REQUEST FOR ACTION

To: Zoe Heller

Director

From: Clark Williams

Branch Chief, Statewide Technical and Analytical Resources

Branch

Request Date: May 24, 2024

Decision Subject: Consideration of Proposed State Mattress Recycling Baseline and

2025 to 2029 Goals

Action By: June 28, 2024

Summary of Request

The Used Mattress Recovery and Recycling Act (Public Resources Code sections 42985 to 42994) requires the Department of Resources Recycling and Recovery to review, and update as necessary, the state mattress recycling baseline and goals on or before July 1, 2020, and every four years thereafter.

This Request for Action presents staff's proposed updates to the state mattress recycling baselines and goals for 2025 through 2029.

Proposed State Mattress Recycling Baselines and Goals

Staff reviewed the state mattress recycling baselines and goals pursuant to Public Resources Code (PRC) section 42987.5. This included reviewing the state mattress recycling baselines and goals to advance the state's policy goal that not less than 75 percent of solid waste generated be source reduced, recycled, or composted pursuant to PRC section 41780.01, a consultative process with the mattress recycling organization Mattress Recycling Council (MRC), and proposing necessary updates to the goals, as well as one of the baselines.

Pursuant to PRC section 42987.5(b), MRC's annual reports must demonstrate its good faith effort to comply with the goals established by the Department of Resources Recycling and Recovery (CalRecycle). CalRecycle may adopt a determination of compliance or noncompliance by approving, disapproving, or conditionally approving MRC's annual reports pursuant to PRC section 42990.2 and Title 14, California Code of Regulations section 18964(c).

Table 1 provides a summary of staff's proposed baselines and goals for 2025 to 2029, which are further described in the analysis section below, as compared to the current baselines and goals for 2021 to 2024.

Table 1. Summary of Current and Proposed State Mattress Recycling Baselines and Goals

Metric	Current Baselines (2021 to 2024)	Proposed Baselines (2025 to 2029)	Current Goals (2021 to 2024)	Proposed Goals (2025 to 2029)
Recycling Rate	81%	No change	81% ± 5%	Maintain or exceed 83%
Efficiency Rate	65%	52%, revised calculation methodology	65% ± 5%	Maintain or exceed 68%
Consumer Convenience	120	No change	2021: 212 2022: 215 2023: 218 2024: 221	Maintain or exceed 250 collection opportunities
Consumer Access	89.6%	No change	94% by 2024	Maintain or exceed 95%
Rural Retailer Access	81%	No change	95% by 2024	Maintain or exceed 95%
Urban Retailer Access	63%	No change	80% by 2024	Maintain or exceed 95%

Background

PRC section 42987.5 contains requirements for statewide mattress recycling baselines and goals, meaning they consider mattresses that are managed by entities that participate in MRC's program and those that do not, and baselines and goals that are specific to MRC's program. CalRecycle established statewide mattress baselines and goals for recycling rate, efficiency rate, and consumer convenience pursuant to PRC section 42987.5(a)(1)(C), which went into effect on July 1, 2020, and MRC program-specific baselines and goals for consumer, rural retailer, and urban retailer access to the program pursuant to PRC section 42987.5(a)(1)(D), which went into effect on January 1, 2022. PRC section 42987.5(a)(1)(D)(i) also became effective on January 1, 2022, and requires MRC to establish at least one permanent collection site per county and provide no-cost freight services to certain entities.

CalRecycle consulted with the mattress recycling organization, MRC, during the development of the baseline and goal updates proposed in this Request for Action (RFA). CalRecycle and MRC conducted a public workshop in December 2023 to review the existing baselines and goals, MRC's performance related to each goal, and solicit input from interested parties. Comments are discussed in the Feedback from Interested Parties section, below.

Staff Analysis

To develop the proposed baselines and goals for 2025 to 2029, staff evaluated data from annual reports submitted by mattress renovators, recyclers, and solid waste facilities (referred to in this document as "reporting entities") from 2016 to 2022, data and activities reported by MRC in its 2021 and 2022 annual reports, and feedback submitted by interested parties to determine whether to update the baseline and goals. Staff propose maintaining the baselines established in the June 2020 and October 2020

RFA, with the exception of the efficiency rate baseline, explained below, to effectively monitor the progress of the program annually and MRC's good faith efforts to comply with the established goals. This section describes staff's analysis to support the proposed updates to the state mattress baseline and recycling goals for 2025 to 2029.

