CARE California Carpet Stewardship Program

Carpet Stewardship Plan 2023–2027

Submitted to CalRecycle

March 29, 2023

California Carpet Stewardship Program

An initiative of CARE:
Carpet America Recovery Effort

TABLE OF CONTENTS

Executive Summary 1

1. Contact Information 4

2. Scope 5

2.1 Covered Products and Materials 5
2.2 Standard Outline for Stewardship Plan 6
2.3 Contingency Plan 7

3. Performance Goals & Activities 9

3.1 Metrics, Definitions, and Measurement Methods 10
3.2 Performance Goals and Baselines 16
3.3 Reference Data for Planning and Models 19
3.4 Source Reduction Reporting 20

4. Solid Waste Management Hierarchy 21

4.1 Source Reduction 22
4.2 Reuse 25
4.3 Recycling 25
4.4 CAAF or Cement Kiln Fuel/Feedstock 26
4.5 Waste-to-Energy 26
4.6 Landfill, Incineration, or Other Disposal 26
4.7 Exports 27
4.8 Discards Calculation 27

5. Collection System 28

5.1 Collection and Convenience Goals and Metrics 29
5.2 Collection and Convenience Program Overview 33
5.3 Support Overall Collection Activities 34
5.4 Expand Drop-off Site Activities 35
5.5 Coordinate with Private Collection Activities 38
5.6 Expand Collection at Professional Flooring Locations 38
5.7 Expand Reuse of PCC 39

6. Market Development & Grants 41

6.1 Market Development Goals and Metrics 42
6.2 Grants 45
6.3 Research and Development 53
6.4 Technical Assistance 55
6.5 Increasing Recyclability 56
6.6 Processor Capacity 59

7. Financing Mechanisms 60

7.1 Program Expenditures 64
7.2 Stewardship Assessment on Carpet Mills 75

8. Education & Outreach 81
8.1 E&O Audience and Budget 82
8.2 How E&O Supports Program Goals 83
8.3 Audience-Specific Education and Outreach 85
8.4 Multi-Audience Tactics and Ongoing Efforts 90
8.5 E&O Evaluation Metrics 91
9. Program Performance Measurement 96
10. Stakeholder Consultation 97
11. Audits 99
12. Environmental Information 100
Appendices 101
1. Definitions 102
2. Online Resources Referenced in Plan 110
3. Response to Advisory Committee Recommendations on Draft Plan 111
4. Contingency Plan 118

LIST OF FIGURES

Figure 7-1. Program Expenditures for 2021, by Category 65
Figure 7-2. Estimated Program Expenditures for 2023–2027, by Category 65
Figure 7-3. Projected Fund Coverage Ratio, 2022–2027 79
Figure 7-4. Projected Fund Reserve Balance (millions), 2022–2027 80

LIST OF TABLES

Table 2-1. Standard Outline of Carpet Stewardship Plan Chapters 6
Table 3-1. Definitions, Methodology, Assumptions, Conversions, Data Sources 10
Table 3-2. Summary of Program Performance Goals and Metrics, 2023–2027 17
Table 3-3. Projected Annual Carpet Sales (Reference Data) 19
Table 5-1. Goals for Recycling, Collection, Convenience, Reuse, and Disposal 30
Table 5-2. Collection System Plan Elements and Descriptions 31
Table 5-3. Additional Drop-off Sites Needed to Meet Public Access Goals 37
Table 6-1. Goals for Processor Capacity, Recyclability, and Markets 44
Table 6-2. Grants Release Typical Annual Timeline Cycle 53
Table 7-1. Summary of Financing Mechanism Plan Elements and Plan Locations 62
Table 7-2. Recycler Base and Current Supplemental/Pilot Subsidies 69
Table 7-3. Carpet Stewardship Program Budget, 2021 Actual & 2022–2027 Forecast 74
Table 7-4. Summary of Projected Carpet Sales and Key Metrics 75
Table 7-5. Differential Assessment as of April 1, 2023, Pending Approval 77
Table 8-1. Education & Outreach Impact Metrics for General Reach 93
Table 8-2. Education & Outreach Impact Metrics for Specific Sectors 94

EXECUTIVE SUMMARY

On behalf of the **California Carpet Stewardship Program**, the designated stewardship organization **CARE (Carpet America Recovery Effort)** is pleased to submit this updated five-year Plan, covering 2023 through 2027.

Through the previous 2018–2022 Plan, the Program has greatly expanded carpet recycling in California, including providing public Drop-off Sites in all of the state's 58 counties, increasing quantities collected for recycling and reuse, expanding markets for recycling products, and reaching the previous statutory recycling rate goal. This Plan builds on 2022 results, for which CARE anticipates meeting ALL targets and exceeding the Recycling Rate target of 27% by achieving a Recycling Rate target of 32%.

The Program has made these advances despite the COVID-19 pandemic, rampant inflationary pressures, disastrous wildfires, and utility bankruptcy that have hindered economic activity and recycling growth in California, and it has outpaced other product recycling programs in this enormously challenging environment.

This Plan includes the following chapters to advance and evaluate effective carpet recycling in California and meet the requirements of Carpet Stewardship Law, including the requirements for approval described in Public Resources Code section 42972 and 14 California Code of Regulations section 18943:

1. **Contact Information**—provides the required information about the designated stewardship organization and participants in this Carpet Stewardship Plan.
2. **Scope**—identifies that this Plan accepts and manages post-consumer carpet in California and has no scope changes from the prior Plan; the Program continues its work to increase carpet collection, reuse, and recycling in California.
3. **Performance Goals & Activities**—summarizes the goals addressed in the body of this Plan, including a summary table.
4. **Solid Waste Management Hierarchy**—identifies how the Plan follows the state's waste management hierarchy.
5. **Collection System**—describes how the Program supports collection of carpet for recycling and reuse through a network of public and private pick-up and drop-off locations.
6. **Market Development & Grants**—summarizes how the Program uses grants, research and development, and technical assistance to expand products and markets that support recycled-carpet content.
7. **Financing Mechanisms**—explains the Program's funding sources from the assessment fee and expenditures, including subsidies, grants, program activities, and other costs.

8. **Education & Outreach**—describes how marketing, education, and outreach activities advance Program goals to increase collection and recycling, advance market development, and raise awareness of the Program.
9. **Program Performance Measurement**—summarizes how the Program conducts ongoing and annual evaluations of its progress with regard to the stated goals.
10. **Stakeholder Consultation**—explains how the Program incorporates feedback from the California Carpet Advisory Committee and other stakeholders.
11. **Audits**—describes the annual auditing process for the Program and stewardship organization.
12. **Environmental Information**—presents the Program's negative CEQA declaration, indicating no significant adverse environmental impact.

CARE's proposed next five-year plan sets out how CARE will work toward achieving the goals set out by statute and adopted by CalRecycle in its May 2022 Request for Approval (RFA). As the statutorily identified carpet stewardship organization since inception of the carpet recycling program in California, CARE is committed to strengthening this program and building on its multi-year track record of increased carpet recycling.

To reach the next 100 million pounds of carpet collection and recycling will involve capturing more material from the commercial stream, smaller-volume generators, as well as mixed loads. This Plan proposes to increase collection through such efforts as aggregation centers, diversifying haulers and container types, grants and piloting new programs, broader outreach and operational offerings for commercial and multifamily properties, and piloting financial incentives for new collection sites and sorting mixed loads. The Plan will continue and expand existing efforts to collect PCC at regional carpet distribution centers (RDCs) and boost reuse.

For grants, capital and micro grants will continue based on past subscription and projected future needs. These grants may also be used to support collection activities. Post-consumer carpet calcium carbonate (PC4) is a focus of testing grants to support strengthening and expanding the currently weaker markets for this material. Because recycling capacity in California currently exceeds the Program's needs, funding for capital expansion is redirected to other program areas. CARE is carefully monitoring the available and planned processor capacity to ensure that it continues to exceed the capacity needed to achieve California's carpet recycling goals. CARE is prepared to initiate investments in additional capacity as needed in partnership with identified processors consistent with the details outlined in the *Processor Capacity* section (Section 6.6) of this Plan. New programs such as Innovation & Design grants and small-volume collections will be further developed based on results from pilot programs conducted in 2022 and 2023.

Market development work over the last five years has helped contribute to strong fiber markets. PC4 will continue to be a focus for ongoing market development efforts. Efforts to expand procurement of recycled-content products and capture tear-out carpet in public agencies and projects are a continuing focus as progress has been slow.

The Program's marketing, education, and outreach efforts are largely working well. We will continue to expand our program messaging through broader consumer outreach including to new property owners, and we will expand commercial outreach as commercial broadloom and tile can now be processed for recycling. General contractors and subcontractors are also slated for increased emphasis under the new Plan.

This new 2023–2027 Plan builds on the lessons learned over the course of the prior Plan and incorporates updates to strengthen the Program and improve its results. The Program continues to work to achieve statutory requirements and goals.

