

**NEGATIVE DECLARATION
&
INITIAL STUDY**

Evaluating

THE ADOPTION OF

**REVISED
RIGID PLASTIC PACKAGING CONTAINER PROGRAM
REGULATIONS**

November 2011

State of California
DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY
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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

The California Department of Resources Recycling and Recovery^a (CalRecycle), Compliance and Enforcement Division prepared this Initial Study/Negative Declaration (IS/ND) to evaluate the potential environmental effects of CalRecycle's proposed revised Rigid Plastic Packaging Container Program regulations. CalRecycle prepared this document in accordance with the California Environmental Quality Act (CEQA), Public Resources Code §21000 *et seq.*, and the State CEQA Guidelines, Title 14, California Code of Regulations (CCR) §15000 *et seq.*

A lead agency conducts an Initial Study to determine if a project may have a significant effect on the environment [CEQA Guidelines §15063(a)]. If there is substantial evidence that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) must be prepared, in accordance with CEQA Guidelines §15064(a). However, if the lead agency determines that there is no substantial evidence in the record indicating a project may have a significant effect on the environment, the agency may prepare a Negative Declaration instead of an EIR [CEQA Guidelines §15070]. The lead agency prepares a written statement describing the reasons a proposed project would not have a significant effect on the environment and, therefore, why an EIR need not be prepared. This IS/ND conforms to the content requirements under CEQA Guidelines §15070.

1.2 LEAD AGENCY

The lead agency is the public agency that has the principal responsibility for carrying out or approving the proposed project. [CEQA Guidelines § 15367] CalRecycle is the lead agency for the proposed project since CalRecycle is carrying out the project by adopting the proposed regulations. The contact person for the lead agency is:

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1.3 PURPOSE OF DOCUMENT AND DOCUMENT ORGANIZATION

The purpose of this document is to evaluate the potential environmental effects of adopting revisions to existing Rigid Plastic Packaging Container Program regulations. The purpose of the regulatory modification is to delete obsolete provisions, clarify and ensure consistency with recent statutory changes, remove the question and answer format that stakeholders said was confusing, clarify specific definitions; clarify the certification process to provide clear direction to the regulated industry; clarify the compliance formulas and calculations; refine the penalty calculations; and make other grammatical and punctuation corrections.

This document is organized as follows:

- Chapter 1 - Introduction. This chapter provides an introduction to the project and describes the purpose and organization of this document.

^a Chapter 21 of the Statutes of 2009, created the Department of Resources Recycling and Recovery, which is vested with the duties, powers and jurisdiction of the former California Integrated Waste Management Board.

- Chapter 2 - Project Description. This chapter describes the background, location, and key elements of the project.
- Chapter 3 - Environmental Checklist. This chapter identifies and evaluates the potential environmental impacts identified in the CEQA Environmental (Initial Study) Checklist. The conditions of project approval will reduce any potentially significant impacts to a less-than-significant level. This chapter also identifies and summarizes the overall significance of any potential impacts to natural and cultural resources, cumulative impacts, and impact to humans, as identified in the Initial Study.

1.4 SUMMARY OF FINDINGS

Chapter 3 of this document contains the Environmental Assessment and Analysis, which is commonly referred to as the Environmental Checklist (Initial Study). The Initial Study identifies the potential environmental impacts that may result from the proposed project (organized by environmental issue) and discusses each potential environmental impact. Based on the IS and supporting environmental analysis provided in this document, the adoption of the proposed regulations will result in less-than-significant or no impacts for the following issues: aesthetics, agricultural and forestry resources, air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation/traffic, and utilities and service systems.

In accordance with the CEQA Guidelines, a ND should be prepared if the proposed project will not have a significant effect on the environment. Based on the available evidence in the record and the environmental analysis presented in this document, there is no substantial evidence that the proposed project would have a significant effect on the environment. Therefore, it is proposed that a Negative Declaration be adopted in accordance with the CEQA Guidelines.

CHAPTER 2

PROJECT DESCRIPTION

2.1 BACKGROUND

The Rigid Plastic Packaging Container Act of 1991 (Hart, Chapter 769, Statutes of 1991) was passed by the Legislature, and approved by the Governor on October 9, 1991. The law took effect as Public Resources Code Section 42300 et seq. on January 1, 1992. As required by PRC section 42325, regulations were adopted by the California Integrated Waste Management Board (predecessor of the Department of Resources Recycling and Recovery) on July 1, 1994 and became effective January 1, 1995.

The Rigid Plastic Packaging Container Act was enacted to increase the use of recycled plastic and reduce the amount of plastic waste disposed in California landfills. A Rigid Plastic Packaging Container (RPPC) is defined as a relatively inflexible plastic container that holds between eight (8) fluid ounces and five (5) gallons and is capable of retaining its shape while holding products (Public Resources Code (PRC) Section 42301). The law requires all product manufacturers that sell their products in RPPCs within California to ensure their containers meet one of the following container compliance options by being:

- Made with 25 percent (25%) postconsumer material;
- A source-reduced container with a 10 percent (10%) reduction in weight;
- Reused or refilled five (5) or more times within one year;
- Recycled at a 45 percent (45%) rate if a single resin or “product-associated” container; or
- Reused floral container.

Additionally, a product manufacturer may offset non-compliance for its container through the use of postconsumer material from California sources in its non-RPPC products.

The RPPC statute and regulations impact containers for products in virtually every product manufacturing industry group, except for the exempt products, which include: foods and non-alcoholic beverages, cosmetics, pharmaceuticals, medical devices, pesticides, and specific hazardous products whose transport packaging is regulated by the U.S. Department of Transportation. The product manufacturers that produce the largest number of RPPCs, which are subject to meeting one of the container compliance options, are makers of “paint, coating, and adhesive manufacturing,” “petroleum lubricating oil and grease manufacturing” “soap, cleaning compound and toilet preparation manufacturing.”