Statewide Goal: Recycling Rate

Table 2. Proposed 2025 to 2029 Statewide Recycling Rate Baseline and Goals

Metric	Baseline (no change proposed)	2025 Goal	2026 Goal	2027 Goal	2028 Goal	2029 Goal
Recycling Rate	81%	83%	83%	83%	83%	83%

Table 3. 2021 to 2024 Recycling Rate Goal and Reported Recycling Rate

Metric	Baseline	2021	2022	2023	2024
Recycling Rate Goal	81%	81% ± 5%	81% ± 5%	81% ± 5%	81% ± 5%
Recycling Rate Reported	N/A	82.6%	84.9%	TBD	TBD

<u>Requirement</u>: CalRecycle shall establish and make public the state mattress recycling baseline and state mattress recycling goals pursuant to PRC section 42987.5(a)(1)(A)-(B).

Proposed Baseline and Goal:

In 2020, CalRecycle established the statewide recycling rate, which is the percentage of mattresses recycled and renovated statewide, including mattresses managed both inside and outside of MRC's program. The statewide recycling rate is calculated by dividing the number of mattress units (units) recycled and renovated by the number of units recycled, renovated, and disposed of in landfills. When reviewing the recycling rate goal for potential updates, staff considered alternative methods for measuring the statewide recycling rate, such as using a sales-based calculation methodology and conducting waste characterization study. Because sales-based recycling rate calculations rely upon factors that can arbitrarily impact the calculation such as assumptions, estimates, and extrapolations, and additional time would be necessary to understand how waste characterization studies could be used to improve the recycling rate calculation, staff propose to continue to calculate the statewide recycling rate using the formula below:

Statewide Recycling Rate =

(units recycled statewide + units renovated statewide)

(units recycled statewide + units renovated statewide + units disposed statewide)

Staff used the formula above to calculate the baseline recycling rate of 81 percent in 2018. Staff propose to continue using the 2018 recycling rate baseline to maintain consistency and comparability of data over time. In 2020, CalRecycle set an annual statewide recycling rate goal of 81 percent plus or minus 5 percent. Staff analyzed reporting entities' data from 2016 to 2022 and MRC's performance in 2021 and 2022 to

determine if any updates to the recycling rate goal are necessary. As shown in Table 3, MRC achieved recycling rates of 82.6 percent in 2021 and 84.9 percent in 2022, both of which were greater than the median recycling rate in the current goal set by CalRecycle. Using the equation above, staff calculated that the average annual recycling rate from 2016 to 2022 was 82.1 percent.

Staff propose updating the statewide recycling rate goal to a minimum of 83 percent annually and removing the range of plus or minus 5 percent, as shown in Table 2. Setting a fixed goal provides a clear benchmark for performance and compliance. Staff's proposed annual statewide recycling rate goal is close to the recycling rates reported by MRC in 2021 and 2022 and slightly above program's average between 2016 and 2022, which, combined with removing the unnecessary top range, ensures that the program continues to advance the goals, as required by PRC section 42987.5(c).

During CalRecycle's consultation with MRC, MRC expressed its preference to continue using the range of plus or minus 5 percent to provide flexibility to account for fluctuations in data reporting and the recycling market. Staff acknowledge that impacts to the statewide recycling rate resulting from fluctuations in data reporting and the economy shall be described in MRC's annual reports and will take such fluctuations into account when assessing MRC's good faith efforts to comply with the proposed goal.

Statewide Goal: Efficiency Rate

Table 4. Proposed 2025 to 2029 Statewide Efficiency Rate Baseline and Goals

Metric	Revised Baseline	2025 Goal	2026 Goal	2027 Goal	2028 Goal	2029 Goal
Efficiency Rate	52%, revised calculation methodology	68%	68%	68%	68%	68%

Table 5. 2021 to 2024 Efficiency Rate Goal and Reported Efficiency Rate

Metric	Baseline	2021	2022	2023	2024
Efficiency Rate Goal	65%	65% ± 5%	65% ± 5%	65% ± 5%	65% ± 5%
Efficiency Rate Actual	N/A	63.5%	68.3%	TBD	TBD

<u>Requirement</u>: CalRecycle shall establish and make public the state mattress recycling baseline and state mattress recycling goals pursuant to PRC section 42987.5(a)(1)(A)-(B).

