_{2.5}, 550 pounds for CO, and 150 pounds per day of PM₁₀. Because long-term emissions would not exceed SCAQMD thresholds, impacts would not be significant.

Mitigation Measures. Operational emissions associated with the increase in truck traffic as a result of the proposed Single-Use Carryout Bag Ordinance would not exceed SCAQMD thresholds. Therefore, mitigation is not required.

Significance after Mitigation. Impacts would be less than significant without mitigation.

c. Cumulative Impacts. Adopted and pending carryout bag ordinances, as described in Table 3-1 in Section 3.0, *Environmental Setting*, would continue to reduce the amount of single-use carryout bags, and promote a shift toward reusable carryout bags. Similar to the proposed Huntington Beach Ordinance, such 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 (see the *Setting* for discussion of applicable regulations). Similar to the proposed Huntington Beach Ordinance, other adopted and pending ordinances could incrementally change the number of truck trips associated with carryout bag delivery and associated emissions. Six other agencies in South Coast Air Basin region (County of Los Angeles, City of Long Beach, City of Manhattan Beach, City of Calabasas, City of Santa Monica, City of Malibu, and the City of Los Angeles) have either adopted or are considering such ordinances. However, based on the incremental increase in air pollutant emissions associated with the proposed Huntington Beach Ordinance (increase of ¼ pound per day or less of each criteria pollutant), the other ordinances are not expected to generate a cumulative increase in emissions that would exceed SCAQMD thresholds or adversely affect regional air quality. Therefore, cumulative air quality impacts would not be significant.



4.2 BIOLOGICAL RESOURCES

This section analyzes the proposed Single-Use Carryout Bag Ordinance's impacts to biological resources. Both direct impacts associated with the proposed Single-Use Carryout Bag Ordinance and indirect impacts to off-site biological resources are addressed.

4.2.1 Setting

a. Huntington Beach Biological Resources. Huntington Beach is located in Orange County's northern coastal area. This area is characterized by broad, sandy beaches backed by low bluffs and mesas, and lowland areas that once held extensive wetlands. There are two mesas within Huntington Beach: Bolsa Chica Mesa to the north and Huntington Beach Mesa to the south. These mesas are separated by the Bolsa Chica Gap, which includes the Bolsa Bay and the Bolsa Chica wetlands. North of the Bolsa Chica Mesa is the Sunset Gap with Anaheim Bay and Huntington Harbour. The following discusses marine waters, plant life, and wildlife for each of the ecological categories of Huntington Beach.

Marine Waters. The open waters of Huntington Harbour and Bolsa Bay provide habitat for a variety of fish and invertebrate species that utilize these sheltered waters either during early growth or throughout their lives. Due to the continued dredging within Huntington Harbour, the number of species using the harbor is smaller than in nearby Anaheim Bay; however, some of the commonly found fish in these waters include the deep body anchovy (*Anchoa compressa*), jacksmelt (*Atherinopsis californiensis*), topsmelt (*Atherinops affinis*), and Pacific staghorn sculpin (*Leptocottus armatus*). In addition, Anaheim Bay is an important nursery area for Pacific halibut (*Hippoglossus stenolepis*) and diamond turbot (*Hypsopsetta guttulata*). Juvenile fish may also live in the harbor area.

Typical aquatic invertebrates found in Huntington Beach would include those found on boat hulls, pilings and floats including bay mussel (*Mytilus trossulus*), acorn barnacles (*Sessilia* sp.), and tunicates (Tunicata).

Plant Life. The beaches, lowlands, bluffs, and mesas support a variety of plants and animals. The plant communities include coastal strand, coastal salt marsh, freshwater marsh and associated riparian habitat, landscaped ornamental and ruderal areas. These are described below.

Coastal Sand Dunes (Coastal Strand). The coastal strand plant communities, found on undisturbed sandy beaches and dunes above the high tide level, are divided into beach and dune communities. Few plants are adapted to survive the harsh conditions of the sandy beaches and dunes due to winds carrying sand and salt, shifting infertile sandy soil, and human disturbance. A few remaining vestiges of the original vegetation remain, consisting of plants such as sea rocket, beach-primrose, and beach morning-glory. Non-native species such as New Zealand spinach, and several species of ice plant, have aggressively pioneered in areas that have been disturbed.

Remnants of dunes along Pacific Coast Highway (PCH) and near the Huntington Beach Wetland support several shrub species. These dune shrubs are a mixture of native and non-



native species. Among the natives are three species of willow (*Salix* sp.), two species of *Baccharis*, and lemonade berry (*Rhus integrifolia*). Non-natives include various species of saltbrush, ice-plant (*Carpobrotus* sp.), castor bean (*Ricinus communis*) and myoporum (*Myoporum laetum*). Typical low growing plants include coastal goldenbush (*Isocoma menziesii*), western goldenrod (*Solidago lepida*), heliotrope (*Phacelia* sp.), beach primrose (*Chamissonia cheiranthifolia*) and saltgrass (*Distichlis spicata*).

Where the dune-salt marsh plant communities meet; spiny rush (*Juncus acutus*) and bulrush (*Scirpus robustus*) from dense stands in some areas (as between Brookhurst Street and Magnolia Street) while coastal goldenbush forms nearly pure stands in others (e.g., Brookhurst Street at PCH). Other plants associated with this transitional zone are western goldenrod (*Solidago lepida*), yerba mansa (*Anemopsis californica*) and saltgrass.

Coastal Salt Marsh. Plants of the coastal salt marsh community grow along the upper reach of the coastal estuarine community where they receive only periodic inundation by sea water. Freshwater streams often flow through this community and serve to dilute the salinity of the seawater. The salt marsh community embodies several distinct components: pickleweed marsh, salt flat, saltwater channel, saltwater pond, and a disturbed component.

The dominant plant is common pickleweed (*Salicornia bigelovii*). Other common plants include fivehook bassia (*Bassia hyssopifolia*), spear saltbush (*Atriplex joaquiniana*), saltgrass, and to a lesser extent, alkali health (*Frankenia salina*). Areas of higher elevation may have been subjected to periodic off-road vehicle traffic and are invaded by ruderal (or non-native weedy) species.

Grassland. The undeveloped portions of the Bolsa Chica Mesa and other upland areas to the west of the Bolsa Chica lowlands support grassland communities. Most of the grassland species are exotic, having been introduced early during the Spanish Colonial period, and favored by grazing activities. Species common to the grasslands here include bromes (*Bromus* sp.), mustard (*Brassica* sp.), filaree (*Erodium* sp.), Russian-thistle (*Salsola tragus*), and cardoon (*Cynara cardunculus*). Few native species persist, but one can still observe needlegrass (*Nassella* sp.), owl's clover (*Castilleja* sp.), and mariposa lily (*Calochortus* sp.).

Freshwater Marsh and Associated Riparian Habitats. Elements of this plant community are found in soil depressions and channels that fill and hold fresh water for at least part of the year, (i.e., Huntington Beach Central Park) and in coastal plains near permanent slow-moving or ponded waters. Some of the plants spring up from the middle of ponds, lakes or streams; others float upon deep water, but most thrive at the margins where the soil is more compact. Typical plants are cattails (*Typha* sp.), rushes (*Juncus* sp.), spike-rushes (*Eleocharis* sp.), duckweed (*Lemna* sp.), Douglas' water hemlock (*Cicuta douglasii*), and water smartweed (*Pesicaria amphibian*).

Growing in low elevation sandy soils along waterways are stands of medium to large trees that mature to form dense stands. In such habitats are Fremont cottonwood (*Populus fremontii*), arroyo willow (*Salix lasiolepis*), sandbar willow (*Salix exigua*), and mulefat (*Baccharis salicifolia*). An example of this habitat is found near Talbert Lake and at the terminus of the Freeman Creek channel.



Landscaped Ornamental. This community includes areas of ornamental and non-native trees, shrubs, and ground cover associated with urban development. These plant associations are artificial, perpetuated by cultural activities. For instance, Eucalyptus groves are located within portions of the Bolsa Chica area and other locations in the City. Also included are mowed lawns comprised of various non-native grasses, ornamental groundcover, shrubs, and trees.

Ruderal. Ruderal vegetation is found in areas frequently disturbed such as oil production areas or along roadsides. Typically, the dominant plant species are highly adaptive and invasive plants, commonly considered to be roadside weeds; however, there are a few native species. Typical native plants are California croton (*Croton californicus*), telegraph weed (*Heterotheca grandiflora*), pineapple weed (*Amblyopappus pusillus*), and tarweeds. Introduced plants are scarlet pimpernel (*Anagalis arvensis*), wild oats (*Avena* sp.), bromes, mustards, filarees, foxtail barley (*Hordeum* sp.), cheeseweed (*Malva* sp.), sweet-clovers (*Melolitus* sp.), Russian-thistle, and tocalote (*Centaurea melitensis*).

Wildlife. Coastal strand, coastal wetlands, and landscaped ornamental and ruderal areas provide habitat for a variety of wildlife, as described below.

Coastal Strand. Coastal strand provides wildlife habitat to reptiles, birds and mammals. Reptiles are limited in both species diversity and abundance in the coastal strand community, and amphibians generally do not occur. The side-blotched lizard (*Uta stansburiana*) is plentiful away from the outer beaches, and the San Diego (southern) alligator lizard (*Elgaria multicarinata*) may be found in small numbers in the remnant dune areas.

Another reptile that may occur within the coastal strand is the silvery (California) legless lizard (*Anniella pulchra*). This species is typically found in sand dunes where it buries itself beneath the sand under shrubs. Although it has not been recorded in the Huntington Beach area, it has been found in similar circumstances farther north at Playa Del Rey in Los Angeles County. This species has become increasingly scarce in recent years with accelerated loss of suitable habitat.

Birds are the only vertebrates within the coastal strand community that are abundant. Many species of shorebirds and gulls use the upper beach as loafing areas and the intertidal zone and inshore waters for foraging. One species, the California least tern (*Sterna antillarum brownii*), nests on exposed beaches where, in populous southern California, it is often placed in direct competition with sunbathers for breeding sites. As a direct result of increased human use of beaches in California, least tern populations have declined significantly. In 1971 it was placed on both the federal and state list of endangered species. Least terns have traditionally nested at the mouth of the Santa Ana River and continue to do so adjacent to the mouth of Talbert Channel and at Bolsa Chica.

A few landbirds such as the rock dove (*Columba livia*), American crow (*Corvus brachyrhynchos*), house finch (*Carpodacus mexicanus*), American kestrel (*Falco sparverius*), and loggerhead shrike (*Lanius ludovicianus*) utilize the upper beach. Where the remnant dunes support a narrow but dense cover of shrubs, numerous species of perching birds may be found, especially during periods of migration. The most abundant resident species are house finch and European starling.



Mammals within the coastal strand are generally restricted to the narrow zone of fragmented dunes along PCH. The Audubon cottontail (*Sylvilagus audubonii*) is plentiful here and several species of nocturnal rodents are also expected to occur. It is likely that the native deer mouse (*Peromyscus maniculatus*), the introduced house mouse (*Mus musculus*), and perhaps the introduced Norway rat (*Rattus norvegicus*) occur.

Coastal Wetland. Salt marsh communities are among the most productive of ecosystems supporting a large wildlife population. Although most amphibians are not adapted to a marine or estuarine existence, a few species may enter brackish portions of the salt marsh from nearby freshwater habitats. The Baja California treefrog (*Pseudacris hypochondriaca*) and California (western) toad (*Anaxyrus boreas halophilus*) may be present in the freshwater marsh west of Beach Boulevard, as may the introduced bullfrog. The garden (Pacific) slender salamander (*Batrachoseps major major*) is a widespread inhabitant of moist soils and can thrive even around well-watered lawns and gardens. Historically, this species occupied in riparian woodland along the Santa Ana River, and has since spread into the landscaped residential areas.

Several species of lizards and snakes are expected to occur in the coastal wetlands, above areas of tidal flux. Species likely to occur include Great Basin fence lizard (*Sceloporus occidentalis longipes*), side-blotched lizard, southern alligator lizard, California kingsnake (*Hypsiglena ochrorhyncha nuchalata*), San Diego gopher snake (*Pituophis catenifer annectens*), and southern Pacific rattlesnake (*Crotalus oreganus helleri*).

Birds are abundant inhabitants of the coastal wetlands. Salt marshes, salt flats, and estuaries nest more species and larger concentrations of birds per unit area than perhaps any other ecosystem in temperate North America. Migrant and wintering waterfowl, waders, shorebirds, gulls and terns constitute the bulk of avian species that utilize estuarine habitats for foraging and resting. Most nesting birds in coastal salt marshes are the smaller, less conspicuous landbirds. One such species, the Belding's savannah sparrow (*Passerculus sandwichensis beldingi*), is a common inhabitant of pickleweed salt marshes. The subspecies of savannah sparrow, however, has been reduced in numbers, due to habitat loss, and is now considered an endangered species by the California Department of Fish and Game. Other birds that nest in the salt marsh are the song sparrow (*Melospiza melodia*) and western meadowlark (*Sturnella neglecta*) in the upper portions, marsh wren (*Cistothorus palustris*) in the reeds and sedges, and killdeer (*Charadrius vociferous*) on the salt flats. In the small freshwater marshes, breeding birds likely include the red-winged blackbird (*Agelaius phoeniceus*), song sparrow and marsh wren. The federal and state endangered California least tern has been observed feeding on mosquito fish in the pond below the SCE power plant and on small marine fish in the Bolsa Chica area. This usually occurs when its chicks are young and small fish may not be readily available elsewhere.

The freshwater wetlands have a different character than do saltwater communities, and support a somewhat different mix of species. Although the freshwater drainages and ponds are degraded and consequently do not support bird populations as rich in diversity or number as would healthy areas, occasionally dabbling ducks (Subfamily Anatidae) or long-legged waders such as the black-crowned night-heron *Nycticorax nycticorax*) may be found feeding. Additionally, species more typical of other habitats use these areas as a water source for drinking and bathing. Terrestrial species expected around the freshwater wetlands include



black-chinned hummingbird (*Archilochus alexandri*), ash-throated flycatcher (*Myiarchus cinerascens*), house wren (*Troglodytes aedon*), common yellowthroat (*Geothlypis trichas*), brown-headed cowbird (*Molothrus ater*), and house finch (*Carpodacus mexicanus*).

The most conspicuous, and perhaps most abundant, mammal in the salt marsh is the Audubon's cottontail. Other mammals presumed to be plentiful here are the black-tailed hare, California ground squirrel (*Spermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), and several nocturnal rodents, such as the deer mouse, western harvest mouse (*Reithrodontomys megalotis*), house mouse, and Norway rat. Predators such as the Virginia opossum (*Didelphis virginiana*), coyote (*Canis latrans*), long-tailed weasel (*Mustela frenata*), red fox (*Vulpes vulpes*), and striped skunk (*Mephitis mephitis*) are also likely to be present.

Landscaped Ornamental and Ruderal Areas. Human-induced habitats, such as landscaped and ruderal areas, tend to have limited diversity depending upon the structure of the habitat. Examples of such habitats within the General Plan area are non-native woodlands on the Bolsa Chica Mesa and Central Park. As these areas are typically found in developed and highly disturbed areas, they are frequently home to common, highly adaptable species. Common amphibians and reptiles found in these types of habitats include the garden slender salamander, Baja California tree frog, western fence lizard, and southern alligator lizard. Bird species found human-induced habitat may include Anna's hummingbird (*Calypte anna*), western scrub jay (*Aphelocoma californica*), American robin (*Turdus migratorius*), northern mockingbird (*Mimus polyglottis*), European starling (*Sturnus vulgaris*), and house finch. Where human presence is not as immediate, large eucalyptus trees are often utilized by raptors such as red-tailed hawk (*Buteo jamaicensis*) and red-shouldered hawk (*Buteo lineatus*) for perching and perhaps nesting, while the common barn owl frequently lives in large fan palms.

b. Sensitive Resources. Sensitive natural communities and special status plant and animal species that may inhabit Huntington Beach are listed in Table 4.2-1. The locations of special-status species and critical habitat documented in the vicinity of the City as listed on the California Natural Diversity Database (CNDDDB) are mapped on Figures 4.2-1a and 4.2-1b.



**Table 4.2-1
 Natural Communities and Special Status Plant and Animal Species
 in Huntington Beach**

Species	Status ¹ Fed/CA/CNPS	Habitat Requirements and Blooming Period
Natural Communities		
Southern Coastal Salt Marsh	S2.1	n/a
Southern Cottonwood Willow Riparian Forest	S3.2	n/a
Southern Dune Scrub	S1.1	n/a
Southern Foredunes	S2.1	n/a
Plants		
<i>Abronia villosa</i> var. <i>aurita</i> chaparral sand-verbena	--/1B.1	Annual herb; chaparral and coastal scrub; sandy areas.
<i>Aphanisma blitoides</i> Aphanisma	--/1B.2	Annual herb that blooms from March to June; occurs in sandy soils from 3 to 1000 feet in coastal bluff scrub, coastal dunes and coastal scrub.
<i>Astragalus pycnostachyus</i> var. <i>lanosissimus</i> Ventura marsh milk-vetch	E/E/1B.1	Perennial herb; coastal salt marsh; within reach of high tide or protected by barrier beaches, more rarely near seeps on sandy bluffs.
<i>Atriplex coulteri</i> Coulter's saltbush	--/1B.2	Perennial herb; coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland; on ocean bluffs, ridgetops, as well as alkaline low places.
<i>Atriplex pacifica</i> South Coast saltscale	--/1B.2	Annual herb; coastal scrub; coastal bluff scrub; playas; chenopod scrub; on alkali soils.
<i>Atriplex serenana</i> var. <i> davidsonii</i> Davidson's saltscale	--/1B.2	Coastal bluff scrub and coastal scrub on alkaline soils; blooms from April to October.
<i>Calystegia sepium</i> ssp. <i>binghamiae</i> Santa Barbara morning-glory	--/1A	Perennial rhizomatous herb; coastal marshes.
<i>Centromadia</i> (=Hemizonia) <i>parryi</i> ssp. <i>australis</i> Southern spikeweed	--/1B.1	Annual herb; margins of marshes and swamps; vernally mesic areas of valley and foothill grasslands; vernal pools.
<i>Centromadia parryi</i> ssp. <i>australis</i> southern tarplant	--/1B.1	Annual herb; blooms May to November; occurs in the margins of marshes and swamps, in vernal pools, and in valley and foothill grasslands; ranges from 0 to 1,394 feet.
<i>Chorizanthe staticoides</i> Turkish rugging	--/1B.1	Annual herb; coastal scrub and chaparral; no longer considered sensitive.
<i>Cordylanthus maritimum</i> ssp. <i>maritimum</i> salt marsh bird's beak	E/E/1B.2	Hemiparasitic, annual herb; blooms May through October; occurs in coastal dunes, coastal salt marshes and swamp at elevations ranging from 0 to 98 feet.



**Table 4.2-1
 Natural Communities and Special Status Plant and Animal Species
 in Huntington Beach**

Species	Status ¹ Fed/CA/CNPS	Habitat Requirements and Blooming Period
<i>Dudleya multicaulis</i> many-stemmed dudleya	--/1B.2	Perennial herb; chaparral; coastal scrub; valley and foothill grassland; in heavy, often clayey soils or grassy slopes.
<i>Helianthus nuttallii</i> ssp. <i>parishii</i> Los Angeles sunflower	--/1A	Perennial rhizomatous herb; marshes and swamps (coastal salt and freshwater).
<i>Juncus acutus</i> ssp. <i>Leopoldii</i> (=var. <i>sphaerocarpus</i>) Southwestern spiny rush	--/4.2	Perennial rhizomatous herb; coastal dunes (mesic), meadows and seeps (alkaline seeps), and marshes and swamps (coastal salt).
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i> Coulter's goldfields	--/1B.1	Annual herb; blooms February through June; ranges from 3 to 4000 feet in elevation and occurs in playas, vernal pools, and coastal salt marshes and swamps.
<i>Nama stenocarpum</i> mud nama	--/2.2	Annual or perennial herb; marshes and swamps; lake shores; river banks; intermittently wet areas.
<i>Nasturtium gambellii</i> Gambel's water cress	E/T/1B.1	Rhizomatous, perennial herb; blooms April through September; ranges from 16 to 1082 feet in elevation and is found in freshwater or brackish marshes and swamps, as well as the margins of lakes and streams.
<i>Navarretia prostrata</i> prostrate vernal pool navarretia	--/1B.1	Annual herb; coastal scrub; valley and foothill grassland; vernal pools; alkaline soils in grassland, or in vernal pools; mesic, alkaline sites.
<i>Nemacaulis denudata</i> var. <i>denudata</i> coast woolly-heads	--/1B.2	Annual herb; coastal dunes.
<i>Perideridia gairdneri</i> ssp. <i>gairdneri</i> Gardiner's yampah	--/4.2	Perennial herb; vernal mesic sites; broadleafed upland forest, chaparral, coastal prairie, valley and foothill grassland, and vernal pools.
<i>Sagittaria sanfordii</i> Sanford's arrowhead	--/1B.2	Perennial rhizomatous herb; marshes and swamps; in standing or slow-moving freshwater ponds, marsh, and ditches.
<i>Sidalcea neomexicana</i> Salt Spring checkerbloom	--/2.2	Perennial herb; alkali playas, brackish marshes, chaparral, coastal scrub, lower montane conifer forest, Mojavean desert scrub; in alkali springs and marshes.
<i>Suada esteroa</i> estuary seablite	--/1B.2	Perennial herb that blooms May through October; found in coastal salt marshes and swamps from 0 to 16 feet.
<i>Symphotrichum defoliatum</i> San Bernardino aster	--/1B.2	Perennial rhizomatous herb; meadows and seeps, marshes and swamps, coastal scrub, cismontane woodland, montane conifer forest, grassland; in vernal mesic grassland or near ditches, streams and springs; disturbed areas.
<i>Verbesina dissita</i> Crown-beard	T/T/1B.1	Perennial herb; maritime chaparral and coastal scrub.



**Table 4.2-1
 Natural Communities and Special Status Plant and Animal Species
 in Huntington Beach**

Species	Status ¹ Fed/CA/CNPS	Habitat Requirements and Blooming Period
Mammals		
<i>Eumops perotis californicus</i> western mastiff bat	--/CSC/--	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.
<i>Lasiurus cinereus</i> hoary bat	--/--/--	Roosts in dense foliage of large trees. Requires water. Prefers open habitats or habitat mosaics with access to trees for cover and open areas of habitat edge for feeding.
<i>Lasiurus xanthinus</i> western yellow bat	--/CSC/--	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.
<i>Microtus californicus stephensi</i> south coast marsh vole	--/CSC/--	Tidal marshes.
<i>Sorex ornatus salicornicus</i> southern California saltmarsh shrew	--/CSC/--	Coastal marshes with dense vegetation and woody debris for cover.
Pacific pocket mouse <i>Perognathus longimembris pacificus</i>	E/CSC/--	Narrow coastal plains from the Mexican border north to El Segundo, Los Angeles County. Seems to prefer soils of fine alluvial sands near the ocean, but much remains to be learned.
<i>Taxidea taxus</i> American badger	--/CSC/--	Open grasslands and edge of scrub and woodland habitats. Requires dry, loose soils for burrowing and shelter.
Birds		
<i>Accipiter cooperi</i> Cooper's hawk	--/WL/-- (nesting)	Woodland, chiefly open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms and flood plains; also live oaks.
<i>Agelaius tricolor</i> tricolored blackbird	--/CSC/-- (nesting colony)	Prefers riparian habitat, ponds, and other wetland habitats. Colonial nester in emergent vegetation surrounding open water.
<i>Ardea Herodias</i> great blue heron	--/--/-- (nesting colony)	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also live oaks.
<i>Athene cunicularia</i> burrowing owl	--/CSC/-- (burrow sites, some wintering sites)	Burrow sites in open dry annual or perennial grasslands, deserts and scrublands characterized by low growing vegetation. Also inhabits anthropogenic habitats such as campuses, golf courses, cemeteries, airports, and grazed pastures.
<i>Buteo regalis</i> ferruginous hawk	--/WL/-- (wintering)	Open grasslands, sagebrush flats, desert scrub, low foothills & fringes of pinyon-juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles.
<i>Charadrius alexandrinus nivosus</i> western snowy plover	T/CSC/-- (nesting)	Sandy beaches, salt pond levees or shores of large alkali lakes. Sandy, gravelly or friable soils required for nesting.
<i>Circus cyaneus</i> northern harrier	--/CSC/-- (nesting)	Coastal salt and fresh-water marsh. Nests & forages in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge.
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	C/E (nesting)	Dense riparian woodlands of cottonwood and willow abutting slow-moving water, with a thick understory for nesting and foraging.
<i>Cypseloides niger</i> black swift	--/CSC/-- (nesting)	Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs above the surf.



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Species	Status ¹ Fed/CA/CNPS	Habitat Requirements and Blooming Period
<i>Egretta thula</i> snowy egret	-/-/-/ (nesting colony)	Colonial nester, with nest sites situated in protected beds of dense tules. Rookery sites situated close to foraging areas: marshes, tidal-flats, streams, wet meadows, and borders of lakes.
<i>Elanus leucurus</i> white-tailed kite	-/FP/-/ (nesting)	Rolling foothills and valley margins with scattered oaks; river bottomlands or marshes next to deciduous woodland. Grasslands, meadows, marshes for foraging.
<i>Laterallus jamaicensis coturniculus</i> California black rail	-/T,FP/-/	Freshwater marshes, wet meadows, and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that does not fluctuate during the year and dense vegetation for nesting habitat.
<i>Nycticorax nycticorax</i> black-crowned night-heron	-/-/-/ (nesting colony)	Colonial nester, usually in trees, occasionally in tule patches. Rookery sites located adjacent to foraging areas: lake margins, mud-bordered bays, marshy spots.
<i>Pandion haliaetus</i> osprey	-/WL/-/ (nesting)	Ocean shore, bays, fresh-water lakes, and larger streams. Large nests built in tree-tops within 15 miles of a good fish-producing body of water.
<i>Passerculus sandwichensis beldingi</i> Belding's savannah sparrow	-/E/-/	Coastal salt marshes from Santa Barbara south through San Diego County. Nests in <i>Salicornia</i> sp. on and about margins of tidal flats.
<i>Pelecanus erythrorhynchos</i> American white pelican	-/CSC/-/ (nesting colony)	Colonial nester on large interior lakes. Nests on large lakes, providing safe roosting and breeding places in the form of well-sequestered islets.
<i>Pelecanus occidentalis californicus</i> California brown pelican	D/D,FP-- (nesting colony & communal roosts)	Nests on rocky coastal islands and forages in near shore coastal waters and channels of estuaries and lagoons.
<i>Poliophtila californica californica</i> coastal California gnatcatcher	T/CSC/-/	Obligate, permanent resident of low coastal sage scrub on flat or gently sloping terrain below 2500 feet.
<i>Rallus longirostris levipes</i> light-footed clapper rail	E/E,FP/-/	Coastal salt marshes; nests primarily in cordgrass and salicornia and forages in higher marsh vegetation and along mudflat interfaces and tidal creeks.
<i>Riparia riparia</i> bank swallow	-/T (nesting)	Colonial nester, primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.
<i>Rynchops niger</i> black skimmer	-/CSC/-/ (nesting colony)	Nests on gravel bars, low islets, and sandy beaches, in unvegetated sites. Nesting colonies usually less than 200 pairs.
<i>Sternula antillarum browni</i> California least tern	E/E,FP/-/ (nesting colony)	Nests along coast from San Francisco Bay to northern Baja California. Nests on sandy beaches, alkali flats, landfills or paved areas.
<i>Vireo bellii pusillus</i> least Bell's vireo	E/E (nesting)	Summer resident of cottonwood-willow forest, oak woodland, shrubby thickets, and dry washes with willow thickets at the edges. This species prefers dense willow-dominated riparian habitat with lush understory vegetation where they nest in shrubs or small trees and glean insects off vegetation.
Reptiles & Amphibians		
<i>Actinemys marmorata</i> Pacific (=western) pond turtle	-/CSC/-/	Rivers, ponds, freshwater marshes; nests in upland areas (sandy banks or grassy open fields) up to 1640 feet from water.