1. CONTACT INFORMATION

> **14 CCR Section 18943(a)(1). Contact information.** Identify the manufacturer or designated stewardship organization responsible for the plan submittal.

Carpet America Recovery Effort (CARE) is the designated stewardship organization by statute of the Carpet Mills and is responsible for submitting this Plan. CARE is a 501(c)(3) nonprofit organization. CARE's mission is to advance market-based solutions that increase landfill diversion and recycling of post-consumer carpet and encourage design for recyclability. CARE's vision is that post-consumer carpet landfill diversion and recycling are economically, socially, and environmentally sustainable for all stakeholders.

This 2023–2027 Plan is submitted by CARE with the following contact information. This is also the location and custodian of records.

Robert Peoples, Ph.D., Executive Director
Carpet America Recovery Effort (CARE)
100 South Hamilton Street
Dalton, Georgia 30720
(706) 428-2127 office, (214) 300-5206 cell
bpeoples@carpetrecovery.org
www.carpetrecovery.org

More information about CARE and its leadership, including its current Board of Directors, is available on the **CARE website**. CARE's Stewardship Planning Committee (SPC) and Sustainable Fund Oversight Committee (SFOC) oversee the California Carpet Stewardship Program and this Plan. More information on **Program governance** and committee membership is available on CARE's California Program website.

Under the oversight and direction of CARE, the California Carpet Stewardship Program team of staff and contractors are responsible for all aspects of Program implementation. This Plan generally refers to "the Program" when describing the activities implemented under this Plan to meet the goals of carpet recycling and reuse in California. CARE refers to the organization that manages the California Program as well as advances other carpet-recycling activities beyond California.

The Program regularly updates its list of compliant participating manufacturers. The most current **Compliant Manufacturers List** of participants in the California Carpet Stewardship Program is available on the CalRecycle website, listing the participating companies in the stewardship organization and the brands covered under the stewardship plan.

2. SCOPE

> **14 CCR Section 18943(a)(2). Scope.** The program described in the stewardship plan is:
>
> (A) Designed to accept and manage all applicable post-consumer carpet, regardless of polymer type or primary materials of construction.
>
> (B) The stewardship plan submitted follows the standard outline (see Section 18942 Stewardship Submittal Instructions).

Signed into law in 2010, California's Assembly Bill 2398 was the first-of-its-kind carpet stewardship program. CalRecycle subsequently promulgated regulations implementing the 2010 law. The Carpet Stewardship Law was subsequently amended in 2017 (AB 1158) and 2019 (AB 729). AB 2398, AB 1158, and AB 729, along with the above referenced regulations, are collectively referred to as "Carpet Stewardship Law," as codified in sections 18940 through 18948 of the California Code of Regulations (CCR), Title 14, and in sections 42970 through 42983 of the Public Resources Code.

No scope changes to the reach of the Program or covered materials have been made since the approved 2018–2022 Plan. This new 2023–2027 Plan builds on the lessons learned over the course of the prior Plan and incorporates updates to strengthen the Program and improve its results. The next chapter provides a summary of Program Performance Goals and Activities, and the remainder of this Plan describes those goals and activities in more detail.

This chapter includes the following sections:

- **2.1 Covered Products and Materials**
- **2.2 Standard Outline for Stewardship Plan**
- **2.3 Contingency Plan**

2.1 Covered Products and Materials

As called for in Carpet Stewardship Law, particularly Public Resources Code Section 42972(b), the Plan is **designed to accept and manage all suitable post-consumer carpet**, regardless of polymer type or primary materials of construction.

The Program is open to all Carpet Mills that make, sell, or distribute carpet products and to distributors that import carpet into California. All Carpet Mills that ship or sell carpet in California must be covered under an approved Carpet Stewardship Plan. Appendix 3 includes a list of participating Carpet Mills with their contact information.

2.2 Standard Outline for Stewardship Plan

This Stewardship Plan follows the standard outline and submittal instructions outlined in 14 CCR sections 18942 and 18943, addressing the criteria for approval and organized in the following chapters as shown in Table 2-1. Note that 14 CCR Section 18943(a) uses numbered chapters, and Section 18942(b)(1) uses letters.

Table 2-1. Standard Outline of Carpet Stewardship Plan Chapters

Chapter	Letter	Title	Start Page and Notes
1	(A)	**Contact Information**	Page 4
2	(B)	**Scope**	Page 5
3	(C)	**Performance Goals & Activities**	Page 9
4	(D)	**Solid Waste Management Hierarchy**	Page 20
5	(E)	**Collection System**	Page 28
6	(F)	**Market Development & Grants**	Page 41
7	(G)	**Financing Mechanisms**	Page 60
8	(H)	**Education & Outreach**	Page 81
9	(I)	**Program Performance Measurement**	Page 96 (includes cross-references to Chapter 3 and elsewhere)
10	(J)	**Stakeholder Consultation**	Page 97
11	(K)	**Audits**	Page 99
12	(L)	**Environmental Information**	Page 100 (included in 14 CCR 18943 but not Section 18942)

2.3 Contingency Plan

As required under Carpet Stewardship Law (Public Resources Code Section 42972.7), CARE has included a Contingency Plan (Revised May 14, 2020) that has been approved by CalRecycle. The **California Carpet Stewardship Program Contingency Plan** is included in Appendix 4 and available online.

As CARE is currently operating under the Contingency Plan for the first time, until such time that CalRecycle approves CARE's proposed 2023–2027 Plan. To meet the conditions of the Request for Approval (RFA) signed March 6, 2023, CARE will submit a Plan amendment with a revised Contingency Plan to the Carpet Advisory Committee by September 30, 2023, and to CalRecycle by October 30, 2023.

The revised Contingency Plan shall include all of the following elements:

a. The contingency plan must be fully implementable without negotiation or contractual agreement.
    i. CARE may craft the contingency plan such that it can be fully executed through a trustee or escrow agent with CalRecycle oversight and written direction.
b. The contingency plan must self-execute within 30 days of notice of pending termination or revocation of the plan, or within five working days of actual termination or revocation of the plan, whichever is sooner.
c. Transfer of assessment funds as required by PRC section 42972.7.
d. A preliminary accounting of the assessment fund balance and status within five working days of notice of pending termination or revocation of the plan, or within five working days of actual termination or revocation of the plan, whichever is sooner. A complete accounting of the assessment fund balance, along with accounts payable and receivable, will accompany the transfer of assessment funds as required by PRC section 42972.7 and CARE will thereafter provide to CalRecycle any additional financial information concerning the plan received by CARE.
e. Financial modeling that assures fund solvency through one year of contingency plan implementation, based on current program activity levels and most recent cost data.
f. Record access for CalRecycle, immediately upon self-execution of the contingency plan, to CARE contracts paid with assessment funds, plan implementation procedures, assessment funded work-products, and all other materials necessary to implement the contingency plan.
g. Delivery of all necessary contact information for mills, retailers, transporters, collectors, processors, manufacturers, contractors, and other key plan agents shall be provided to CalRecycle, immediately upon self-execution of the

contingency plan, to allow CalRecycle to effectively communicate with stakeholders.

h. Communication plan for how and when CARE will notify mills, retailers, transporters, collectors, processors, manufacturers, contractors, and other key plan agents concerning the implementation of the contingency plan and direct them to an appropriate CalRecycle point of contact.

The original contingency plan is only effective until December 29, 2023, or whenever the revised contingency plan is approved by CalRecycle, whichever is earlier.

CARE commits to conduct an After-Action Review (AAR) to develop areas for improvement based upon the implementation of the existing Contingency Plan. During the analysis, CARE will seek direct feedback from CalRecycle staff for their perspectives on the implementation of the current Contingency Plan. Upon completion of the ARR analysis, CARE, if necessary, will undertake the revisions to the Contingency Plan for delivery to the Advisory Committee and to CalRecycle per the above timeline.

3. PERFORMANCE GOALS & ACTIVITIES

14 CCR Section 18943(a)(3). Performance Goals and Activities. The program described in the stewardship plan shall contain a set of performance goals and criteria that meet the requirements of Public Resources Code Section 42972(a)(2), and also include:

(A) Each goal has a baseline from which it is measured.

(B) The plan describes a methodology for estimating the amount of carpet available for collection in California.

(C) Report on source reduction.