Proposed Baseline and Goal:

In 2020, CalRecycle established the statewide efficiency rate, which is calculated based on the amount of material recycled by recyclers and solid waste facilities and renovated by renovators from mattresses collected statewide, both in MRC's program as well as outside of it. While the statewide recycling rate calculates the percentage of whole units recycled and renovated, the statewide efficiency rate calculates just the percentage of mattress materials that are recycled and renovated.

Solid waste facilities that recycle on-site only report the number of whole units recycled, which must be converted to pounds in order to calculate the efficiency rate. CalRecycle performed this calculation for the existing (2018) baseline using the assumption that the average unit weighs 55 pounds, consistent with a 2017 MRC processor study, and that an average of 75 percent of mattress materials were recycled from these units, consistent with MRC's average program recovery rate. The remaining 25 percent of the mattress materials from units recycled by solid waste facilities are assumed to be disposed. Staff propose to continue to use this formula.

Renovators report the number of units they renovate, so a separate formula is necessary to convert the number of units renovated to the number of pounds renovated statewide. Since renovators did not report the number of pounds of material they disposed annually until 2021, CalRecycle calculated the existing baseline using the best available information at the time, including the assumptions that 75 percent of mattress materials were renovated from units that renovators handled and that the average unit weighs 55 pounds. Renovators now report the amount of material they dispose annually, so staff propose using an annual renovation recovery rate to calculate the pounds of mattress materials renovated statewide. This method more accurately quantifies mattress materials disposed statewide and is consistent with the formula MRC used to calculate its 2021 and 2022 efficiency rates.

Staff propose to continue to calculate the statewide efficiency rate using the formula below:

Statewide Efficiency Rate =

(pounds recycled statewide + pounds renovated statewide)

(pounds recycled statewide + pounds renovated statewide + pounds disposed statewide)

Staff propose amending the methodology for calculating pounds renovated using the formula below. Staff recommended replacing the average recovery rate of 75 percent, which was used to calculate the current baseline and goals, with the reported annual recovery rate, calculated according to the annual recovery rate formula below:

Pounds Renovated Formula =

(Units renovated × 55 pounds per unit) × (Annual Renovation Recovery Rate)

Annual Renovation Recovery Rate = $1 - \left(\frac{\text{pounds of material disposed by renovators}}{\text{[units renovated} \times 55 \text{ pounds per unit]}}\right)$

Additionally, when CalRecycle calculated the 2018 baseline efficiency rate of 65 percent, whole units sent straight to disposal were not included in the formula, while MRC included all pounds disposed statewide in the formula it used to calculate its 2021 and 2022 efficiency rates, including units sent directly to disposal. Staff propose including all mattress materials disposed statewide, including units sent directly to disposal. This method more accurately quantifies mattress materials disposed statewide and is consistent with the formula used by MRC. When applying the proposed

renovation recovery rate and total pounds disposed to the efficiency rate formula, staff calculated a revised baseline of 52 percent. Therefore, staff propose updating the 2018 baseline to 52 percent to provide an accurate comparison against the proposed goals, which use the revised formula.

CalRecycle is also proposing to modify the statewide efficiency rate goal for 2025 through 2029. In 2020, CalRecycle set an annual statewide efficiency rate goal of 65 percent plus or minus 5 percent. Staff analyzed reporting entities' data from 2016 to 2022 and MRC's performance in 2021 and 2022 to determine if any updates to the state efficiency rate goal are necessary. As a result of that analysis, staff propose increasing the state efficiency rate goal to a minimum of 68 percent and removing the range of plus or minus 5 percent, as shown in Table 4. Setting a fixed goal provides a clear benchmark for performance and compliance. This goal is consistent with MRC's reported 2022 efficiency rate and, combined with removing the unnecessary top range, supports the statutory requirement that the program continue to advance the goals, as required by PRC section 42987.5(c).

During CalRecycle's consultation with MRC, MRC expressed its preference to continue using the range of plus or minus 5 percent for the state efficiency rate goal for the same reasons discussed for the statewide recycling rate goal. Staff acknowledge that impacts to the statewide efficiency rate resulting from fluctuations in data reporting and the economy shall be described in MRC's annual reports and will take such fluctuations into account when assessing MRC's good faith efforts to comply with the goal.