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 Natural Communities and Special Status Plant and Animal Species
 in Huntington Beach**

Species	Status ¹ Fed/CA/CNPS	Habitat Requirements and Blooming Period
<i>Anniela pulchra pulchra</i> Silvery (California) legless lizard	--/CSC	Occurs in dune scrub, coastal scrub, chaparral, pine-oak woodland, oak woodland, and riparian woodland. Requires loose soil for burrowing, moisture, warmth, and plant cover. Burrows in washes, dune sand, loose soil near bases of slopes, and near permanent or temporary streams.
<i>Aspidoscelis hyperythra</i> orangethroat whiptail	--/CSC/--	Low-elevation coastal scrub, chaparral, and valley and foothill hardwood habitats. Prefers washes and other sandy areas with patches of brush and rocks. Perennial plants necessary for its major food: termites.
<i>Phrynosoma blainvilli</i> coast horned lizard	--/CSC/--	Clearings in riparian woodlands, lowlands along sandy washes with scattered low bushes; open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.
Fish		
<i>Eucycloglobius newberryi</i> Tidewater goby	E/CSC	Brackish water habitats along the California coast from San Diego county to Del Norte county.
Invertebrates		
<i>Branchinecta sandiegonensis</i> San Diego fairy shrimp	E/--/--	Endemic to San Diego and Orange County mesas. Vernal pools.
<i>Cicindela gabbii</i> western tidal-flat tiger beetle	--/--/--	Estuaries and mudflats along the coast of southern California. Generally found on dark-colored mud in the lower zone. Occasionally found on dry saline flats of estuaries.
<i>Cicindela hirticollis gravida</i> sandy beach tiger beetle	--/--/--	Areas adjacent to non-brackish water along the coast of California from San Francisco Bay to northern Mexico. Clean, dry, light-colored sand in the upper zone. Subterranean larvae prefer moist sand not affected by wave action.
<i>Cicindela latesignata latesignata</i> western beach tiger beetle	--/--/--	Mudflats and beaches in coastal southern California.
<i>Cicindela senilis frosti</i> senile tiger beetle	--/--/--	Inhabits marine shoreline, from central California coast south to the salt marshes of San Diego. Also found at Lake Elsinore. Inhabits dark-colored mud in the lower zone and dried salt pans in the upper zone.
<i>Coelus globosus</i> globose dune beetle	--/--/--	Coastal sand dune habitat, from Bodega Head in Sonoma County south to Ensenada, Mexico. Inhabits foredunes and sand hummocks. Burrows beneath sand surface and is most common beneath dune vegetation.
<i>Danaus plexippus</i> monarch butterfly	--/--/-- (overwintering)	Roosts in wind-protected tree groves (eucalyptus, Monterey pine, cypress) with nectar and water sources nearby. Species is common in general, but overwintering habitat protected by Santa Barbara County.
<i>Panoquina errans</i> wandering (=saltmarsh) skipper	--/--/--	Southern California coastal salt marshes. Requires moist salt grass for larval development.
<i>Trigonoscuta dorothea dorothea</i> Dorothy's El Segundo dune weevil	--/--/--	Coastal sand dunes in Los Angeles County.
<i>Tryonia imitator</i> mimic tryonia (=California brackishwater snail)	--/--/--	Coastal lagoons, estuaries and salt marshes from Sonoma County south to San Diego County. Found only in permanently submerged areas in a variety of sediment types. Able to withstand a wide range of salinities.

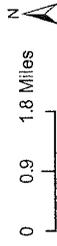
¹'E' = Endangered; 'T' = Threatened; 'CSC' = California Species of Special Concern; 'FP' = Fully Protected; 'WL' = Watch List; 'D' = Delisted. Natural Communities include State Rank. Sources: City of Huntington Beach General Plan Environmental Resources/Conservation Element; CDFG 2011a; CDFG 2011b; CDFG 2003.
 n/a = not applicable



Huntington Beach Single-Use Carryout Bag Ordinance EIR
 Section 4.2 Biological Resources



- 5-Mile Radius Buffer
- City of Huntington Beach
- Plants**
- 1001 Coulter's goldfields
- 1002 Coulter's scrub oak
- 1003 Davidson's salt-sage
- 1004 Gambel's water cross
- 1005 Los Angeles sunflower
- 1006 Salt Spring checkerbloom
- 1007 San Bernardino aster
- 1008 Sanford's arrowhead
- 1009 Santa Barbara morning-glory
- 1010 South Coast salt-sage
- 1011 Ventura Marsh milk-veitch
- 1012 aphanisma
- 1013 chaparral sand-verbena
- 1014 coast woolly-heads
- 1015 estuary seabite
- 1016 many-stemmed dudleya
- 1017 mud nama
- 1018 prostrate vernal pool navametta
- 1019 salt marsh bird's-beak
- 1020 southern tapplant
- Natural Communities**
- 1021 Southern Coastal Salt Marsh
- 1022 Southern Cottonwood Willow Riparian Forest
- 1023 Southern Dune Scrub
- 1024 Southern Foredunes



Sensitive Plants and
 Natural Communities
 Reported by the
 California Natural
 Diversity Database

Figure 4.2-1a
 City of Huntington Beach

Sources: California Natural Diversity Database, December 2011; U.S. Bureau of the Census TIGER 2000 data, and ESRI, 2011. Note: Markers represent approximate locations where species may be found.

Huntington Beach Single-Use Carryout Bag Ordinance EIR
 Section 4.2 Biological Resources



- 5-Mile Radius Buffer**
 City of Huntington Beach
- Animals**
- American badger
 - Beidling's savannah sparrow
 - California black rail
 - California brown pelican
 - California least tern
 - Dorothy's El Segundo Dune weevil
 - San Diego fairy shrimp
 - black skimmer
 - burrowing owl
 - coast horned lizard
 - coastal California gnatcatcher
 - feruginous hawk
 - globose dune beetle
 - green turtle
 - hoary bat
 - light-footed clapper rail
 - mimic flycatcher (California brackishwater snail)
 - monarch butterfly
 - orange-throat whiptail
 - osprey
 - sandy beach tiger beetle
 - senile tiger beetle
 - south coast marsh vole
 - southern California saltmarsh shrew
 - tricolored blackbird
 - wandering (=saltmarsh) skipper
 - western beach tiger beetle
 - western pond turtle
 - western massiff bat
 - western snowy plover
 - western tidal-flat tiger beetle
 - western yellow bat
 - white-tailed kite
- Critical Habitat**
- Coastal California gnatcatcher FCH
 - San Diego fairy shrimp FCH
 - Western Snowy Plover FCH
- CNDDB suppressed records in these grids - Call DFG to get the specific location of these sensitive species.**

0 0.9 1.8 Miles

N

Sensitive Animals and Critical Habitat Reported by the California Natural Diversity Database and US Fish and Wildlife Service

Sources: California Natural Diversity Database, December 2011; U.S. Bureau of the Census (IGER 2000 data, and ESR), 2011. Note: Markers represent approximate locations where species may be found. Critical habitat shown is that most recently available from U.S. FWS (October, 2011). Check with U.S. FWS or Federal Register to confirm.

Figure 4.2-1b
 City of Huntington Beach

c. Carryout Bags and Biological Resources. Carryout bags can affect biological resources either as a result of litter that enters the storm drain system and ultimately into coastal and marine environments.

Single-Use plastic carryout bags enter the biological environment primarily as litter. This can adversely affect terrestrial animal species, and marine species that ingest the plastic bags (or the residue of plastic bags) or become tangled in the bag (Green Cities California MEA, 2010). Based on the data collected for the Ocean Conservancy's Report from September 2009 Ocean Conservancy's International Coastal Cleanup Day, approximately 11% of total debris items collected were plastic bags (Ocean Conservancy, April 2010). Over 260 species of wildlife, including invertebrates, turtles, fish, seabirds and mammals, have been reported to ingest or become entangled in plastic debris. Ingestion or entanglement may result in impaired movement and feeding, reduced productivity, lacerations, ulcers, and death (Laist, 1997; Derraik and Gregory, 2009). Ingested plastic bags affect wildlife by clogging animal throats and causing choking, filling animal stomachs so that they cannot consume real food, and infecting animals with toxins from the plastic (Green Cities California MEA, 2010). In addition to affecting wildlife through physical entanglement and ingestion, plastic debris in the marine environment has been known to absorb and transport polychlorinated biphenyls (PCBs), phthalates, and certain classes of persistent organic pollutants (POPs) (Mato, Y., Isobe, T., Takada, H., et al., 2001; and, Moore, C.J.; Lattin, G.L., A.F. Zellers., 2005).

Single-use paper carryout bags are also released into the environment as litter. However, they generally have less impact on wildlife because they are not as resistant to breakdown as is plastic; therefore, they are less likely to cause entanglement. In addition, although not a healthy food source, if single-use paper bags are ingested, they can be chewed effectively and may be digested by many animals.

Reusable bags can also be released into the environment as litter. However, because of the weight and sturdiness of these bags, reusable bags are less likely to be littered or carried from landfills by wind as litter compared to single-use plastic and paper bags (Green Cities California MEA, 2010). In addition, since reusable bags can be used up to 125 times (in accordance with the proposed Ordinance), reusable bags would be disposed of less often than single-use carryout bags. As such, reusable bags are less likely to enter the marine environment as litter. Thus, reusable bags are less likely to enter the environment as litter compared to single-use plastic or paper bags.

d. Regulatory Setting. Regulatory authority over biological resources is shared by federal, state, and local authorities under a variety of statutes and guidelines. Primary authority for general biological resources lies within the land use control and planning authority of local jurisdictions. The California Department of Fish and Game (CDFG) is a trustee agency for biological resources throughout the state under CEQA and also has direct jurisdiction under the California Fish and Game Code (CFGC). Under the State and Federal Endangered Species Acts, the CDFG and the U.S. Fish and Wildlife Service (USFWS) also have direct regulatory authority over species formally listed as Threatened or Endangered. The U.S. Department of Army Corps of Engineers (USACE) has regulatory authority over specific biological resources, namely wetlands and waters of the United States, under Section 404 of the federal Clean Water Act (CWA). The USACE also has jurisdiction over rivers and harbors through Section 10 of the CWA. Waters of the State fall under the jurisdiction of the CDFG



through the CFGC and the Regional Water Quality Control Board (RWQCB) through Section 401 of the CWA. The RWQCB also has jurisdiction over isolated waters and wetlands through the Porter-Cologne Water Quality Control Act.

Plants or animals have “special-status” due to declining populations, vulnerability to habitat change, or restricted distributions. Special-status species are classified in a variety of ways, both formally (e.g. State or Federally Threatened and Endangered Species) and informally (“Special Animals”). The USFWS and the National Marine Fisheries Service (NMFS) share responsibility for implementation of the federal Endangered Species Act, with the USFWS focused on terrestrial and freshwater species and the NMFS focused on marine species. The USFWS is also responsible for regulation of bird species listed under the Migratory Bird Treaty Act (MBTA) (16 United States Code [USC] Section 703-711) and the Bald and Golden Eagle Protection Act (16 USC Section 668).

The CDFG protects a wide variety of special status species through the CFGC. Under the CFGC, species may be formally listed and protected as Threatened or Endangered through the California Endangered Species Act (Fish and Game Code Section 2050 *et. seq.*). The CFGC also protects Fully Protected species, California Species of Special Concern (CSC), all native bird species (Fish and Game Code sections 3503, 3503.5, and 3511), and rare plants under the Native Plant Protection Act (Fish and Game Code Section 1900 *et seq.*).

4.2.2 Impact Analysis

a. Methodology and Significance Thresholds. Chapter 1, Section 21001(c) of CEQA states that it is the policy of the state of California to: “Prevent the elimination of fish and wildlife species due to man’s activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities.” Environmental impacts relative to biological resources may be assessed using impact significance criteria encompassing checklist questions from the *CEQA Guidelines* and federal, state, and local plans, regulations, and ordinances. Project impacts to flora and fauna may be determined to be significant even if they do not directly affect rare, threatened, or endangered species.

The proposed Ordinance would create a significant impact to biological resources if it would:

1. *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*
2. *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?*
3. *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*
4. *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites?*



5. *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*
6. *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

The Initial Study (see Appendix A) concluded that only the first three criteria could potentially result in a significant impact, while the proposed Single-Use Carryout Bag Ordinance would result in no impact with respect to the fourth through sixth criteria. Hence, only the first three criteria are addressed in this section.

b. Project Impacts and Mitigation Measures.

Impact BIO-1 The proposed Single-Use Carryout Bag Ordinance would incrementally increase the number of paper and reusable bags within Huntington Beach. However, the reduction in the amount of single-use plastic bags would be expected to incrementally reduce the amount of litter entering coastal and marine habitats, thus reducing litter-related impacts to sensitive species, plant communities, and coastal wetland areas. This is a Class IV, *beneficial*, effect.

All carryout bags, including single-use plastic, paper, and reusable bags, have the potential to affect coastal habitats such as the Pacific Ocean and Bolsa Chica Ecological Preserve when bags are improperly disposed of. These bags can become litter that enters the storm drain system and ultimately enters into coastal and marine environments. As described in the *Setting*, litter that enters coastal habitats can adversely affect sensitive species that inhabit coastal and marine environments, including sea turtles, seals, whales, otters, or bird species as a result of ingestion or entanglement. However, each type of carryout bag's potential to become litter varies and is based on the number of bags disposed of as well as the bag's weight and material.

As described in Section 2.0, *Project Description*, typical single-use plastic bags weigh approximately five to nine grams and are made of thin (less than 2.25 mils thick) high density polyethylene (HDPE) (Hyder Consulting, 2007). Post-use from a retail store, a customer may reuse a single-use plastic bag at home, but eventually the bags are disposed in the landfill or recycling facility or discarded as litter. Although some recycling facilities handle plastic bags, most reject them because they can get caught in the machinery and cause malfunctioning, or are contaminated after use. Only about 5% of the plastic bags in California and nationwide are currently recycled (US EPA, 2005; Green Cities California MEA, 2010; and Boustead, 2007). The majority of single-use plastic bags end up as litter or in the landfill. Even those collected by recycling and solid waste trucks and handled at transfer stations and landfills may blow away as litter due to their light weight (Green Cities California MEA, 2010). Single-use plastic bags that become litter can enter storm drains and watersheds from surface water runoff or may be blown directly into the ocean by the wind.

As described in the *Setting*, when single-use plastic bags enter coastal habitats marine species can ingest them (or the residue of plastic bags) or may become entangled in the bag (Green Cities California MEA, 2010). Ingestion or entanglement in single-use plastic bags can result in choking, reduced productivity, lacerations, ulcers, and death to sensitive species in the marine



environment, including sea turtles, seals, whales, otters, or bird species.

Single-use paper grocery bags also have the potential to enter the marine environment as litter. Paper grocery bags are typically produced from kraft paper and weigh anywhere from 50 to 100 grams, depending on whether or not the bag includes handles (AEA Technology, 2009). A paper bag weighs substantially more (by approximately 40 to 90 grams) than single-use plastic bags. Because of the weight, biodegradability of the materials, and recyclability, single-use paper bags are less likely to become litter compared to single-use plastic bags (Green Cities California MEA, 2010). In addition, because single-use paper bags are not as resistant to breakdown, there would be less risk of entanglement if entering the marine environment compared to single-use plastic bags. In addition, although not a healthy food source, if ingested, a single-use paper bag can be chewed effectively and may be digested by many marine animals (Green Cities California MEA, 2010). Thus, although single-use paper bag litter may enter coastal habitats and affect sensitive species in the marine environment, the impacts would be less than those of single-use plastic bags.

Reusable bags may also become litter and enter the marine environment; however, these bags differ from the single-use bags in their weight and longevity. Reusable bags can be made from plastic or a variety of cloth such as vinyl or cotton. Built to withstand many uses, reusable bags weigh at least ten times what a single-use plastic bag weighs and two times what a single-use paper bag weighs, therefore restricting the movement by wind. Reusable bags are typically reused until worn out through washing or multiple uses, and then typically disposed either in the landfill or recycling facility. Because of the weight and sturdiness of these bags, reusable bags are less likely to be littered or carried from landfills by wind as litter compared to single-use plastic and paper bags (Green Cities California MEA, 2010). In addition, since reusable bags can be used up to 125 times (in accordance with the proposed Ordinance), reusable bags would be disposed of less often than single-use carryout bags. As such, reusable bags are less likely to enter the marine environment as litter. Therefore, reusable bags would generally be expected to result in fewer impacts to sensitive species and habitats than single-use plastic and paper carryout bags.

The proposed Ordinance would reduce plastic bag usage by 95% compared to existing conditions (from 102.2 million to 5.1 million bags annually), and would reduce total bag use by 49% (to 52 million plastic, single-use paper, and reusable bags). This reduction in bags would be expected to generally reduce litter-related impacts to sensitive species, plant communities, and coastal wetland areas. Therefore sensitive species such as sea turtles, mammals, and bird species would benefit from the proposed Ordinance, as would coastal and marine ecosystems, which would reduce the amount of litter that could enter the marine environment. Impacts would be beneficial.

Mitigation Measures. As the impact would be beneficial, mitigation is not required.

Significance After Mitigation. Impacts to sensitive species as a result of the proposed ordinance would be beneficial without mitigation.

c. **Cumulative Impacts.** Adopted and pending carryout bag ordinances, as described in Table 3-1 in Section 3.0, *Environmental Setting*, would continue to reduce the amount of single-use carryout bags, and promote a shift toward reusable carryout bags. This shift would generally have beneficial effects with respect to sensitive biological resources. At least six other



agencies in Los Angeles region (County of Los Angeles and the cities of Long Beach, Los Angeles, Malibu, Manhattan Beach, and Santa Monica) have either adopted or are considering such ordinances. Similar to the proposed Huntington Beach Ordinance, these other adopted and pending ordinances could incrementally reduce the number of plastic bags entering the environment, including the Pacific Ocean, as litter. These other ordinances would be expected to have similar beneficial effects. Therefore, there would be no cumulative impacts related to biological resources.



4.3 GREENHOUSE GAS EMISSIONS

This section analyzes the proposed Single-Use Carryout Bag Ordinance’s impacts related to global climate change. The analysis focuses on manufacturing, transportation and disposal of carryout bags as these are the largest contributors to greenhouse gas emissions.

4.3.1 Setting

a. Overview of Global Climate Change and Greenhouse Gases. Gases that trap heat in the atmosphere are often called greenhouse gases (GHGs). Common GHGs include water vapor, carbon dioxide (CO₂), methane (CH₄), nitrous oxides (N₂O_x), fluorinated gases, and ozone. GHG are emitted by both natural processes and human activities. Of these gases, CO₂ and CH₄ are emitted in the greatest quantities from human activities. The accumulation of GHGs in the atmosphere regulates the earth’s temperature. However, it is believed that emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations. The rate of global climate change (GCC) has typically been incremental, with warming or cooling trends occurring over the course of thousands of years. However, scientists have observed an unprecedented acceleration in the rate of warming during the past 150 years likely due to the observed increase in anthropogenic GHG concentrations (United Nations Intergovernmental Panel on Climate Change [IPCC], November 2007). Current annual anthropogenic GHG emitted from the world, United States, and California are listed in Table 4.3-1.

**Table 4.3-1
 Annual Anthropogenic GHG Emissions**

Worldwide	United States	California
40,000 MM CO ₂ e	7,054 MM CO ₂ e	492 MM CO ₂ e

MM = million metric tons
 CO₂e = carbon dioxide equivalent

Source: IPCC, 2007; USEPA, April 2008; CEC, December 2006

California is the second largest emitter of GHGs among states and, if California were a country, it would be the sixteenth highest emitter among countries (AEP, 2007). Out of the 492 million metric tons of carbon dioxide equivalent (CO₂e¹) produced in California (7% of U.S. total), 41% is associated with transportation. Electricity generation is the second largest source, contributing 22% of the state’s GHG emissions (CEC, December 2006). Most, 81%, of California’s 2004 GHG

¹ Carbon dioxide equivalent (CO₂e) is a quantity that describes, for a given mixture and amount of GHGs, the amount of CO₂ (usually in metric tons; million metric tons [megatonne] = MMTCO₂e= terragram [Tg] CO₂ Eq; 1,000 MMT = gigatonne) that would have the same global warming potential (GWP) when measured over a specified timescale (generally, 100 years).



emissions (in terms of CO₂e) were CO₂ produced from fossil fuel combustion, with 2.8% from other sources of CO₂, 5.7% from methane, and 6.8% from nitrous oxide (CEC, December 2006).

b. Effects of Global Climate Change. GCC has the potential to affect numerous environmental resources through potential impacts related to future air temperatures and precipitation 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. A warming of about 0.2°C (0.36°F) per decade is projected, and there are identifiable signs that global warming could be taking place, including substantial ice loss in the Arctic (IPCC, 2007).

According to the California Energy Commission's (CEC) Draft Climate Action Team Biennial Report, potential impacts in California of global warming may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (CEC, March 2009). Below is a summary of some of the potential effects reported by an array of studies that could be experienced in California as a result of global climate change.

Air Quality. Higher temperatures, conducive to air pollution formation, could worsen air quality in California. 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. However, if higher temperatures are accompanied by wetter, rather than drier conditions, the rains would tend to temporarily clear the air of particulate pollution and reduce the incidence of large wildfires, thereby ameliorating the pollution associated with wildfires. Additionally, severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state (CEC, March 2009).

Water Supply. Uncertainty remains with respect to the overall impact of GCC on future water supplies in California. Studies have found that, "considerable uncertainty about precise impacts of climate change on California hydrology and water resources will remain, until we have more precise and consistent information about how precipitation patterns, timing, and intensity will change" (California Department of Water Resources [DWR], 2006). For example, some studies identify little change in total annual precipitation in projections for California (California Climate Change Center [CCCC], 2006). Other studies show substantially more precipitation (DWR, 2006). Even assuming that climate change leads to long-term increases in precipitation, analysis of the impact of climate change is further complicated by the fact that no studies have identified or quantified the runoff impacts that such an increase in precipitation would have in particular watersheds (CCCC, 2006). Also, little is known about how groundwater recharge and water quality will be affected (Id.). Higher rainfall could lead to greater groundwater recharge, although reductions in spring runoff and higher evapotranspiration could reduce the amount of water available for recharge (Ibid.).

The California Department of Water Resources (DWR, 2006) report on climate change and effects on the State Water Project (SWP), the Central Valley Project, and the Sacramento-San Joaquin Delta concludes that "[c]limate change will likely have a significant effect on



California's future water resources... [and] future water demand." DWR also reports that "much uncertainty about future water demand [remains], especially [for] those aspects of future demand that will be directly affected by climate change and warming. While climate change is expected to continue through at least the end of this century, the magnitude and, in some cases, the nature of future changes is uncertain" (DWR, 2006).

This uncertainty serves to complicate the analysis of future water demand, especially where the relationship between climate change and its potential effect on water demand is not well understood (DWR, 2006). DWR adds that "[i]t is unlikely that this level of uncertainty will diminish significantly in the foreseeable future." Still, changes in water supply are expected to occur, and many regional studies have shown that large changes in the reliability of water yields from reservoirs could result from only small changes in inflows (Kiparsky, 2003; DWR, 2006; Cayan, 2006, Cayan, D., et al, 2006).

Hydrology. As discussed above, climate changes could potentially affect: the amount of snowfall, rainfall, and snow pack; the intensity and frequency of storms; flood hydrographs (flash floods, 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. 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. 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. Higher CO₂ levels can stimulate plant production and increase plant water-use efficiency. 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 ozone 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 (CCCC, 2006).

Ecosystems and Wildlife. Climate change and the potential resulting changes in weather patterns could have ecological effects on a global and local scale. Increasing concentrations of GHGs are likely to accelerate the rate of climate change. Scientists expect that the average global surface temperature could rise as discussed previously: 1.0-4.5°F (0.6-2.5°C) in the next 50 years, and 2.2-10°F (1.4-5.8°C) in the next century, with substantial regional variation. Soil moisture is likely to decline in many regions, and intense rainstorms are likely to become more frequent. Sea level could rise as much as two feet along most of the U.S. coast. Rising temperatures 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 (Parmesan, 2004; Parmesan, C. and H. Galbraith, 2004). In addition, increased CO₂ that is absorbed by the oceans could increase the acidity of the oceans and cause direct and indirect effects on organisms and their habitats such as coral reefs (The Royal Society, 2005).



While the above mentioned potential impacts identify the possible effects of climate change at a global and potentially statewide level, in general scientific modeling tools are currently unable to predict what impacts would occur locally.

c. Greenhouse Gas Emissions from Carryout Bags. Carryout bags have the potential to contribute to the generation of GHGs either through emissions associated with manufacturing process, truck trips delivering carryout bags to retailers or through disposal during landfill degradation. Each is summarized below.

Manufacturing Process. The manufacturing process to make carryout bags requires fuel and energy consumption which creates GHG emissions including CO₂, CH₄, N₂O_x, fluorinated gases, and ozone. In addition, fertilizers that are used on crops for resources such as cotton or pulp which are then utilized in the manufacturing of carryout bags also have the potential to emit N₂O_x. The amount of GHG emissions varies depending on the type and quantity of carryout bags produced. Compared to truck trips and disposal, the manufacturing process is the largest emitter of GHGs due to the high volume of fuel and energy consumption that is used during the process.