This California Carpet Stewardship Plan, covering the five-year period from 2023 through 2027, is designed to best achieve the following performance goals, as stated in Carpet Stewardship Law and in CalRecycle's May 2022 RFA updated goals:

1. Increase the recyclability of carpet.
2. Expand and incentivize markets for products made from post-consumer carpet.
3. Increase the reuse of post-consumer carpet.
4. Increase the weight of post-consumer carpet that is recycled.
5. Reduce the disposal of post-consumer carpet.
6. Increase the collection convenience for the recycling of post-consumer carpet and increase the collection of post-consumer carpet for recycling.
7. Increase processor capacity, including processor capacity in California.
8. Achieve a 45-percent recycling rate for post-consumer carpet by December 31, 2027, and increasing recycling rate goals each year of the Plan as stated in CalRecycle's May 2022 signed RFA.
9. Achieve a collection rate of 60 percent by December 31, 2027, and an increasing collection rate goal each year of this Plan as stated in CalRecycle's May 2022 signed RFA.
10. Achieve a recycling efficiency rate of 75 percent annually as stated in CalRecycle's May 2022 signed RFA.
11. Increase public access to drop-off sites to one site per 375,000 residents, with a minimum of one per county, by December 31, 2027, and achieve annual goals as stated in CalRecycle's May 2022 signed RFA.
12. Increase flooring professional proximity such that 90% of residents are within 15 miles of a public drop-off site by December 31, 2027, and achieve annual goals as stated in CalRecycle's May 2022 signed RFA.

This chapter includes the following sections:

- **3.1 Metrics, Definitions, and Measurement Methods**
- **3.2 Performance Goals and Baselines**
- **3.3 Reference Data for Planning and Models**
- **3.4 Source Reduction Reporting**

3.1 Metrics, Definitions, and Measurement Methods

Table 3-1 on the following pages describes the Program's metrics, along with methodologies for measurement and tracking progress, including assumptions, conversion factors, and data sources as applicable. Additionally, the table includes baseline information, typically 2021, from which the goals are measured. Baselines are also shown in Table 3-2, Summary of Program Performance Goals and Metrics, starting on page 19.

Table 3-1. Definitions, Measurement Methodology, Assumptions, Conversion Factors, and Data Sources for Key Metrics (alphabetical order)

Metric	Description, Calculation Methodology, and Assumptions
Carpet Sales, Actual	Actual Sales of carpet (in square yards) in California for the reporting period. Carpet Mills report actual sales quarterly to CARE. The 2021 baseline was 67.3 million square yards of carpet sold in California.
Carpet Sales, Projected	Projected Sales of carpet (in square yards) are estimated based on data and analysis from the following sources: California carpet sales market research prepared by Market Insights LLC, an independent market research firm; actual California carpet sales trends over the prior five to ten years as reported by Carpet Mills; a separate analysis by Aprio to forecast expected future sales, relevant economic data; and carpet industry economic analyses. CARE currently projects that California carpet sales will decrease 32% between 2022 and 2027, a rate of approximately 7% per year. Based on the first three quarters of 2022, CARE projects sales of 63.5 million square yards in 2022, declining to 42.4 million square yards in 2027. CARE will monitor and update sales projections annually over the course of the Plan.

Metric	Description, Calculation Methodology, and Assumptions
Collection Rate	Identifies the percentage of available carpet that is collected for recycling or reuse, calculated as pounds of PCC Gross Collection divided by Discards pounds for the relevant reporting period. The 2021 baseline Collection Rate was 36.4%. The Plan assumes CARE will meet the Collection Rate goals each year.
Demolition	The percentage of carpet, based on weight, from demolition projects not replaced. The baseline Demolition percentage is 1.2%, as estimated by Market Insights LLC.
Density	Weighted average of carpet in pounds per square yard, as reported to CARE in an annual survey of Carpet Mills. Aprio confidentially gathers and analyzes raw industry data to calculate the weighted averages of weights of broadloom carpet and carpet tiles used in the commercial and residential sectors. Beginning in 2022, Density is equal to 4.0 pounds per square yard; the figure for 2021 was 4.11 pounds.
Deselection	Percentage of carpet removed from existing buildings that is not replaced by new carpet. The baseline Deselection factor is 0.8%, as estimated by Market Insights LLC.
Discards or Post-Consumer Carpet (PCC)	Carpet that has completed its lifecycle as a consumer item or is no longer used for its manufactured purpose, calculated in pounds (see equation below and more information in Section 4.8). The Discards baseline in 2021 was 242.8 million pounds. CARE expects that the quantity of discarded carpet will decrease over the five years of the Plan, a reflection of declining carpet sales. This metric estimates the annual maximum amount of carpet available for collection in California. It is currently based on the following calculation, updated annually based on the last annual reporting period (see definition of formula components in this table and more details in Section 4.8, *Discards Calculation*): *(Sales * Replacement * Density) * (1 + Density + Deselection)*

Metric	Description, Calculation Methodology, and Assumptions
Disposal	Quantity (in pounds) of PCC discards that are sent to landfill (or WTE or CAAF), includes contaminated carpet and unusable processing byproducts discarded by Collector/ Sorters and Processors in addition to PCC that is not collected. Disposal is calculated from estimated Discards minus Recycled Output, in pounds, taking into account the portion of collected PCC that cannot be recycled principally due to contamination. The 2021 baseline disposal was 175 million pounds. CARE expects that the PCC disposed will decrease significantly over the five years of the Plan, to 82 million pounds in 2027. The decrease will be driven by decreasing sales and an increasing recycling rate.
Flooring Professional Proximity	As a measure of collection convenience, this metric quantifies the percentage of residents within 15 miles of a location that accepts carpet from all flooring professionals (that is, a Public Drop-off Sites). This will be tracked annually based on the number, locations, and percentage of residents within 15 miles of locations that accept carpet from all flooring professionals as of December 31 of each year. The Program will use 2020 population data from the U.S. Census Bureau and the list of active Drop-off Site locations at year-end to analyze attainment of the annual convenience goals. Using these data sources, CalRecycle calculated that the baseline in 2021 was 72% of residents within 15 miles of a location that accepts carpet from all flooring professionals.
Gross Collection (pounds of PCC collected)	Quantity (in pounds) of whole broadloom carpet and carpet tile collected by Collector/Sorters in California, as reported monthly to CARE. The baseline for Gross Collection in 2021 was 88.5 million pounds. CARE expects that the total pounds of PCC collected will be stable during the five years of the Plan. Because CARE projects decreasing carpet sales over the Plan, this will lead to decreasing annual discards, which will result in an increasing collection rate. In essence, the Program will be collecting a larger percentage of a declining quantity of discarded carpet each year.

Metric	Description, Calculation Methodology, and Assumptions
Markets for PCC	CARE measures markets for PCC based on the number of CARE recorded products utilizing California PCC and the number of vendors utilizing California PCC in products. CARE also tracks the number of vendors within California. CARE conducts an annual survey of product manufacturers and recyclers to identify products and vendors. In 2021, the baseline was 103 products and 27 vendors using California-sourced PCC. Of the 27 vendors, 10 were located within California. • A California-sourced PCC **product** is defined as a product that contains 10 percent or more California-sourced PCC by weight on average during the reporting year. Seasonal and/or operational variations may occur, with the intent that the company is using PCC content on a regular, ongoing basis throughout the reporting year. A single and separate product is defined by the manufacturer of the product. • A **vendor** of California-sourced PCC products is defined as manufacturing one or more California-sourced PCC products within a calendar year. Vendors are counted separately if they are incorporated as a single business entity, corporation, partnership, or sole proprietorship. **Section 6.6** provides more information on the Program's annual and five-year goals to expand and incentivize markets for products made from post-consumer carpet.
Processor Capacity	Theoretical maximum volume of carpet discards able to be processed by participating processors in a given year, based on self-reported estimates and/or permitted capacity figures. Baseline processor capacity for 2021 nationwide was 490 million pounds, including 132 million pounds of capacity available on the West Coast. Current processor capacity levels are in excess of the levels required for the projected pounds of recycled output during the life of this Plan. **Section 6.6** provides more information on the Program's annual and five-year goals to increase processor capacity for recycling post-consumer carpet.

Metric	Description, Calculation Methodology, and Assumptions
Public Access Drop-off Sites	A measure of collection convenience, the Public Access to Drop-off Site goals relate to the number of drop-off sites per specified number of residents in each county (starting at one site per 500,000 residents and decreasing to one site per 375,000 residents), with a minimum of one site per county. Public Access Drop-off sites are supported by the Program; the Program provides containers to collect PCC and transportation from the Drop-off Site to a Collector/Sorter at no cost to the site. This metric will be tracked quarterly and annually based on the number of Public Drop-off Sites in each county and 2020 population data from the U.S. Census Bureau. The Program will also include each Drop-off Site's days and hours of operation, annual collection amount, and average annual fee customers are charged to drop off carpet in annual reports. The baseline at the end of 2021 was 51 of 58 counties with one site per 500,000 residents, and one site in each county.
Recyclability of Carpet	Recyclability of carpet means program capacity to recycle the various fiber types of PCC that are collected. Currently, 100% of carpet as manufactured is technically recyclable. Some PCC inherently cannot be recycled due to contamination or is not recycled because the economics do not justify recycling, the volume is insufficient, or end markets for recycled output are not available. CARE commits to investigating an annual sample of PCC that is not recycled at a minimum of one recycling location over a three-day period. The sample will be weighed and compared to the total weight of PCC collected for recycling during that time period; contaminated PCC will not be part of this total or sample. CARE can then determine the actual percentage of PCC not being recycled in 2023 for reasons such as mixed-fiber content or backing type on commercial tiles. CARE will then use these insights to inform new carpet designs, equipment investments at recyclers, and exploration of new markets for PCC material. The percentage of PCC that is not recycled will thereby be reduced incrementally from 2024–2027. In addition, CARE will issue two Innovation & Design grants annually to spur further development of recyclable fibers in various carpet types. The Innovation & Design grants are a new goal added in this 2023–2027 Plan; accordingly, the 2021 baseline was zero Innovation & Design grants awarded. (In the 2018–2022 Plan, Recyclability was measured as Yield, which is now known as the Recycling Efficiency Rate.) **Section 6.5** provides more information on the Program's annual and five-year goals to increase the recyclability of carpet.