CalRecycle estimates that California individuals and businesses consume more than 7.23 billion RPPCs each year. Approximately 3.94 billion containers already are, or will be, subject to meeting one of the compliance options. However, 3.29 billion RPPCs are exempt from complying. These are containers that must meet federal and/or United Nations container design requirements when holding products such as foods and non-alcoholic beverages, cosmetics, pharmaceuticals, medical devices, pesticides and certain hazardous products whose transport packaging is regulated by U.S. Department of Transportation.

The 7.23 billion RPPCs that are consumed each year have a total weight of 438,000 tons of plastic material. The estimated number of containers is based on the weight of RPPCs disposed and recycled as determined by the California Integrated Waste Management Board’s 2004 Statewide Waste Characterization Study and RPPC recycling rate. In addition to the above studies, CalRecycle conducted a survey of the regulated community. Nearly 1,500 surveys were mailed to container manufacturers, product manufacturers, material recovery facilities and recycling processors. CalRecycle received 95 responses: 17 from container manufacturers; 66 from product manufacturers; and 12 from material recovery facilities and recycling processors.

Table 1 provides data on the number of exempt and regulated RPPCs by plastic resin type. Containers, made with polyethylene terephthalate (PET) and high-density polyethylene (HDPE) as the primary resins, comprised nearly 83 percent (83%) of all RPPCs and 86 percent (86%) of the regulated RPPCs.

Table 1
Rigid Plastic Packaging Containers by Container Resin Types and Products⁺

Container Resin Type	All RPPCs Consumed in California (Millions)	Exempt Products Containers (Millions)	Regulated Products Containers (Millions)
Polyethylene Terephthalate (PET, #1)	3,700	1,797	1,903
High Density Polyethylene (HDPE, #2)	2,402	925	1,477
Resin Types #3-#7	1,131	567	564
Totals	7,233	3,289	3,944
<small>* Polyvinyl Chloride (PVC, #3); Low Density Polyethylene (LDPE #4); Polypropylene (PP #5); Polystyrene (PS, #6) and Other Plastics (#7); includes acrylic, acrylonitrile butadiene styrene, fiberglass, nylon, polycarbonate and polylactic acid.) ⁺ Subtotals and totals may not add up due to rounding.</small>			

As originally written, the statute required the California Integrated Waste Management Board to conduct annual determinations of recycling rates for RPPCs. Product manufacturers were allowed to use these recycling rates to demonstrate compliance. However, the recycling rate calculation requirement was repealed in 2005, which also added new compliance options (Chapter 666, Statutes of 2005, Chesbro (SB 743)).

2.2 PROJECT LOCATION

Statewide

2.3 PROJECT DESCRIPTION

This project is the adoption of revisions to existing Rigid Plastic Packaging Container Program regulations. The proposed revisions modify the definition of a RPPC, and alter the methods by which product manufacturers can meet the various compliance options. The amended regulations impact about 17% of all RPPCs used in California. Following is a description of the key regulatory changes:

- No Exclusion from the Definition of RPPC for Buckets, Tubs, Pails, Clamshells, etc.
 The RPPC statute does not specify that RPPCs must be capable of multiple reclosure or that they be made entirely of plastic. The current regulations state that a RPPC must be capable of multiple reclosure and be made entirely of plastic except for labels and printing on the container. This means that a heat-sealed clamshell is not a RPPC, whereas the virtually identical clamshell that can be reclosed is a RPPC. Similarly, bucket/pail/tubs/etc. with a plastic handle is a RPPC and the buckets/pail/tubs/etc with attached metal handle is not a RPPC. The revised definition of a RPPC will require product manufacturers to account for all clamshells and metal-handled buckets/pails/tubs/etc. by one of the compliance options, unless the product meets one of the exemption criteria. CalRecycle estimates that the revised definition of a RPPC will increase the number of regulated RPPCs by approximately 357.2 million containers. These containers include approximately 21.6 million buckets, tubs, and pails and the remaining 335.6 million are clamshells.
- Post-Industrial Material Can no Longer be Substituted for Postconsumer Material in Compliance Calculations
 The use of post-industrial material as a substitute for postconsumer material in meeting the postconsumer material compliance option would be prohibited. Post-industrial material is waste or extra material from the original manufacturing or fabrication of the containers. This amendment would affect an estimated 118.3 million containers.
- Resin Switching will no Longer be Allowed to Achieve Compliance Through Source Reduction
 Product manufacturers could not switch from a heavier plastic resin type to a lighter weight plastic resin type to achieve compliance through the source reduction option. An estimated 78.9 million containers would be affected by this change.
- Product Manufacturers can Achieve Compliance Through use of California Postconsumer Material in Other Products
 Product manufacturers would be provided a means to offset non-compliant RPPCs by using California-based postconsumer material in other products or containers. This amendment is expected to allow product manufacturers to achieve compliance for the equivalent of 118.3 million containers.
- Retention of Records
 Clarification is provided regarding the time product manufacturers must retain certain records.

Additional background information concerning proposed RPPC regulation changes can be found at:
www.calrecycle.ca.gov/Laws/Rulemaking/RPPC/default.htm

Based on an economic and financial impact analysis (www.calrecycle.ca.gov/Laws/Rulemaking/RPPC/Std399Att2.doc) of the proposed regulations, CalRecycle estimates that, collectively, the proposed regulatory changes would affect 673 million containers. Not all of these containers would have a potential impact on the environment. Based on the

rationale outlined in Table 2, this IS/ND analyzes the potential impact of 554.4 million of these containers. The total weight of these containers is approximately 100.1 million pounds.