Truck Trips. Delivery trucks that transport carryout bags from manufacturers or distributors to the local retailers in Huntington Beach also create GHG emissions. GHG emissions from truck trips result primarily from the combustion of fossil fuels and include CO₂, CH₄, and N₂O. As discussed in the *Transportation/Circulation* section of the Initial Study (see Appendix A), based on a baseline population estimate in Huntington Beach of approximately 191,677 persons and a statewide estimate of approximately 533 plastic bags used per person per year, retail customers in the City of Huntington Beach currently use an estimated 102,198,343 plastic bags per year. Assuming 2,080,000 plastic bags per truck load (City of Santa Monica Single-use Carryout Bag Ordinance Final EIR, January 2011; refer to Appendix A), this number of plastic bags would require approximately 49 truck trips per year to deliver these plastic carryout bags in Huntington Beach.

Disposal/Degradation. Once disposed of by customers, carryout bags that are not recycled are deposited to a landfill where they are left to decompose and degrade. Depending on the type and materials used, a carryout bag will degrade at various rates. When carryout bag materials degrade in anaerobic conditions at a landfill, CH₄ is emitted. This contributes to GCC (Green Cities California MEA, 2010).

GHG Emission Rates per Bag. Various studies have estimated GHG emissions for the different carryout bags (single-use plastic, paper or reusable bags) to determine a per bag GHG emissions rate. The Boustead Report (2007) compared single-use plastic and paper carryout bags and assumed that one paper bag could carry the same quantity of groceries as 1.5 plastic bags. Based on the Boustead Report (2007), 1,500 single-use plastic bags would generate 0.04 metric tons of Carbon Dioxide Equivalent (CO₂e) as a result of manufacturing, transportation, and disposal. Based on the Scottish Report (AEA Technology, 2005), through the manufacturing, transportation, and disposal of a single-use paper bag, GHG emissions result in 3.3 times the emissions compared to the manufacturing, use and disposal of a single-use plastic bag. Thus, using the single-use plastic bag GHG emissions rate of 0.04 CO₂e per 1,500 from the Boustead Report, single-use paper bags would emit 0.132 CO₂e per 1,000 bags. If only used



once, the manufacturing, use and disposal of a reusable LDPE carryout bag results in 2.6 times the GHG emissions of a single-use HDPE plastic bag (AEA Technology, 2005). Thus, reusable LDPE carryout bags would emit 0.104 CO₂e per 1,000 bags (if used only once) (Stephen L. Joseph, 2009; AEA Technology, 2005; Ecobilan, 2004; Green Cities California MEA, 2010; and, City of Santa Monica Single-use Carryout Bag Ordinance Final EIR, January 2011). However, it should be noted that if used over 20 times, a reusable LDPE carryout bag results in 0.1 times the GHG emissions of a single-use HDPE plastic bag (AEA Technology, 2005). The analysis used above uses the LDPE carryout bag as a representation of reusable bags in evaluating greenhouse gas impacts. There is no known available Life Cycle Assessment that evaluates all types of reusable bags (canvas, cotton, calico, etc.) with respect to potential GHG emissions. However, given the high rate of reuse by all types of reusable bags (up to 125 uses, as defined in the proposed Ordinance), the GHG emissions from these bags, when compared to the single-use plastic and paper carryout bags, are expected to be comparable to the LPDE bag or lower.

Table 4.3-2 lists the current GHG emissions associated with the manufacturing, transportation and disposal of carryout bags in Huntington Beach using the per bag GHG emissions rates discussed above and the estimated existing single-use plastic carryout bags used in Huntington Beach. As discussed in Section 4.1, *Air Quality*, based on a baseline population estimate in Huntington Beach of approximately 191,677 persons and a statewide estimate of approximately 533 plastic bags used per person per year, retail customers in the City of Huntington Beach currently use an estimated 102,198,343 plastic bags per year. As shown in Table 4.3-2, overall GHG emissions associated with plastic carryout bag use in Huntington Beach are 2,725 CO₂e per year or approximately 0.014 CO₂e per person per year.

**Table 4.3-2
 Existing Greenhouse Gas Emissions
 from Carryout Bags in Huntington Beach**

Bag Type	Existing Number of Bags Used per Year	GHG Impact Rate per Bag	CO ₂ e (metric tons)	CO ₂ e per year (metric tons)	CO ₂ e per Person ³
Single-use Plastic	102,198,343*	1.0	0.04 per 1,500 bags**	2,725.3	0.014
Total				2,725	0.014

CO₂e = Carbon Dioxide Equivalent units

Source:

* Approximate estimate of reusable bags purchased in one year by Huntington Beach retail customers.

** Based on Boustead Report, 2007; Santa Monica Single-use Carryout Bag Ordinance Final EIR, January 2011.

***Based on AEA Technology "Scottish Report, 2005; Santa Monica Single-use Carryout Bag Ordinance Final EIR, January 2011.

³ Emissions per person are divided by the existing population of Huntington Beach – 191,677



d. Regulatory Setting.

International and Federal Regulations. The United States is, and has been, a participant in the United Nations Framework Convention on Climate Change (UNFCCC) since it was signed on March 21, 1994. The Kyoto Protocol is a treaty, made under the UNFCCC, and was the first international agreement to regulate GHG emissions. It has been estimated that if the commitments outlined in the Kyoto Protocol are met, global GHG emissions could be reduced by an estimated 5% from 1990 levels, during the first commitment period of 2008–2012. Although the United States is a signatory to the Kyoto Protocol, Congress has not ratified the Protocol and the United States has not bound itself to the Protocol's commitments (UNFCCC, 2007)

The United States is currently using a voluntary and incentive-based approach toward emissions reductions in lieu of the Kyoto Protocol's mandatory framework. The Climate Change Technology Program (CCTP) is a multi-agency research and development coordination effort (led by the Secretaries of Energy and Commerce) that is charged with carrying out the President's National Climate Change Technology Initiative (USEPA, December 2007; <http://www.epa.gov/climatechange/policy/cctp.html>).

To date, the United States Environmental Protection Agency (EPA) has not regulated GHGs under the Clean Air Act; however, the U.S. Supreme Court in *Massachusetts v. EPA* (April 2, 2007) held that the EPA can, and should, consider regulating motor-vehicle GHG emissions. On June 30, 2009, the EPA granted California's request for a waiver to directly limit GHG tailpipe emissions for new motor vehicles beginning with the current model year. On December 7, 2009, the EPA determined that emissions of GHGs contribute to air pollution that "endangers public health and welfare" within the meaning of the Clean Air Act. This action finalizes the EPA's "endangerment determination" initially proposed on April 17, 2009, and now obligates the EPA to regulate GHG emissions from new motor vehicles. This finding sets the stage for the inevitable regulation under the Clean Air Act of GHG emissions from a wide range of stationary and mobile sources unless Congress preempts such regulation by enacting climate change legislation. Although the EPA has not yet promulgated federal regulations limiting GHG emissions, further action is pending.

California Regulations. Assembly Bill (AB) 1493, requiring the development and adoption of regulations to achieve "the maximum feasible reduction of greenhouse gases" emitted by noncommercial passenger vehicles, light-duty trucks, and other vehicles used primarily for personal transportation, was signed into law in September 2002. In 2005, Executive Order S-3-05 established statewide GHG emissions reduction targets. S-3-05 provides that by 2010, emissions shall be reduced to 2000 levels; by 2020, emissions shall be reduced to 1990 levels; and by 2050, emissions shall be reduced to 80% of 1990 levels (CalEPA 2006).

In response to S-3-05, CalEPA created the Climate Action Team (CAT), which in March 2006, published the Climate Action Team Report (the "2006 CAT Report") (CalEPA, 2006). The 2006 CAT Report identified a recommended list of strategies that the state could pursue to reduce GHG emissions. These are strategies that could be implemented by various state agencies to ensure that the S-3-05 targets are met and can be met with existing authority of the state agencies. Strategies include the reduction of passenger and light duty truck emissions, the



reduction of idling times for diesel trucks, an overhaul of shipping technology/ infrastructure, increased use of alternative fuels, increased recycling, and landfill methane capture.

AB 32, the "California Global Warming Solutions Act of 2006," was signed into law in the fall of 2006. AB 32 required the ARB to adopt regulations to require reporting and verification of statewide GHG emissions. The ARB was required to produce a plan by January 1, 2009 to indicate how emission reductions will be achieved from major GHG sources via regulations, market mechanisms, and other actions. The bill requires achievement by 2020 of a statewide GHG emissions limit equivalent to 1990 emissions (essentially a 25% reduction below 2005 emission levels; the same requirement as under S-3-05), and the adoption of rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions.

In response to the requirements of AB 32, the ARB produced a list of 37 early actions for reducing GHG emissions in June 2007. The ARB expanded this list in October 2007 to 44 measures that have the potential to reduce GHG emissions by at least 42 million metric tons of CO₂ emissions by 2020, representing about 25% of the estimated reductions needed by 2020 (ARB, October 2007). After completing a comprehensive review and update process, the ARB approved a 1990 statewide GHG level and 2020 limit of 427 MMT CO₂e. The scoping plan required under AB 32 was approved by the ARB Board on December 12, 2008, and it provides the outline for actions to reduce GHG in California. The scoping plan has a range of GHG reduction actions, which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 cost of implementation fee regulation to fund the program.

Senate Bill (SB) 97, signed in August 2007, acknowledges that GCC is an environmental issue that requires analysis under CEQA. In December 2009, the California Resources Agency (Resources Agency) adopted amendments to the State CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted guidelines give lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHG and GCC impacts.

Executive Order S-01-07 was enacted on January 18, 2007. The order mandates that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10% by 2020. In addition, a Low Carbon Fuel Standard ("LCFS") for transportation fuels is to be established for California.

Senate Bill (SB) 375, signed in August 2008, requires the inclusion of sustainable communities' strategies (SCS) in regional transportation plans (RTPs) for the purpose of reducing GHG emissions. The bill requires ARB to set regional targets for the purpose of reducing greenhouse gas emissions from passenger vehicles, for 2020 and 2035. On January 23, 2009 ARB appointed a Regional Targets Advisory Committee (RTAC) to provide recommendations on factors to be considered and methodologies to be used in the ARB target setting process, as required under SB 375. The RTAC final report, issued on September 30, 2009, recommended "ambitious but achievable" targets, with a significant emphasis on improving home affordability (rents and mortgages) near job centers as a means to reduce driving.



For more information on the Senate and Assembly bills, Executive Orders, and reports discussed above, and to view reports and research referenced above, please refer to the following websites: www.climatechange.ca.gov and <http://www.arb.ca.gov/cc/cc.htm>.

Local Regulations and CEQA Requirements. Pursuant to the requirements of SB 97, the Resources Agency adopted amendments to the *CEQA Guidelines* for the feasible mitigation of GHG emissions and analysis of the effects of GHG emissions. The adopted *CEQA Guidelines* provide regulatory guidance on the analysis and mitigation of GHG emissions in CEQA documents, while giving lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts. To date, the Bay Area Air Quality Management District (BAAQMD), the South Coast Air Quality Management District (SCAQMD), and the San Joaquin Air Pollution Control District (SJVAPCD) have adopted significance thresholds for GHGs. The SCAQMD threshold, which was adopted in December 2008, considers emissions of over 10,000 metric tons CO₂e /year to be significant. However, the SCAQMD's threshold applies only to stationary sources and is expressly intended to apply only when the SCAQMD is the CEQA lead agency. Although not yet adopted, staff of the SCAQMD has proposed a project-level threshold of 4.8 metric tons CO₂e per service population (defined to include both residents and employees) per year for use in the South Coast region (SCAQMD, "Proposed Tier 4 Performance Standards, September 2010 and personal communication Ian MacMillan, Program Supervisor - CEQA Intergovernmental Review, SCAQMD on December 29, 2011). The City of Huntington Beach has utilized this threshold for other CEQA documents (i.e., Beach & Ellis Mixed Use Project EIR, September 2011) and this "efficiency" metric threshold is derived from statewide compliance with AB 32. Therefore, the SCAQMD recommended threshold is reasonable to use for this analysis. Note that no air district has the power to establish definitive thresholds that will completely relieve a lead agency of the obligation to determine significance on a case-by-case basis for a specific project.

4.3.2 Impact Analysis

a. Methodology and Significance Thresholds. Pursuant to the requirements of SB 97, the Resources Agency adopted amendments to the State CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions in March 2010. These guidelines are used in evaluating the cumulative significance of GHG emissions from the proposed project. According to the adopted CEQA Guidelines, impacts related to GHG emissions from the proposed project would be significant if the project would:

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

The vast majority of individual projects do not generate sufficient GHG emissions to create a project-specific impact through a direct influence to climate change; therefore, the issue of climate change typically involves an analysis of whether a project's contribution towards an impact is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of



past projects, other current projects, and probable future projects (CEQA Guidelines, Section 15355).

The *CEQA Guidelines* are used in evaluating the cumulative significance of GHG emissions from the proposed project. As described by *CEQA Guidelines* Section 15064.4, a lead agency shall have discretion to determine, in the context of a particular project, whether to:

1. *Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model or methodology it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; and/or*
2. *Rely on a qualitative analysis or performance based standards.*

Further, a lead agency should consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emissions on the environment:

1. *The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;*
2. *Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and*
3. *The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.*

Although the proposed Single-Use Carryout Bag Ordinance would not involve any specific development project or change any land use designations, this section provides a quantitative analysis to estimate GHG emissions.

The majority of individual projects do not generate sufficient GHG emissions to create a project-specific impact through a direct influence to global climate change; therefore, the issue of climate change typically involves an analysis of whether a project's contribution towards an impact is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines, Section 15355).

For future projects, the significance of GHG emissions may be evaluated based on locally adopted quantitative thresholds, or consistency with a regional GHG reduction plan (such as a Climate Action Plan). The City of Huntington Beach has not adopted a GHG reduction plan;



therefore, the proposed Single-Use Carryout Bag Ordinance is evaluated based on the SCAQMD's project-level threshold of 4.8 metric tons CO₂e per service population (defined to include both residents and employees) per year (SCAQMD, "Proposed Tier 4 Performance Standards, September 2010).

The proposed Ordinance would have a significant impact related to GHG emissions if the GHG emissions would result in more than 4.8 metric tons of CO₂E units per service population (residents and employees) per year. In addition, impacts would be significant if the proposed Ordinance would be inconsistent with any of the applicable greenhouse gas emissions reductions strategies.

b. Project Impacts and Mitigation Measures.

Impact GHG-1 The proposed Single-Use Carryout Bag Ordinance would reduce the number of single-use carryout bags used in Huntington Beach and promote reusable bags, which are intended to be used multiple times. Implementation of the proposed Ordinance would incrementally increase GHG emissions compared to existing conditions. However, emissions would not exceed recommended SCAQMD thresholds and would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases. Impacts would be Class III, *less than significant*.

The intent of the proposed Single-Use Carryout Bag Ordinance is to reduce the use of single-use carryout bags, and to promote the use of reusable bags by Huntington Beach retail customers. As such, the proposed Ordinance would incrementally reduce the number of single-use plastic carryout bags that are manufactured and incrementally increase the number of single-use paper and reusable bags that are manufactured, transported, and disposed of compared to existing conditions.

As described in the *Setting*, through the manufacturing, transportation, and disposal, each single-use paper bag results in 3.3 times the emissions compared to the manufacturing, transportation and disposal of a single-use plastic bag. If only used once, the manufacturing, use and disposal of a reusable LDPE carryout bag results in 2.6 times the GHG emissions of a single-use HDPE plastic bag (Stephen L. Joseph, 2009; AEA Technology, 2005; Ecobilan, 2004; and Green Cities California MEA, 2010). Thus, on a per bag basis, single-use plastic bags have less impact than single-use paper and reusable carryout bags. However, reusable carryout bags are intended to be used multiple times. With reuse of carryout bags, fewer total carryout bags would need to be manufactured, transported or disposed of compared to the existing processing activities of single-use plastic bags. As described in Section 4.1, *Air Quality*, as a result of the proposed Ordinance, existing plastic bags used in Huntington Beach (102 million annually) would be replaced by an estimated 46 million single-use paper bags and one million reusable bags; an estimated 5.1 million single-use plastic bags would remain in circulation (refer to Table 4.1-4). This represents a 95% reduction in single-use plastic bags and a 49% reduction in all types of carryout bags (including plastic, single-use paper, and reusable).



Table 4.3-3 provides an estimate of GHG emissions that would result from switching from plastic bags to paper and reusable carryout bags in Huntington Beach associated with the implementation of the proposed Single-Use Carryout Bag Ordinance. Although the total number of carryout bags would be reduced by approximately 50 million bags per year, as a result of the increase of single-use paper bags, GHG emissions associated with the manufacturing, transport, and disposal of carryout bags would increase by an estimated 0.015 CO₂e per person per year compared to existing conditions.

**Table 4.3-3
 Estimated Greenhouse Gas Emissions
 from Carryout Bags in Huntington Beach**

Bag Type	Estimated Number of Bags Used per Year*	GHG Impact Rate per Bag	CO ₂ e (metric tons)	CO ₂ e per year (metric tons)	CO ₂ e per Person ³
Single-use Plastic	5,109,917	1.0	0.04 per 1,500 bags**	136	0.0007
Single-use Paper	45,989,254	2.97 ¹	0.1188 per 1,000 bags ¹	5,464	0.029
Reusable	982,676	2.6	0.104 per 1,000 bags***	102	0.0005
Total				5,702	0.030
Existing				2,725	0.014
Net Change				2,977	0.015

CO₂e = Carbon Dioxide Equivalent units

* refer to Table 4.1-4 in Section 4.1, Air Quality.

¹ 10% reduction (from a rate of 3.3) based on Santa Clara County Negative Declaration (SCH# 2009102095) October 2010 and Sunnyvale Carryout Bag Ordinance Final EIR, December 2011 based on Environmental Defense Fund's Paper Calculator.

** Based on Boustead Report, 2007; Santa Monica Single-use Carryout Bag Ordinance Final EIR, January 2011.

***Based on AEA Technology "Scottish Report, 2005; Santa Monica Single-use Carryout Bag Ordinance Final EIR, January 2011.

³ Emissions per person are divided by the existing population of Huntington Beach – 191,677

The increase in GHG emissions associated with the manufacturing, transportation and disposal of carryout bags used in Huntington Beach as a result of the proposed Ordinance would be approximately 0.015 CO₂e per person per year (or a total of approximately 2,977 CO₂e per year). This represents approximately 0.0006% of California's statewide GHG inventory of 492 million CO₂e per year. The proposed Ordinance's net increase of about 0.015 metric tons CO₂e per person per year compared to existing conditions (0.014 CO₂e per person per year) would not exceed the SCAQMD's 4.8 metric tons CO₂e per person per year threshold.

The proposed Ordinance would also be generally consistent with applicable regulations or plans addressing greenhouse gas reductions. As indicated above, the CAT published the Climate Action Team Report (the "2006 CAT Report") in March 2006. The CAT Report identifies a recommended list of strategies that the State could pursue to reduce climate change



greenhouse gas emissions. The CAT strategies are recommended to reduce GHG emissions at a statewide level to meet the goals of the Executive Order 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 existing authority of the State agencies. In addition, in 2008 the California Attorney General published The California Environmental Quality Act Addressing Global Warming Impacts at the Local Agency Level (Office of the California Attorney General, Global Warming Measures Updated May 21, 2008). This document provides information that may be helpful to local agencies in carrying out their duties under CEQA as they relate to global warming. Included in this document are various measures that may reduce the global warming related impacts of a project. Tables 4.3-4 and 4.3-5 illustrate that the proposed Ordinance would be consistent with the GHG reduction strategies set forth by the 2006 CAT Report as well as the 2008 Attorney General’s Greenhouse Gas Reduction Measures.

**Table 4.3-4
Proposed Ordinance Consistency with Applicable Climate Action
Team Greenhouse Gas Emission Reduction Strategies**

<i>Strategy</i>	<i>Project Consistency</i>
California Air Resources Board	
<i>Vehicle Climate Change Standards</i> AB 1493 (Pavley) required 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. Regulations were adopted by the ARB in September 2004.	Consistent The trucks that deliver carryout bags to and from Huntington Beach on public roadways would be in compliance with ARB vehicle standards that are in effect at the time of vehicle purchase.
<i>Diesel Anti-Idling</i> The ARB adopted a measure to limit diesel-fueled commercial motor vehicle idling in July 2004.	Consistent Current State law restricts diesel truck idling to five minutes or less. Diesel trucks operating from and making deliveries to Huntington Beach are subject to this state-wide law.
<i>Alternative Fuels: Biodiesel Blends</i> ARB would develop regulations to require the use of 1 to 4% biodiesel displacement of California diesel fuel.	Consistent The diesel vehicles that deliver carryout bags to and from Huntington Beach on public roadways could utilize this fuel once it is commercially available.
<i>Alternative Fuels: Ethanol</i> Increased use of E-85 fuel.	Consistent Truck drivers delivering carryout bags could choose to purchase flex-fuel vehicles and utilize this fuel once it is commercially available regionally and locally.
<i>Heavy-Duty Vehicle Emission Reduction Measures</i> 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 Huntington Beach on public roadways would be subject to all applicable ARB efficiency standards that are in effect at the time of vehicle manufacture.
<i>Achieve 50% Statewide Diversion Goal</i> Achieving the State’s 50% waste diversion mandate as established by the Integrated Waste Management Act of 1989, (AB 939, Sher, Chapter 1095, Statutes of 1989), will reduce climate change emissions associated with energy	Consistent As of 2006, which represents the most recent data available, the City of Huntington Beach maintained a 71 % diversion rate from the Orange County landfills, which exceeds the AB 939 requirement of 50 percent diversion of solid waste by the Year



**Table 4.3-4
Proposed Ordinance Consistency with Applicable Climate Action
Team Greenhouse Gas Emission Reduction Strategies**

<i>Strategy</i>	<i>Project Consistency</i>
intensive material extraction and production as well as methane emission from landfills. A diversion rate of 48% has been achieved on a statewide basis. Therefore, a 2% additional reduction is needed.	2000 (CIWMB, 2006). In addition, SB 1016 established a per-capita disposal rate as the instrument of measurement. The City of Huntington Beach is subject to a per resident disposal rate target of 10.4 pounds per person per day (PPD). According to data from annual reports submitted by the City and published by CalRecycle, the City's PPD rate dropped from 5.5 in 2007 to 4.6 in 2009, demonstrating compliance with SB 1016. Any disposal of carryout bags would be required to adhere to the existing standards. The proposed Ordinance would also assist by promoting reusable carryout bags, thus reducing the amount of solid waste generated in the form of single-use carryout bags.
Zero Waste – High Recycling Efforts to exceed the 50% mandate would allow for additional reductions in climate change emissions.	Consistent As described above, the City exceeds the 50% goal of recycling by diverting 71% of its solid waste and the City also has achieved a PPD rate of 4.6 in 2009 thus demonstrating compliance with SB 1016. The proposed Ordinance would assist by promoting reusable carryout bags, thus reducing the amount of solid waste generated in the form of single-use carryout bags. The Ordinance would also shift single-use bag consumption from plastic to paper. This would increase recycling of single-use bags because paper bags are recycled by services provided to each residence and workplace in the City. Consumer access to plastic bag recycling opportunities is limited.
Energy Commission (CEC)	
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.
Alternative Fuels: Non-Petroleum Fuels Increasing the use of non-petroleum fuels in California's transportation sector, as recommended as recommended in the CEC's 2003 and 2005 Integrated Energy Policy Reports.	Consistent Carryout bag delivery drivers could purchase alternative fuel vehicles and utilize these fuels once they are commercially available regionally and locally.

**Table 4.3-5
Proposed Ordinance Consistency with Applicable
Attorney General Greenhouse Gas Reduction Measures**

<i>Strategy</i>	<i>Project Consistency</i>
Transportation-Related Emissions	
Diesel Anti-Idling Set specific limits on idling time for commercial vehicles, including delivery vehicles.	Consistent Currently, the CARB's Airborne Toxic Control Measure (ATCM) to Limit Diesel-Fueled Commercial Motor Vehicle Idling restricts



	diesel truck idling to five minutes or less. Diesel trucks delivering carryout bags to Huntington Beach are subject to this state-wide law.
Solid Waste and Energy Emissions	
<p>Solid Waste Reduction Strategy</p> <p>Project construction shall require reuse and recycling of construction and demolition (C&D) waste.</p>	<p>Consistent</p> <p>As described above, the City exceeds the 50% mandate and diverts 71% of its solid waste and the City also has achieved a PPD rate of 4.6 in 2009 thus demonstrating compliance with SB 1016. Single-use carryout bags make up a portion of C&D waste. The proposed Ordinance would also assist by promoting reusable carryout bags, thus reducing the amount of C&D waste attributed to single-use carryout bags. Any disposal of carryout bags would be required to adhere to the existing standards.</p>

The proposed Single-Use Carryout Bag Ordinance would result in a net increase of approximately 0.015 metric tons CO₂e per person per year. However, both the increase of GHG emissions compared to existing conditions and the total emissions after implementation of the Ordinance would be less than 4.8 metric tons CO₂e per person per year and the Single-Use Carryout Bag Ordinance would be consistent with the CAT strategies and measures suggested in the Attorney General’s Greenhouse Gas Reduction Report as discussed in tables 4.3-4 and 4.3-5. Therefore, the Single-Use Carryout Bag Ordinance would be consistent with the objectives of AB 32, SB 97, and SB 375. Impacts would be less than significant.

Mitigation Measures. Mitigation is not required since the impact would not be significant.

Significance after Mitigation. Impacts would be less than significant without mitigation.

c. Cumulative Impacts. Adopted and pending carryout bag ordinances, as described in Table 3-1 in Section 3.0, *Environmental Setting*, would continue to reduce the amount of single-use carryout bags, and promote a shift toward reusable carryout bags. Similar to the proposed Huntington Beach Ordinance, such ordinances would be expected to generally reduce the overall number of bags manufactured and associated greenhouse gas emissions. Similar to the proposed Huntington Beach ordinance, other adopted and pending ordinances could incrementally change the greenhouse gas emissions associated with bag manufacturing. At least six other agencies in Los Angeles region (County of Los Angeles and the cities of Long Beach, Los Angeles, Malibu, Manhattan Beach, and Santa Monica) have either adopted or are considering such ordinances. However, based on the incremental increase in per capita emissions, the other ordinances are not expected to generate a cumulative increase in GHG emissions. For these reasons, cumulative significant impacts associated with implementation of carryout bag ordinances throughout the state are not anticipated.