Metric	Description, Calculation Methodology, and Assumptions
Recycled Output (RO)	Quantity (in pounds) of reused carpet plus the material that results from industry-recognized processing of PCC and sold for manufacturing. Examples of output include fiber, shredded carpet tile, and PC4. Collector/Sorters and Processors report output monthly to CARE, which is summed for the applicable reporting period. Baseline RO in 2021 was 67.6 million pounds. CARE expects the pounds of RO to increase over the first few years of the Plan, contributing to higher recycling rates, and then to decrease slightly over the last few years of the Plan due to decreased carpet sales and decreased discards.
Recycling Efficiency Rate (formerly *Yield*)	The ratio of Gross Collection converted into Recycled Output; reflects the efficiency of converting PCC into reuse and end-products. The Recycling Efficiency Rate is equal to Recycled Output pounds divided by Gross Collection pounds. The baseline Recycling Efficiency Rate in 2021 was 76.4%. Over the five years of the Plan, the target efficiency rate is 75%. This stable efficiency rate is based on the assumption that as projected discards decrease, the proportion of unusable collections will likely increase, putting a downward pressure on recycling efficiency. At the same time, CARE assumes that Processors will continue to improve their technologies and market opportunities, leading to increased recycling efficiency. CARE expects these two factors to balance out, resulting in a generally stable recycling efficiency rate.
Recycling Rate	Identifies the percentage of available carpet (Discards) that is converted into an end-product or reused as carpet (Recycled Output). Equal to pounds of recycled output divided by pounds of discards for the relevant reporting period (RO pounds divided by Discards pounds). Baseline recycling rate in 2021 was 27.9%. The Plan assumes CARE will meet the recycling rate goals each year.
Replacement (R)	The percentage of carpet sales that is replacing existing carpet. This assumption is based on the weighted average of the residential and commercial sectors as estimated by Market Insights LLC, an independent market research firm. The baseline Replacement rate for 2021 is 86%.

Metric	Description, Calculation Methodology, and Assumptions
Reuse	Carpet (broadloom or tile) collected and donated or sold for reuse as a flooring covering, as reported monthly to CARE by Collector/Sorters. The reuse of recovered carpet retains the original purpose and performance characteristics of the carpet. The Reuse goal is measured as the percentage of Recycled Output, based on pounds, that is reused as a floor covering, as reported by Collector/Sorters. Calculated as pounds of carpet Reuse, divided by pounds of Recycled Output, for the relevant annual reporting period. Baseline Reuse in 2021 was 1.2%. CARE expects that Reuse will increase to 2.0% by 2025 and remain at that level through 2027 based on CARE's expansion of Reuse programs and incentives.
Sales	See *Carpet Sales, Actual* at the beginning of this table.

3.2 Performance Goals and Baselines

Table 3-2 on the following pages summarizes annual and five-year goals and metrics for the performance of the California Carpet Stewardship Program. More information on these goals and the associated Program activities designed to achieve these goals is included in the subsequent Plan chapters, particularly Chapter 5 (*Collection System*), Chapter 6 (*Market Development & Grants*), Chapter 7 (*Financing Mechanisms*), and Chapter 8 (*Education & Outreach*). The goals shown here are based upon the sales forecast outlined in Table 3-2.

Table 3-2. Summary of Program Performance Goals and Metrics, 2023–2027: Annual and Five-Year Goals (2027)

Metric	Baseline (2021)	2023 Goal	2024 Goal	2025 Goal	2026 Goal	2027 Goal
Recycling Rate	27.9%	31%	34%	37%	41%	45%
Recycling Efficiency Rate (formerly *Yield*)	76.4%	75%	75%	75%	75%	75%
Collection Rate	36.4%	41%	45%	50%	55%	60%
Public Access to Drop-off Sites (Collection Convenience)	51 out of 58 counties had one site per 500,000 residents in each county, with a minimum of one per county	One site per 500,000 residents in each county, (minimum of one per county)	One site per 450,000 residents in each county, (minimum of one per county)	One site per 425,000 residents in each county, (minimum of one per county)	One site per 400,000 residents in each county, (minimum of one per county)	One site per 375,000 residents in each county, (minimum of one per county)
Flooring Professional Proximity: % of residents within 15 miles of a location that accepts carpet from all flooring professionals	72%	75%	78%	82%	86%	90%
Reuse of PCC (% of Recycled Output)	1.2% of Recycled Output	1.4% of Recycled Output	1.7% of Recycled Output	2.0% of Recycled Output	2.0% of Recycled Output	2.0% of Recycled Output
Gross Collection (thousand pounds)	88,466	93,000	92,000	91,000	90,000	89,000

Metric	Baseline (2021)	2023 Goal	2024 Goal	2025 Goal	2026 Goal	2027 Goal
Disposal of PCC (thousand pounds)	175,157	132,000	119,000	107,000	94,000	82,000
Processor Capacity (West Coast)	132 million pounds	134 million pounds	138 million pounds	140 million pounds	143 million pounds	146 million pounds
Recyclability: Recyclable PCC Types	Estimated at 70% based on 2021 sales	Ensure program capacity to recycle 70% of PCC types and understand baseline PCC types not being recycled at recycling locations	Ensure program capacity to recycle 73% of PCC types	Ensure program capacity to recycle 75% of PCC types	Ensure program capacity to recycle 78% of PCC types	Ensure program capacity to recycle 81% of PCC types
Recyclability: Innovation & Design (I&D) Grants	Awarded zero I&D grants	Award 2 I&D grants	Award 2 I&D grants	Award 2 I&D grants	Award 2 I&D grants	Award 2 I&D grants
Markets: New Products	103 products using California PCC	2 new products; 105 total products	3 new products; 108 total products	3 new products; 111 total products	3 new products; 114 total products	3 new products; 117 total products
Markets: New Vendors	27 vendors using California PCC	1 new vendor; 28 total vendors	2 new vendors; 30 total vendors	2 new vendors; 32 total vendors	2 new vendors; 34 total vendors	2 new vendors; 36 total vendors

3.3 Reference Data for Planning and Models

The projected Sales in Table 3-3 inform the basis for many of the Program's planning and modeling activities, such as financial models and projections. The declining Sales figures over time also help explain why total pounds of Recycled Output could decline even as the Recycling Rate continues to increase.

Table 3-3. Projected Annual Carpet Sales, in square yards (Reference Data for Program Planning)

Projected Carpet Sales	2022 (Estimated)	2023 Projected	2024 Projected	2025 Projected	2026 Projected	2027 Projected
Carpet sales projected (square yards)	62,000,000	57,679,000	53,641,000	49,886,000	46,095,000	42,407,000

3.4 Source Reduction Reporting

The Program's source reduction approach and activities are described in Section 4.1 in the following chapter. Source reduction efforts and results are summarized and presented in each year's Annual Report to CalRecycle.

4. SOLID WASTE MANAGEMENT HIERARCHY

14 CCR Section 18943(a)(4). Solid Waste Management Hierarchy.
Describe:

(A) Proposed measures that will enable the management of post-consumer carpet in a manner consistent with the state's solid waste management hierarchy pursuant to PRC Section 40051 and demonstrate that over time source reduction, reuse, and recycling will increase, over environmentally safe transformation and land disposal.

(B) Management of carpet through source reduction, reuse and recycling must be greater than, and grow at a higher rate than the management of carpet in any form, including Carpet As Alternative Fuel (CAAF), used as a fuel.

(C) This Article does not modify or abrogate in any manner existing provisions of Section 41783 of the Public Resources Code related to transformation that allow jurisdictions to reduce their per-capita disposal rate by no more than 10 percent.