**Table 2
Containers Analyzed for Potential Impacts**

Key Regulatory Changes	Assumptions	Number of Containers (Millions)	
		Analyzed for potential impacts	
		yes	no
I. No exclusion from the definition of RPPC for buckets, tubs, pails, clamshells, etc.	The new definition would increase the number of regulated RPPCs. These containers would need to meet one or more of the compliance options.	357.2	
II. Post-industrial material can no longer be substituted for postconsumer material in compliance calculations	Product manufacturers would need to select a different compliance option for currently-regulated containers that have achieved compliance through substitution of post-industrial material for postconsumer material.	118.3	
	For the purposes of this analysis it is assumed that the elimination of this compliance option would not affect the manner in which container manufacturers use post-industrial material (i.e., manufacturers will continue to return the material to the manufacturing process). Product manufacturers simply would no longer be allowed to use the practice to comply with RPPC requirements. Consequently, it is assumed that there is no potential for impact related to the handling of the post-industrial material.		NA
III. Resin switching would no longer be allowed to achieve compliance through source reduction	Product manufacturers would need to select a different compliance option for currently-regulated containers that may have complied with existing regulations by switching from a heavier to a lighter resin.	78.9	
IV. Product manufacturers can achieve compliance through use of California postconsumer material in other products	Product manufacturers could achieve compliance through use of California postconsumer material in products other than RPPCs. For the purposes of this analysis it is assumed that the environmental impacts would be the same either way. No net effect from this change.		118.3
V. Retention of records	This is an administrative change that would result in no physical impact on the environment.		0
		554.4	118.3

Manufacturers selling product in California in a container subject to the RPPC requirements must ensure that the containers comply with one or more of five available compliance options (as bulleted on page 3).

For the 357.2 million containers (76.9 million pounds) affected by the “No Exclusion from the Definition of RPPC for Buckets, Tubs, Pails, Clamshells, etc.” regulatory change, CalRecycle assumes that product manufacturers will choose compliance options in the same manner as they have chosen compliance options for currently-regulated containers. Based on the compliance history (see Table 3) of currently-regulated containers, CalRecycle estimates these containers will comply as follows:

- o 55% (42.2 million pounds) via the “Made with 25% postconsumer material” compliance option
- o 40% (30.7 million pounds) via the “A source-reduced container with a 10% reduction in weight” compliance option
- o 5% (3.8 million pounds) via the “Reused or refilled five (5) or more times within one year”
- o 0% (0 pounds) via the “Recycled at a 45% rate” compliance option
- o 0% (0 pounds) via the “Reused floral container” compliance option

**Table 3
Containers Affected by the “No exclusion from the definition of RPPC” Change**

Resin Type	Number of Containers (Millions)	Total Container Weight (Millions of pounds)	Compliance History		
			Compliance Options*		
			A	B	C
#1	89.5	9.7	55%	40%	5%
#2	21.6	47.6	55%	40%	5%
#3-#7	246.1	19.6	55%	40%	5%
Total	357.2	76.9	55%	40%	5%

* Compliance Options:
 A. Made with 25 percent (25%) postconsumer material
 B. A source-reduced container with a 10 percent (10%) reduction in weight
 C. Reused or refilled five (5) or more times within one year
 Note: No product manufacturers used either of the following compliance options:
 • Recycled at a 45 percent (45%) rate if a single resin or “product-associated” container
 • Reused floral container

For the 118.3 million containers (14 million pounds) affected by the “Post-Industrial Material Can No Longer Be Substituted for Postconsumer Material In Compliance Calculations” regulatory change, CalRecycle assumes that all will comply via the “Made with 25% postconsumer material” compliance option. This is based on the assumption that product and container manufacturers would not re-design their containers to achieve compliance. Other compliance options would likely require altering the container design, the production process and generally the purchase of new capital equipment.

For the 78.9 million containers (9.3 million pounds) affected by the “Resin Switching Will No Longer Be Allowed to Achieve Compliance Through Source Reduction” regulatory change, CalRecycle assumes that all will comply via the “A source-reduced container with a 10 percent (10%) reduction in weight” compliance option. This is based on the assumption that product and container manufacturers would not re-design their containers to achieve compliance. Other compliance options would likely require altering the container design, the production process and generally require the purchase of new capital equipment.

To conclude, this IS/ND relies on the following data (summarized in Table 4) on the number of containers and the associated weight of the containers affected by each key regulatory change and assumed compliance option to determine potential environmental impacts of that change:

- o 314.8 million containers (56.2 million pounds) via the “Made with 25% postconsumer material” compliance option
- o 221.8 million containers (40.0 million pounds) via the “A source-reduced container with a 10% reduction in weight” compliance option
- o 17.9 million containers (3.8 million pounds) via the “Reused or refilled five (5) or more times within one year”
- o 0 containers (0 pounds) via the “Recycled at a 45% rate” compliance option
- o 0 containers (0 pounds) via the “Reused floral container” compliance option

**Table 4
Summary of Numbers and Weights of Containers Affected by Key Regulatory Changes***

Key Regulatory Change	Compliance Options*							
	A		B		C		Total	
	Number of Containers (Millions)	Total Container Weight (Millions of pounds)	Number of Containers (Millions)	Total Container Weight (Millions of pounds)	Number of Containers (Millions)	Total Container Weight (Millions of pounds)	Number of Containers (Millions)	Total Container Weight (Millions of pounds)
I. No exclusion from the definition of RPPC for buckets, tubs, pails, clamshells, etc.	196.5	42.3	142.9	30.8	17.9	3.8	357.2	76.9
II. Post-industrial material can no longer be substituted for postconsumer material in compliance calculations	118.3	14.0	-	-	-	-	118.3	14.0
III. Resin switching would no longer be allowed to achieve compliance through source reduction	-	-	78.9	9.3	-	-	78.9	9.3
Totals	314.8	56.2	221.8	40.0	17.9	3.8	554.4	100.1
<p>* Compliance Options: A. Made with 25 percent (25%) postconsumer material B. A source-reduced container with a 10 percent (10%) reduction in weight C. Reused or refilled five (5) or more times within one year Note: No product manufacturers used either of the following compliance options: o Recycled at a 45 percent (45%) rate if a single resin or “product-associated” container o Reused floral container</p>								
* Subtotals and totals may not add up due to rounding.								