4.4 HYDROLOGY and WATER QUALITY

This section analyzes the proposed Single-Use Carryout Bag Ordinance's potential to adversely affect hydrology and water quality.

4.4.1 Setting

Carryout bags are manufactured at various facilities, which may or may not be located in Huntington Beach or in Orange County. Therefore, impacts to hydrology and water quality are not limited to the local watershed. However, for this analysis the local watershed and hydrologic conditions are discussed and used as an example of the types of effects that may occur as a result of the manufacturing and disposal of carryout bags.

a. Surface Water Drainage and Carryout Bags. Huntington Beach is located within the Santa Ana River Basin (SARB), a 2,800 square mile area located roughly between Los Angeles and San Diego. The SARB is a group of connected inland basins and open coastal basins drained by surface streams flowing generally southwestward to the Pacific Ocean. The Santa Ana River Watershed is the largest in Orange County, covering 153.2 square miles. The river begins almost 75 miles away in the San Bernardino Mountains, crossing central Orange County before emptying into the Pacific Ocean.

There are three major watersheds encompassing the City of Huntington Beach: Talbert/Greenville Banning Channel Watershed, Westminster Watershed, and the Lower Santa Ana River Watershed. The receiving waters in Huntington Beach include the Pacific Ocean, Huntington Harbor, Anaheim Bay, Bolsa Chica Wetlands, Huntington Beach Wetlands, Huntington Lake, Talbert Lake, Sully Miller Lake, Greer Park Lake, Blackbird Pond, as well as flood control channels. These receiving waters support numerous beneficial uses for people and wildlife. The beneficial uses include marine habitat; water contact recreation; non-contact water recreation; wildlife habitat; commercial and sport fishing; shellfish harvesting; rare, threatened or endangered species; spawning, reproduction, and development; and estuarine habitat (Huntington Beach General Plan Environmental Resources/Conservation Element, 1996).

Urban runoff consists of both dry and wet weather runoff that may flow untreated from the City's developed urban areas into gutters, storm drains, and ultimately into receiving waters. Runoff comes from streets, parking lots, residential areas, commercial and industrial businesses, and private yards.

Carryout bags that enter the storm drain system may affect storm water flow by clogging drains and redirecting flow. As described in Section 4.2, *Biological Resources*, typical single-use plastic bags weigh approximately five to nine grams and are made of thin (less than 2.25 mils thick) high density polyethylene (HDPE) (Hyder Consulting, 2007). Post-use from a retail store, a customer may reuse a single-use plastic bag at home, but eventually the bags are disposed in the landfill or recycling facility or discarded as litter. Although some recycling facilities handle plastic bags, most reject them because they get caught in the machinery and cause malfunctioning, or are contaminated after use. Only about 5% of the plastic bags in California and nationwide are currently recycled (Green Cities California MEA, 2010; and Boustead, 2007).



The majority of single-use plastic bags end up as litter or in the landfill. Even those collected by recycling and solid waste trucks and handled at transfer stations and landfills may blow away as litter due to their light weight (Green Cities California MEA, 2010). Single-Use plastic bags that become litter can enter storm drains and may clog catch basins or be transported to the local watershed, the Huntington Harbor, Anaheim Bay, or the Pacific Ocean.

Single-Use paper grocery bags also have the potential to enter the storm drains as litter. However, as described in Section 4.2, *Biological Resources*, because of the weight, biodegradability of the materials, and recyclability, single-use paper bags are less likely to become litter compared to single-use plastic bags (Green Cities California MEA, 2010). In addition, because single-use paper bags are not as resistant to breakdown, there is less potential to clog catch basins compared to single-use plastic bags. Thus, although single-use paper bag litter may enter storm drains and affect hydrologic flow of surface water runoff, the potential to enter storm drains and cause hydrologic affects is less than with single-use plastic bags.

Reusable bags may also become litter and enter storm drains; however, these bags differ from the single-use bags in their weight and longevity. Reusable bags can be made from plastic or a variety of cloth such as vinyl or cotton. Built to withstand many uses, reusable bags weigh at least ten times what a single-use plastic bag weighs and two times what a single-use paper bag weighs, therefore restricting the movement by wind. Reusable bags are typically reused until worn out through washing or multiple uses, and then typically disposed either in the landfill or recycling facility. Because of the weight and sturdiness of these bags, reusable bags are less likely to become litter or be carried from landfills by wind as litter compared to single-use plastic and paper bags (Green Cities California MEA, 2010). Therefore, reusable bags are less likely to enter the storm drain system as litter.

b. Water Quality and Carryout Bags. The City of Huntington Beach conducts an extensive water quality monitoring program as required by and to document compliance with all applicable State and Federal requirements. Water quality testing programs are carried out by the Orange County Water District (OCWD) for groundwater, the Metropolitan Water District of Southern California (MWDSC) for treated surface water, the Huntington Beach Public Works Utilities Division for water production and distribution systems, and Orange County Watersheds for water quality in channels.

Water quality may be affected by carryout bags in two different ways, litter from carryout bags and the use of materials for processing activities. As described above in *Surface Water Drainage and Carryout Bags* above, litter that enters the storm drain system may clog storm drains and could result in contamination or may be transported into the local watershed or coastal habitat, violating waste discharge requirements (as described below in the *Regulatory Setting*). In addition, manufacturing facilities may utilize materials that, if released in an uncontrolled manner, could degrade the water quality in local waterways.

While single-use plastic bags are more likely to affect water quality as a result of litter, the manufacturing process utilizes "pre-production plastic," which may degrade water quality if released either directly to a surface water body or indirectly through storm water runoff. Single-Use paper carryout bags have less litter-related effect on water quality than single-use plastic bags; however, the manufacturing process for paper bags may utilize various chemicals



and materials and may also require the use of fertilizers, pesticides and other chemicals for production of resources (such as pulp). This may increase the potential for higher natural concentrations of trace metals, biodegradable wastes (which affect dissolved oxygen levels), and excessive major nutrients such as nitrogen and phosphorus if discharged into water bodies, either directly or indirectly through storm water runoff. If released into the environment, these potential pollutants can degrade water quality in local water bodies.

Reusable carryout bags are less likely to affect water quality. Because of the weight and sturdiness of these bags, reusable bags are less likely to be littered or carried from landfills by wind as litter compared to single-use plastic and paper bags (Green Cities California MEA, 2010). However, similar to single-use paper carryout bags, the manufacturing process for reusable bags can utilize materials such as chemicals or fertilizer for production of resources (such as cotton) that if released, either directly to a stream or indirectly via storm water runoff, could degrade water quality in local water bodies.

c. Regulatory Setting. The federal Clean Water Act (CWA) and the California Ocean Plan are the primary mechanisms through which pollutant discharges are regulated in California. The CWA established minimum national water quality goals and created the National Pollutant Discharge Elimination System (NPDES) permit system to regulate the quality of discharged water. All dischargers must obtain NPDES permits. Beginning in 1991, all municipal and industrial storm water runoff is also regulated under the NPDES system. Although the CWA has established 126 "priority contaminants" (metals and organic chemicals), the California Ocean Plan has established effluent limitations for 21 of these pollutants.

The U.S. Environmental Protection Agency (EPA) is the primary Federal agency responsible for implementing the CWA. The Regional Water Quality Control Board (RWQCB) is the primary state agency responsible for implementing the CWA and the state's Porter-Cologne Water Quality Act within state waters. The State Water Resources Control Board (SWRCB) is also responsible for water quality regulation through its work in preparing and adopting the California Ocean Plan. Local agencies also have responsibility for managing wastewater discharges. All are required to meet criteria set forth in their NPDES permits, to monitor their discharges, and to submit annual reports to the RWQCB.

Assembly Bill (AB) 258 was enacted in 2008 to address problems associated with releasing "preproduction plastic" (including plastic resin pellets and powdered coloring for plastics) into the environment. The bill enacted Water Code Section 13367, requiring the State Water Resource Control Board and RWQCBs to implement a program to control discharges of preproduction plastic from point and nonpoint sources (Green Cities California MEA, 2010). Program control measures must, at a minimum, include waste discharge, monitoring, and reporting requirements that target plastic manufacturing, handling, and transportation facilities. The program must, at a minimum, require plastic manufacturing, handling, and transportation facilities to implement best management practices to control discharges of preproduction plastics. This includes containment systems, careful storage of pre-production plastics, and the use of capture devices to collect any spills.

The SWRCB (SWRCB, 2010) reports that it is taking the following actions to comply with Section 13367:



“State and Regional Water Board staff has conducted and are continuing to conduct compliance inspections of various types and scales of preproduction plastic manufacturing, handling, and transport facilities enrolled under California's Industrial General Permit (IGP) for storm water discharges... Collectively these inspections will help State and Regional Water Board staff to develop cost-effective regulatory approaches (including compliance-evaluation procedures and appropriate best management practices) for addressing this pollution problem.

“The State Water Board has issued an investigative order to all plastic-related facilities enrolled under the IGP to provide the State Water Board with critical information needed to satisfy the legislative mandates in AB 258 (Krekorian). Facilities subject to this order must complete an online evaluation and assess their points of potential preproduction plastics discharge and means of controlling these discharges. Data gathered as a result of this effort will be used to help the State Board understand the California plastics industry and ultimately develop appropriate regulation of these facilities to ensure compliance with the Clean Water Act.”

Local Regulatory Setting. The Santa Ana Regional Water Quality Control Board (RWQCB) Region 8 has jurisdiction over the Santa Ana River Basin. The Santa Ana RWQCB (SARWQCB) is required, by law, to develop, adopt, and implement a Basin Plan for the entire region. The principal elements of the Basin Plan are a statement of beneficial water uses that the SARWQCB will protect; water quality objectives needed to protect the designated beneficial water uses; and, strategies and time schedules for achieving the water quality objectives. The water quality objectives are achieved primarily through the establishment and enforcement of waste discharge requirements (WDRs). Both beneficial uses and water quality objectives comprise the relevant water quality standards.

Stormwater discharges from the City are also currently regulated under the fourth-term regional individual permit—Santa Ana Region Waste Discharge Requirements for the County of Orange, Orange County Flood Control District, and The Incorporated Cities of Orange County within the Santa Ana Region Areawide Urban Stormwater Runoff Orange County (Order No. R8-2009-0030, NPDES No. CAS618030) (Municipal NPDES Permit). The co-permittees of this Municipal NPDES Permit are responsible for the management of storm drain systems within their jurisdictions and are required to implement management programs, monitoring programs, implementation plans and all best management practices (BMPs) outlined in the Drainage Area Master Plan (DAMP) within each respective jurisdiction, and take any other actions as may be necessary to meet the Maximum Extent Practicable (MEP) standard. The Municipal NPDES Permit differs from the Construction General NPDES Permit in that it regulates stormwater runoff from sites and activities following construction, as opposed to during construction activities.

The purpose of the Orange County Drainage Area Management Plan (DAMP) is to satisfy Municipal NPDES Permit conditions for creating and implementing an Urban Runoff Management Plan (URMP) to reduce pollutant discharges to the maximum extent practicable (MEP) for protection of receiving waterbody water quality and support of designated beneficial uses. The DAMP contains guidance on both structural and nonstructural BMPs for meeting these goals. The current specific water pollution control program elements are documented in



the DAMP and the corresponding City of Huntington Beach Municipal NPDES Permit Local Implementation Plan of 2011 (City of Huntington Beach LIP). The City has developed the City of Huntington Beach LIP using the DAMP as its basis. The City of Huntington Beach LIP provides a written account of activities that the City has undertaken, or is undertaking, to meet the requirements of the fourth-term NPDES Permit. As with the DAMP, the City of Huntington Beach LIP proposes a wide range of continuing and enhanced BMPs and control techniques that will be implemented and reported as part of the fourth-term Permit reports. The DAMP will be modified to comply with the fourth-term Municipal NPDES Permit.

The Citywide Urban Runoff Management Plan (CURMP) provides a broad framework for managing the quantity and quality of all urban runoff that reaches receiving waters from the land surfaces and through the storm drain system within the City. The Water Quality Element of the CURMP focuses primarily on managing runoff quality, while the Drainage Element addresses flood hazards and inconveniences. The CURMP identifies potential common solutions that can address both water quality and quantity concerns.

4.4.2 Impact Analysis

a. Methodology and Significance Thresholds. The proposed Ordinance would create a significant hydrology or water quality impact if it would:

1. *Violate any water quality standards or waste discharge requirements*
2. *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted?)*
3. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off-site?*
4. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount or surface runoff in a manner which would result in flooding on or off-site?*
5. *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*
6. *Otherwise substantially degrade water quality?*
7. *Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?*
8. *Place within a 100-year flood hazard area structures which would impede or redirect flood flows?*
9. *Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?*
10. *Inundation by seiche, tsunami, or mudflow?*
11. *Potentially impact stormwater runoff from construction activities?*
12. *Potentially impact stormwater runoff from post-construction activities?*
13. *Result in a potential for discharge of stormwater pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste*



handling, hazardous materials handling or storage, delivery areas, loading docks or other outdoor work areas?

14. *Result in the potential for discharge of stormwater to affect the beneficial uses of the receiving waters?*

The Initial Study (see Appendix A) concluded that only the first, fifth, sixth, thirteenth and fourteenth criteria could potentially result in a significant impact, while the proposed Single-Use Carryout Bag Ordinance would result in no impact with respect to the other criteria. Hence, only the first, fifth, sixth, thirteenth and fourteenth criteria are addressed in this section.

b. Project Impacts and Mitigation Measures.

Impact HWQ-1 Although the proposed Single-Use Carryout Bag Ordinance would incrementally increase the number of single-use paper and reusable bags used in Huntington Beach, the overall reduction in the total amount of carryout bags would incrementally reduce the amount of litter and waste entering storm drains, water ways and receiving waters such as the Pacific Ocean, improving water quality. This would be a Class IV, *beneficial*, effect.

As a result of the proposed Ordinance, existing plastic bags used in Huntington Beach (102.2 million annually) would be replaced by an estimated 46 million single-use paper bags and one million reusable bags; an estimated five million single-use plastic bags would remain in circulation (refer to Table 4.1-4 in Section 4.1, *Air Quality*). This represents a 95% reduction in single-use plastic bags and a 49% reduction in all types of carryout bags (including plastic, single-use paper, and reusable).

Each type of carryout bag's potential to become litter is based on the bag's weight, material and quantity of bags used within Huntington Beach. As described in Impact BIO-1 in Section 4.2, *Biological Resources*, the majority of single-use plastic bags end up as litter or in the landfill. Even those collected by recycling and solid waste trucks and handled at transfer stations and landfills may blow away as litter due to their light weight (Green Cities California MEA, 2010). Single-use plastic bags that become litter may enter storm drains from surface water runoff or may be blown directly into local waterways by the wind. Single-use plastic bag litter that enters the storm drain system can block or clog drains resulting in contamination (Green Cities California MEA, 2010). Based on the statewide data that currently almost 20 billion plastic grocery bags (or approximately 533 bags per person) are consumed annually in California (Green Cities California MEA, 2010), retail customers in Huntington Beach currently use an estimated 102,198,343 plastic bags per year.

Similarly, single-use paper grocery bags also have the potential to enter storm drains and local waterways as litter. However, as described in Impact BIO-1 in Section 4.2, *Biological Resources*, due to the weight, biodegradability of the materials, and recyclability, single-use paper bags are less likely to become litter compared to single-use plastic bags (Green Cities California MEA, 2010). In addition, because single-use paper bags are not as resistant to breakdown, it would be less likely for single-use paper bags to block or clog drains compared to single-use plastic bags and they would therefore be less likely to result in storm drain blockage or contamination



compared to single-use plastic bags.

Due to the weight and sturdiness of reusable bags made for multiple uses, reusable bags are less likely to be littered or carried from landfills by wind as litter compared to both single-use plastic and paper bags (Green Cities California MEA, 2010). Reusable bags are less likely to become litter compared to single-use plastic and paper carryout bags. Therefore, shifting toward greater use of reusable bags would not degrade water quality compared to existing conditions as a result of litter, nor would it increase the potential for storm drain blockage.

As described in Section 4.1, *Air Quality*, and Section 4.3, *Greenhouse Gas Emissions*, the proposed Ordinance is anticipated to reduce the overall amount of carryout bags used in Huntington Beach per year by approximately 50.1 million bags. Therefore, the proposed Single-Use Carryout Bag Ordinance would reduce the amount of litter associated with single-use plastic carryout bags. Consequently, water quality would benefit from the proposed Single-Use Carryout Bag Ordinance, which would be expected to reduce the amount of litter that could enter storm drains and local waterways as well as the receiving waters such as the Pacific Ocean, thus improving water quality and reducing the potential for storm drain blockage.

Mitigation Measures. Water quality and storm drains would benefit from the proposed Single-Use Carryout Bag Ordinance because the proposed Ordinance would be expected to incrementally reduce the amount of litter that enters the storm drain system and local waterways and the Pacific Ocean. Therefore, mitigation is not required.

Significance After Mitigation. Impacts to water quality and storm drain operation from litter entering storm drains and local waterways would be beneficial without mitigation.

Impact HWQ-2 A shift toward reusable bags could potentially alter processing activities related to bag production, which could potentially degrade water quality in some instances and locations. However, bag manufacturers would be required to adhere to existing regulations including NPDES Permit requirements, AB 258 and the California Health and Safety Code. Therefore, impacts to water quality from altering bag processing activities would be Class III, *less than significant*.

The manufacturing process for single-use plastic, single-use paper, and reusable carryout bags utilize various chemicals and materials. Single-use plastic bag manufacturers utilize “pre-production plastic.” As discussed in the *Setting*, single-use paper carryout bags and reusable carryout bag manufacturers may utilize various chemicals and materials and may also require the use of fertilizers, pesticides and other chemicals for production of resources (such as pulp or cotton), which may increase the potential for higher natural concentrations of trace metals, biodegradable wastes (which affect dissolved oxygen levels), and excessive major nutrients such as nitrogen and phosphorus. Similar to single-use paper carryout bags, the manufacturing process for reusable bags can utilize materials such as chemicals or fertilizer for production of resources (such as cotton) that if released, either directly to a stream or indirectly via storm water runoff, could degrade water quality in local water bodies. If released into the



environment, these pollutant materials from the processing activities for carryout bags could degrade water quality.

The intent of the proposed Single-Use Carryout Bag Ordinance is to reduce the amount of single-use carryout bags and promote the use of reusable bags by Huntington Beach retail customers. The Ordinance is anticipated to reduce single-use plastic bags in Huntington Beach by 95% and reduce the use of all types of bags (including plastic, single-use paper, and reusable) by 49%. These shifts in the types and amounts of carryout bags used could potentially alter processing activities related to bag production. The manufacturing impacts of each bag type and the anticipated changes in use are described below.

Single-Use Plastic Bags. Conventional single-use plastic bags are a product of the petrochemical industry and are typically produced by independent manufacturers who purchase virgin resin from petrochemical companies or obtain non-virgin resin from recyclers or other sources. Single-use plastic bags begin the manufacturing process with the conversion of crude oil or natural gas into hydrocarbon monomers, which are then further processed into polymers. These polymers are heated to form plastic resins, which are then blown through tubes to create the air pocket of the bag. Once cooled, the plastic film is stretched to the desired size of the bag and cut into individual bags (Green Cities California MEA, 2010). As described in the *Setting*, the plastic resin pellets are a concern when accidentally released (from spilling into storm drains during use or transport) into aquatic environments. AB 258 was enacted to address these concerns by implementing program control measures that require plastic manufacturing, handling, and transportation facilities to implement best management practices to control discharges (accidental release from spilling) of preproduction plastics. This includes containment systems, careful storage of pre-production plastics, and the use of capture devices to collect any spills.

Products used in the process to manufacture single-use plastic bags, such as petroleum and natural gas, also have the potential to be released as result of an accident during transport or use. However, regulatory agencies such as the EPA set forth Preliminary Remediation Goals (PRGs) for various pollutants in soil, air, and tap water (EPA Region IX, Preliminary Remediation Goals Tables, 2004). PRG concentrations can be used to screen pollutants in environmental media, trigger further investigation, and provide initial cleanup goals resulting from an accident or spill of petroleum or natural gas at a single-use plastic bag manufacturing facility.

Single-Use Paper Bags. The majority of single-use paper bags are made from Kraft paper bags, which are manufactured from a pulp that is produced by digesting a material into its fibrous constituents via chemical and/or mechanical means. Kraft pulp is produced by chemical separation of cellulose from lignin. Chemicals used in this process include caustic sodas, sodium hydroxide, sodium sulfide, and chlorine compounds (Green Cities California MEA, 2010). Processed and then dried and shaped into large rolls, the paper is then printed, formed into bags, baled, and then distributed to grocery stores. Although it does not directly discharge pollutants, the paper bag manufacturing process may utilize fertilizers, pesticides and other chemicals in the production of resources such as pulp. These pollutants may increase the potential for higher concentrations of trace metals, biodegradable wastes (which affect dissolved oxygen levels), and excessive major nutrients such as nitrogen and phosphorus,



causing eutrophication as a result of surface water runoff. A single-use paper bag has 14 times the impact of one single-use plastic bag on eutrophication, which is caused when nitrate and phosphate are emitted into water, stimulating excessive growth of algae and other aquatic life (Green Cities California MEA, 2010). Eutrophication reduces the water quality and causes a variety of problems such as a lack of oxygen in the water (Green Cities California MEA, 2010). However, direct discharges of pollutants into waters of the United States are not allowed, except in accordance with the National Pollutant Discharge Elimination System (NPDES) program established in Section 402 of the Clean Water Act (CWA).

Single-use paper bag manufacturers are required to comply with the local plans and policies of the SWRCB and the RWQCB, which regulate discharges to surface and groundwater, regulate waste disposal sites, and require clean up of discharges of hazardous materials and other pollutants. For example, in the City of Huntington Beach, single-use paper bag manufacturers would be required to adhere to the Huntington Beach Citywide Urban Runoff Management Plan (CURMP) and other applicable requirements. It should be noted, however, there are no known single-use bag manufacturers in the City of Huntington Beach or Orange County.

Reusable Bags. Reusable bags can be manufactured with various materials, including polyethylene (PE) plastic, polypropylene (PP) plastics, multiple types of cloth (cotton canvas, nylon, etc.), and recycled plastic beverage containers (polyethylene terephthalate, or PET), among others (Green Cities California MEA, 2010). Depending on the type of material used in the manufacturing process, reusable bags have various impacts to water quality. A single reusable LDPE bag has 2.8 times the impact of a single-use plastic bag on eutrophication as result of the use of pollutants that are used for materials in the manufacturing process (Green Cities California MEA, 2010). In addition, other types of reusable bags, such as cotton canvas, may require the use of fertilizers, pesticides and other chemicals in the production process. These pollutants may increase the potential for higher natural concentrations of trace metals, biodegradable wastes (which affect dissolved oxygen levels), and excessive major nutrients such as nitrogen and phosphorus causing eutrophication as a result of surface water runoff. However, with reuse of a LDPE or cotton canvas bag as intended, impacts to eutrophication would be lower in comparison to a single-use plastic bag and a single-use paper bag since reusable bags are intended to be used “hundreds of times” (Green Cities California MEA, 2010). Therefore, each reusable bag would be expected to replace hundreds of single-use plastic or paper bags, more than offsetting the increased impacts associated with each individual bag.

As with other types of carryout bags, reusable bag manufacturers would not be allowed to directly discharge pollutants into waters of the United States, except in accordance with the NPDES program established in Section 402 of the CWA. Reusable bag manufacturers may be required to obtain an “Individual” NPDES Permit and/or would need to adhere to an existing “General” NPDES Permit of the local area. An Individual NPDES permit regulates and limits the particular discharge at the manufacturing facility. The permit limits are based on the type of activity, nature of discharge and receiving water quality. Manufacturing facilities would need to apply for and obtain a permit prior to the start of manufacturing operations. In addition, as part of the Individual Permit, a manufacturing facility would be required to monitor and report its discharges to the local Regional Water Quality Control Board to demonstrate that the facility’s discharges are not in violation of any water quality standards.



Manufacturing facilities would also be required to adhere to existing General Permits that specify local discharge requirements for municipal storm water and urban runoff discharges. For example, in the City of Huntington Beach, single-use paper bag manufacturers would be required to adhere to the Huntington Beach Citywide Urban Runoff Management Plan (CURMP).

Although reusable bags may utilize various materials, reusable carryout bag manufacturers who utilize plastics in their production (for example, production of LPDE reusable bags) would also be required to adhere to requirements specified in AB 258, which addresses the release of "preproduction plastics" as described in the *Setting*. In addition, the California Health and Safety Code (Section 25531-25543.3) establishes a program for the prevention of accidental releases of regulated substances. With adherence to Health and Safety Code Section 25531-25543.3, reusable carryout bag manufacturing facilities would be required to prepare and update a Risk Management Plan (RMP). This would further reduce the potential for a release of substances that may be washed into and through the storm drainage systems, local waterways, and ultimately to the Pacific Ocean.

Anticipated Changes in Bag Use. Based on a cost requirement of \$0.10 per bag, as outlined in Section 4.1, *Air Quality*, it is assumed in this analysis that the total volume of plastic bags currently used in Huntington Beach (approximately 102,198,343 plastic bags per year) would be replaced by approximately 45% paper bags and 50% reusable bags as a result of the Single-Use Carryout Bag Ordinance. It is assumed that 5% of the existing total of single-use plastic bags used in Huntington Beach would remain in use since the Ordinance does not apply to some retailers who distribute plastic bags (e.g. restaurants) and these retailers would continue to distribute plastic bags after the Ordinance is implemented. Even though the volume of a single paper carryout bag (20.48 liters) is generally equal to approximately 150% of the volume of a plastic bag (14 liters¹), for this analysis it is conservatively assumed that 45,989,254 plastic bags (45% of those currently used) would be replaced by the same number of paper bags. It is estimated that the remaining 45,989,254 plastic bags eliminated by the Ordinance would be replaced by 982,676 reusable bags annually (refer to Table 4.1-4 in Section 4.1, *Air Quality*).

Although the proposed Ordinance would be expected to incrementally increase the manufacturing of single-use paper bags and reusable bags for use in Huntington Beach, it would also eliminate approximately 97.08 million single-use plastic bags per year. With implementation of the proposed Ordinance, approximately 52 million carryout bags (including single-use paper, single-use plastic, and reusable bags) would be manufactured for use in Huntington Beach – a decrease of 49% compared to existing conditions. Because the proposed Ordinance would reduce the overall number of carryout bags manufactured, it would reduce the overall impacts to water quality associated with bag manufacturing. Furthermore, any existing or potential manufacturing facilities would be required to adhere to existing federal, state and local regulations which are intended to protect water quality, as described above. Therefore, impacts to water quality related to the potential change of processing activities as a

¹ *The Ordinances to Ban Plastic Carryout Bags in Los Angeles County Final Environmental Impact Report (SCH #2009111104). Adopted by the County of Los Angeles Board of Supervisors on November 16, 2010.*



result of the proposed Huntington Beach Single-Use Carryout Bag Ordinance would not be significant.