Statewide Goal: Consumer Convenience

Table 6. Proposed 2025 to 2029 Statewide Consumer Convenience Baseline and Goals

Metric	Baseline (no change proposed)	2025 Goal	2026 Goal	2027 Goal	2028 Goal	2029 Goal
Consumer Convenience (number of collection opportunities)	120	250	250	250	250	250

Table 7. 2021 to 2024 Consumer Convenience Goals and Reported Consumer Convenience

Metric	Baseline	2021 Goal	2022 Goal	2023 Goal	2024 Goal
Consumer convenience Goal (number of collection opportunities)	120	212	215	218	221
Reported number of collection opportunities	N/A	223	258	TBD	TBD

Requirement: CalRecycle shall establish and make public metrics and goals for increasing consumer convenience for used mattress drop-off, disposal, and recycling in a way that applies to the entire state regardless of socioeconomic conditions pursuant to PRC section 42987.5(a)(1)(C).

Proposed Baseline and Goal:

In 2020, CalRecycle established a consumer convenience goal that measured consumer access to free mattress drop-off, recycling, and disposal options. The June 2020 RFA stated that the metrics for monitoring achievement of this goal would include the number of sites in MRC's permanent collection network, disposal facilities that accept mattresses, curbside programs that accept mattresses, retailers that take back old mattresses upon delivery of new mattresses, and recycling facilities operating both inside and outside of MRC's program that accept mattresses. MRC has not counted retailers that take back old mattresses upon delivery of new mattresses in its reported number of collection opportunities due to difficulty verifying which retailers offer delivery and take-back. Therefore, staff propose revising the metrics for monitoring achievement of the goal to remove retailers that take back old mattresses upon delivery of new mattresses from the definition of collection opportunity for the purpose of this goal.

CalRecycle established a baseline of 120 collection opportunities in 2018, and staff propose continuing to use this baseline. CalRecycle also established a goal for MRC to add three additional collection opportunities per year from 2021 to 2024, for a total of 221 by 2024. Despite the exclusion of retailer take-back, MRC has reported surpassing the number of collection opportunities required by the consumer convenience goal, with 223 collection opportunities in 2021 and 258 collection opportunities in 2022. Staff propose increasing the consumer convenience goal to require MRC to maintain or exceed 250 collection opportunities, as shown in Table 6, which ensures that the program continues to advance the goals, as required by PRC section 42987.5(c) and is consistent with the number of collection opportunities reported in MRC's 2022 annual report.

During CalRecycle's consultation with MRC, MRC expressed that its capacity to recruit new facilities to serve as collection sites will become more limited over time and, therefore, a goal which would require MRC to increase the number of collection opportunities annually would be increasingly difficult to achieve. Staff's proposed consumer convenience goal requires MRC to maintain or exceed a certain number of sites each year from 2025 to 2029 instead of increasing the number of sites each year, which recognizes MRC's current high-level of consumer convenience and provides flexibility to account for potential site closures or other external factors.

Program-Specific Goal: Consumer Access to the Program

Table 8. Proposed 2025 to 2029 Consumer Access to the Program Baseline and Goals

Metric	Baseline (no change proposed)	2025 Goal	2026 Goal	2027 Goal	2028 Goal	2029 Goal
Consumer Access to the Program	89.6%	95%	95%	95%	95%	95%

Table 9. 2021 to 2022 Reported Consumer Access and 2024 Consumer Access Goal

Metric	Baseline	2021 Reported	2022 Reported	2024 Goal
Consumer Access to the Program (Percent of population within 15 miles of collection site or served by a bulky item pickup)	89.6%	96.5%	96.9%	94%

Requirements: The mattress recycling organization must establish at least one permanent mattress drop-off location in each county with 2,000 or more people pursuant to PRC section 42987.5(a)(1)(D)(i)(I). For a county with a population of less than 2,000 people, the requirement does not apply as long as the organization continues to provide at least two collection events in the county each year. CalRecycle may require additional drop-off locations to ensure that consumers have sufficient convenient access to drop-off locations.