**CHAPTER 3
ENVIRONMENTAL CHECKLIST**

3.1 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" as indicated by the checklist on the following pages.

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology /Soils
- Greenhouse Gas Emissions
- Hazards & Hazardous Materials
- Hydrology / Water Quality
- Land Use / Planning
- Mineral Resources
- Noise
- Population / Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities / Service Systems
- Mandatory Findings of Significance

3.2 DETERMINATION:

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 revisions in the project have been made by or agreed to by the project proponent. 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 "potentially significant unless mitigated" impact on the environment, but at least one effect 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.

Original Signed by Robert Holmes

Signature

November 2, 2011

Date

3.3 EVALUATION OF ENVIRONMENTAL IMPACTS:

Issues:

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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I. AESTHETICS. Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Explanation: The proposed project will have no impact on aesthetics. The proposed project makes clarifying changes to existing regulations designed to increase the market for postconsumer plastic, but does not authorize any specific land use or site-specific uses. The infrastructure in the U.S. and California for collecting, processing and recycling plastics is established and, data^{1,2} show, is currently producing a supply of postconsumer plastic resin sufficient to meet or exceed any increased demand by container manufacturers as a result of this project. For example, in California, data² for PET containers show the amount of postconsumer material needed to comply with the proposed regulations is 0.19 percent of the amount of recycled California Redemption Value containers alone. Owners/Operators of recycling activities and container manufacturers must comply with all local ordinances, land use and zoning requirements, including those related to aesthetics.</p>				

II. AGRICULTURE AND FORESTRY 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. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. 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?	<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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Explanation: This project will have no impact on agricultural or forestry resources. The proposed project makes clarifying changes to existing regulations designed to increase the market for postconsumer plastic, but does not authorize any specific land use or site-specific uses. The infrastructure in the U.S. and California for collecting, processing and recycling plastics is established and, data^{1,2} show, is currently producing a supply of postconsumer plastic resin sufficient to meet or exceed any increased demand by container manufacturers as a result of this project. For example, in California, data² for PET containers show the amount of postconsumer material needed to comply with the proposed regulations is 0.19 percent of the amount of recycled California Redemption Value containers alone. Owners/Operators of recycling activities and container manufacturers must comply with all local ordinances, land use and zoning requirements, including those related to agriculture and forestry resources.

III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

- | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) 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)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Create objectionable odors affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Explanation: This project will have no negative impact on air quality. The explanation of the potential greenhouse gas impacts of this project, which appears on page 11, summarizes calculations that indicate implementation of this project would avoid greenhouse gas emissions, either by directly reducing the amount of virgin resin used to manufacture containers or by substituting virgin resin with its postconsumer counterpart. Applying the same line of thinking used in the greenhouse gas explanation, we expect comparable avoidance of air pollutants and air emissions. However, comprehensive air quality impacts are more difficult to calculate than greenhouse gas emissions, so this analysis also relies on additional reasons to determine that this project will not have negative impacts on air quality. This project does not authorize any specific land use or site-specific uses that would have a potential impact on air quality. The infrastructure in the U.S. and California for collecting, processing and recycling plastics is established and, data^{1,2} show, is currently producing a supply of postconsumer plastic resin sufficient to meet or exceed any increased demand by container manufacturers as a result of this project. For example, in California, data² for PET containers show the amount of postconsumer material needed to comply with the proposed regulations is 0.19 percent of the amount of recycled California Redemption Value containers alone. Owners/Operators of recycling activities and container manufacturers must comply with all local ordinances, land use and zoning requirements, including those related to air quality. Furthermore, owners/operators of recycling activities and container manufacturers must obtain all required permits, licenses, or other authorizations and must comply with all orders, statutes, regulations, reports, or other requirements of regulatory or enforcement agencies, including but not limited to local health agencies, local land use authorities, fire authorities, air quality management districts or air pollution control districts, and the California Air Resources Board.

IV. 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Explanation: This project will have no impact on biological resources. The proposed project makes clarifying changes to existing regulations designed to increase the market for postconsumer California plastic, but does not authorize any specific land use or site-specific uses. The infrastructure in the U.S. and California for collecting, processing and recycling plastics is established and, data^{1,2} show, is currently producing a supply of postconsumer plastic resin sufficient to meet or exceed any increased demand by container manufacturers as a result of this project. For example, in California, data² for PET containers show the amount of postconsumer material needed to comply with the proposed regulations is 0.19 percent of the amount of recycled California Redemption Value containers alone. Owners/Operators of recycling activities and container manufacturers must comply with all local ordinances, land use and zoning requirements, including those related to biological resources.