This Plan is designed to manage post-consumer carpet (PCC) in a manner consistent with California's solid waste management hierarchy (Public Resources Code Section 40051) and the requirements of Carpet Stewardship Law. To address these requirements, the Program applies the following solid waste management hierarchy for handling post-consumer carpet as discussed in the following sections:

- **4.1 Source Reduction**
- **4.2 Reuse**
- **4.3 Recycling**
- **4.4 Carpet As Alternative Fuel (CAAF) or Cement Kiln Fuel/Feedstock**
- **4.5 Waste-to-Energy (WTE)**
- **4.6 Landfill, Incineration, or Other Disposal**
- **4.7 Exports**
- **4.8 Discards Calculation**

The Plan is designed to increase source reduction consistent with the functionality of the original carpet product—as well as to increase reuse and recycling over time, and thus to reduce the amount of post-consumer carpet disposal by landfilling. It is designed to ensure that the preferred approaches of source reduction, reuse, and recycling grow

at a higher rate than other forms of post-consumer carpet management, including energy recovery (CAAF, kiln, and WTE). The Program's approach to the materials management methods in the solid waste management hierarchy are described further below.

As described further in Chapter 5 (*Collection System*) and Chapter 7 (*Financing Mechanisms*), the Program offers subsidies to increase reuse and recycling. The Program has never paid any subsidies for Waste-to-Energy, incineration, or landfilling of PCC and will not do so under this Plan. The Program discontinued subsidies to CAAF and kiln energy recovery starting in 2018 and will not offer such subsidies under this Plan.

The Program supports efforts to advance carpet designed for recyclability, along with a range of options to handle the many carpet materials in the marketplace. (See also *Innovation & Design Grants* section starting on page 52 in support of this effort.) Accordingly, the Program also supports the development of advanced technology that can convert PCC into basic chemical building blocks. The Program does not support energy conversion or fuel applications.

4.1 Source Reduction

In the context of the Carpet Stewardship Law, Section 42972(a)(3), **Source Reduction** is directed at enabling the proper management of PCC rather than the management or design of carpet manufacturing. It includes using less product or material in manufacturing and use of carpet (also known as dematerialization) and increasing post-consumer content in new carpet or reducing the amount of discarded carpet generated. Thus, the focus of the statute and this Plan is on the important step between carpet on the floor and before carpet becomes waste. Along with source separation and processing, the management of that step has a source reduction component. Action at this point in the process to reduce PCC that needs to be recycled or to divert post-consumer carpet from becoming part of the waste stream will result in a net reduction in the generation of solid waste. Relatedly, carpet reuse that takes the place of new carpet purchases contributes to source reduction, so source reduction and reuse (further discussed in the next section) are intertwined. Consistent with its prior approved Plan, it is in this context that CARE will focus its source reduction efforts going forward.

Key elements of source reduction CARE will address under this Plan include:

- Carpet reuse (for CARE).
- Carpet reuse (for Carpet Mills and secondary manufacturers).
- Education & outreach to installers.

CARE will track Reuse as the Program's primary source reduction metric under this Plan (see Reuse goals in Table 3-1 and in Section 5.2). In addition, the Program will track and report any new source reduction metrics across the industry based on results of the annual survey of Carpet Mills and secondary manufacturers.

CARE has developed the below list of source reduction strategies that will be adopted and reported annually by participating Carpet Mills and secondary manufacturers. This list may be modified and refined over time in consultation with CalRecycle, in line with accepted source reduction standards to reduce material use:

- **Carpet reuse (for CARE)** – Providing a second life for gently used carpet tile or broadloom carpet. This is a key strategy for source reduction under the CARE Plan.
    - Reuse avoids or delays consumption of new carpet or other materials used in manufacturing, by giving an extended life to gently used carpet products, especially carpet tile. Some opportunities also exist for broadloom, such as carpet used for short-term applications such as trade shows and/or builders' basic installations, which may be replaced over short time periods.
    - Cleaning requirements – Currently no cleaning requirements are placed on carpet reuse, and no collector/sorter participants are known to offer these services. CARE promotes the Carpet and Rug Institute (CRI) cleaning best practices for installed carpet as a method of extending the useful life of carpet products.
- **Carpet reuse (for mills and secondary manufacturers)** – Providing a second life for materials used in the manufacture of products. Reuse avoids, or delays consumption of new/virgin materials used in manufacturing, by giving an extended life to gently used, surplus, or imperfect product inputs, packaging, or other materials. The education and outreach efforts to facilitate reuse for both tile and broadloom will continue and serve as a primary effort toward source reduction under the Plan.
- **Education and outreach to installers** – A fundamental issue in carpet recycling is contamination of the PCC before it reaches the recycler. By educating installers on how to properly handle PCC as it is being torn out and prepared for delivery to or pick-up by the recycler, much PCC that would otherwise be destined for landfill can be preserved in a state that is suitable for recycling. This includes avoiding contaminating the PCC with moisture, paint, adhesives, drywall, metal, and other foreign contaminants. CARE has a robust education and outreach program underway, including training and support materials for installers on the proper handling of post-consumer carpet.

CARE will conduct the following activities to further support the source reduction efforts of the Program (new):

- **Offer grants to support source reduction**, including for student competitions to stimulate innovative thinking for improved design for recyclability and source reduction.
- **Continue to require all grantees to follow the waste management hierarchy** by including it in the "Reduction of Waste" section in the Terms & Conditions of all Program grants.
- Increase and share individual Carpet Mill and secondary manufacturer **sustainability reporting**.
- **Collect and report data on source reduction**, design-for-recyclability, closed-loop recycling, and back-stamping in CARE-led annual surveys of Carpet Mills.
- **Provide education and outreach** to consumers on best practices to help extend the life of carpet through proper maintenance, cleaning, and carpet care.

Source reduction encompasses efforts by the Program's participating Carpet Mills and secondary manufacturers, including beyond the Carpet Stewardship Law and commitments in this Plan. The Program encourages the following efforts by Carpet Mills to support source reduction in the manufacturing process and lifecycle of carpet:

- **Increasing durability**, to increase the useful life of carpet and reduce the frequency of replacement.
- **Light-weighting**, to reduce the material content by weight of carpet products, especially for products replaced more frequently (such as in apartments).
- **Using recycled content**, both post-industrial and post-consumer, to reduce the inputs of virgin material used in carpet production; this strategy also supports market demand for Recycled Output from the Program.
- **Reducing material use**, to minimize the amount of material used in product manufacture, which may include light-weighting, changes in material composition, and other strategies.
- **Providing or contracting take-back programs**, which can support source reduction as collected products are upcycled as feedstock in carpet-to-carpet recycling or other closed-loop products, thereby displacing virgin resource use.

CARE's annual reports submitted under this Plan will continue to report on source reduction as done under the prior Plan.

4.2 Reuse

Reuse is defined as the donation or sale of recovered carpet back into the market for its original intended use. The reuse of recovered carpet retains the original purpose and performance characteristics of the carpet. Carpet reuse is a preferred management approach where practicable and is counted toward Recycled Output and reduction in disposal. Broadloom and carpet tile reuse pounds are tracked separately. The Program tracks recipients of donated or resold carpet and carpet tile for verification under the Agreed Upon Procedure (AUP) protocol to examine the records of Program participants to verify compliance.

Since 2015, the Program has offered an incentive to support the reuse of carpet tile and broadloom carpet. The Program places a high subsidy on the Reuse category and continually works to expand reuse through education and outreach efforts to retailers, installers, and building owners. In 2018, the Program initiated a Collector/Sorter carpet tile subsidy pilot, which has been continued, to drive increased reuse of carpet tile. Table 7-2 in Chapter 7 (*Financing Mechanisms*) summarizes these subsidies.

In Chapter 5 (*Collection System*), the section on *Expand Reuse of PCC* describes the Program's effort to expand the collection of carpet for reuse. Market development activities and education and outreach efforts are also designed to support reuse. Due to competing low-cost products, quality concerns, and logistical challenges, carpet reuse is expected to remain a relatively limited niche market. As described further in subsequent chapters, the Program's effort to advance reuse include the following:

- **Provide subsidies and financial incentives to increase reuse** of carpet, including to Collector/Sorters.
- **Expand collection and handling infrastructure and marketing** support for existing and new outlets for carpet reuse.
- **Continue to implement the Reuse Action Plan** in response to the Program's 2021 Reuse Study to expand incentives, infrastructure, marketing, and outlets to increase reuse.
- **Offer micro-grants and subsidies to support collection and reuse**, including for technical assistance to reuse organizations, such as Habitat for Humanity and The ReUse People.
- **Work with recyclers and directly with charitable organizations** or other reuse resources to promote carpet reuse.

4.3 Recycling

To maximize impact in achieving Program goals, the majority of funds generated from the assessments on carpet sales will continue to be directed toward increasing carpet

recycling. The Plan prioritizes the recycling of post-consumer carpet back into new products. Chapter 5 (*Collection System*) describes how the Program increases carpet collection and recycling; Chapter 6 (*Market Development & Grants*) describes how the Program provides grants and encourages markets for products made from recycled carpet; and Chapter 7 (*Financing Mechanisms*) describes the subsidies and incentives that advance recycling, reuse, and manufacturing from recycled carpet. The Program has worked closely with multiple companies to increase carpet recycling capacity, jobs, and products through grants, incentives, and facilitation for market and product development. The Program prioritizes Highest Recyclability in its collection and market development activities, as described in the *Highest Recyclability Incentives* section in Chapter 7 (*Financing Mechanisms*).