Proposed Baseline and Goal:

In 2020, CalRecycle established a consumer access goal based on the percentage of the population within 15 miles of an MRC collection site or served by a bulky item collection program. CalRecycle determined that a baseline of 89.6 percent of residents lived within 15 miles of an MRC collection site or bulky item collection program, based on MRC's program convenience analysis in its 2018 annual report. Staff propose to continue using the baseline of 89.6 percent. The metrics for monitoring achievement of the consumer access goal are the percentage of the population within 15 miles of an MRC collection site or serviced by a bulky item program. US Census data was used as the population data source to set the 2018 baseline and should continue to be used to determine achievement of the consumer access goal.

In 2020, CalRecycle established a consumer access goal that required MRC to increase consumer access to the program to 94 percent by 2024. To determine if any updates are necessary for the consumer access goal, staff analyzed MRC's performance in 2021 and 2022, and determined that by 2022, MRC had already exceeded the 2024 goal of 94 percent by 2.9 percent. Therefore, staff propose a goal for MRC to maintain or exceed 95 percent consumer access to the program. MRC has indicated that a goal that would require MRC to increase program access annually would be increasingly difficult to achieve over time. Staff's proposed annual consumer access goal ensures that the program continues to advance the goals, as required by PRC section 42987.5(c) and is consistent with the level of access MRC currently provides to consumers, with some flexibility to account for factors such as unexpected collection site closures.

Program-Specific Goal: Retailer Access to the Program

Table 10. Proposed 2025 to 2029 Retailer Access to the Program Baseline and Goals

Metric	Baseline (no change proposed)	2025 Goal	2026 Goal	2027 Goal	2028 Goal	2029 Goal
Rural Retailer Access to the Program	81%	95%	95%	95%	95%	95%
Urban Retailer Access	63%	95%	95%	95%	95%	95%
to the Program	0370	9570	9370	9370	9570	9570

Table 11. 2021 to 2022 Reported Retailer Access and 2024 Retailer Access Goals

Metric	Baseline	2021 Actual	2022 Actual	2024 Goal
Rural Retailer Access to the Program (percent of California consumers in rural areas located within 40 miles of a no-cost collection site that accepts commercial volume)	81%	99.4%	99.5%	95%
Urban Retailer Access to the Program (percent of California consumers in urban areas located within 20 miles of a no-cost collection site that accepts commercial volume)	63%	99.1%	99.1%	80%

<u>Requirement</u>: CalRecycle shall establish and make public convenience goals specific to retailer access to the program pursuant to PRC section 42987.5(a)(1)(D)(ii).

Proposed Baseline and Goal:

In 2020, CalRecycle established rural and urban retailer access goals to increase access to collection sites that accept commercial volume. The metric for monitoring achievement of the retailer access goals is the percentage of the population with convenient access to no-cost collection sites that accept mattress units from retailers and their associated delivery parties. US Census data was used as the population data source to set the 2018 baseline and should continue to be used to determine achievement of the retailer access goals.

When developing the retailer access goals, staff conducted an informal survey of mattress retailers to better understand the most appropriate radii with which to measure access to the program. Rural retailers stated that they drive about 30 to 50 miles and urban retailers stated that they generally drive between five to 25 miles to dispose of used mattresses. For this goal, "rural county" is defined as a "county that disposes of no more than 200,000 tons of solid waste annually," consistent with the definition in PRC section 40184, and an "urban county" is defined as a county that does not meet the definition of "rural county." Based on the informal survey results, staff determined it was

necessary to have different goals for rural and urban areas of the state to account for the different distances businesses typically drive to conduct business and dispose of waste. After collecting a used mattress from a consumer, retailers may drive the used mattress back to their storefront or warehouse location or drive directly to a mattress drop-off site or consolidation location. For this reason, staff determined that using the origin of used mattresses (consumers' residences) as the basis for this goal is the best measurement of retailer access to the program and established that, in 2018, a baseline of 81 percent of rural residents lived within 40 miles of an MRC collection site that accepted commercial volume and 63 percent of urban residents lived within 20 miles of an MRC collection site that accepted commercial volume. In 2024, staff replicated this informal retailer survey to re-evaluate if the radii used for the rural and urban retailer access goals are still appropriate and found that the results of this survey were consistent with the previous survey. Accordingly, staff propose no changes to the rural and urban retailer access baselines or radii.

