1. Statement of the need for the proposed major regulation.

The Used Mattress Recovery and Recycling Program Regulations (regulations) are necessary to clarify existing statute and establish administrative procedures to efficiently implement the Used Mattress Recovery and Recycling Act, SB 254, Chapter 388, Statutes of 2013 (Act). Consistent with extended producer responsibility principles, the Program required by the Act will be designed, financed, and managed by members of the mattress industry via a mattress recycling organization (MRO) comprised of mattress manufacturers, renovators, and retailers. The MRO must develop and submit a Used Mattress Recovery and Recycling Plan (plan) for the recovery and recycling of used mattresses to CalRecycle by July 1, 2015. Thereafter, annual plan updates and budgets must be submitted to CalRecycle for review and approval. The proposed regulations will provide the clarity necessary for CalRecycle to provide effective oversight and enforcement of the Program in a fair and consistent manner, and more broadly, implementation of the Program will protect public health, safety, and the environment.

2. The categories of individuals and business enterprises who will be impacted by the proposed major regulation and the amount of the economic impact on each such category.

While the MRO will design the Program, and neither Program design details nor a recycling goal have been established yet, this economic analysis estimates potential impacts based on a fundamental program design and two possible recycling scenarios: 20-percent and 50-percent recycling rates. See Appendices I and II for detailed results.

**Businesses and Consumers:** The primary economic impact of the regulations and Program will be to individuals and establishments (e.g., hotels, commercial residences, and hospitals) who purchase mattresses, and the wholesale and retail firms that sell mattresses. These economic impacts are presumed to be the avoided costs for consumers when disposing used mattresses, initially estimated to be $2.4 million at the 20-percent mattress recycling rate and $3.8 million at the 50-percent mattress recycling rate by 2016 after full implementation of the regulations. These cost savings will be $7.7 million for the 20-percent scenario and $19.3 million for the 50-percent scenario in 2024, when the Program achieves the respective recycling rates. While retailers are required by statute to provide consumers with free take-back of used mattresses, the Program designed by the MRO will likely impose an assessment on the sale of new mattresses to fund the Program, thereby offsetting potential consumer savings.

**Recyclers:** CalRecycle estimates that if half of the eligible used mattresses in California are recycled, at least 45 new recycling businesses would be necessary to deconstruct the collected mattresses. The recycled material components derived from the recycling process would be further processed through existing commodities channels, and no new locations are expected.

**Landfills and Solid Waste Facilities:** These entities will experience an estimated revenue loss of $2.4 million for the 20-percent recycling scenario, and $3.8 million for the 50-percent recycling scenario in 2016, twelve months after full implementation of the regulation because of the projected percentage of mattresses that will be diverted away from disposal and into recycling.
3. Description of all costs and all benefits due to the proposed regulatory change (calculated on an annual basis from estimated date of filing with the Secretary of State through 12 months after the estimated date the proposed major regulation will be fully implemented as estimated by the agency).

The Department estimates the initial net economic impact, upon program implementation, is $1.7 million in 2016 (for the 20-percent recycling scenario) and $1.1 million in 2016 (for the 50-percent recycling scenario). However, the 20-percent recycling scenario results in an annual positive net benefit of $1.26 million after achieving the 20-percent recycling rate in 2024. The annual positive net benefit for the 50-percent scenario after reaching 50-percent recycling is $7.78 million in 2024. Also, there is a GDP increase of $11-$26 million for the respective recycling scenarios in 2016.

In addition, the regulations will result in an indeterminate reduction in public agency costs associated with the end-of-life management of used mattresses, such as illegal dumping, blight, and associated health hazards. CalRecycle estimates that, for the 20-percent recycling scenario, 250,000 used mattresses will be kept out of landfills in 2016 as a result of the regulations. This would result in avoided consumer disposal fees of up to $2.4 million.

Including indirect and induced economic impacts, 143 jobs will be created in 2016 for the 20-percent recycling scenario and 324 jobs would be created for the 50-percent recycling scenario.

4. Description of the 12-month period in which the agency estimates the economic impact of the proposed major regulation will exceed $50 million.