Mitigation Measures. Because the impact would not be significant, mitigation is not required.

Significance After Mitigation. Impacts to water quality related to the potential change of process activities would be less than significant without mitigation.

c. Cumulative Impacts. Adopted and pending carryout bag ordinances, as described in Table 3-1 in Section 3.0, *Environmental Setting*, would continue to reduce the amount of single-use carryout bags, and promote a shift toward reusable carryout bags. As discussed above, the hydrology and water quality impacts associated with the proposed Huntington Beach Single-Use Carryout Bag Ordinance are not considered significant and are generally considered beneficial. At least six other agencies in southern California region (County of Los Angeles and the cities of Long Beach, Los Angeles, Malibu, Manhattan Beach, and Santa Monica) have either adopted or are considering such ordinances. These ordinances would be expected to result in similar reductions in the amount of litter entering storm drains, local creeks or watersheds, thereby improving water quality. In addition, the overall reduction in bag manufacturing expected to occur as a result of implementation of these ordinances would be expected to generally reduce water quality impacts associated with bag manufacturing. In addition, all single-use paper and reusable bag manufacturing facilities would be required to comply with applicable regulatory requirements pertaining to preservation of water quality, including AB 258 and the California Health and Safety Code, as discussed in Impact HWQ-2. For these reasons, cumulative significant impacts associated with implementation of carryout bag ordinances throughout the state are not anticipated.



5.0 OTHER CEQA DISCUSSIONS

This section discusses additional issues required for analysis under CEQA, including growth inducement and significant irreversible environmental effects.

5.1 GROWTH INDUCING IMPACTS

The *CEQA Guidelines* require a discussion of a proposed project's potential to foster economic or population growth, including ways in which a project could remove an obstacle to growth. Growth does not necessarily create significant physical changes to the environment. However, depending upon the type, magnitude, and location of growth, it can result in significant adverse environmental effects. The proposed Single-Use Carryout Bag Ordinance's growth-inducing potential is therefore considered significant if it could result in significant physical effects in one or more environmental issue areas. The most commonly cited example of how an economic effect might create a physical change is where economic growth in one area could create blight conditions elsewhere by causing existing competitors to go out of business and the buildings to be left vacant.

5.1.1 Economic and Population Growth

The proposed Single-Use Carryout Bag Ordinance would prohibit specified retail establishments in Huntington Beach from providing single-use plastic carryout bags to customers at the point of sale, and would create a mandatory 10 cent (\$0.10) charge for each paper bag distributed by these stores. The intent of the Single-Use Carryout Bag Ordinance is to reduce the amount of single-use carryout bags, and to promote the use of reusable bags by Huntington Beach retail customers. The Single-Use Carryout Bag Ordinance would apply to three specified categories of retail establishments located within the City of Huntington Beach's corporate limits. The proposed Single-Use Carryout Bag Ordinance would not include development of any physical structures or involve any construction activity. Therefore, the proposed Single-Use Carryout Bag Ordinance would not be growth-inducing as it would not affect long-term employment opportunities or increase the City's population.

Revenues generated by sales of paper bags would remain with the affected stores. The Single-Use Carryout Bag Ordinance would not affect economic growth and therefore would not be significant.

5.1.2 Removal of Obstacles to Growth

The proposed Single-Use Carryout Bag Ordinance would prohibit specified retail establishments in Huntington Beach from providing single-use plastic carryout bags to customers at the point of sale, and would create a mandatory 10 cent (\$0.10) charge for each paper bag distributed by these stores. No improvements to water, sewer, and drainage connection infrastructure would be necessary. No new roads would be required. Because the proposed Ordinance would not include any physical development or construction related activities and would not involve the extension of infrastructure into areas that otherwise could not accommodate growth, it would not remove an obstacle to growth.



5.2 IRREVERSIBLE ENVIRONMENTAL EFFECTS

The *CEQA Guidelines* require that EIRs reveal the significant environmental changes that would occur with project development. CEQA also requires decisionmakers to balance the benefits of a proposed project against its unavoidable environmental risks in determining whether to approve a project. This section addresses non-renewable resources, the commitment of future generations to the proposed Ordinance, and irreversible impacts associated with the proposed Ordinance.

The proposed Single-Use Carryout Bag Ordinance would prohibit specified retail establishments in Huntington Beach from providing single-use plastic carryout bags to customers at the point of sale, and would create a mandatory 10 cent (\$0.10) charge for each paper bag distributed by these stores. As a City Ordinance, the proposed Single-use Carryout Bag Ordinance would not include development of any physical structures or involve any construction activity. Therefore, the proposed Ordinance would not alter existing land uses or cause irreversible physical alterations related to land development or resource use. To the contrary, the express purpose of the Ordinance is to reduce the wasteful use of resources and associated environmental impacts.

The manufacturing of carryout bags and the additional truck trips associated with delivering carryout bags (single-use paper and reusable bags) to Huntington Beach would incrementally reduce regional air pollutant emissions. As discussed in Section 4.1, *Air Quality*, air pollutant emissions would not be increased beyond existing thresholds and with anticipated reductions in the overall number of carryout bags in Huntington Beach, emissions would be reduced compared to existing conditions. Similarly, as discussed in Section 4.3, *Greenhouse Gas Emissions*, the manufacturing of carryout bags, the additional truck trips associated with delivering carryout bags, and the disposal/degradation of carryout bags in landfills would represent a commitment to energy resources (oil and electricity) that are irreversible and may increase GHG emissions. However, although the proposed Ordinance would result in net increase of GHG emissions (approximately 0.015 CDE/person/year) compared to existing conditions, the Single-Use Carryout Bag Ordinance would be consistent with applicable plans, policies and regulations related to reducing GHG emissions. Thus, the proposed Single-Use Carryout Bag Ordinance would not result in any significant impacts related to air quality and GHG emissions.



6.0 ALTERNATIVES

As required by Section 15126.6 of the *CEQA Guidelines*, this section examines a range of reasonable alternatives to the proposed project. The following three alternatives are evaluated:

- *Alternative 1: No Project*
- *Alternative 2: Ban on Single-Use Plastic Bags at all Retail Establishments*
- *Alternative 3: Mandatory Charge of \$0.25 for Paper Bags*

This section also includes a discussion of the “environmentally superior alternative” among those studied.

6.1 ALTERNATIVE 1: NO PROJECT ALTERNATIVE

6.1.1 Description

The No Project alternative assumes that the proposed Single-Use Carryout Bag Ordinance would not be adopted. Thus, the use of carryout bags at retail stores in Huntington Beach would not change compared to current conditions. Single-use plastic and paper carryout bags would be available free-of-charge to customers at most retail stores in Huntington Beach. In addition, reusable carryout bags would be available for purchase by retailers.

6.1.2 Impact Analysis

No change in environmental conditions would occur under this alternative because neither a ban nor a mandatory charge for carryout bags would be imposed. Thus, Huntington Beach retail customers would have no incentive to alter their existing carryout bag preferences. Because conditions would not change under this alternative, none of the impacts in the studied issue areas associated with the proposed Ordinance would occur. This alternative would not result in the change in truck trips associated with delivering reusable and single-use paper bags that would occur with implementation of the proposed ordinance and would therefore eliminate impacts associated with such trips. In addition, because the No Project alternative would not facilitate a shift to reusable bags, the proposed Ordinance’s less than significant impacts related to greenhouse gas emissions would be eliminated. On the other hand, this alternative would not achieve the proposed Ordinance’s beneficial effects relative to air quality, biological resources (sensitive species), and hydrology and water quality, nor would it result in the general benefits with respect to litter accumulation that are expected to result from implementation of the proposed Ordinance.



6.2 ALTERNATIVE 2: BAN ON SINGLE-USE PLASTIC BAGS AT ALL RETAIL ESTABLISHMENTS

6.2.1 Description

Similar to the proposed Single-Use Carryout Bag Ordinance, this alternative would ban retailers from providing single-use plastic carryout bags to customers at the point of sale and would create a mandatory \$0.10 charge for paper bags. However, under this alternative, the Ordinance would apply to all categories of retail establishments in the City, including restaurants, food providers and stores less than 10,000 square feet. As a result, under this alternative, no plastic bags would be distributed at the point of sale in Huntington Beach.

Under this alternative, the Ordinance would result in a 100% reduction of the number of plastic bags distributed to customers (thus, a reduction of 102,198,343 plastic bags). In contrast, the proposed Ordinance would only reduce 95% of the plastic bags. It is assumed that the additional 5% of plastic bags that would be removed as part of this alternative would be replaced by reusable bags, such that, in total, 55% of single-use plastic bags currently used in the City would be replaced by reusable bags, and 45% would be replaced by paper bags.

The total estimate of bag use under this alternative, compared to the proposed Ordinance, is summarized in Table 6-1.

Table 6-1
Estimated Bag Use: Proposed Ordinance versus Alternative 2

Bag Type	Bags Used Annually	
	Proposed Ordinance*	Alternative 2**
Single-Use Plastic	5,109,917	0
Single-Use Paper	45,989,254	45,989,254
Reusable	982,676	1,080,944

*Refer to Table 4.1-4 in Section 4.1, *Air Quality*.

** Based on assumptions of 55% conversion of the volume of existing plastic bag use in Huntington Beach to reusable bags (based on 52 uses per year) and 45% conversion to paper bags.

6.2.2 Impact Analysis

a. Air Quality. As described in Section 4.1, *Air Quality*, it is anticipated that the proposed Ordinance would replace the total volume of single-use plastic bags currently used in Huntington Beach with approximately 45% paper bags and 50% reusable bags, leaving 5% of the plastic bags in circulation (or approximately 5.1 million bags, as shown in Table 6-1 above). This alternative would apply to all retail establishments in Huntington Beach and would therefore eliminate an additional 5.1 million single-use plastic bags as compared to the proposed Ordinance. Consequently, this alternative would reduce emissions associated with plastic bag manufacturing, transportation, and disposal to a greater extent than the proposed Ordinance.



Table 6-2 estimates emissions that contribute to the development of ground level ozone and atmospheric acidification that would result from implementation of Alternative 2, as compared with the proposed Ordinance and existing conditions.

**Table 6-2
 Estimated Emissions that Contribute to Ground Level Ozone and
 Atmospheric Acidification (AA) from Alternative 2**

Bag Type	# of Bags Used per Year	Ozone Emission Rate per Bag	Ozone Emissions (kg) per 1,000 bags	Ozone Emissions per year (kg)	AA Emission Rate per Bag	AA Emissions (kg) per 1,000 bags	AA Emissions per year (kg)
Single-use Plastic	0	1.0	0.023	0	1.0	1.084	0
Single-use Paper	45,989,254	1.3	0.03	1,380	1.9	2.06	94,738
Reusable	1,080,944	1.4	0.032	35	3.0	3.252	3,515
Alternative 2 Total				1,415	Total		98,253
Proposed Ordinance Total				1,529	Total		103,473
Difference				(114)			(5,220)
Existing Total (without an Ordinance)				2,351	Existing		110,783
Net Change of Alternative 2 (Alternative 2 Total minus Existing Total)				(936)	Net Change		(7,310)

Source: Refer to Table 4.1-5 in Section 4.1, Air Quality.

This alternative would increase the use of reusable bags in the City compared to the proposed Ordinance. However, the reduction to ground level ozone would be greater than the proposed Ordinance by approximately 114 kg per year (a further reduction of approximately 7%) and the reduction to atmospheric acidification would be greater than the proposed Ordinance by approximately 5,220 kg per year (a further reduction of approximately 5%). Like the proposed Ordinance, Alternative 2 would result in beneficial impacts since the contribution to both ground level ozone and atmospheric acidification would decrease compared to existing conditions as a result of implementation of an ordinance that would ban plastic bags at all retail establishments.

To estimate mobile emissions resulting from Alternative 2, the number of truck trips per day was calculated using the assumptions outlined in Section 4.1, Air Quality. As shown in Table 6-3, Alternative 2 would result in an estimated 221 truck trips per year, or 0.61 truck trips per day, which is slightly higher than the proposed Ordinance.



**Table 6-3
 Estimated Truck Trips per Day
 Following Implementation of Alternative 2**

Bag Type	Number of Bags per Year	Number of Bags per Truck Load*	Truck Trips Per Year	Truck Trips per Day
Single-use Plastic	0	2,080,000	0	0
Single-use Paper	45,989,254	217,665	211	0.58
Reusable	1,080,944	108,862	9.92	0.027
Alternative 2 Total			221	0.61
Truck Trips from Proposed Ordinance			223	0.61
Difference			(2)	0
Existing Total (without an Ordinance)			49	0.13
Net Change of Alternative 2 (Alternative 2 Total minus Existing Total)			172	0.47

*City of Santa Monica Single-Use Carryout Bag Ordinance EIR (SCH #2010041004), January 2011; and City of Sunnyvale Carryout Bag Ordinance EIR (SCH#2011062032), December 2011.

Based on the estimated truck trips for Alternative 2, mobile emissions were calculated using the URBEMIS model. As shown in Table 6-4, although Alternative 2 would slightly decrease truck trips compared to the proposed Ordinance (decrease by two trucks per year), this decrease is negligible such that daily ROG, NO_x, PM₁₀, and PM_{2.5} emissions would be the same for Alternative 2 as for the proposed Ordinance. None of these emissions would exceed SCAQMD thresholds.

**Table 6-4
 Operational Emissions Associated with Alternative 2**

	Emissions (lbs/day)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Mobile Emissions: Proposed Ordinance	0.01	0.2	0.05	0.01	0.01
Mobile Emissions: Alternative 2	0.01	0.2	0.05	0.01	0.01
SCAQMD Thresholds	55	55	550	150	55
Threshold Exceeded?	No	No	No	No	No

Source: URBEMIS version 9.2.4 calculations for Truck Trips. See Appendix B for calculations



Based on the data in tables 6-3 and 6-4, impacts resulting from bag manufacturing and use (including ground level ozone and atmospheric acidification) would be slightly reduced under this alternative, but would continue to be Class IV, *beneficial*, while impacts relating to an increase in truck trips would be similar, and would continue to be Class III, *less than significant*.

b. Biological Resources. Similar to the proposed Ordinance, this alternative would ban single-use plastic carryout bags, thereby reducing the amount of single-use plastic bag litter that could enter the marine environment and affect sensitive species. Although this alternative may incrementally increase the use of reusable bags in Huntington Beach as compared to the proposed Ordinance, the impacts of reusable bags on biological resources are less than those of single-use plastic bags. Because of the weight, biodegradability of the materials, and recyclability, reusable bags are less likely to become litter compared to single-use plastic bags (Green Cities California MEA, 2010). Therefore, the impact to sensitive species as a result of litter entering the marine environment from Alternative 2 would be reduced compared to the proposed Ordinance. Similar to the proposed Ordinance, impacts would be Class IV, *beneficial*. Overall benefits would be somewhat greater than those of the proposed Ordinance since fewer plastic bags would be available within the city.

c. Greenhouse Gas Emissions. Compared to the proposed Ordinance, this alternative would be expected to reduce the number of single-use plastic bags by approximately 5.1 million bags and increase the number of reusable bags by 98,268. The number of paper bags would not change under this alternative. As noted in Section 4.3, *Greenhouse Gases*, through the manufacturing, transportation, and disposal, each reusable bag results in 2.6 times the emissions of a single-use plastic bag. Because this alternative would increase the number of reusable bags and reduce the number of single-use plastic bags, it would result in a net decrease of GHG emissions compared to the proposed Ordinance.

Table 6-5 (on the following page) shows estimated GHG emissions associated with implementation of Alternative 2.

Compared to the proposed Ordinance, GHG emissions under Alternative 2 would decrease by approximately 0.001 CO₂e per person per year. Like the proposed Ordinance, the net increase in emissions compared to existing conditions as a result of this alternative (net increase of 0.015 CO₂e per person per year) would not exceed the SCAQMD's 4.8 metric tons CDE per person per year threshold. Therefore, impacts would remain Class III, *less than significant*.

d. Hydrology and Water Quality. Similar to the proposed Ordinance, this alternative would reduce the number of single-use plastic bags used in Huntington Beach, thereby incrementally reducing the amount of plastic litter and waste entering storm drains. Although this alternative would be expected to replace 5.1 million single-use plastic bags with 98,268 reusable bags (see Table 6-1), due to the weight and sturdiness of reusable bags made for multiple uses, reusable bags are less likely to be littered or carried from landfills by wind as litter compared to both single-use plastic and paper bags. Therefore, shifting toward greater use of reusable bags would not degrade water quality compared to existing conditions as a result of litter, nor would it increase the potential for storm drain blockage (refer to Section 4.4, *Hydrology and Water Quality*). Because reusable bags would be less likely to result in storm drain blockage or contamination, this alternative would reduce litter compared to the proposed



**Table 6-5
 Estimated Greenhouse Gas Emissions
 from Alternative 2**

Bag Type	Estimated Number of Bags Used per Year	GHG Impact Rate per Bag	CO₂e (metric tons)	CO₂e per year (metric tons)	CO₂e per Person
Single-use Plastic	0	1.0	0.04 per 1,500 bags	0	0
Single-use Paper	45,989,254	2.97	0.1188 per 1,000 bags	5,464	0.032
Reusable	1,080,944	2.6	0.104 per 1,000 bags	112	0.0005
Alternative 2 Total				5,576	0.029
Proposed Ordinance				5,702	0.030
Difference				(126)	0.001
Existing Total (without an Ordinance)				2,725	0.014
Net Change of Alternative 2 (Alternative 2 Total minus Existing Total)				2,851	0.015

CO₂e = Carbon Dioxide Equivalent units
 Source: Refer to Table 4.3-4 in Section 4.3, Greenhouse Gas Emissions.

Ordinance. As with the proposed Ordinance, an incremental reduction in the amount of litter that could enter storm drains and local waterways would improve water quality and reduce the potential for storm drain blockage. Therefore, like the proposed Ordinance, this alternative would result in generally Class IV, *beneficial*, effects to water quality, and overall benefits would be somewhat greater under this alternative.

This alternative would be expected to result in the use of more reusable bags in Huntington Beach than with implementation of the proposed Single-Use Carryout Bag Ordinance. However, as with the proposed Ordinance, reusable bag manufacturing facilities would be required to adhere to NPDES Permit requirements, AB 258 and the California Health and Safety Code reducing impacts to water quality. Impacts to water quality from altering bag processing activities would be the same as the proposed Ordinance and would remain Class III, *less than significant*.



6.3 ALTERNATIVE 3: MANDATORY CHARGE OF \$0.25 FOR PAPER BAGS

6.3.1 Description

Similar to the proposed Ordinance, this alternative would prohibit three specified categories of retail establishments in Huntington Beach from providing single-use plastic carryout bags to customers at the point of sale. However, under this alternative, the mandatory charge for each paper bag distributed by stores in the City would be increased from \$0.10 per bag (as currently proposed) to \$0.25 per bag. As a result of the \$0.25 mandatory charge increase for paper bags, it is anticipated that this alternative would further promote the use of reusable bags since customers would be deterred from purchasing paper bags due to the additional cost.

Based on a cost requirement of \$0.25 per bag, it is assumed that the total volume of plastic bags currently used in Huntington Beach (estimated at 102,198,343 plastic bags per year) would be replaced by approximately 35% paper bags and 60% reusable bags under Alternative 3 (compared to 45% paper and 50% reusable assumed for the proposed Ordinance). It is assumed that 5% of existing single-use plastic bags would remain in use, similar to the proposed Ordinance, since the alternative would not apply to some retailers who distribute plastic bags (e.g. restaurants). Table 6-6 summarizes the changes in bag distribution as a result of a \$0.25 mandatory charge under this alternative compared to the \$0.10 charge under the proposed Ordinance.

**Table 6-6
 Estimated Bag Use: Proposed Ordinance versus Alternative 3**

Bag Type	Bags Used Annually	
	Proposed Ordinance	Alternative 3
Single-Use Plastic	5,109,917	5,109,917
Single-Use Paper	45,989,254	35,769,420
Reusable	982,676	1,179,211

* Refer to Table 4.1-4 in Section 4.1, Air Quality.

** Based on an assumption of 5% existing plastic bag use in Huntington Beach (approximately 102,198,343 plastic bags per year) to remain, 35% conversion of the volume of existing plastic bag use in Huntington Beach to paper bags and 60% conversion to reusable bags (based on 52 uses per year).

6.3.2 Impact Analysis

a. **Air Quality.** As described in Section 4.1, *Air Quality*, it is estimated that the proposed Ordinance would replace the total volume of single-use plastic bags currently used in Huntington Beach with approximately 45% paper bags and 50% reusable bags, leaving 5% of the plastic bags in circulation (or approximately 5.1 million bags, as shown in Table 6-1 above). This alternative would increase the mandatory charge on paper bags by fifteen cents, and would therefore promote a greater shift toward reusable bags. Consequently, this alternative



would reduce the number of single-use paper bags and increase the number of reusable bags compared to the proposed Ordinance. Because this alternative would apply to the same retailers as the proposed Ordinance, the number of single-use plastic bags remaining in circulation would be the same. In total, Alternative 3 would result in 10,023,299 fewer bags (including single-use plastic, single-use paper, and reusable) than the proposed Ordinance. Air pollutant emissions associated with bag manufacturing, transportation, and disposal would therefore be reduced when compared to the proposed Ordinance.

Table 6-7 estimates emissions that contribute to the development of ground level ozone and atmospheric acidification that would result from implementation of Alternative 3, as compared to the proposed Ordinance and existing conditions.

**Table 6-7
 Estimated Emissions that Contribute to Ground Level Ozone and
 Atmospheric Acidification (AA) from Alternative 3**

Bag Type	# of Bags Used per Year	Ozone Emission Rate per Bag	Ozone Emissions (kg) per 1,000 bags	Ozone Emissions per year (kg)	AA Emission Rate per Bag	AA Emissions (kg) per 1,000 bags	AA Emissions per year (kg)
Single-use Plastic	5,109,917	1.0	0.023	117.52	1.0	1.084	5,539.15
Single-use Paper	35,769,420	1.3	0.03	1,073	1.9	2.06	73,685
Reusable	1,179,211	1.4	0.032	38	3.0	3.252	3,835
Alternative 3 Total				1,229	Total		83,059
Proposed Ordinance Total				1,529	Total		103,473
Difference				(300)			(20,414)
Existing Total (without an Ordinance)				2,351	Existing		110,783
Net Change of Alternative 3 (Alternative 3 Total minus Existing Total)				(1,122)	Net Change		(27,724)

Source: Refer to Table 4.1-5 in Section 4.1, Air Quality.

This alternative would increase the use of reusable bags in the City compared to the proposed Ordinance. However, because the alternative would reduce the number of paper bags by almost 10 million, the reduction to ground level ozone would be greater than the proposed Ordinance by approximately 300 kg per year (a further reduction of approximately 20%) and the reduction to atmospheric acidification would be greater than the proposed Ordinance by approximately 27,724 kg per year (a further reduction of approximately 27%). Like the



proposed Ordinance, Alternative 3 would result in beneficial impacts since the contribution to both ground level ozone and atmospheric acidification would decrease compared to existing conditions as a result of implementation of an ordinance that would apply a \$0.25 fee on paper bags.

To estimate mobile emissions resulting from Alternative 3, the number of truck trips per day was calculated using the assumptions outlined in Section 4.1, *Air Quality*. As shown in Table 6-8, Alternative 3 would result in an estimated 178 truck trips per year, or 0.49 truck trips per day, which is approximately 20% fewer truck trips than the proposed Ordinance.

**Table 6-8
 Estimated Truck Trips per Day
 Following Implementation of Alternative 3**

Bag Type	Number of Bags per Year	Number of Bags per Truck Load*	Truck Trips Per Year	Truck Trips per Day
Single-use Plastic	5,109,917	2,080,000	2.5	0.007
Single-use Paper	35,769,420	217,665	164	0.45
Reusable	1,179,211	108,862	11	0.03
Alternative 3 Total			178	0.49
Truck Trips from Proposed Ordinance			223	0.61
Difference			(45)	(0.12)
Existing Total (without an Ordinance)			49	0.13
Net Change of Alternative 3 (Alternative 3 Total minus Existing Total)			129	0.35

*City of Santa Monica Single-Use Carryout Bag Ordinance EIR (SCH #2010041004), January 2011; and City of Sunnyvale Carryout Bag Ordinance EIR (SCH#2011062032), December 2011.

Based on the estimated truck trips for Alternative 3, mobile emissions were calculated using the URBEMIS model. As indicated in Table 6-9, daily ROG and PM₁₀ emissions would be the same for Alternative 3 as for the proposed Ordinance, while daily emissions of NO_x and PM_{2.5} would be slightly lower. Like the proposed Ordinance, none of these emissions would exceed SCAQMD thresholds.



**Table 6-9
Operational Emissions Associated with Alternative 3**

	Emissions (lbs/day)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Mobile Emissions: Proposed Ordinance	0.01	0.2	0.05	0.01	0.01
Mobile Emissions: Alternative 3	0.01	0.09	0.03	0.01	0.00
SCAQMD Thresholds	55	55	550	150	55
Threshold Exceeded?	No	No	No	No	No

Source: URBEMIS version 9.2.4 calculations for Truck Trips. See Appendix B for calculations

Based on the above, Alternative 3 would slightly reduce air quality impacts compared to the proposed Ordinance. Impacts resulting from bag manufacturing and use (ground level ozone and atmospheric acidification) would continue to be Class IV, *beneficial*, while impacts relating to an increase in truck trips would continue to be Class III, *less than significant*.

b. Biological Resources. Similar to the proposed Ordinance, this alternative would ban single-use plastic carryout bags from certain retailers, thereby incrementally reducing the amount of single-use plastic bag litter that could enter the marine environment and affect sensitive species. Compared to the proposed Ordinance, this alternative would also further reduce the amount of single-use paper bag litter that could enter the marine environment. Although single-use paper bags are less likely to become litter compared to single-use plastic bags (refer to Section 4.2, *Biological Resources*), the net reduction of all bag types associated with this alternative would result in overall less litter entering the marine environment. As a result, the benefits with respect to marine species would be greater than those of the proposed Ordinance.

c. Greenhouse Gas Emissions. Compared to the proposed Ordinance, this alternative would be expected to reduce the number of single-use paper bags by approximately 10 million bags and increase the number of reusable bags by approximately 196,535. The number of single-use plastic bags would not change under this alternative. As noted in Section 4.3, *Greenhouse Gases*, the manufacturing, transportation, and disposal of each single-use paper bag results in 3.3 times the emissions of a single-use plastic bag, while the manufacturing, transportation, and disposal of each reusable bag results in approximately 2.6 times the emissions of a single-use plastic bag. This alternative would increase the number of reusable bags by approximately 196,535, which would slightly increase GHG emissions; however, it would reduce the number of single-use paper bags to a greater extent (approximately 10 million bags).