In 2020, CalRecycle established retailer access goals that require MRC to increase convenience for urban retailers to 80 percent and convenience for rural retailers to 95 percent by 2024. Staff analyzed MRC's performance in 2021 and 2022 to determine if any updates are necessary for the retailer access goal. By 2022, MRC surpassed the rural retailer access goal by 4.5 percent and urban retailer access goal by 19.1 percent. Additionally, staff conducted a GIS analysis using MRC's current collection sites to support the proposed rural and urban retailer access goals. Based on these analyses, staff propose updating the goal to require MRC to maintain or exceed 95 percent access for rural and urban areas, as shown in Table 10, which aligns with the levels of access MRC currently provides, with some flexibility to account for external factors.

The proposed goals will continue to provide a high level of access to available mattress collection sites for retailers who are obligated to pick up used mattresses from customers when delivering a new mattress.

Statutory Requirement: Consumer Access to the Program

Requirements: The mattress recycling organization must establish at least one permanent mattress drop-off location in each county with 2,000 or more people pursuant to PRC section 42987.5(a)(1)(D)(i)(I). For a county with a population of less than 2,000 people, the requirement does not apply as long as the organization continues to provide at least two collection events in the county each year. CalRecycle may require additional drop-off locations to ensure that consumers have sufficient convenient access to drop-off locations.

This is a statutory requirement that went into effect on January 1, 2022. By early 2022, MRC had established permanent collection sites in all 58 counties.

Statutory Requirement: No-Cost Freight Service

<u>Requirements</u>: MRC shall provide no-cost freight services to any mattress retailer, health care facility, educational facility, military base, or lodging establishment that has

at least 100 used mattresses to pick up at one time pursuant to PRC section 42987.5(a)(1)(D)(i)(II).

This is a statutory requirement that went into effect on January 1, 2022. MRC provides no-cost freight service through its Commercial Volume Program and met this requirement in 2022.

Renovation:

<u>Requirements</u>: When calculating the state mattress recycling goals, CalRecycle shall include renovated mattresses pursuant to PRC section 42987.5(a)(2).

In 2020, CalRecycle established that a baseline of 225,000 units were renovated in 2018 and monitors this number annually to provide transparency that the program does not undermine existing compliant used mattress recycling, resale, refurbishing, and reuse operations, consistent with PRC section 42985(b). Based on data reported by renovators, 201,542 units were renovated in 2021 and 283,569 units were renovated in 2022. CalRecycle will continue to monitor the number of units renovated annually from 2025 to 2029.

Feedback from Interested Parties

On December 5, 2023, CalRecycle conducted a public workshop to solicit public comments regarding potential updates to the state mattress recycling baselines and state mattress recycling goals. David Goldstein of Ventura County, Valerie Meza of Butte County, and Veronica Pardo of the Resource Recovery Coalition provided comments at the workshop. CalRecycle also solicited written comments on the workshop materials from December 5, 2023, through December 22, 2023, and received two comments from David Goldstein of Ventura County and the California Product Stewardship Council. CalRecycle considered these comments in the development of the proposed mattress stewardship program baselines and goals.

Action

Pursuant to PRC section 42987.5(c), I hereby:

☐ Require staff to revise one or more of the proposed mattress stewardship program baselines and goals included in Table 1.

Dated: 6/25/2024

Signed by: Zoe Heller, Director

Attachments

Documents listed below are posted to CalRecycle's website. To request documents that are referenced in this RFA, but are not listed below, please submit a Public Records Act Request (https://www2.calrecycle.ca.gov/Forms/ContactUs/PublicRecordsRequest/).

- 1. <u>Consideration of Proposed 2020 State Mattress Recycling Baseline and Goals</u> (June 27, 2020)
 - a. https://www2.calrecycle.ca.gov/PublicNotices/Details/3965
- 2. <u>Consideration of Proposed State Mattress Recycling Baseline and Goals</u> (effective January 1, 2022) (October 21, 2020)
 - a. https://www2.calrecycle.ca.gov/PublicNotices/Details/4136
- 3. <u>December 5, 2023 State Mattress Recycling Baseline & Goals Workshop Discussion Document</u> (December 5, 2023)
 - a. https://www2.calrecycle.ca.gov/PublicNotices/Documents/15384