The projected economic costs of the regulations themselves do not exceed the $50 million threshold for major regulations. However, this economic analysis evaluates the impacts of the Program as potentially designed by the MRO, including impacts directly related to compliance with the regulations. The analysis incorporates macro-level assumptions for two possible Program scenarios: a 20-percent recycling rate and a 50-percent recycling rate (recognizing that the MRO may choose to implement a somewhat different Program design to reach those recycling rates, which may then result in an economic impact that exceeds the $10 million impact threshold under which CalRecycle is subject). The economic impacts are reported for the Program in calendar year 2016, the 12-month period after full implementation of the Regulations. The Program is not projected to reach the full recycling rates of 20-percent and 50-percent until 2024. Avoided consumer disposal costs are $7.7 million for the 20-percent scenario and $19.2 million for the 50-percent scenario in 2024.
5. Description of the agency's baseline:

This economic analysis compares the costs and benefits of the MRO implementing the Program for the first 12 months, as well as beyond, in comparison to a baseline. The baseline is assumed to be existing conditions, i.e., no Program in place. The annual economic changes projected to occur as a result of the Program, i.e., the "exogenous" changes in expenditures or incomes or jobs, are the net changes from the original baseline number for each variable until the recycling rate in each scenario is achieved.

6. For each alternative that the agency considered (including those provided by the public or another governmental agency), please describe:
   a. All costs and all benefits of the alternative
   b. The reason for rejecting alternative

Alternative 1: Do not adopt a regulation; rely solely on statute.

Cost: Without regulations, the cost of establishing a new Program for the recovery and recycling of used mattresses, and the cost of submitting plans and reports, and enforcement — as required by statute — would remain the same. Without regulations, there could be additional costs incurred by CalRecycle and the MRO related to multiple submittal of plans and reports, because clear expectation of administrative procedures would not be detailed. Similar additional costs could occur with enforcement activities.

Benefits: This alternative would not achieve any of the benefits listed in the above section.

Reason for Rejecting: The no action alternative would not address the stated need for the regulations, namely to clarify and help implement the Used Mattress Recovery and Recycling Act and to protect public health, safety, and the environment.

Alternative 2: Require program participants to report additional data regarding the end use of materials from recycled mattresses, and descriptions of the products or commodities for which these materials are ultimately used.

Cost: Increased administrative and reporting costs would be required for this alternative, with no cost savings.

Benefits: This alternative would provide an indication and understanding of the market for recycled commodities and the end uses of materials obtained from used mattresses.

Reason for Rejecting: This alternative and its reporting requirements would be cost-prohibitive to the program because it would require mattress manufacturers, retailers, renovators, and recyclers to expend extra resources collecting new information that is not easily attainable under current information collection practices.

7. A description of the methods by which the agency sought public input. (Please include documentation of that public outreach).

CalRecycle staff actively attempted to identify and encourage all stakeholders that may be impacted by the law and regulations to sign up on the Department's mattress listserv to keep apprised of opportunities to review documents and provide comments. CalRecycle solicited public input on the Used Mattress Recovery and Recycling Draft Regulations at an informal public workshop on March 13, 2014, and on the Proposed Regulations at the May 20, 2014 CalRecycle Monthly Public Meeting. Listserv messages sent on February 20, 2014, March 3, 2014, and May 9, 2014 also attempted to solicit public feedback. See the attached page for links to these public notices and listserv messages.
8. A description of the economic impact method and approach (including the underlying assumptions the agency used and the rationale and basis for those assumptions).

For indirect and induced economic impacts, the Department used the Regional Economics Models, Inc. (REMI) model, an analytical tool that is a one-region, 160-sector model which has been modified using California-specific data (for population, demographics, and employment) as specified by the Department of Finance (DOF) on 4/4/2014. The REMI model was chosen because it is a robust analytical tool that allows a California-specific comparison of current market conditions (baseline) to projected market and economic impacts on businesses complying with the Regulations.

Assumptions are detailed on Pages 3-4 in the SRIA. Generally, they included: an estimate of the number of mattresses and box springs that will be sold in CA (based on population growth and industry sales data), an assumption that linear recovery infrastructure growth rate will occur in direct relationship with two recycling scenarios, a disposal fee for mattresses would be $9, infrastructure costs will be similar to those in a business case study for a recycling program in Scotland, there will be no change in transportation costs, and Program oversight will not change between the two recycling scenarios (30 staff for the retail sector and 6.5 staff for CalRecycle will be required).

CalRecycle based these assumptions on multiple data sources, including industry information provided by the International Sleep Product Association, a Department-sponsored EPR case study on mattresses and associated GHG emissions reductions conducted by UC Santa Barbara, an economic study for a Scotland mattress recycling program, an illegal dumping study performed by an advisory committee in Sacramento, and CalRecycle Waste Characterization Studies. The SRIA includes the additional sources used and report references.

Agency Signature

Ken DaRosa

Date 10/16/14

Agency Head (Printed)

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