Table 6-10 provides an estimate of GHG emissions that would result from the reduction of carryout bags as a result of implementation of Alternative 3.



**Table 6-10
 Estimated Greenhouse Gas Emissions
 from Alternative 3**

Bag Type	Estimated Number of Bags Used per Year	GHG Impact Rate per Bag	CO ₂ e (metric tons)	CO ₂ e per year (metric tons)	CO ₂ e per Person
Single-use Plastic	5,109,917	1.0	0.04 per 1,500 bags	136	0.0007
Single-use Paper	35,769,420	2.97	0.1188 per 1,000 bags	4,249	0.022
Reusable	1,179,211	2.6	0.104 per 1,000 bags	123	0.0006
Alternative 3 Total				4,508	0.023
Proposed Ordinance				5,702	0.030
Difference				(1,194)	(0.007)
Existing Total (without an Ordinance)				2,725	0.014
Net Change of Alternative 3 (Alternative 3 Total minus Existing Total)				1,783	0.009

CO₂e = Carbon Dioxide Equivalent units
 Source: Refer to Table 4.3-4 in Section 4.3, Greenhouse Gas Emissions.

Compared to the proposed Ordinance, GHG emissions under Alternative 3 would decrease by approximately 0.007 CDE per person per year. Like the proposed Ordinance, the net increase of emissions compared to existing conditions as a result of this alternative (net increase of 0.009 CO₂e per person per year) would not exceed the SCAQMD's 4.8 metric tons CDE per person per year threshold. Therefore, impacts would remain Class III, *less than significant*.

d. Hydrology and Water Quality. Similar to the proposed Ordinance, this alternative would reduce the number of single-use plastic bags used in Huntington Beach, thereby incrementally reducing the amount of plastic litter and waste entering storm drains. In addition, this alternative would further reduce the number of single-use paper bags compared to the proposed Ordinance (by approximately 10 million bags), replacing them instead with approximately 196,535 reusable bags. As a result, overall, this alternative would reduce litter compared to the proposed Ordinance. As with the proposed Ordinance, an incremental reduction in the amount of litter that could enter storm drains and local waterways would improve water quality and reduce the potential for storm drain blockage. Therefore, like the proposed Ordinance, this alternative would result in Class IV, *beneficial*, effects to water quality. Overall benefits would be somewhat greater under this alternative.

This alternative would be expected to result in the use of fewer single-use paper carryout bags in Huntington Beach than with implementation of the proposed Single-Use Carryout Bag Ordinance. However, it would not completely eliminate single-use paper bags. As with the



proposed Ordinance, single-use paper bag manufacturing facilities would be required to adhere to NPDES Permit requirements, AB 258 and the California Health and Safety Code reducing impacts to water quality. Impacts to water quality from altering bag processing activities would be the same as the proposed Ordinance and would continue to be Class III, *less than significant*.

6.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

This subsection identifies the environmentally superior alternative. The Mandatory Charge of \$0.25 for Paper Bags alternative would be considered environmentally superior among the alternatives, as it would have more environmental benefits compared to the proposed Ordinance. This alternative would result in beneficial effects to the environment compared to existing conditions in the areas of air quality, biological resources, and hydrology/water quality. This alternative would also meet the project objectives, including:

- Reducing the number of single-use plastic bags distributed by retailers and used by customers in Huntington Beach
- Deterring the use of paper bags by customers in Huntington Beach
- Promoting a shift toward the use of reusable carryout bags by retail customers in Huntington Beach
- Reducing the environmental impacts related to single-use plastic carryout bags, such as impacts to biological resources (including marine environments) and water quality
- Avoiding litter and the associated adverse impacts to stormwater systems, aesthetics and the marine environment (Pacific Ocean and Bolsa Chica Ecological Reserve)

The proposed Ordinance would not have any significant impacts; therefore, adopting Alternative 3 (Mandatory Charge of \$0.25 for Paper Bags) rather than the proposed project would not avoid any significant environmental effects.

Table 6-11 compares the impacts for each of the alternatives.



**Table 6-11
 Impact Comparison of Alternatives**

Issue	Proposed Ordinance	Alt 1: No Project	Alt 2: Ban on Plastic Bags at all Retail Establishments	Alt 3: Mandatory Charge of \$0.25 for Paper Bags
Air Quality	=	-/+	+/=	+
Biological Resources	=	-	+	+/=
Greenhouse Gas Emissions	=	-/+	+/=	+
Hydrology/Water Quality	=	-	+/=	+/=

+ Superior to the proposed project (reduced level of impact)

- Inferior to the proposed project (increased level of impact)

= / + slightly superior to the proposed project in one or more aspects, but not significantly superior

= Similar level of impact to the proposed project



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7.1 REFERENCES

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7.2 REPORT PREPARERS

This EIR was prepared by Rincon Consultants, Inc., under contract to the City of Huntington Beach. Consultant staff involved in the preparation of the EIR are listed below.

Rincon Consultants, Inc.

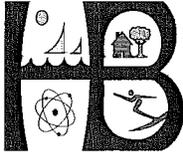
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Megan Jones, Senior Planner
Carie Wingert, Associate Biologist
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Katherine Warner, Graphics Technician
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Appendix A

*Notice of Preparation, Initial Study, and
NOP Comment Letters*



**PUBLIC NOTICE
CITY OF HUNTINGTON BEACH
PLANNING AND BUILDING DEPARTMENT**

**NOTICE OF AVAILABILITY
OF THE NOTICE OF PREPARATION
OF A DRAFT ENVIRONMENTAL IMPACT REPORT
FOR A MUNICIPAL CODE AMENDMENT REGULATING THE USE OF
PLASTIC CARRYOUT BAGS AND RECYCLABLE PAPER CARRYOUT
BAGS AND PROMOTING THE USE OF REUSABLE BAGS
AND NOTICE OF A PUBLIC SCOPING MEETING**

Notice of Preparation of a Draft Environmental Impact Report for a Municipal Code amendment regulating the use of plastic carryout bags and recyclable paper carryout bags and promoting the use of reusable bags.

The City of Huntington Beach has prepared a Notice of Preparation (NOP) for a draft Environmental Impact Report (EIR) for the proposed project. The NOP includes an environmental assessment that identifies the potential environmental impacts to be addressed in the EIR.

The NOP will be available for public review and comment for 30 days, commencing Thursday, November 17, 2011 and ending Monday, December 19, 2011. Written comments on the NOP must be submitted to Hayden Beckman, Planning Aide, City of Huntington Beach Planning and Building Department, 2000 Main Street, Huntington Beach, California 92648 by 5:00 PM, Monday, December 19, 2011. A copy of the NOP is on file at the following locations:

1. Planning and Building Department, 3rd Floor, 2000 Main Street, Huntington Beach, CA 92648;
2. Central Library, 7111 Talbert Avenue, Huntington Beach, CA 92647; and
3. City website at
<http://www.huntingtonbeachca.gov/Government/Departments/Planning/Environmentalreports.cfm>

Project Description:

The project involves the adoption of a proposed ordinance (Ordinance) by the City of Huntington Beach City Council that would prohibit distribution of plastic carry-out bags in commercial point of sale purchases within the City of Huntington Beach, and establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags at all grocery stores and supermarkets, drug stores, pharmacies, convenience stores, foodmarts and Huntington Beach farmer's markets. All stores affected by the proposed ordinance would be required to provide reusable bags to customers either for sale or at no charge, and each store would be strongly encouraged to promote the use of reusable bags through staff education and customer outreach.

The Ordinance would also prohibit the distribution of compostable and biodegradable plastic carry-out bags, as they are included in the definition of a plastic carry-out bag. The Ordinance requires that the paper bags be one hundred percent (100%) recyclable overall, contain a minimum of forty percent (40%) post-consumer recycled material, and be accepted for recycling in curbside programs within the City, among other criteria. The Ordinance further requires that reusable bags be specifically designed and manufactured for a minimum lifetime of 125 uses, be machine washable or made from a material that can be cleaned or disinfected, does not contain lead,

cadmium, or other heavy element in toxic amounts, among other criteria. Plastic bags that are a minimum of 2.25 mils thick are considered to be reusable bags per the definition in the Ordinance.

The Ordinance would exempt from the ten (10) cent charge those customers who are participating in either the California Special Supplemental Food Program for the Women, Infants, and Children or the Supplemental Food Program. All applicable stores must provide at the point of sale, free of charge, either reusable bags or recyclable paper carry-out bags or both, to these customers, at the store's option. Customers will have the option to use their own reusable bags, or no bag at all.

Scoping Meeting

A meeting will be held during the comment period to take comments related to the scope of the environmental issues to be analyzed within the draft EIR. The meeting will be held at 6:00 PM on Wednesday, December 7, 2011 in the Talbert Room at Huntington Beach Library located at 7111 Talbert Avenue, Huntington Beach, California. For further information, please contact Hayden Beckman at 714-374-5317.

**ENVIRONMENTAL CHECKLIST FORM
CITY OF HUNTINGTON BEACH
PLANNING & BUILDING DEPARTMENT
ENVIRONMENTAL ASSESSMENT NO. 2011-002**

- 1. PROJECT TITLE:** MUNICIPAL CODE AMENDMENT REGULATING THE USE OF PLASTIC CARRYOUT BAGS AND RECYCLABLE PAPER CARRYOUT BAGS AND PROMOTING THE USE OF REUSABLE BAGS
- 2. LEAD AGENCY:** City of Huntington Beach
2000 Main Street
Huntington Beach, CA 92648
- Contact:** Hayden Beckman, Planning & Building Department
Phone: (714) 536-5271
- 3. PROJECT LOCATION:** Citywide
- 4. PROJECT PROPONENT:** Same as Lead Agency
- 5. GENERAL PLAN DESIGNATION:** Various
- 6. ZONING:** Various
- 7. PROJECT DESCRIPTION:**

The project involves the adoption of a proposed ordinance (Ordinance) by the City of Huntington Beach City Council that would prohibit distribution of plastic carry-out bags in commercial point of sale purchases within the City of Huntington Beach, and establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags at all grocery stores and supermarkets, drug stores, pharmacies, convenience stores, foodmarts and Huntington Beach farmer's markets. All stores affected by the proposed ordinance would be required to provide reusable bags to customers either for sale or at no charge, and each store would be strongly encouraged to promote the use of reusable bags through staff education and customer outreach.

Stores located within Huntington Beach that would be affected include the following:

1. A full-line, self-service retail store with gross annual sales of two million dollars (\$2,000,000), or more, that sells a line of dry grocery, canned goods, or nonfood items and some perishable items;
2. A store of at least ten thousand (10,000) square feet of retail space that generates sales or use tax pursuant to the Bradley-Burns Uniform Local Sales and Use Tax Law (Part 1.5

(commencing with Section 7200) of Division 2 of the Business and Professions Code) and that has a pharmacy licensed pursuant to Chapter 9 (commencing with Section 4000) of Division 2 of the Business and Professions Code; or

3. A drug store, pharmacy, supermarket, grocery store, convenience food store, food mart, or other entity engaged in the retail sale of a limited line of goods that includes milk, bread, soda, snack foods, including those stores with a Type 20 or 21 license issued by the Department of Alcoholic Beverage Control.

The Ordinance would also prohibit the distribution of compostable and biodegradable plastic carry-out bags, as they are included in the definition of a plastic carry-out bag. The Ordinance would impose a ten (10) cent charge on recyclable paper carry-out bags, and requires that the paper bags be one hundred percent (100%) recyclable overall, contain a minimum of forty percent (40%) post-consumer recycled material, and be accepted for recycling in curbside programs within the City, among other criteria. The Ordinance further requires that reusable bags be specifically designed and manufactured for a minimum lifetime of 125 uses, be machine washable or made from a material that can be cleaned or disinfected, does not contain lead, cadmium, or other heavy element in toxic amounts, among other criteria. Plastic bags that are a minimum of 2.25 mils thick are considered to be reusable bags per the definition in the Ordinance.

The Ordinance would exempt from the ten (10) cent charge those customers who are participating in either the California Special Supplemental Food Program for the Women, Infants, and Children or the Supplemental Food Program. All applicable stores must provide at the point of sale, free of charge, either reusable bags or recyclable paper carry-out bags or both, to these customers, at the store's option. Customers will have the option to use their own reusable bags, or no bag at all.

8. SURROUNDING LAND USES AND SETTING:

Located in north Orange County, Huntington Beach is bordered by the Cities of Seal Beach, Westminster and Fountain Valley to the north, Costa Mesa and Newport Beach to the southeast, and the Pacific Ocean along an approximately 9.5 mile southwestern boundary. Surrounding uses include residential, commercial, public/semi-public and industrial.

9. OTHER PREVIOUS RELATED ENVIRONMENTAL DOCUMENTATION:

Green Cities California, a local government coalition, produced a Master Environmental Assessment (MEA) that summarizes existing studies on the environmental impacts of single use plastic, paper, compostable and reusable bags, as well as the impacts of policy options such as fees and bans on bags. Other Environmental Impact Reports (EIR), EIR Addendums or Mitigated Negative Declarations (MND) have been processed in several jurisdictions in Southern California including Los Angeles County, City of Long Beach, City of Santa Monica, City of Manhattan Beach and City of Calabasas.

10. OTHER AGENCIES WHOSE APPROVAL IS REQUIRED (AND PERMITS NEEDED):

None.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" or is "Potentially Significant Unless Mitigated," as indicated by the checklist on the following pages.

- | | | |
|---|--|--|
| <input type="checkbox"/> Land Use / Planning | <input type="checkbox"/> Transportation / Traffic | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Population / Housing | <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Utilities / Service Systems |
| <input type="checkbox"/> Geology / Soils | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Aesthetics |
| <input checked="" type="checkbox"/> Hydrology / Water Quality | <input type="checkbox"/> Hazards and Hazardous Materials | <input type="checkbox"/> Cultural Resources |
| <input checked="" type="checkbox"/> Air Quality | <input type="checkbox"/> Noise | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Agriculture Resources | <input checked="" type="checkbox"/> Greenhouse Gas Emissions | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION

(To be completed by the Lead Agency)

On the basis of this initial evaluation:

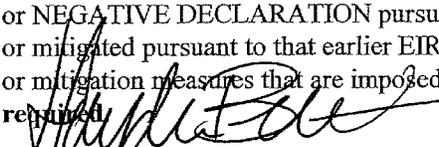
I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A **MITIGATED NEGATIVE DECLARATION** will be prepared.

I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.

I find that the proposed project **MAY** have a "potentially significant impact" or a "potentially significant unless mitigated impact" on the environment, but at least one impact (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, **nothing further is required.**



 Signature

11.14.2011

 Date

HAYDEN BECKMAN

 Printed Name

PLANNING AIDE

 Title

EVALUATION OF ENVIRONMENTAL IMPACTS:

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to the project. A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards.
2. All answers must take account of the whole action involved. Answers should address off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. "Potentially Significant Impact" is appropriate, if an effect is significant or potentially significant, or if the lead agency lacks information to make a finding of insignificance. If there are one or more "Potentially Significant Impact" entries when the determination is made, preparation of an Environmental Impact Report is warranted.
4. "Potentially Significant Impact Unless Mitigated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). Earlier analyses are discussed in Section XIX at the end of the checklist.
6. References to information sources for potential impacts (e.g., general plans, zoning ordinances) have been incorporated into the checklist. A source list has been provided in Section XIX. Other sources used or individuals contacted have been cited in the respective discussions.
7. The following checklist has been formatted after Appendix G of Chapter 3, Title 14, California Code of Regulations, but has been augmented to reflect the City of Huntington Beach's requirements:

SAMPLE QUESTION:

<i>ISSUES (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
<i>Would the proposal result in or expose people to potential impacts involving:</i>				
<i>Landslides? (Sources: 1, 6)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Discussion: The attached source list explains that 1 is the Huntington Beach General Plan and 6 is a topographical map of the area which show that the area is located in a flat area. (Note: This response probably would not require further explanation).</i>				

ISSUES (and Supporting Information Sources):

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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I. LAND USE AND PLANNING. Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? (Sources: 1, 2) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with any applicable habitat conservation plan or natural community conservation plan? (Sources: 1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Physically divide an established community? (Sources: 3) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion a) – c): The proposed project requires an amendment to the Huntington Beach Municipal Code via adoption of an ordinance that would prohibit the distribution of plastic carry-out bags in point of sale purchases citywide and would establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags. The proposed ordinance would not result in any land use changes, conflict with any applicable land use plan or policy, nor conflict with any habitat or natural community conservation plan. The proposed project would not physically divide an established community. No impacts would occur and no further analysis is required.

II. POPULATION AND HOUSING. Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extensions of roads or other infrastructure)? (Sources: 1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? (Sources: 1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? (Sources: 1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion a) – c): The proposed project involves adoption of an ordinance that would prohibit the distribution of plastic carry-out bags in point of sale purchases citywide and would establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags. The project would not contribute to development of additional housing and would not generate population either directly or indirectly. The project would not displace existing housing or existing residents and would not require any replacement housing. No impacts would occur

ISSUES (and Supporting Information Sources):

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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and no further analysis is required.

III. GEOLOGY AND SOILS. Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Sources: 1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| ii) Strong seismic ground shaking? (Sources: 1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| iii) Seismic-related ground failure, including liquefaction? (Sources: 1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| iv) Landslides? (Sources: 1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion: The City of Huntington Beach is located in a seismically active region of Southern California and is subject to strong ground shaking in the event of an earthquake, as well as seismic-related ground failure such as liquefaction. However, the proposed project involves adoption of an ordinance that would prohibit the distribution of plastic carry-out bags in point of sale purchases citywide only. The project does not include any development, thus implementation of the proposed ordinance would not expose people or structures to potential adverse effects involving rupture of a known earthquake fault, strong seismic ground shaking, or seismic related ground failure. No impacts would occur and no further analysis is required.

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| b) Result in substantial soil erosion, loss of topsoil, or changes in topography or unstable soil conditions from excavation, grading, or fill? (Sources: 1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? (Sources: 1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? (Sources: 1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater? (Sources: 1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion b) – e): As discussed in Section III(a) above, the project does not include any development and therefore would not result in soil erosion, loss of topsoil or involve excavation, grading or fill activities. The project would not place structures or people in areas that are located on expansive soil, and would therefore not create any risks associated with expansive soils. Additionally, the project would not involve soils incapable of adequately supporting the use of septic or wastewater disposal systems. No impacts would occur and no further analysis is required.

IV. HYDROLOGY AND WATER QUALITY. Would the project:

a) Violate any water quality standards or waste discharge requirements? (Sources: 1, 6, 10)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Discussion: The proposed project involves adoption of an ordinance that would prohibit the distribution of plastic carry-out bags in point of sale purchases citywide and would establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags. It is anticipated that the reduction of plastic carry-out bags would incrementally reduce the amount of litter in the City that enters the storm drains, thereby improving water quality. However, potential increased reliance on paper carry-out bags may result in increased manufacturing wastes that can potentially impact water quality or waste discharge requirements. The promotion of reuseable bags could also potentially affect water quality if reuseable bags are improperly disposed of and become litter that enters the storm drain system. Potentially significant water quality impacts as a result of bag manufacturing processes will be further analyzed by the project EIR.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted? (Sources: 1, 6, 10)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off-site? (Sources: 1, 6, 10)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ISSUES (and Supporting Information Sources):

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
--------------------------------	--	------------------------------	-----------

stream or river, or substantially increase the rate or amount or surface runoff in a manner which would result in flooding on or off-site? (Sources: 1, 6, 10)

Discussion b) – d): The proposed project involves adoption of an ordinance that would prohibit the distribution of plastic carry-out bags in point of sale purchases citywide and would establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags. The project does not include any development, and implementation of the proposed ordinance would not substantially alter the existing drainage pattern of a site or area, deplete groundwater supplies or interfere with groundwater recharge. No impacts would occur and no further analysis is required.

- | | | | | |
|---|-------------------------------------|--------------------------|--------------------------|--------------------------|
| e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? (Sources: 1, 6, 10) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|---|-------------------------------------|--------------------------|--------------------------|--------------------------|

Discussion: See Discussion under Section IV(a).

- | | | | | |
|---|-------------------------------------|--------------------------|--------------------------|--------------------------|
| f) Otherwise substantially degrade water quality? (Sources: 1, 6, 10) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|---|-------------------------------------|--------------------------|--------------------------|--------------------------|

Discussion: See discussion under Section IV(a).

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? (Sources: 1, 4, 10) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows? (Sources: 1, 4, 10) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? (Sources: 1, 4, 10) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion g) – i): Although some areas in Huntington Beach that would be affected by the City’s proposed ordinance are located within a 100-year Flood Zone area, the ordinance does not include any new development and drainage patterns would not be affected upon implementation. Therefore, the City’s proposed ordinance would not result in impacts to hydrology and water quality related to the 100-year Flood Zone and no further analysis is required.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| j) Inundation by seiche, tsunami, or mudflow? (Sources: 1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

ISSUES (and Supporting Information Sources):

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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Discussion: The proposed ordinance would affect some areas in Huntington Beach that are located near the Pacific Ocean and could be subject to seiche or tsunami. However, implementation of the ordinance would not include any new development and would not result in an increase in population. Therefore, the proposed ordinance would not be expected to increase the risk and hazard to individuals residing in areas that lie in the vicinity of coastal waters of being subject to inundation by seiche, tsunami or mudflow. No impacts would occur and no further analysis is required.

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| k) Potentially impact stormwater runoff from construction activities? (Sources: 1, 6) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| l) Potentially impact stormwater runoff from post-construction activities? (Sources: 1, 6) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion k) - l): The proposed project involves adoption of an ordinance that would prohibit the distribution of plastic carry-out bags in point of sale purchases citywide and would establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags. The project does not include any development, and implementation of the proposed ordinance would not impact stormwater runoff from construction or post-construction activities. No impacts would occur and no further analysis is required.

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| m) Result in a potential for discharge of stormwater pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas, loading docks or other outdoor work areas? (Sources: 1, 6) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
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Discussion: The proposed project involves adoption of an ordinance that would prohibit the distribution of plastic carry-out bags in point of sale purchases citywide and would establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags. A large proportion of carry-out bags discarded end up as litter or in a landfill. Even bags collected by recycling and solid waste trucks and handled at transfer stations and landfills may blow away as litter and can enter storm drains or be transported to the Pacific Ocean. Potentially significant impacts from carry-out bags as waste in relation to handling or storage and delivery areas will be analyzed by the project EIR.

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| n) Result in the potential for discharge of stormwater to affect the beneficial uses of the receiving waters? (Sources: 1, 6, 10) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
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ISSUES (and Supporting Information Sources):

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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Discussion: The proposed project involves adoption of an ordinance that would prohibit the distribution of plastic carry-out bags in point of sale purchases citywide and would establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags. Urban runoff from rainfall and non-stormwater runoff from human activities is collected and transported through the City's storm drain system and ultimately discharged into the Pacific Ocean. Carry-out bags that enter the storm drain system as a result of litter may affect storm water flow by clogging drains, redirecting flow, or ultimately be released into the Pacific Ocean. These impacts can affect the beneficial uses of the Pacific Ocean by contaminating and visually degrading the marine ecosystem. Impacts related to the discharge of carry-out bag litter into the Pacific Ocean are potentially significant and will be analyzed by the project EIR.

- o) Create or contribute significant increases in the flow velocity or volume of stormwater runoff to cause environmental harm? (Sources: 1, 6, 10)

Discussion: The proposed project involves adoption of an ordinance that would prohibit the distribution of plastic carry-out bags in point of sale purchases citywide and would establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags. The project does not include any development, and implementation of the proposed ordinance would not require construction of new structures or additional stormwater infrastructure. Although plastic bag litter can block waterways resulting in changes in waterflow to surrounding areas, it is not the sole source. Implementation of the proposed ordinance and the prohibition of the distribution of plastic carry-out bags would reduce negative impacts to flow velocity or volume of stormwater runoff. Additionally, the capacity of existing storm water drainage systems would remain unchanged. Less than significant impacts would occur and no further analysis is required.

- p) Create or contribute significant increases in erosion of the project site or surrounding areas? (Sources: 1, 6, 10)

Discussion: The proposed project involves adoption of an ordinance that would prohibit the distribution of plastic carry-out bags in point of sale purchases citywide and would establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags. The project does not include any development, and would not create or contribute increases in erosion. No impacts would occur and no further analysis is required.

V. **AIR QUALITY.** The city has identified the significance criteria established by the applicable air quality management district as appropriate to make the following determinations. Would the project:

- a) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? (Sources: 1, 5, 10)

Discussion: The proposed project involves adoption of an ordinance that would prohibit the distribution of plastic carry-out bags in point of sale purchases citywide and would establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags. The project does not include any development, and would not result in regional or localized construction impacts to air quality. However, operational impacts including indirect emissions based on life-cycle assessments of carry-out bags, pollutant emissions resulting from disposal of paper carry-out bags in landfills and emissions resulting from delivery trips may result in

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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potentially significant impacts to air quality, and will be further analyzed in the project EIR.

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| b) Expose sensitive receptors to substantial pollutant concentrations? (Sources: 5) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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Discussion: The proposed project involves adoption of an ordinance that would prohibit the distribution of plastic carry-out bags in point of sale purchases citywide and would establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags. Sensitive receptors can include residences, schools, playgrounds, athletic facilities, healthcare facilities, and retirement homes. There are many sensitive receptors within the City of Huntington Beach; however, the proposed ordinance does not include any development or construction activities, and would be expected to result in less than significant impacts to air quality in relation to the exposure of sensitive receptors to substantial pollutant concentrations. No further analysis is required.

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| c) Create objectionable odors affecting a substantial number of people? (Sources: 5) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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Discussion: The proposed ordinance would prohibit the distribution of plastic carry-out bags and would establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags, which would not result in any new development or construction activity and, therefore, would not create any objectionable odors. No impacts would occur and no further analysis is required.

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| d) Conflict with or obstruct implementation of the applicable air quality plan? (Sources: 5) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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Discussion: The project site is within the South Coast Air Basin, which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The local air quality management agency is required to monitor air pollutant levels to ensure that the air quality standards are met and, if they're not met, to develop strategies to meet the standards.