4.4 CAAF or Cement Kiln Fuel/Feedstock

For wastes that cannot feasibly be recycled or reused, environmentally safe management through Carpet As Alternative Fuel (CAAF) or cement kiln fuel/feedstock is considered to be preferable to landfill, incineration, or other disposal. The Program tracks energy recovery including CAAF, kiln, and WTE as diverted from landfills, though these methods are not counted as Recycled Output or as a reduction in disposal. Consistent with AB 1158, the Program has not subsidized carpet diversion to CAAF or cement kilns since 2017 and will not do so under this Plan.

4.5 Waste-to-Energy

Though Waste-to-Energy (WTE) is considered preferable to landfilling and incineration, the Program has never paid any subsidy or other incentive for the use of post-consumer carpet for WTE and has no plans to do so. The Program will continue to track energy recovery including CAAF, kiln, and WTE as diverted from California landfills, but WTE pounds are not counted as Recycled Output or as a reduction in disposal.

4.6 Landfill, Incineration, or Other Disposal

Landfilling, incineration, and other forms of disposal are considered the lowest level on California's solid waste management hierarchy, and the Plan does not support their use for disposal of post-consumer carpet. Incineration of post-consumer carpet is prohibited under this Plan for California-based business. Some businesses located outside of California may use incineration, though it is discouraged. Any out-of-state incineration will be tracked through regular reporting processes, and no subsidies are provided for incineration. The Program has not reported incineration by any Program participant since 2015. No subsidies or other financial incentives are provided for landfilling, incineration, or other forms of disposal.

4.7 Exports

Pounds of whole carpet material reported as exported are considered as a reduction in disposal from California landfills. The Program encourages materials to be managed in California or domestically, as only such material is eligible to receive subsidies under this Plan. Whole carpet exported internationally, while eligible for the Collector/Sorter subsidy, are not eligible for Program subsidies for processing or Tier 2 manufacturing. Other program incentives including grants prioritize California-based businesses over other domestic applicants within grant criteria. Prioritizing California activities is intended to encourage and support California-based businesses and California jobs, as well as to reduce exports of PCC from the state and the country.

4.8 Discards Calculation

Many of the performance goals are measured against the estimated amount of annually discarded post-consumer carpet, known as PCC or Discards. The Program is tasked with reducing disposal of post-consumer carpet discards, while increasing the carpet recycling rate. The Program and its contractors conducted an extensive review of the Discards calculation and its supporting data. An agreement on modifications to the calculation methodology has not yet been agreed upon. Consistency in the Discards calculation provides an advantage for relative trend tracking. The methodology from the 2018–2022 Plan remains in place and is described below:

Discards = (Sales * R * P) * (1 + D + DS), where:

- **Sales = Sales** in square yards in California. Sales data comes from the independent accounting firm Aprio that collects and consolidates the confidential sales data from the Carpet Mills registered with the Program.
- **R = Replacement rate** (%). Percent of carpet that is replacement for existing carpet. Replaced carpet is typically destined for the landfill. The remaining carpet was purchased for new housing or commercial buildings. The rate is derived as the weighted average of the residential and commercial sectors as estimated by Market Insights LLC, an independent market research firm.
- **P = Average weight**, in pounds, of carpet per square yard. The Program gathers and analyzes raw industry data to calculate the weighted averages of weights of broadloom carpet and carpet tiles used in the commercial and residential sectors.
- **D = Demolition**, the percentage, based on weight in pounds, of carpet from demolition projects that was not replaced, as estimated by Market Insights LLC.
- **DS = Deselection**, the percent of carpet that is eliminated (deselection) but not replaced by carpet, as estimated by Market Insights LLC based on reviewing historical data.

5. COLLECTION SYSTEM

14 CCR Section 18943(a)(5). Collection Systems. Describe the system that will be used to collect and properly manage post-consumer carpet. This description must include the following:

(A) Type of collection sites used.

(B) Types of reuse and recycling activities, processing and/or disposal by product type.

(C) Description of how service providers handling old carpet will be able to readily, accurately, and economically identify the type of carpet polymer to facilitate reuse and recycling, e.g., labeling on the back of carpet, affordable laser detection devices, or other technology.

(D) General description of best management practices to be followed by the service providers, including any training that the manufacturer or stewardship organization intends to provide to or require of service providers to ensure proper collection and management of post-consumer carpet.

(E) Description of how each consumer that pays a carpet stewardship assessment, including but not limited to those in rural areas, will be provided reasonably convenient opportunity(ies) in each county to manage their post-consumer carpet.

This chapter of the Plan describes the system used to collect and properly manage post-consumer carpet (PCC), as required in Public Resources Code (PRC) Section 42972. This chapter also describes the Program's approach to meeting the collection, reuse, and convenience goals of the California Carpet Stewardship Program and the CalRecycle RFA signed May 11, 2022.

Collection of PCC is a fundamental first step for the Program to meet the CalRecycle May 2022 RFA's recycling rate goal of 45 percent by 2027, and annual recycling rate goals from 2023 through 2026. This chapter briefly describes the existing carpet collection infrastructure, as well as new planned efforts that the Program will implement and support during 2023 through 2027. Convenient access to carpet collection locations is a related component of carpet collection.

It is important to recognize the vast majority of carpet available to collect is triggered by the sale of new carpet, a process referred to as a replacement sale. As sales of new carpet decline, it does two things: a) it reduces the overall existing inventory of goods in service, and b) it reduces the immediate available volume of carpet collection. In addition, based on an analysis of CARE collection data from private and public drop-off

sites along with consumer data, the vast majority (>90%) of all PCC collection is driven by professional installers.

For perspective, new carpet sales have dropped by 33% since the peak year of 2013. This new five-year Plan forecasts an additional drop of 32% based on independent forecasts. CARE approached two highly regarded and independent organizations to analyze historical and project future sales. Each produced a range of estimates, and both were in agreement that a 32% decline was a reasonable figure on which to base sales over the next 5 years.

As specified in PRC Section 42972(a), the carpet stewardship plan shall include quantifiable five-year goals and annual goals for how the recycling rate will be achieved and how the Program plans to do the following with regard to increasing recycling and reducing disposal of carpet:

- Increase the weight of post-consumer carpet that is recycled and reduce the disposal of post-consumer carpet.
- Increase the collection convenience for the recycling of post-consumer carpet and increase the collection of post-consumer carpet for recycling.

The remainder of this chapter is organized as follows:

- **5.1 Collection and Convenience Goals and Metrics**
- **5.2 Collection and Convenience Program Overview**
- **5.3 Support Overall Collection Activities**
- **5.4 Expand Drop-off Site Activities**
- **5.5 Coordinate with Private Collection Activities**
- **5.6 Expand Collection at Professional Flooring Locations**
- **5.7 Expand Reuse of PCC**

5.1 Collection and Convenience Goals and Metrics

In its May 2022 RFA, CalRecycle identified five goals as it relates to recycling, collection, and convenience: Recycling Rate, Recycling Efficiency Rate, Collection Rate, Public Access to Drop-off Sites, and Flooring Professional Proximity. Table 5-1 on the following page provides the metric, baseline, and annual goals for these goals and for the Program's related goals for Gross Collection, Reuse, and Disposal. (These goals were previously discussed in Chapter 3 and presented in Table 3-2.)

Table 5-1. Goals for Recycling, Collection, Convenience, Reuse, and Disposal, 2023–2027 (Collection Chapter)

Metric	Baseline (2021)	2023 Goal	2024 Goal	2025 Goal	2026 Goal	2027 Goal
Recycling Rate	27.9%	31%	34%	37%	41%	45%
Recycling Efficiency Rate (formerly *Yield*)	76.4%	75%	75%	75%	75%	75%
Collection Rate	36.4%	41%	45%	50%	55%	60%
Public Access to Drop-off Sites (Collection Convenience)	51 out of 58 counties had one site per 500,000 residents in each county, with a minimum of one per county	One site per 500,000 residents in each county, (minimum of one per county)	One site per 450,000 residents in each county, (minimum of one per county)	One site per 425,000 residents in each county, (minimum of one per county)	One site per 400,000 residents in each county, (minimum of one per county)	One site per 375,000 residents in each county, (minimum of one per county)
Flooring Professional Proximity: % of residents within 15 miles of a location that accepts carpet from all flooring professionals	72%	75%	78%	82%	86%	90%
Reuse of PCC (% of Recycled Output)	1.2% of Recycled Output	1.4% of Recycled Output	1.7% of Recycled Output	2.0% of Recycled Output	2.0% of Recycled Output	2.0% of Recycled Output
Gross Collection (thousand pounds)	88,466	93,000	92,000	91,000	90,000	89,000
Disposal of PCC (thousand pounds)	175,157	132,000	119,000	107,000	94,000	82,000

The relevant code section on **Collection Systems** (14 CCR Section 18943(a)(5), included at the start of this chapter) calls for five elements to describe the system that will be used to collect and properly manage post-consumer carpet. Table 5-2 provides an overview of each of the five required collection system elements and when applicable, identifies the Plan sections where additional details can be found.