V. CULTURAL RESOURCES. Would the project:

- | | | | | |
|----------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Disturb any human remains, including those interred outside of formal cemeteries? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Explanation: This project will have no impact on cultural resources. The proposed project makes clarifying changes to existing regulations designed to increase the market for postconsumer plastic, but does not authorize any specific land use or site-specific uses. The infrastructure in the U.S. and California for collecting, processing and recycling plastics is established and, data^{1,2} show, is currently producing a supply of postconsumer plastic resin sufficient to meet or exceed any increased demand by container manufacturers as a result of this project. For example, in California, data² for PET containers show the amount of postconsumer material needed to comply with the proposed regulations is 0.19 percent of the amount of recycled California Redemption Value containers alone. Owners/Operators of recycling activities and container manufacturers must comply with all local ordinances, land use and zoning requirements, including those related to cultural resources.

VI. 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: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? Refer to Division of Mines and Geology Special Publication 42. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| ii) Strong seismic ground shaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| iii) Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| iv) Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in substantial soil erosion or the loss of topsoil? | <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? | <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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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 waste water? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Explanation: This project will have no impact on geology and soils. The proposed project makes clarifying changes to existing regulations designed to increase the market for postconsumer plastic, but does not authorize any specific land use or site-specific uses. The infrastructure in the U.S. and California for collecting, processing and recycling plastics is established and, data^{1,2} show, is currently producing a supply of postconsumer plastic resin sufficient to meet or exceed any increased demand by container manufacturers as a result of this project. For example, in California, data² for PET containers show the amount of postconsumer material needed to comply with the proposed regulations is 0.19 percent of the amount of recycled California Redemption Value containers alone. Owners/Operators of recycling activities and container manufacturers must comply with all local ordinances, land use and zoning requirements, including those related to geology and soils.

VII. GREENHOUSE GAS EMISSIONS. Would the project:

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|----------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Explanation: This project will have no negative impact on greenhouse gas generation. CalRecycle analyzed the potential greenhouse gas impacts of the proposed regulatory changes based on the weight and resin type of all containers affected by the changes with a potential impact on the environment. For the 100.1 million pounds of resin represented by this group (see Table 4), staff determined the minimum amount of virgin material that would be avoided under the regulations for each resin type, then multiplied by the appropriate virgin or recycled resin greenhouse gas factors (cited in recent life-cycle studies) for each compliance option. The total for all compliance options and resin types represents a net reduction in greenhouse gas emissions, either by directly reducing the amount of virgin resin used to manufacture containers or by substituting virgin resin with its postconsumer counterpart. This finding is consistent with results generated from the US EPA Re-Con model and the container specific life cycle assessment studies that were reviewed by CalRecycle staff. See Appendix B Calculation Steps for Estimating Greenhouse Gas Impacts from Proposed RPPC Regulatory Changes.

VIII. 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? | <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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <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 result in a safety hazard for people residing or working in the project area? | <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 result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Explanation: This project will have no impact on hazards or hazardous materials. The proposed project makes clarifying changes to existing regulations designed to increase the market for postconsumer plastic, but does not authorize any specific land use or site-specific uses. The infrastructure in the U.S. and California for collecting, processing and recycling plastics is established and, data^{1,2} show, is currently producing a supply of postconsumer plastic resin sufficient to meet or exceed any increased demand by container manufacturers as a result of this project. For example, in California, data² for PET containers show the amount of postconsumer material needed to comply with the proposed regulations is 0.19 percent of the amount of recycled California Redemption Value containers alone. Owners/Operators of recycling activities and container manufacturers must comply with all local ordinances, land use and zoning requirements, including those related to hazards and hazardous materials. Furthermore, owners/operators of recycling activities and container manufacturers must obtain all required permits, licenses, or other authorizations and must comply with all orders, statutes, regulations, reports, or other requirements of regulatory or enforcement agencies, including but not limited to local health agencies, local land use authorities, fire authorities, air quality management districts or air pollution control districts, California Regional Water Quality Control Boards, California Department of Toxic Substances Control, and California Department of Industrial Relations, Division of Occupational Safety and Health.

IX. HYDROLOGY AND WATER QUALITY. Would the project:

a) Violate any water quality standards or waste discharge requirements?

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)?

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?

d) 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 of surface runoff in a manner which would result in flooding on- or off-site?

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?

f) Otherwise substantially degrade water quality?

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?

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

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?

j) Inundation by seiche, tsunami, or mudflow?

Explanation: This project will have no impacts on hydrology or water quality. This project does not authorize any specific land use or site-specific uses that would have a potential impact on hydrology or water quality. The infrastructure in the U.S. and California for collecting, processing and recycling plastics is established and, data^{1,2} show, is currently producing a supply of postconsumer plastic resin sufficient to meet or exceed any increased demand by container manufacturers as a result of this project. For example, in California, data² for PET containers show the amount of postconsumer material needed to comply with the proposed regulations is 0.19 percent of the amount of recycled California Redemption Value containers alone. Owners/Operators of recycling activities and container manufacturers must comply with all local ordinances, land use and zoning requirements, including those related to air quality. Furthermore, owners/operators of recycling activities and container manufacturers must obtain all required permits, licenses, or other authorizations and must comply with all orders, statutes, regulations, reports, or other requirements of regulatory or enforcement agencies, including but not limited to local health agencies, local land use authorities, fire authorities, and air quality management districts or air pollution control districts, and California Regional Water Quality Control Boards.

X. LAND USE AND PLANNING. Would the project:

- a) Physically divide an established community?
- b) 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?
- c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

Explanation: This project will have no impact on land use or planning. The proposed project makes clarifying changes to existing regulations designed to increase the market for postconsumer plastic, but does not authorize any specific land use or site-specific uses. The infrastructure in the U.S. and California for collecting, processing and recycling plastics is established and, data^{1,2} show, is currently producing a supply of postconsumer plastic resin sufficient to meet or exceed any increased demand by container manufacturers as a result of this project. For example, in California, data² for PET containers show the amount of postconsumer material needed to comply with the proposed regulations is 0.19 percent of the amount of recycled California Redemption Value containers alone. Owners/Operators of recycling activities and container manufacturers must comply with all local ordinances, land use and zoning requirements, including those related to land use and planning.