Depending on whether or not the standards are met or exceeded, the air basin is classified as being in 'attainment' or 'non-attainment'. The South Coast Air Basin is in nonattainment for both federal and state standards for ozone and particulate matter (PM₁₀ and PM_{2.5}). The basin currently exceeds several state and federal ambient air quality standards and is required to implement strategies that would reduce pollutant levels to recognized acceptable standards. This non-attainment status is a result of several factors, the primary ones being the naturally adverse meteorological conditions that limit the dispersion and diffusion of pollutants, the limited capacity of the local airshed to eliminate pollutants in the air, and the number, type, and density of emission sources within the South Coast Air Basin. The SCAQMD has adopted an Air Quality Management Plan (AQMP) that provides a strategy for the attainment of state and federal air quality standards.

The proposed project involves adoption of an ordinance that would prohibit the distribution of plastic carry-out bags in point of sale purchases citywide and would establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags. Generally, a project would conflict with or potentially obstruct implementation of an air quality plan if the project would contribute to population growth in excess of that forecasted in the AQMP. The proposed ordinance does not include the construction of residences or other physical structures and would not otherwise involve population growth. Therefore, the proposed ordinance would not conflict with or obstruct implementation of the AQMP and no further analysis is required.

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? (Sources: 5)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion: Although the proposed ordinance is intended to reduce the amount of plastic and paper carry-out bags and promote a shift towards use of reusable bags in Huntington Beach, a potential change in the number of truck trips associated with delivering and distributing carry-out bags to retailers could increase long-term operational emissions. Impacts related to long-term emissions will be further analyzed in the project EIR.

VI. TRANSPORTATION/TRAFFIC. Would the project:

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? (Sources: 1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? (Sources: 1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion a) – b): The proposed project involves adoption of an ordinance that would prohibit the distribution of plastic carry-out bags in point of sale purchases citywide and would establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags. The proposed ordinance is intended to reduce the amount of plastic and paper carry-out bags and promote a shift towards reusable bags. While the proposed ordinance does not include any physical development or construction activities, the shift toward reusable bags could alter regional truck trips associated with delivering bags to retailers. However, the shift toward reusable bags would generate a negligible change in regional vehicle trips and would not conflict with an applicable plan, ordinance or policy measuring the performance of the circulation system. The anticipated change in truck travel patterns would not impact existing level of service standards or other applicable standards related to road or highway congestion. Less than significant impacts would occur and no further analysis is required.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? (Sources: 1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Discussion: The proposed ordinance would not affect air traffic patterns. No impacts would occur and no further analysis is required.

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses? (Sources: 1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access? (Sources: 1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Result in inadequate parking capacity? (Sources: 1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion d) – f): The proposed ordinance would not include any physical development, new land uses or construction activities that could result in hazards due to a design feature, or inadequate emergency access or parking capacity. No impacts would occur and no further analysis is required.

g) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? (Sources: 1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Discussion: The proposed ordinance is intended to promote the use of reusable bags and would not conflict with any programs, policies, or plans supporting alternative transportation. No impacts would occur and no further analysis is required.

VII. BIOLOGICAL RESOURCES. Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? (Sources: 1, 5, 10)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Discussion: The City of Huntington Beach shares a direct biological connection with coastal ecosystems. Located in Orange County’s northern coastal area, Huntington Beach’s geography is characterized by broad, sandy beaches backed by low bluffs and mesas, and lowland areas with extensive wetlands. Additionally, Huntington Beach is bordered by the Pacific Ocean along an approximately 9.5 mile western boundary. Although the City is almost completely urbanized, the General Plan identifies several types of biological resources that exist within and surrounding City limits including marine waters, plant life, and wildlife.

The proposed ordinance is intended to reduce the use of plastic and paper carry-out bags and promote a shift in the use of reuseable bags by Huntington Beach retail customers. Although it is anticipated that the proposed ordinance would not result in adverse impacts related to biological resources, promoting the use of reuseable bags could potentially affect sensitive species if reusable bags are improperly disposed of and become litter that enters the storm drain system and ultimately into coastal and marine environments. Potentially significant impacts to biological resources as they relate to candidate, sensitive, or special status species in local or regional plans, policies, or regulations will be analyzed by the project EIR.

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service? (Sources: 1, 5, 10)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? (Sources: 1, 5, 10)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Discussion b) – c): The proposed project involves adoption of an ordinance that would prohibit the distribution of plastic carry-out bags in point of sale purchases citywide and would establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags. The project does not include any physical development or construction activities that would result in removal, filling, hydrological interruption, etc. of wetlands, and would not alter or remove any existing riparian habitat or identified sensitive natural community. However, promoting the use of reuseable bags could potentially affect protected wetlands, a riparian habitat or other sensitive natural community if reuseable bags are improperly disposed of and become litter that is deposited into coastal and marine environments. Potentially significant impacts to biological resources related to riparian habitats or other sensitive communities identified in local or regional plans or federally protected wetlands will be analyzed by the project EIR.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites? (Sources: 1, 5, 10)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Discussion: There are no known migratory wildlife corridors or native nursery wildlife nursery sites within Huntington Beach. However, various trees, shrubs, bushes and marine ecosystems could be considered potential nesting habitat for a variety of migratory and resident bird species. The proposed project does not include any physical development or construction activity and would not alter or remove any existing vegetation or habitat within the City. Therefore, the project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. No impacts would occur and further analysis is not required.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? (Sources: 1, 5)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Discussion: The proposed project does not include any physical development or construction activity and would not alter or remove any existing vegetation or habitat within the City. The project would not conflict with any local policies or ordinances protecting biological resources. No impacts would occur and no further analysis is required.

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? (Sources: 1, 5)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion: The proposed project does not include any physical development or construction activity and would not alter or remove any existing vegetation or habitat within the City. The project would not conflict with an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. No impacts would occur and no further analysis is required.

VIII. MINERAL RESOURCES. Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? (Sources: 1, 5)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan? (Sources: 1, 5)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion a) – b): The proposed project involves adoption of an ordinance that would prohibit the distribution of plastic carry-out bags in point of sale purchases citywide and would establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags. The proposed ordinance would not affect known state, regional, or local mineral resources. No impacts would occur and no further analysis is required.

IX. HAZARDS AND HAZARDOUS MATERIALS.

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? (Sources: 1, 5)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? (Sources: 1, 5)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous material, substances, or waste within one-quarter mile of an existing or proposed school? (Sources: 1, 5)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion a) – c): The proposed project involves adoption of an ordinance that would prohibit the

ISSUES (and Supporting Information Sources):

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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distribution of plastic carry-out bags in point of sale purchases citywide and would establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags. Carry-out bags do not meet the criteria of a hazardous substance, and the ordinance would not involve the routine transport, use, or disposal of hazardous materials. The ordinance does not include any development that would create a significant hazard to the public or environment through upset or accident conditions involving the release of hazardous materials. Numerous schools exist within the City of Huntington Beach; however, the proposed ordinance would not include any physical elements that would involve the emission or handling of hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school. No impacts would occur and no further analysis is required.

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| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? (Sources: 1, 5, 8) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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Discussion: The proposed citywide ordinance does not include any new development, and implementation would not produce significant hazards to the public or the environment created by activity on a hazardous materials site pursuant to Government Code Section 65962.5. No impacts would occur and no further analysis is required.

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| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? (Sources: 1, 7) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? (Sources: 1, 7) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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Discussion e) – f): Although the City of Huntington Beach is located within the Planning Area for the Joint Forces Training Center in Los Alamitos, the proposed ordinance does not include any development and would not result in a safety hazard for people residing or working in the City. No impacts would occur and no further analysis is required.

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| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? (Sources: 1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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Discussion: The adoption of an ordinance that would prohibit the distribution of plastic carry-out bags in point of sale purchases citywide and establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags would not include any development and would not impair implementation of or physically interfere with an adopted emergency response or evacuation plan. No impacts would occur and no further analysis is required.

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| h) Expose people or structures to a significant risk of loss, | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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ISSUES (and Supporting Information Sources):

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? (Sources: 1)

Discussion: The proposed project does not include any new development and therefore would not expose people or structures to a significant risk associated with wildland fires. No impacts would occur and no further analysis is required.

X. **NOISE.** Would the project result in:

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| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? (Sources: 1, 2) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? (Sources: 1, 2) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? (Sources: 1, 2) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? (Sources: 1, 2) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? (Sources: 1, 7) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? (Sources: 1, 7) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion a) – f): The proposed project involves adoption of an ordinance that would prohibit the distribution of plastic carry-out bags in point of sale purchases citywide. The project does not include any new development, and would not expose persons to or generate noise levels in excess of established standards or excessive groundborne vibration or noise levels. No impacts would occur and no further analysis is required.

ISSUES (and Supporting Information Sources):

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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XI. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

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| a) Fire protection? (Sources: 1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Police Protection? (Sources: 1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Schools? (Sources: 1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion a) – c): The proposed project involves adoption of an ordinance that would prohibit the distribution of plastic carry-out bags in point of sale purchases citywide and would establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags. The project would not result in new development or land use changes resulting in impacts to existing fire and police protection services, or existing school facilities. No impacts would occur and further analysis is not required.

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| d) Parks? (Sources: 1) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Other public facilities or governmental services?
(Sources: 1) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion d) – e): The implementation of the proposed ordinance will involve enforcement and education outreach to residents and business owners by City staff. City parks are cleaned and otherwise maintained by City staff on a regular basis. It is not anticipated that prohibiting the distribution of plastic carry-out bags in point of sale purchases and establishing a ten (10) cent charge on the issuance of recyclable paper carry-out bags will result in significant impacts to parks maintenance. Impacts to city government services and facilities are anticipated to be less than significant, and no further investigation is required.

XII. UTILITIES AND SERVICE SYSTEMS. Would the project:

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| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?
(Sources: 1) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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facilities, the construction of which could cause significant environmental effects? (Sources: 1)

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| c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? (Sources: 1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? (Sources: 1) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? (Sources: 1) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion a) – e): The proposed project involves adoption of an ordinance that would prohibit the distribution of plastic carry-out bags in point of sale purchases citywide and would establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags. The proposed project would not involve the addition of people or new land uses that would require new water, stormwater drainage or wastewater treatment facilities or exceed wastewater treatment requirements or capacity of the Regional Water Quality Control Board. However, it is expected that the ordinance may lead to an increased use of reuseable bags within Huntington Beach. As opposed to plastic carry-out bags, reuseable bags are intended to be used multiple times over many months or years. As these bags become dirty from multiple uses, it is expected that owners will hand wash or launder the bags. The hand washing of reuseable bags or inclusion of reuseable bags in routine laundering would not result in any substantial increase in demand for potable water; therefore, the project would not result in a significant increase in water consumption that was not previously planned for in the 2010 Urban Water Management Plan. Less than significant impacts would occur and no further analysis is required.

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|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? (Sources: 1, 11) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: Rainbow Environmental Services (RES) is the exclusive hauler of all solid waste for Huntington Beach. RES operates a transfer station within Huntington Beach as well as two Materials Recovery Facilities (MRFs) through which all solid waste is processed. RES's transfer station has a design capacity of 2,800 tons per day, and current utilization ranges between 53 and 71 percent. In addition, the two MRFs sort and separate all waste and recycle all appropriate materials reducing the waste generation going to the landfills.

The Orange County Integrated Waste Management Department (IWMD) currently owns and operates three active landfills that serve the Orange County region, including: Frank R. Bowerman Landfill in Irvine; Olinda

ISSUES (and Supporting Information Sources):

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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Alpha Landfill in Brea; and Prima Deshecha Landfill in San Juan Capistrano. All three landfills are permitted as Class III landfills and have a combined design capacity of 20,500 tons per day. Solid waste from Huntington Beach would be sent to the Frank R. Bowerman Landfill in Irvine with a permitted capacity limit of 8,500 tons per day.

Prior to 2008, Assembly Bill (AB) 939 established a requirement of 50 percent diversion of solid waste by the year 2000. Based on data from 2006, the City of Huntington Beach maintained a 71 percent diversion rate from Orange County landfills, thereby meeting and exceeding the requirement. In 2008, California enacted Senate Bill (SB) 1016, which modified the system of measuring a jurisdiction's compliance with solid waste disposal requirements previously under AB 939. SB 1016 established a per-capita disposal rate as the instrument of measurement. The City of Huntington Beach is subject to a per resident disposal rate target of 10.4 pounds per person per day (PPD). According to data from annual reports submitted by the City and published by CalRecycle, the City's PPD rate dropped from 5.5 in 2007 to 4.6 in 2009, demonstrating compliance with SB 1016.

The proposed project involves adoption of an ordinance that would prohibit the distribution of plastic carry-out bags in point of sale purchases citywide and would establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags. The proposed ordinance does not include any development or construction activity. The resulting shift towards reusable bags would reduce the amount of plastic and paper carry-out bags that are sent to the local landfill. Thus, the proposed ordinance would reduce the amount of solid waste generated within the City. Impacts would be less than significant and no further analysis is required.

- g) Comply with federal, state, and local statutes and regulations related to solid waste? (Sources: 1)

Discussion: As discussed above, the adoption of an ordinance prohibiting the distribution of plastic carry-out bags citywide and establishing a ten (10) cent charge on the issuance of recyclable paper carry-out bags would incrementally reduce the amount of solid waste generation created by the use of plastic and paper carry-out bags. The project would comply with regulations pertaining to solid waste. Impacts would be less than significant and no further analysis is required.

- h) Include a new or retrofitted storm water treatment control Best Management Practice (BMP), (e.g. water quality treatment basin, constructed treatment wetlands?) (Sources: 1)

Discussion: The project does not include a new or retrofitted storm water treatment control BMP. No impacts would result and further analysis is not required.

XIII. AESTHETICS. Would the project:

- a) Have a substantial adverse effect on a scenic vista? (Sources: 1)
- b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? (Sources: 1)

ISSUES (and Supporting Information Sources):

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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- c) Substantially degrade the existing visual character or quality of the site and its surroundings? (Sources: 1)

Discussion a) – c): The proposed project involves adoption of an ordinance that would prohibit the distribution of plastic carry-out bags in point of sale purchases citywide and would establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags. One of the main objectives of implementing the proposed ordinance is to reduce the amount and visibility of litter associated with plastic carry-out bags. When improperly disposed of (i.e., not recycled or sent to a landfill), plastic bags may be blown away due to their light weight and end up as litter. The City’s economy relies on maintaining a clean recreation environment, which includes regular removal of litter from City beaches, parks and other public areas. Also, although neither State Route 39 (Beach Boulevard) or Highway 1 (Pacific Coast Highway) are designated State scenic highways within the City of Huntington Beach, a positive visual image on these two major corridors is important. Implementation of the proposed ordinance would reduce negative visual impacts of litter within Huntington Beach and improve scenic resources. Therefore, impacts would be less than significant and no further analysis is required.

- d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? (Sources: 1)

Discussion: The proposed project does not include any development and will not result in the creation of a new source of light or glare. No impacts would occur and no further analysis is required.

XIV. CULTURAL RESOURCES. Would the project:

- a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? (Sources: 1)

- b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? (Sources: 1)

- c) Directly or indirectly destroy a unique paleontological resource or site unique geologic feature? (Sources: 1)

- d) Disturb any human remains, including those interred outside of formal cemeteries? (Sources: 1)

ISSUES (and Supporting Information Sources):

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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Discussion a) – d): The proposed project involves adoption of an ordinance that would prohibit the distribution of plastic carry-out bags in point of sale purchases citywide and would establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags. The project does not include any development or alterations of physical sites or structures. The project would not result in substantial adverse changes in the significance of a historical or archaeological resource, directly or indirectly destroy a unique paleontological resource or geologic feature, nor disturb any human remains. No impacts would occur and no further analysis is required.

XV. RECREATION. Would the project:

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Would the project increase the use of existing neighborhood, community and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? (Sources: 1, 10) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? (Sources: 1, 10) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Affect existing recreational opportunities? (Sources: 1, 10) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion a) –c): The proposed project involves adoption of an ordinance that would prohibit the distribution of plastic carry-out bags in point of sale purchases citywide and would establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags. As discussed in Section XIII above, beach litter and contamination of other recreational sites can negatively impact recreational opportunities. Plastic debris including plastic carry-out bags contributes to beach and park litter, and the visual impact of litter detracts from people’s perceptions of the quality of recreational facilities. The combination of physical contamination of beach areas and the perceived lower quality of coastal waters may negatively impact beach use and recreation.

Negative impacts on the beaches and other aspects of the environment could affect tourism and the City’s economy. One of the main objectives of implementing the proposed ordinance is to reduce the amount and visibility of litter associated with plastic carry-out bags, and implementation of the proposed ordinance would reduce negative impacts of litter within Huntington Beach.

The project does not include any development and would not increase the use of existing recreational facilities nor result in physical deterioration of such facilities. The project would not require the construction or expansion of recreational facilities, and would reduce negative impacts on existing recreational facilities relating to the visibility and amount of litter. Less than significant impacts would occur and no further analysis is required.

ISSUES (and Supporting Information Sources):

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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XVI. AGRICULTURE RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? (Sources: 1, 2) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? (Sources: 1, 2) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? (Sources: 1, 2) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion a) – c): The proposed project involves adoption of an ordinance that would prohibit the distribution of plastic carry-out bags in point of sale purchases citywide and would establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags. The project does not include any development and would not result in the conversion of Farmland to non-agricultural use, changes in the existing environment which could result in conversion of Farmland to non-agricultural use, nor conflict with existing agricultural zoning or a Williamson Act contract. No impacts would occur and no further analysis is required.

XVII. GREENHOUSE GAS EMISSIONS. Would the project:

- | | | | | |
|--|-------------------------------------|--------------------------|--------------------------|--------------------------|
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Discussion a) – b): The proposed project involves adoption of an ordinance that would prohibit the distribution of plastic carry-out bags in point of sale purchases citywide and would establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags. The proposed project does not include any physical development, construction activities, or land use changes that would contribute to greenhouse gas emissions. The proposed ordinance is intended to reduce the amount of plastic and paper carry-out bags and promote a

ISSUES (and Supporting Information Sources):

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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shift towards reusable bags. Although overall carry-out bag use is anticipated to decline as a result of the proposed ordinance, the shift toward reusable bags would potentially alter traffic patterns in Huntington Beach related to the transport of plastic and paper carry-out bags as well as processing activities related to bag production and disposal of carry-out bags such that there may be a significant impact on the environment related to greenhouse gas emissions.

The EIR will analyze whether the proposed ordinance would conflict with any plan, policy or regulation adopted for the purpose of reducing greenhouse gas emissions and evaluate direct and indirect greenhouse gas emissions impacts associated with the project.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.

- a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? (Sources: 1, 6, 10)

Discussion: As discussed in Section XIV *Cultural Resources*, the project does not include any development or alterations of physical sites or structures. The project would not result in substantial adverse changes in the significance of a historical or archaeological resource, directly or indirectly destroy a unique paleontological resource or geologic feature, nor disturb any human remains. The project would have no impact on cultural resources.

As discussed in Section VII *Biological Resources*, the City is almost completely urbanized, yet the General Plan identifies several types of biological resources that exist within and surrounding City limits including marine waters, plant life, and wildlife. The proposed ordinance is intended to reduce the use of plastic and paper carry-out bags and promote a shift in the use of reusable bags by Huntington Beach retail customers. Although it is anticipated that the proposed ordinance would not result in adverse impacts related to biological resources, promoting the use of reusable bags could potentially affect sensitive species and their habitat if reusable bags are improperly disposed of and become litter that enters the storm drain system and ultimately into coastal and marine environments. Because the proposed ordinance would have the potential to affect sensitive species or habitat, potentially significant impacts to biological resources as they relate to candidate, sensitive, or special status species in local or regional plans, policies, or regulations will be further analyzed in the project EIR.

- b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.) (Sources: 1, 2, 5)

ISSUES (and Supporting Information Sources):

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
--------------------------------------	--	------------------------------------	-----------

Discussion: The proposed ordinance does have potential air quality, biological resources, greenhouse gas emissions and hydrology/water quality impacts that could be significant and cumulatively considerable. These potentially significant impacts will be discussed in the project EIR.

- c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? (Sources: 1, 2, 5)

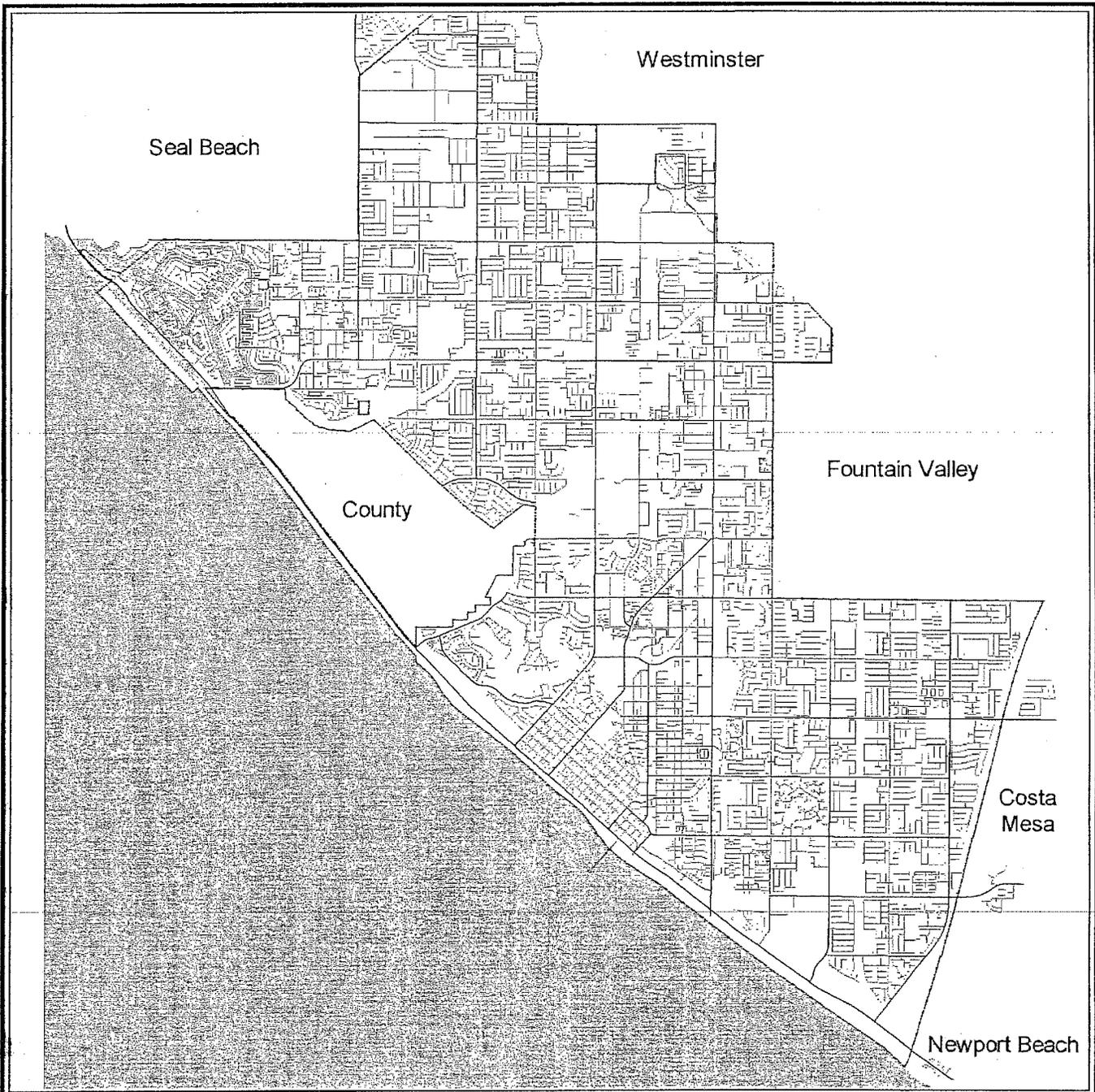


Discussion: The proposed ordinance has potential for adverse effects to human beings related to air quality, greenhouse gas emissions and hydrology/water quality. The potential for significant impacts will be discussed in the project EIR.

XIX. EARLIER ANALYSIS/SOURCE LIST.

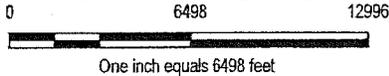
Earlier analyses may be used where, pursuant to tiering, program EIR, or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or negative declaration. Section 15063 (c)(3)(D). Earlier documents prepared and utilized in this analysis and referenced sources are as follows:

<u>Reference #</u>	<u>Document Title</u>	<u>Available for Review at:</u>
1	City of Huntington Beach General Plan	City of Huntington Beach Planning & Building Dept., Planning/Zoning Information Counter, 2000 Main Street, 3 rd Floor, Huntington Beach, and at www.huntingtonbeachca.gov/Government/Departments/Planning/gp
2	City of Huntington Beach Zoning and Subdivision Ordinance	City of Huntington Beach City Clerk's Office, 2000 Main Street, 2 nd Floor, Huntington Beach, and at www.huntingtonbeachca.gov/government/charter_codes
3	Huntington Beach Map	Attachment No. 1
4	FEMA Flood Insurance Rate Map (December 3, 2009)	City of Huntington Beach Planning & Building Dept., Planning/Zoning Information Counter, 2000 Main Street, 3 rd Floor, Huntington Beach, and at www.huntingtonbeachca.gov/Government/Departments/Planning/flood
5	CEQA Air Quality Handbook South Coast Air Quality Management District (1993)	"
6	City of Huntington Beach CEQA Procedure Handbook	"
7	Airport Environs Land Use Plan for Joint Forces Training Base Los Alamitos (Oct. 17, 2002)	"
8	Hazardous Waste and Substances Sites List	www.calepa.gov/sitecleanup/cortese
9	City of Huntington Beach Municipal Code	City of Huntington Beach City Clerk's Office, 2000 Main Street, 2 nd Floor, Huntington Beach, and at www.huntingtonbeachca.gov/government/charter_codes
10	Green Cities California Master Environmental Assessment	http://www.greencitiescalifornia.org/mea
11	CalRecycle Jurisdiction Diversion/Disposal Rate Summary	http://www.calrecycle.ca.gov/LGCentral/Tools/MARS/DRMCMMain.asp

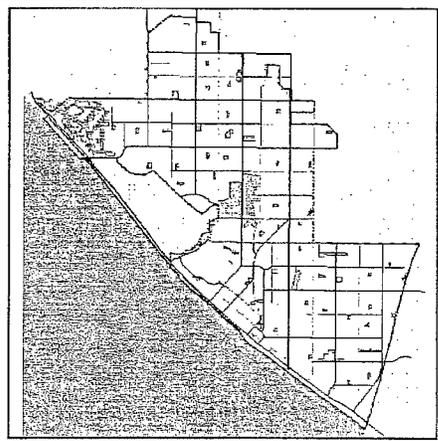


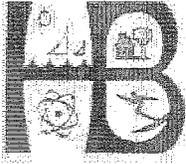
Huntington Beach

Map produced by information contained in the City of Huntington Beach Information Services Department Geographic Information System. Information warranted for City use only. Huntington Beach does not guarantee its completeness or accuracy.
 Map Produced on 11/8/2011



- CITY BOUNDARY
- STREET CENTERLINES (OCTAClass)
 - Smartstreet
 - Major
 - Collector
 - Primary
 - Secondary
 - Residential
 - Travelway
 - Alley
- ISOBATHS
- HARBOR
- PIER





CITY OF HUNTINGTON BEACH

ENVIRONMENTAL BOARD

December 16, 2011

Hayden Beckman
City of Huntington Beach
Department of Planning and Building
2000 Main St
Huntington Beach, CA 92648

Subject: Environmental Assessment No. 2011-002

Dear Mr. Beckman,

At the December 1, 2011 Environmental Board meeting, a team of board members presented their review of the Environmental Checklist Form No. 2011-002. The Board recognizes this preliminary checklist as the first phase in a multi-step process. The scope of this checklist is to identify target concerns for the Project EIR. We offer the following comments for your consideration.