Table 5-2. Collection System Plan Elements and Descriptions [14 CCR 18943(a)(5)]

Collection Element and Plan Location	Description
(A) Types of collection sites used **Section 5.2**	There are three primary types of collection sites: • **Private collection network**—Collector/Sorters maintain their own collection infrastructure to support their operations. These networks may include direct collection from carpet retailers and other PCC suppliers, accepting self-haul PCC from contractors and flooring professionals, and maintaining containers at retailers and other locations to collect PCC. Collector/Sorters also accept PCC from the Program's public Drop-off Sites and other collection efforts. As of December 2021, Collector/Sorters reported collecting from 218 private sites statewide. In 2021, Collector/Sorters handled 83 percent of Gross Collection pounds. Other private haulers (providing collection but not receiving Program subsidies) provide onsite pick-up service at 80 private sites, for a total of 298 private sites served. • **Program Drop-off Sites**—As of 2021, the Program supported 94 public Drop-off Sites, providing convenient collection access to the public for all 58 counties in the state. The majority of Drop-off Sites are located at transfer stations, recycling facilities, construction and demolition (C&D) facilities, or landfills. A few sites are located at flooring retailers. The Program provides containers to collect PCC and transportation from the Drop-off Site to a Collector/Sorter at no cost to the site. • **Special Collection Programs**—The Program supports collection efforts at Carpet Mill Regional Distribution Centers (RDCs) and union training centers. As of 2021, there were three active pilot collection sites at RDCs and one at a union training center. These programs provide easy-access, free collection to will-call customers at time of carpet pick-up, and the Program provides no-cost transportation services of PCC from these locations to a Collector/Sorter.

Collection Element and Plan Location	Description
(B) Types of reuse and recycling activities, processing, and/or disposal by type **Chapter 4** **Section 5.7** **Section 7.1**	Reuse and recycling of PCC in California takes place within a complex ecosystem of consumers, retailers, public and private collection programs, reuse outlets, processors, and manufacturers. Collection of carpet for reuse or recycling is the first of many steps in the recycling process.
(C) Description of how service providers can identify carpet polymer type **Chapter 6**	Most carpet types are not easily visually identifiable. Sorting is done by hand by Collector/Sorter staff using a specialized infrared device, which identifies the face fiber material type. Fiber types include Nylon 6; Nylon 66; polyethylene terephthalate (PET); polytrimethylene terephthalate (PTT); polypropylene (PP); mixed fibers; and natural fibers like wool. The Program provides grants to Collector/Sorters to enable purchase of the infrared devices. In addition, the Program works with manufacturers to support back-stamping fiber type on the underside of carpet. Currently, broadloom carpet that is sold in the builders' market (approximately 40% of carpet sales) is back-stamped, along with most residential broadloom. The Program will begin formally surveying Carpet Mills to gather information on how much carpet sold in California is back-stamped.
(D) Best Management Practices (BMPs) **Section 8.3**	Collector/Sorters and Program staff educate collection service providers and flooring professionals on BMPs. These include but are not limited to the following: • Remove all trash, tack strips, and any other debris prior to rolling up tear-out carpet. • Remove the carpet prior to conducting additional demolition activities. • Keep carpet dry and protect it from weather. • Cut carpet into manageable sections or rolls. • Do not roll the carpet and padding together. • Follow carpet collection basic safeguards, including no hazardous materials, human wastes, or smoking at collection facilities.

Collection Element and Plan Location	Description
(E) Consumer convenience **Section 5.2** **Chapter 8**	Consumer convenience is a fundamental component of stewardship programs. The do-it-yourself (DIY) component of removal and recycling old carpet is relatively small, as more than 90% of surveyed residents reported that a flooring professional or contractor takes away tear-out carpet. That said, the Program has built a network of Drop-off Sites that provide convenient access for the public. As of 2021, the Program established 94 public Drop-off Sites with access in all 58 counties, 29 of which are designated as rural counties disposing of no more than 200,000 tons of solid waste annually. CalRecycle reports a baseline that 72% of the state's population is within 15 miles of a Drop-off Site in 2021, though CARE has not reviewed the underlying data for this statistic.

5.2 Collection and Convenience Program Overview

The Program supports collection of post-consumer carpet through a wide range of activities. During the 2023–2027 Plan cycle, the Program's Collection Team will expand and further develop existing collection programs and implement new collection efforts to continue to grow the volume of PCC to divert whole carpet from landfills and provide the volume of PCC necessary to achieve recycling rate goals. Much of the "low-hanging fruit" of collection, including big-box retailers and large-volume generators, has been harvested and is now a regular part of the Program. The Program recognizes that continued growth in collections will be both logistically and financially a larger challenge, particularly with declining carpet sales and associated reductions in carpet tear-out. This challenge is recognized in the activities outlined below. As commercial broadloom and carpet tile grow, it must also be recognized the yield per square yard is less and they process at a slower rate versus residential broadloom, thus throughputs are lower. Both factors weigh on costs and productivity.

To reach the CalRecycle May 2022 RFA collection goal of collecting at least 60% of all PCC by 2027 and preceding annual goals, the Program must tap into the commercial stream and smaller volumes as well as mixed loads. We have proposed to do this with programs such as: aggregation centers, diversifying haulers and container types, grants and piloting new collection programs, broader outreach and operational offerings for commercial and multifamily dwelling properties, piloting financial incentives for new collection sites and sorting mixed loads. Existing efforts to secure PCC from RDCs and boost reuse are working well.

The Program will follow a five-step process in refining and developing the Collection program:

- Plan activities to meet goals.
- Conduct and evaluate pilot projects where applicable.
- Implement full-scale projects.
- Evaluate results.
- Refine and expand projects.

The remainder of this chapter provides a description of activities the Program will conduct to support collection and convenient consumer and flooring professional access to recycling opportunities. While there is overlap among categories, they are grouped into four general areas, plus a cross-cutting section on expanding reuse of PCC:

- Support overall Collection activities.
- Expand Drop-off Site activities.
- Coordinate with private collection activities.
- Expand collection at professional flooring locations.
- Expand reuse of post-consumer carpet.

For each Program activity, the Plan provides a brief description, summarizes its current status, and describes the planned activities for 2023 through 2027. Chapter 7 (*Financing Mechanisms*) describes incentives and subsidies for collection and reuse, and Chapter 8 (*Education & Outreach*) describes the marketing, education, and outreach efforts that support further collection and reuse. The Program may develop additional collection projects during 2023 through 2027, beyond those discussed in this chapter, in support of the collection and recycling rate goals.

5.3 Support Overall Collection Activities

These new Plan activities support all aspects of the Collection program:

- **Diversify haulers**—The Program is adding new haulers to the network of companies that are available to pick up carpet from Drop-off Sites, RDCs, and retailers. In addition, several Drop-off Site locations provide their own hauling to Collector/Sorters. Haulers use different container sizes to match the needs of individual collection points and operate under different business models. Thus, adding new haulers to the Program's network expands the range of collection options available.

- **Expand into additional franchise areas**—Some jurisdictions have franchise agreements for integrated waste management services that limit the ability of Collector/Sorters to collect PCC at retailer locations. The Program is working, and will continue to work, with jurisdictions, waste management/recycling companies, retailers, and Collector/Sorters to facilitate opportunities for PCC collection in these communities.
- **Create aggregation centers**—An aggregation center would provide a location to temporarily accumulate PCC from smaller retailers or installers before hauling a full load of PCC to a Collector/Sorter. Aggregation centers could be located in warehouses or transport company yards and be implemented in cooperation with Collector/Sorters. The Program will evaluate this option within the first two years of the new Plan and move forward with pilot projects by 2024.
- **Technical assistance**—To increase public drop-off locations at disposal sites; support Collector/Sorters and processors in establishing new collection opportunities; and support retailers, RDCs, convention centers and other generators of PCC in obtaining collection service.
- **Expanding into new sectors**—To increase collection of commercial broadloom and carpet tile, as well as residential carpet, the Program will continue work with unions, green building conferences, and Carpet Mills to locate new sources of commercial carpet tear-out. The Program will also continue to expand outreach and technical assistance to collect material from multifamily dwelling residential and commercial property owners who are tearing out carpet during renovation projects. As an example, CARE will work with the California Green Building Standards Code to potentially include source-separating PCC as a required practice.