XI. 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?
- 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?

Explanation: This project will have no impact on mineral resources. The proposed project makes clarifying changes to existing regulations designed to increase the market for postconsumer plastic, but does not authorize any specific land use or site-specific uses. The infrastructure in the U.S. and California for collecting, processing and recycling plastics is established and, data^{1,2} show, is currently producing a supply of postconsumer plastic resin sufficient to meet or exceed any increased demand by container manufacturers as a result of this project. For example, in California, data² for PET containers show the amount of postconsumer material needed to comply with the proposed regulations is 0.19 percent of the amount of recycled California Redemption Value containers alone. Owners/Operators of recycling activities and container manufacturers must comply with all local ordinances, land use and zoning requirements, including those related to mineral resources.

XII. NOISE -- Would the project result in:

- 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?
- b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?
- c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?
- d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

- | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 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? | <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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Explanation: This project will have no impact on noise. The proposed project makes clarifying changes to existing regulations designed to increase the market for postconsumer plastic, but does not authorize any specific land use or site-specific uses. The infrastructure in the U.S. and California for collecting, processing and recycling plastics is established and, data^{1,2} show, is currently producing a supply of postconsumer plastic resin sufficient to meet or exceed any increased demand by container manufacturers as a result of this project. For example, in California, data² for PET containers show the amount of postconsumer material needed to comply with the proposed regulations is 0.19 percent of the amount of recycled California Redemption Value containers alone. Owners/Operators of recycling activities and container manufacturers must comply with all local ordinances, land use and zoning requirements, including those related to noise.

XIII. POPULATION AND HOUSING. Would the project:

- | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | <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? | <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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Explanation: This project will have no impact on population or housing. The proposed project makes clarifying changes to existing regulations designed to increase the market for postconsumer plastic, but does not authorize any specific land use or site-specific uses. The infrastructure in the U.S. and California for collecting, processing and recycling plastics is established and, data^{1,2} show, is currently producing a supply of postconsumer plastic resin sufficient to meet or exceed any increased demand by container manufacturers as a result of this project. For example, in California, data² for PET containers show the amount of postconsumer material needed to comply with the proposed regulations is 0.19 percent of the amount of recycled California Redemption Value containers alone. Owners/Operators of recycling activities and container manufacturers must comply with all local ordinances, land use and zoning requirements, including those related to population and housing.

XIV. PUBLIC SERVICES.

- | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for 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: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Fire protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Police protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Schools? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Parks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Other public facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Explanation: This project will have no impact on public services. The proposed project makes clarifying changes to existing regulations designed to increase the market for postconsumer plastic, but does not authorize any specific land use or site-specific uses. The infrastructure in the U.S. and California for collecting, processing and recycling plastics is established and, data^{1,2} show, is currently producing a supply of postconsumer plastic resin sufficient to meet or exceed any increased demand by container manufacturers as a result of this project. For example, in California, data² for PET containers show the amount of postconsumer material needed to comply with the proposed regulations is 0.19 percent of the amount of recycled California Redemption Value containers alone. Owners/Operators of recycling activities and container manufacturers must comply with all local ordinances, land use and zoning requirements, including those related to public services.

XV. RECREATION.

- a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
- 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?

Explanation: This project will have no impact on recreation. The proposed project makes clarifying changes to existing regulations designed to increase the market for postconsumer plastic, but does not authorize any specific land use or site-specific uses. The infrastructure in the U.S. and California for collecting, processing and recycling plastics is established and, data^{1,2} show, is currently producing a supply of postconsumer plastic resin sufficient to meet or exceed any increased demand by container manufacturers as a result of this project. For example, in California, data² for PET containers show the amount of postconsumer material needed to comply with the proposed regulations is 0.19 percent of the amount of recycled California Redemption Value containers alone. Owners/Operators of recycling activities and container manufacturers must comply with all local ordinances, land use and zoning requirements, including those related to recreation.

XVI. 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?
- 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?
- 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?
- d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- e) Result in inadequate emergency access?
- f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Explanation: This project will have no impact on transportation or traffic. This project does not authorize any specific land use or site-specific uses that would have a potential impact on transportation or traffic. The infrastructure in the U.S. and California for collecting, processing and recycling plastics is established and, data^{1,2} show, is currently producing a supply of postconsumer plastic resin sufficient to meet or exceed any increased demand by container manufacturers as a result of this project. For example, in California, data² for PET containers show the amount of postconsumer material needed to comply with the proposed regulations is 0.19 percent of the amount of recycled California Redemption Value containers alone. Owners/Operators of recycling activities and container manufacturers must comply with all local ordinances, land use and zoning requirements, including those related to air quality. Furthermore, owners/operators of recycling activities and container manufacturers must obtain all required permits, licenses, or other authorizations and must comply with all orders, statutes, regulations, reports, or other requirements of regulatory or enforcement agencies, including but not limited to local health agencies, local land use authorities, fire authorities, and air quality management districts or air pollution control districts. In addition, when analyzing a statewide project such as this, where no site-specific impacts can be identified, it is necessary to consider potential impacts more generally. In the case of transportation, we believe that the future transportation of waste RPPCs into recycling programs resulting from this project will be fundamentally the same as the present transportation of waste RPPCs into disposal facilities. Thus, there are no increases in transportation impacts from the present situation.