General:

We are pleased to see the general objectives stated in the project proposal and in the project description. We are interested in seeing sustainable community education objectives identified in the community outreach plans with stated implementation goals. We understand that subsequent to this checklist, actions will be undertaken to finalize and present a) the City's proposed ordinance, b) the outreach and communications plan for the plastic bag ban along with c) the ongoing and iterative environmental and d) economic monitoring of the ban and its subsequent effects coupled with e) long term tracking.

Hydrology:

Discussion IV a): We disagree with your discussion that "The promotion of reusable bags could also potentially affect water quality if reusable bags are improperly disposed of and become litter that enters the storm systems." Plastic carry-out bags, generally made from PETE, LDPE, or other plastic constituents, enter the storm systems because they are lightweight. Due to their weight, reusable plastic bags that are a minimum of 2.25 millimeters thick, canvas bags, and other fiber-based bags would not be carried in the air and deposited in storm drains or into ocean waterways.

Air Quality:

Discussion V e): We disagree with your discussion that "...a potential change in the number of truck trips associated with delivering and distributing carry-out bags to retailers could increase long-term operational emissions." This discussion needs clarification, as it appears to combine the impacts of plastic and reusable bags. We recommend that you analyze the potential change in truck trips and associated emissions based on the difference between i) the current truck trips and associated air emissions for delivery and distribution of all carry-out bags (both plastic and paper) and reusable bags and ii) the potential future truck trips and associated emissions for delivery and distribution of reusable bags and carry-out paper bags.

Biological Resources:

Discussions VII a) and b) - c): We disagree with your discussions that "...promoting the use of reusable bags could potentially affect sensitive species if reusable bags are improperly disposed of and become litter that enters the storm system and ultimately into coastal and marine environments" and that "promoting the use of reusable bags could potentially affect protected wetlands, a riparian habitat or other sensitive natural community..." Plastic carry-out bags, generally made from PETE, LDPE, or other plastic constituents, enter the storm systems because they are lightweight. Due to their weight, reusable plastic bags that are a minimum of 2.25 millimeters thick, canvas bags, or other fiber-based bags would not be carried in the air and deposited in storm drains or into ocean waterways.

Recreation:

Discussion XV a) - c): We agree with your discussion, but disagree with the assessment that there will be "Less than Significant Impact". This may be only a semantic disagreement - but the logic statements presented in paragraph a) and b) do not mean that no further analysis is required. Please include these topics in the Project EIR scope.

Green House Gas Emissions:

Discussion XVII a) - b): We disagree with your discussion that "the shift toward reusable bags would potentially alter traffic patterns in Huntington Beach related to the transport of plastic and paper carry-out bags..." We question the assumption, made explicit elsewhere, that only GHG - ARB models and data be used. We urge that the consultant also consider data from existing traffic flow databases. Furthermore, the reference to "processing activities related to bag production and disposal" implies that manufacturing activities for carry-out bags exist within the City of Huntington Beach but fails to specify the types of carry-out bags being manufactured - plastic or paper or both. We suggest that you clarify this reference.

Mandatory Findings of Significance:

Discussion XVII: The category "Potentially Significant Impact" is interpreted to mean either positive impacts with beneficial results to the category, or negative impacts with harmful results to the category or both. Since much of the prior work identified in the Master Environmental Assessment involves a specialized method called "Life Cycle Cost Analysis" (LCA), we recommend expanding LCA to include more robust methods of analysis that include sustainability metrics as well as the limited life-cycle financial discounted cash flow techniques.

We appreciate the opportunity to review this project. Please contact us with any related questions or concerns. The appendix includes materials reviewed while preparing the above analysis of the Plastic Bag EIR Checklist.

Sincerely,



Sue Gordon
Chairman, Huntington Beach Environmental Board

DEPARTMENT OF TRANSPORTATION

District 12
3347 Michelson Drive, Suite 100
Irvine, CA 92612-8894
Tel: (949) 724-2241
Fax: (949) 724-2592



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DEC 1 - 2011

Dept. of Planning
& Building

December 13, 2011

Hayden Beckham
City of Huntington Beach
2000 Main Street, 3RD Floor
Huntington Beach CA 92648

File: IGR/CEQA
SCH#: 2011111053
Log #: 2849 & 2849A

Subject: Municipal Code Amendment Regulating the Use of Plastic Carryout Bags and Recyclable Paper Carryout

Dear Beckham,

Thank you for the opportunity to review and comment on the **Municipal Code Amendment Regulating the Use of Plastic Carryout Bags and Recyclable Paper Carryout**. The project consists of a adoption of a proposed ordinance by the City of Huntington Beach City Council that would prohibit the distribution of plastic carryout bag in commercial point of sale purchases within the City of Huntington Beach and establish a ten (10) cent on the issuance of recyclable paper carryout bags at all grocery stores and supermarket, drug stores, pharmacies, convenience stores, food marts and Huntington Beach farmers markets. All stores affected by the proposed ordinance would be required to provide reusable bag to customers for either sale or at no charge, and each store would be strongly encouraged to promote the use of reusable bags through staff education and customer outreach.

The Department of Transportation (Department) is a commenting agency on this project and has no comment at this time. However, in the event of any activity in the Department's right-of-way, an encroachment permit will be required.

Please continue to keep us informed of this project and any future developments that could potentially impact State transportation facilities. If you have any questions or need to contact us, please do not hesitate to call Ed Khosravi at (949) 724-2338.

Sincerely,

A handwritten signature in black ink, appearing to read "Christopher Herre".

Christopher Herre, Branch Chief
Local Development/Intergovernmental Review

C: Terry Roberts, Office of Planning and Research



Appendix B
Air Quality URBEMIS Results

Summary Report for Summer Emissions (Pounds/Day)

File Name: C:\Documents and Settings\MMaddox\Application Data\Urbemis\Version9a\Projects\Single-use Carryout Bag Ordinance.urb924

Project Name: Single-use Carryout Bag Ordinance Huntington Beach

Project Location: South Coast AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	0.01	0.12	0.05	0.00	0.01	0.01	18.25

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	0.01	0.12	0.05	0.00	0.01	0.01	18.25

Detail Report for Summer Operational Unmitigated Emissions (Pounds/Day)

File Name: C:\Documents and Settings\MMaddox\Application Data\Urbemis\Version9a\Projects\Single-use Carryout Bag Ordinance.urb924

Project Name: Single-use Carryout Bag Ordinance Huntington Beach

Project Location: South Coast AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

OPERATIONAL EMISSION ESTIMATES (Summer Pounds Per Day, Unmitigated)

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single-use Plastic Bag Ordinance	0.01	0.12	0.05	0.00	0.01	0.01	18.25
TOTALS (lbs/day, unmitigated)	0.01	0.12	0.05	0.00	0.01	0.01	18.25

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2011 Temperature (F): 80 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single-use Plastic Bag Ordinance	0.48	0.48	acres	1.00	0.48	4.31
					0.48	4.31

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	0.0	0.8	99.0	0.2

Vehicle Type	Vehicle Fleet Mix				Diesel
	Percent Type	Non-Catalyst	Catalyst	Diesel	
Light Truck < 3750 lbs	0.0	2.7	94.6	2.7	
Light Truck 3751-5750 lbs	0.0	0.4	99.6	0.0	
Med Truck 5751-8500 lbs	0.0	0.9	99.1	0.0	
Lite-Heavy Truck 8501-10,000 lbs	0.0	0.0	81.2	18.8	
Lite-Heavy Truck 10,001-14,000 lbs	0.0	0.0	60.0	40.0	
Med-Heavy Truck 14,001-33,000 lbs	0.0	0.0	22.2	77.8	
Heavy-Heavy Truck 33,001-60,000 lbs	100.0	0.0	0.0	100.0	
Other Bus	0.0	0.0	0.0	100.0	
Urban Bus	0.0	0.0	0.0	100.0	
Motorcycle	0.0	64.3	35.7	0.0	
School Bus	0.0	0.0	0.0	100.0	
Motor Home	0.0	0.0	88.9	11.1	

Travel Conditions

	Residential				Commercial	
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			

% of Trips - Commercial (by land use)

		Travel Conditions			
Residential		Commercial			
Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
			2.0	1.0	97.0

Operational Changes to Defaults

Single-use Plastic Bag Ordinance

Summary Report for Summer Emissions (Pounds/Day)

File Name: C:\Documents and Settings\MMaddox\Application Data\Urbemis\Version9a\Projects\Huntington Beach Single Use Carryout Bag Ordinance.urb924

Project Name: Single-use Carryout Bag Ordinance Huntington Beach

Project Location: South Coast AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	0.01	0.09	0.03	0.00	0.01	0.00	13.31

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	0.01	0.09	0.03	0.00	0.01	0.00	13.31

Detail Report for Summer Operational Unmitigated Emissions (Pounds/Day)

File Name: C:\Documents and Settings\MIMaddox\Application Data\Urbemis\Versions9a\Projects\Huntington Beach Single Use Carryout Bag Ordinance.urb924

Project Name: Single-use Carryout Bag Ordinance Huntington Beach

Project Location: South Coast AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

OPERATIONAL EMISSION ESTIMATES (Summer Pounds Per Day, Unmitigated)

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single-use Plastic Bag Ordinance	0.01	0.12	0.05	0.00	0.01	0.01	17.87
TOTALS (lbs/day, unmitigated)	0.01	0.12	0.05	0.00	0.01	0.01	17.87

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2011 Temperature (F): 80 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single-use Plastic Bag Ordinance	0.47	0.47	acres	1.00	0.47	4.22
					0.47	4.22

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	0.0	0.8	99.0	0.2

Vehicle Type	Vehicle Fleet Mix			Catalyst	Diesel
	Percent Type	Non-Catalyst			
Light Truck < 3750 lbs	0.0	2.7		94.6	2.7
Light Truck 3751-5750 lbs	0.0	0.4		99.6	0.0
Med Truck 5751-8500 lbs	0.0	0.9		99.1	0.0
Lite-Heavy Truck 8501-10,000 lbs	0.0	0.0		81.2	18.8
Lite-Heavy Truck 10,001-14,000 lbs	0.0	0.0		60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.0	0.0		22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	100.0	0.0		0.0	100.0
Other Bus	0.0	0.0		0.0	100.0
Urban Bus	0.0	0.0		0.0	100.0
Motorcycle	0.0	64.3		35.7	0.0
School Bus	0.0	0.0		0.0	100.0
Motor Home	0.0	0.0		88.9	11.1

Travel Conditions

	Residential				Commercial	
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			

% of Trips - Commercial (by land use)

Travel Conditions

Residential		Commercial			
Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
			2.0	1.0	97.0

Single-use Plastic Bag Ordinance

Operational Changes to Defaults

Summary Report for Summer Emissions (Pounds/Day)

File Name: C:\Documents and Settings\MMaddox\Application Data\Urbemis\Version9a\Projects\Huntington Beach Single Use Carryout Bag Ordinance.urb924

Project Name: Single-use Carryout Bag Ordinance Huntington Beach

Project Location: South Coast AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOX</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	0.01	0.09	0.03	0.00	0.01	0.00	13.31

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOX</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	0.01	0.09	0.03	0.00	0.01	0.00	13.31

Detail Report for Summer Operational Unmitigated Emissions (Pounds/Day)

File Name: C:\Documents and Settings\MMaddox\Application Data\Urbemis\Version9a\Projects\Huntington Beach Single Use Alt 3.urb924

Project Name: Single-use Carryout Bag Ordinance Huntington Beach

Project Location: South Coast AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

OPERATIONAL EMISSION ESTIMATES (Summer Pounds Per Day, Unmitigated)

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single-use Plastic Bag Ordinance	0.01	0.09	0.03	0.00	0.01	0.00	13.31
TOTALS (lbs/day, unmitigated)	0.01	0.09	0.03	0.00	0.01	0.00	13.31

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2011 Temperature (F): 80 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single-use Plastic Bag Ordinance	0.35	acres	1.00	0.35	3.14	3.14

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	0.0	0.8	99.0	0.2

Vehicle Type	Vehicle Fleet Mix				Diesel
	Percent Type	Non-Catalyst	Catalyst	Diesel	
Light Truck < 3750 lbs	0.0	2.7	94.6	2.7	
Light Truck 3751-5750 lbs	0.0	0.4	99.6	0.0	
Med Truck 5751-8500 lbs	0.0	0.9	99.1	0.0	
Lite-Heavy Truck 8501-10,000 lbs	0.0	0.0	81.2	18.8	
Lite-Heavy Truck 10,001-14,000 lbs	0.0	0.0	60.0	40.0	
Med-Heavy Truck 14,001-33,000 lbs	0.0	0.0	22.2	77.8	
Heavy-Heavy Truck 33,001-60,000 lbs	100.0	0.0	0.0	100.0	
Other Bus	0.0	0.0	0.0	100.0	
Urban Bus	0.0	0.0	0.0	100.0	
Motorcycle	0.0	64.3	35.7	0.0	
School Bus	0.0	0.0	0.0	100.0	
Motor Home	0.0	0.0	88.9	11.1	

Travel Conditions

	Residential				Commercial	
	Home-Work	Home-Shop	Home-Other	Commuter	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			

% of Trips - Commercial (by land use)

<u>Travel Conditions</u>					
Residential		Commercial			
Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
			2.0	1.0	97.0

Single-use Plastic Bag Ordinance

Operational Changes to Defaults

Appendix C

Proposed Huntington Beach Draft Ordinance



Appendix D



List of Stores Potentially Affected by the Proposed Ordinance

COMPANY NAME	ADDRESS	ZIP CODE	PRIMARY SIC DESCRIPTION
5 Star Mobil	20002 Beach Blvd	92648-3739	Service Stations-Gasoline & Oil
7-Eleven	8492 Warner Ave	92647-6043	Convenience Stores
80's Purple	7711 Woodwind Dr	92647-7144	Clothing-Retail
99 Cents Only Stores	15962 Springdale St	92649-1729	Variety Stores
99 Cents Only Stores	16672 Beach Blvd	92647-4850	Variety Stores
99 Cents Only Stores	19050 Brookhurst St	92646-2552	Variety Stores
Aaron Brothers Art & Framing	7041 Yorktown Ave # 101	92648-2499	Picture Frames-Dealers
Active Network	101 Main St # 240	92648-8156	Computer Software
Adam's Electronics	7130 Edinger Ave	92647-3505	Computer & Equipment Dealers
Albertsons	16600 Bolsa Chica St	92649-3583	Grocers-Retail
Albertsons	19640 Beach Blvd	92648-2905	Grocers-Retail
Albertsons	7201 Yorktown Ave	92648-2465	Grocers-Retail
Albertsons Pharmacy	9051 Atlanta Ave	92646-6332	Pharmacies
Aleeda Wetsuits	18241 Gothard St	92648-1224	Divers Equipment & Supplies
Alex's Lawn Mower Shop	16612 Beach Blvd	92647-4838	Lumber-Retail
Alkarma TV	15602 Producer Ln	92649-1310	Television & Radio-Dealers
Ameri-King	17881 Sampson Ln	92647-7148	Aircraft-Manufacturers
American Apparel	207 Main St	92648-5127	Apparel & Garments-Retail
AMPM	6002 Bolsa Ave	92647-2443	Convenience Stores
Appliance Parts Bank	7573 Slater Ave # A	92647-7754	Appliances-Household-Major-Supls (Whls)
Archway Systems Inc	2134 Main St # 160	92648-6447	Computer Software
Arthur Enterprises	5181 Argosy Ave	92649-1058	Nurserymen
Atomic Aquatics	16742 Burke Ln	92647-4559	Sporting Goods-Retail
Autozone	6800 Warner Ave	92647-5304	Automobile Parts & Supplies-Retail-New
Baby Gap	18681 Main St	92648-1722	Childrens & Infants Wear-Retail
Barnes & Noble	7881 Edinger Ave # 110	92647-7639	Book Dealers-Retail
Beach Mobil	16001 Beach Blvd	92647-3802	Service Stations-Gasoline & Oil
BEVMO!	16672 Beach Blvd # K	92647-4859	Liquors-Retail
Big Lots	21082 Beach Blvd	92648-5402	Variety Stores
Big Lots	6911 Warner Ave	92647-5305	Variety Stores
Bigger Farther Faster	14520 Delta Ln # 105	92647-2073	Clothing-Retail
Bounce U	5445 Oceanus Dr # 114	92649-1007	Moonwalks
Bpmb Inc	19621 Dearborne Cir	92648-6648	Hospitals

Burlington Coat Factory	7777 Edinger Ave # 100	92647-3640	Department Stores
Byran Co	18092 Redondo Cir	92648-1326	Aircraft Equipment Parts & Supls-Mfrs
Carters Retail	7881 Edinger Ave # A114	92647-7637	General Merchandise-Retail
Check Out Software	16912 Gothard St	92647-5476	Computer-Software
Chevron	17881 Gothard St	92647-6252	Service Stations-Gasoline & Oil
Chevron	6972 Warner Ave	92647-5316	Service Stations-Gasoline & Oil
Choices Apparel Inc	5542 Research Dr	92649-1614	Clothing-Manufacturers
Competitive Aquatic Supply	15661 Container Ln	92649-1532	Swimwear & Accessories-Retail
Convenience Retailers	16971 Goldenwest St	92647-5443	Convenience Stores
Cookie Jar Collection Inc	17682 Sampson Ln	92647-7739	Bakers-Wholesale
Cost Plus World Market	7777 Edinger Ave # 136	92647-8689	Furniture-Dealers-Retail
CVS Pharmacy	10011 Adams Ave	92646-4904	Pharmacies
CVS Pharmacy	19121 Beach Blvd	92648-2307	Pharmacies
CVS Pharmacy	5295 Warner Ave	92649-4079	Pharmacies
Diane's	118 Main St	92648-5126	Swimwear & Accessories-Retail
Earth Friendly Technologies	17011 Beach Blvd # 225	92647-7419	Cosmetics & Perfumes-Retail
Edinger Market & Gas	5002 Edinger Ave	92649-1436	Service Stations-Gasoline & Oil
Exon Mobile	17222 Pacific Coast Hwy	92649-4116	Service Stations-Gasoline & Oil
Finyl Vinyl	15201 Pipeline Ln # A	92649-5704	Fence Contractors
Five Point's Shell	18502 Beach Blvd	92648-2017	Service Stations-Gasoline & Oil
Forever 21	155 5th St # 141	92648-5116	Clothing-Retail
Fresh & Easy Neighborhood Mkt	16672 Beach Blvd	92647-4850	Grocers-Retail
G & M Oil Co Inc	16868 A Ln	92647-4831	Business Management Consultants
Golden Spoon	7862 Warner Ave # D	92647-7364	Yogurt
GUESS	155 5th St	92648-5101	Clothing-Retail
Home Depot	19101 Magnolia St	92646-2233	Home Centers
Home Depot	7100 Warner Ave	92647-8404	Home Centers
Hunting Beach Deillo	18211 Beach Blvd	92648-1308	Automobile Dealers-New Cars
Huntington Beach 76	21471 Brookhurst St	92646-7324	Service Stations-Gasoline & Oil
Huntington Garden Ctr	19121 Brookhurst St	92646-2553	Nurserymen
Huntington Surf & Sport	300 Pacific Coast Hwy # 104	92648-5107	Sportswear-Retail
Jo-Ann Fabrics & Crafts	15031 Goldenwest St	92647-2710	Fabric Shops
Jo-Ann Fabrics & Crafts	9901 Adams Ave	92646-4809	Fabric Shops
Justice Just For Girls	7777 Edinger Ave # 144	92647-8690	Girls Apparel

Kanvas By Katin	PO Box 223	90743-0223	Knit Outerwear Mills (Mfrs)
Kohl's Department Store	7777 Edinger Ave # 140	92647-8669	Department Stores
Kohl's Department Store	9811 Adams Ave	92646-4807	Department Stores
L-3 GA Intl Inc	7402 Prodan Dr	92648-1207	Marine Electronic Equip & Supls (Whls)
Lamps Plus	7262 Edinger Ave	92647-3506	Lighting Fixtures-Retail
Laptops 4 Less	10034 Adams Ave	92646-4905	Computer & Equipment Dealers
Lenscrafters	7777 Edinger Ave # 146	92647-8666	Optical Goods-Retail
Lowe's Home Improvement	8175 Warner Ave	92647-8251	Home Centers
Marshalls	16672 Beach Blvd # F	92647-4837	Department Stores
Men's Wearhouse	7738 Edinger Ave	92647-3607	Men's Clothing & Furnishings-Retail
Michaels	7600 Edinger Ave # A	92647-3605	Craft Supplies
Mother's Market & Kitchen's	19770 Beach Blvd	92648-5927	Health & Diet Foods-Retail
O'Reilly Auto Parts	18900 Beach Blvd	92648-2092	Automobile Parts & Supplies-Retail-New
Office Depot	7742 Edinger Ave	92647-3607	Office Supplies
Old Navy	18543 Main St	92648-1709	Clothing-Retail
Old World Restaurant	7561 Center Ave # 38	92647-3038	Coffee & Tea
Orchard Supply Hardware	19330 Goldenwest St	92648-2113	Hardware-Retail
Party City	16100 Beach Blvd	92647-3805	Party Supplies
Pep Boys	19122 Brookhurst St	92646-2554	Automobile Parts & Supplies-Retail-New
PETCO	5961 Warner Ave	92649-4659	Pet Supplies & Foods-Retail
PETCO	8909 Adams Ave	92646-3330	Pet Supplies & Foods-Retail
PETSMART	7600 Edinger Ave	92647-3605	Pet Supplies & Foods-Retail
Pier 1 Imports	18501 Main St	92648-1709	Furniture-Dealers-Retail
Prizes	5242 Argosy Ave	92649-1074	Toys-Manufacturers
Quiksilver Wetsuits Inc	15202 Graham St	92649-1109	Surfboards
Ralphs	19081 Goldenwest St	92648-2151	Grocers-Retail
Ralphs	5241 Warner Ave	92649-4060	Grocers-Retail
REI	7777 Edinger Ave # 138	92647-8689	Sporting Goods-Retail
Revelation Records	PO Box 5232	92615-5232	Music Dealers
Rite Aid	5881 Warner Ave	92649-4657	Pharmacies
Ross Dress For Less	7201 Warner Ave	92647-5431	Department Stores
Seacliff Liquor	402 17th St	92648-4212	Liquors-Retail
Silver Star Pet	15662 Graham St	92649-1611	Pet Foods-Wholesale
Smart & Final	6882 Edinger Ave	92647-3402	Grocers-Retail

Smart & Final	9062 Adams Ave	92646-3402	Grocers-Retail
Southern Hemisphere Wine	5973 Engineer Dr	92649-1129	Wines-Retail
Sport Chalet	16242 Beach Blvd	92647-3702	Sporting Goods-Retail
Sprint	7621 Edinger Ave # 106	92647-8684	Cellular Telephones (Services)
Staples	7131 Yorktown Ave	92648-2464	Office Supplies
Staples	7881 Edinger Ave # 130	92647-7639	Office Supplies
Stater Bros Markets	10114 Adams Ave	92646-4907	Grocers-Retail
Stater Bros Markets	7101 Warner Ave	92647-5429	Grocers-Retail
Stein Mart	19041 Beach Blvd	92648-2305	Department Stores
T-Mobile	7821 Edinger Ave # 142	92647-7636	Cellular Telephones (Services)
T-Mobile	8112 Talbert Ave # 101	92646-1519	Cellular Telephones (Services)
Target	9882 Adams Ave	92646-4808	Department Stores
Tessworks	PO Box 1894	92647-1894	Ceramic Products-Decorative
Third Degree Sportswear	15422 Electronic Ln	92649-1334	Women's Misses/Jrs Outerwear Nec (Mfrs)
Tilly's	18545 Main St	92648-1709	Clothing-Retail
Toys R Us	7212 Edinger Ave # B	92647-3578	Toys-Retail
Trader Joe's	18681 Main St # 101	92648-1722	Grocers-Retail
Tru West Inc	5592 Engineer Dr	92649-1122	Sporting & Athletic Goods Nec (Mfrs)
Vanguard Electronics Co	7412 Prince Dr	92647-4553	Transformers-Manufacturers
Vans	18589 Main St	92648-1709	Shoes-Retail
Victory Professional Products	18281 Enterprise Ln	92648-1216	Beauty Salons-Equipment & Supls (Whls)
Vons	5922 Edinger Ave	92649-1706	Grocers-Retail
Vons	8891 Atlanta Ave	92646-7119	Grocers-Retail
Vu-Revisions Best Of The Best	4136 Shorebreak Dr	92649-2183	Automobile Parts & Supplies-Retail-New
Walgreens	17522 Beach Blvd	92647-6802	Pharmacies
Walgreens	19501 Beach Blvd	92648-2902	Pharmacies
Walmart	8230 Talbert Ave	92646-1545	Department Stores
West Marine	16390 Pacific Coast Hwy # 100	92649-1800	Marine Equipment & Supplies
Wet Seal	18587 Main St	92648-1709	Clothing-Retail
Whole Foods Market	7881 Edinger Ave # 150	92647-7639	Grocers-Retail
Zadro Products	5332 System Dr	92649-1529	Mirrors
Sunset Beach			
Factory Direct Yachts	PO Box 1476	92659-0476	