XVII. UTILITIES AND SERVICE SYSTEMS. Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Explanation: This project will have no impact on utilities or service systems. Although the subject matter of the proposed regulation changes relates, in part, to plastic recycling, an activity typically managed by public and private service systems, this project does not authorize any specific land use or site-specific uses that would have a potential impact on utilities or service systems. The infrastructure in the U.S. and California for collecting, processing and recycling plastics is established and, data^{1,2} show, is currently producing a supply of postconsumer plastic resin sufficient to meet or exceed any increased demand by container manufacturers as a result of this project. For example, in California, data² for PET containers show the amount of postconsumer material needed to comply with the proposed regulations is 0.19 percent of the amount of recycled California Redemption Value containers alone. Owners/Operators of recycling activities and container manufacturers must comply with all local ordinances, land use and zoning requirements, including those related to utilities and service systems. Furthermore, owners/operators of recycling activities and container manufacturers must obtain all required permits, licenses, or other authorizations and must comply with all orders, statutes, regulations, reports, or other requirements of regulatory or enforcement agencies, including but not limited to local health agencies, local land use authorities, fire authorities, air quality management districts or air pollution control districts, California Regional Water Quality Control Boards, California Department of Toxic Substances Control, and California Department of Industrial Relations, Division of Occupational Safety and Health.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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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)?

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Explanation: This project will not have a significant environmental impact and will not have substantial adverse effects on human beings. The proposed project makes clarifying changes to existing regulations designed to increase the market for postconsumer plastic, but does not authorize any specific land use or site-specific uses. The infrastructure in the U.S. and California for collecting, processing and recycling plastics is established and, data^{1,2} show, is currently producing a supply of postconsumer plastic resin sufficient to meet or exceed any increased demand by container manufacturers as a result of this project. For example, in California, data² for PET containers show the amount of postconsumer material needed to comply with the proposed regulations is 0.19 percent of the amount of recycled California Redemption Value containers alone. Owners/Operators of recycling activities and container manufacturers must comply with all local ordinances, land use and zoning requirements, and must obtain all required permits, licenses, or other authorizations, and must comply with all orders, statutes, regulations, reports, or other requirements including those related to wildlife habitat, endangered plants and animals, California history and prehistory, and cumulatively considerable impacts.

Checklist Endnotes:

- 1 Resin Sales and Recycling Data; American Chemistry Council and Association of Postconsumer Plastic Recyclers, October 2011
- 2 CalRecycle 2010 Beverage Container Sales and Recycling Data

Appendix A

The proposed Rigid Plastic Packaging Container Program regulations and additional background information can be found at: www.calrecycle.ca.gov/Laws/Rulemaking/RPPC/default.htm

Appendix B

Calculation Steps for Estimating Greenhouse Gas (GHG) Impacts from Proposed RPPC Regulatory Changes

The proposed regulatory changes will have no negative impact on greenhouse gas generation. CalRecycle estimated the GHG impacts of all containers affected by the changes with a potential impact on the environment (“affected containers”) based on weight and resin type. For the 100.1 million pounds of resin represented by this group as identified in CalRecycle’s economic and financial impact analysis (www.calrecycle.ca.gov/Laws/Rulemaking/RPPC/Std399Att2.doc), staff determined the minimum amount of virgin material that would be avoided under the regulations for each resin type, then multiplied these figures by the appropriate virgin or recycled resin GHG factors (from Franklin 2010 and 2011 – see Table A, below) for each compliance option. The total for all compliance options and resin types represents approximately **68.1** million pounds of carbon dioxide equivalents (CO₂e) in avoided GHG emissions, either by directly reducing the amount of virgin resin used to manufacture containers or by substituting virgin resin with its postconsumer counterpart. This finding is consistent with results generated from the US Environmental Protection Agency Recycled Content (ReCon) greenhouse gas calculator (http://epa.gov/climatechange/wycd/waste/calculators/ReCon_home.html) and the container-specific life cycle assessment studies that were reviewed by CalRecycle staff.

CalRecycle staff conducted this analysis in accordance with the following assumptions:

- All affected containers currently have no recycled content but will come into compliance using Option A, B or C.
- For Option A, postconsumer resin will displace 25% of the virgin resin in affected containers on a pound-for-pound basis.
- For Option B, the affected containers will reduce their aggregate weight by 10%.
- For Option C, each affected container avoids the impacts from 5 virgin containers that would have been produced. (Actual reuse under this option could take several forms, including sale of large, bulk refill containers to replenish original-purchase, small containers; however, those larger refill containers would need to comply with the RPPC Program and be counted separately.)

The calculations were conducted as follows:

STEP 1. Using data from CalRecycle’s economic and financial impact analysis completed in August 2010, determine the weight of each resin type by compliance option and regulatory change (nine data points), for the 100.1 million pounds of resin under analysis. (See Table 4 in the CEQA Negative Declaration.)

$$\text{OPTION-A}_{\text{resin wt}} = \text{REG-1A}_{\text{resin wt}} + \text{REG-2A}_{\text{resin wt}} + \text{REG-3A}_{\text{resin wt}}$$

$$\text{OPTION-B}_{\text{resin wt}} = \text{REG-1B}_{\text{resin wt}} + \text{REG-2B}_{\text{resin wt}} + \text{REG-3B}_{\text{resin wt}}$$

$$\text{OPTION-C}_{\text{resin wt}} = \text{REG-1C}_{\text{resin wt}} + \text{REG-2C}_{\text{resin wt}} + \text{REG-3C}_{\text{resin wt}}$$

Where REG-1A_{resin wt} is the weight of PET, HDPE or #3–7 containers affected by regulatory change #1 (“No exclusion for buckets, etc.”) and using Option A to comply;

REG-2A_{resin wt} is the weight of those affected by regulatory change #2 (“Post-industrial can no longer be substituted”) and using Option A; and so on.

$$\begin{aligned} \text{Example: OPTION-A}_{\text{PET wt}} &= \text{REG-1A}_{\text{PET wt}} + \text{REG-2A}_{\text{PET wt}} + \text{REG-3A}_{\text{PET wt}} \\ &= 5.3 + 1.8 + 0.0 \text{ million lbs} \\ &= 7.1 \text{ million lbs} \end{aligned}$$

STEP 2. Calculate the avoided virgin GHGs for each resin type by compliance option and regulatory change (nine data points), using the appropriate per-pound GHG factor.*

$$\text{OPTION-A}_{\text{resin GHGs}} = (\text{OPTION-A}_{\text{resin wt}} * 0.25) * (\text{GHGs}_{\text{per lb virgin resin}} - \text{GHGs}_{\text{per lb recycled resin}})$$

$$\text{OPTION-B}_{\text{resin GHGs}} = (\text{OPTION-B}_{\text{resin wt}} * 0.10) * \text{GHGs}_{\text{per lb virgin resin}}$$

$$\text{OPTION-C}_{\text{resin GHGs}} = (\text{OPTION-C}_{\text{resin wt}} * 5.0) * \text{GHGs}_{\text{per lb virgin resin}}$$

Example:

$$\begin{aligned} \text{OPTION-A}_{\text{PET GHGs}} &= (\text{OPTION-A}_{\text{PET wt}} * 0.25) * (\text{GHGs}_{\text{per lb virgin PET}} - \text{GHGs}_{\text{per lb recycled PET}}) \\ &= (7.1 \text{ million lbs} * 0.25) * (2.798 - 1.147) \\ &= 2.9 \text{ million lbs CO}_2\text{E} \end{aligned}$$

STEP 3. For each resin type, add together the avoided virgin GHGs from each compliance option.

$$\begin{aligned} \text{AVOIDED GHGs}_{\text{resin}} &= \text{OPTION-A}_{\text{resin GHGs}} + \text{OPTION-B}_{\text{resin GHGs}} + \text{OPTION-C}_{\text{resin GHGs}} \\ \text{Example: AVOIDED GHGs}_{\text{PET}} &= \text{OPTION-A}_{\text{PET GHGs}} + \text{OPTION-B}_{\text{PET GHGs}} + \text{OPTION-C}_{\text{PET GHGs}} \\ &= 2.9 + 1.4 + 6.7 \\ &= 11.0 \text{ million lbs. CO}_2\text{E} \end{aligned}$$

STEP 4. Add together the total avoided virgin GHGs for each resin type, for a grand total of avoided GHGs for all containers under analysis.

$$\begin{aligned} \text{AVOIDED GHGs}_{\text{Total}} &= \text{AVOIDED GHGs}_{\text{PET}} + \text{AVOIDED GHGs}_{\text{HDPE}} + \text{AVOIDED GHGs}_{\text{\#3-7}} \\ \text{Example: } &68.1 \text{ mil. lbs. CO}_2\text{E} = 11.0 + 38.0 + 19.0 \text{ mil. lbs. CO}_2\text{E} \end{aligned}$$

*The GHGs per pound of resin (expressed in pounds of CO₂E) are derived from recent life-cycle studies of virgin and recycled resins by Franklin Associates (2010 and 2011). See Table A below. Several methods for allocating the GHG burdens from recycling processes are acceptable under international ISO standards for life cycle analysis. The GHG factors for recycled resins in these estimates used the “cutoff” method, where environmental burdens from recycled material production are counted independently from their virgin counterparts.

The Franklin GHG factors are for “cradle-to-gate” emissions from resource extraction through resin pellet production. They do not include injection molding or other processes used to manufacture finished *containers*. The actual differences in container manufacturing could vary the net GHG impacts in some cases. However, CalRecycle believes the GHG factors used here are representative of the likely overall impacts from the proposed regulatory changes.

Table A – Summary of GHG factors and net avoided GHG impacts by resin type

Resin type	GHG factor – virgin ¹ (CO ₂ e / lb. resin)	GHG factor – recycled ² (CO ₂ e / lb. resin)	Source	Total wt. of resin, all affected containers (million lbs.)	Net avoided GHGs (million lbs. CO ₂ e)
PET	2.798	1.147	Franklin 2010 & 2011	12.6	11.04
HDPE	1.890	0.614	Franklin 2010 & 2011	62.0	38.04
#3 - 7	2.344	0.881	Estimated ³	25.6	19.00
TOTAL	--	--		100.2	68.08

¹ Franklin 2011

² Franklin 2010

³ Values for the mixed plastics category (#3 – 7) are the mean of the PET and HDPE values, as limited data are available for mixed resins.

References

Franklin Associates (2010) *Life Cycle Inventory of 100% Postconsumer HPDE and PET Recycled Resin from Postconsumer Containers and Packaging*, Franklin Associates, A Division of the Eastern Research Group, Inc., prepared for the Plastics Division of the American Chemistry Council (ACC), <<http://www.plasticsrecycling.org/images/stories/doc/RecycledPlasticLCI4.7.2010.pdf>>.

Franklin Associates (2011) *Cradle-to-Gate Life Cycle Inventory of Nine Plastic Resins and Four Polyurethane Precursors*, Franklin Associates, A Division of the Eastern Research Group, Inc., prepared for the Plastics Division of the American Chemistry Council (ACC), <<http://plastics.americanchemistry.com/Education-Resources/Publications/Cradle-to-Gate-Life-Cycle-Inventory-of-9-Plastics-Resins-and-4-Polyurethane-Precursors-Appendi.pdf>>.