5.4 Expand Drop-off Site Activities

The Drop-off Site network is a core aspect of the collection program and of enabling convenient collection in all areas of the state. Drop-off sites are an essential component of ensuring that there are collection opportunities in rural areas of the state that are not served by the private collection network. The Program will continue to expand the collection network and increase the quantity of PCC collected from Drop-off Sites through several activities:

- **Coordinate and support Drop-off Sites activities (expand existing efforts).** With the goal of increasing volumes at new and existing sites (especially at landfills and recycling facilities), perform regular meetings to determine micro-grant opportunities, provide technical assistance, and evaluate financial incentives needed to boost recovery of PCC at facilities.

- **Continue to evaluate the efficiency of Drop-off Site logistics.** The Program will evaluate and monitor shipments from Drop-off Sites to Collector/Sorters to continually increase overall efficiency and equity.
- **Evaluate landfill fee structures to incentivize use of Drop-off Sites (new).** The Program will evaluate and pilot a concept taken from one Drop-off Site participant that charges an additional fee for recyclable and/or PCC materials being landfilled.
- **Evaluate and pilot the use of incentives to enhance use of Drop-off Sites by installers (new).** The Convenient Collection for Flooring Professionals report found that 68% of installers surveyed while at supply houses would consider recycling if it cost less than disposal. The 94 Drop-off Site locations in California have a variety of fee structures for PCC, ranging from free to the same cost as landfilling. Landfill fees in California vary widely, from free to over $100 per ton. As of 2021, approximately 50% of Program-sponsored Drop-off Sites reported providing a reduced fee for source-separated carpet. Starting in 2023, the Program will request, as appropriate, that new Drop-off Sites provide a minimum 20% discount on PCC as compared to landfill fees. The Program will evaluate alternatives to incentivizing Drop-off Site carpet collection, including implementing a pilot in which one or more Drop-off Sites are provided funding to allow lower rates at entry for clean PCC as compared to landfill fees. The incentives could be provided to the Drop-off Site based on pounds of clean carpet/pad collected and would help cover the sites' operational costs of collecting carpet. CARE will evaluate if these incentives help bring on new Drop-off Sites and incentivize sorting mixed loads.

The new and existing strategies to expand Drop-off Sites, mentioned above, are based on lessons learned in the field. The primary barriers to participation are:

- Lack of and the cost of labor needed to monitor the drop-off site and load carpet into collection containers.
- Space constraints at potential drop-off site locations.
- Security concerns in terms of illegal dumping and unauthorized people entering containers.
- The need for a more weatherproof drop-off site.

In order to address these concerns, CARE has and will continue to pilot and evaluate the use of financial incentives to bring on new drop-off sites as well as incentivize the swap out of full containers through at least the first year of program subscription. CARE will also offer retail locations the option of limiting drop-off hours or requiring drop-off appointments in the first 6 months of program subscription. Finally, CARE will continue to explore and secure new container types to fit smaller spaces and containers which come with locks and covers. CARE will also continue to offer micro grants to all drop-off

sites for weather structures, cement pads and equipment which will ensure more efficient and safe loading as well as a more secure location.

CARE also regularly shares strategies for overcoming collection challenges with new public drop-off sites through in-person site visits, emails, phone calls, quarterly public drop-off site webinars, and print and video collateral.

Table 5-3 identifies the 13 counties that require additional Drop-off Sites (as of December 2021) to meet the Drop-off Site Public Access goals by population, annually and by 2027 for the five-year goal. CARE will review and update this list in January of each year based on the number of existing Drop-off Sites and most recent population data available. Note that Alpine and Sutter counties were covered in 2022 by Drop-off Sites in Placer and Yuba counties, respectively, as approved by CalRecycle. It should also be noted that the Program has historically brought on approximately 10 net new public Drop-off Sites per year (and 20 sites in 2019). Counties not listed in the table have sufficient Drop-off Sites to meet or exceed the annual and five-year goals.

Table 5-3. Additional Drop-off Sites Needed to Meet Public Access Goals, by County

County	2023	2024	2025	2026	2027
Alpine	1	0	0	0	0
Contra Costa	0	1	0	0	0
Fresno	0	0	0	1	0
Los Angeles	0	3	1	2	1
Orange	0	1	1	0	1
Riverside	0	1	1	0	0
San Bernardino	0	0	0	0	1
San Diego	0	1	1	0	1
San Francisco	0	0	0	0	0
San Mateo	0	0	0	0	0
Santa Clara	0	0	1	0	0
Sutter	1	0	0	0	0
Ventura	0	0	0	0	0
TOTAL	**2**	**7**	**5**	**3**	**4**

Table Note: In 2022, Alpine and Sutter counties were served through adjacent counties, as approved by CalRecycle. By December 2022, sufficient new Drop-off Sites were added to meet the goals for 2022, which represents an update from the Draft Plan submitted in September 2022.

5.5 Coordinate with Private Collection Activities

Carpet is unique among recycled post-consumer product programs, including because most PCC (estimated at 83 percent in 2021) is collected through private collection networks operated by Collector/Sorters. As the Program continues to expand collection efforts, it will be increasingly important to work with Collector/Sorters to ensure that new Program collection enhances and does not duplicate existing activities and instead grows the overall collection "pie." To improve overall collection efforts, the Program will work to:

- Increase coordination and communication with Collector/Sorters to ensure that new Program-sponsored collection programs address perceived gaps in collection and augment private collection networks.
- Collaborate with Collector/Sorters to develop aggregation centers and other collection programs for professional flooring locations (see below).
- Collaborate with Collector/Sorters to conduct, fund, and evaluate pilot and potentially permanent programs that focus on small-volume collections.
- Consider a Collections Study evaluating the role of the Program in supporting large-volume private collection activities so to best support achieving collection goals, financial and logistical efficiency, and options for customers generating PCC.

5.6 Expand Collection at Professional Flooring Locations

Over the last few years, the Program has implemented a range of new programs aimed at increasing collection for flooring professionals in areas that were not currently being served. The Program will continue to develop and expand these efforts:

- **Expand pilot collection programs at RDCs**. As of December 2021, the Program piloted self-service carpet/pad collection for customers (installers) at three RDCs in California. Carpet Mill RDCs are large facilities to which respective manufacturers ship new flooring materials (including non-carpet types) for either subsequent shipment to their customers' locations or will-call pick-up by customers/installers. The Program currently provides free collection to will-call customers at time of material pick-up. The Program is working to expand to a fourth RDC, and during 2023 to 2027 will explore options to expand collection volumes at other RDCs, which appear to be limited, by coordinating with RDCs to improve access and outreach to customers/installers.
- **Implement collection programs and/or Drop-off Sites** at big box stores, installation providers, and retailers. The Program has been working closely with these groups that were not already recycling PCC to provide collection trailers,

pick-up, and delivery of PCC to Collector/Sorters. Under this Plan, the Program will seek to expand the range of PCC recycling opportunities available to flooring professionals. The Program will establish a protocol to determine which retailers to bring on as public Drop-off Sites, driven by the convenient collection goals established by the Department and the volume generated by the retailer. The Program will coordinate this work with and may consider cost-sharing with Collector/Sorters.

- **Evaluate and pilot "milk run"** and/or smaller volume collections at unserved retailers. Coordinate with Drop-off Sites and/or Collector/Sorters to provide small volume bins and/or perform milk-run collection services at retailers that are not already serviced by Collector/Sorters. For example, the Program could work with haulers to place small-volume containers to be picked-up on an as-needed or route-basis (ideally in coordination with Collector/Sorters). Placement of small (3-yard) front-loader bins at retailers could provide collection opportunities that address space constraints at retailer locations. The Program launched a pilot in 2022, which will be evaluated in 2023. Results will be shared in the Annual Report, and the program will be replicated based on results.

5.7 Expand Reuse of PCC

Reuse is defined as the donation or sale of recovered carpet back into the market for its original intended use. Carpet reuse represents a preferred management approach where practicable in line with the waste hierarchy. Reuse is also counted toward recycled output and reduction in disposal. The reuse of recovered carpet retains the original purpose and performance characteristics of the carpet. Carpet tile is generally easier to reuse than broadloom carpet since broadloom carpet is inherently cut to fit an area when installed.

The Program has expanded the number and type of initiatives to support reuse, building on recommendations from a report prepared in May 2021, *Post-Consumer Carpet: Barriers and Opportunities for Reuse*. Many of the Program's reuse activities are focused on education and outreach to reuse stores, material exchanges, commercial contactors, Collector/Sorters, retailers, local governments, and other Program stakeholders (summarized in Chapter 8, *Education & Outreach*). In addition, in 2021 the Program piloted an additional $0.20 subsidy for carpet reuse, which will continue at least through September 30, 2022. Specific activities to be continued or new programs to be explored during the 2023 through 2027 planning period include, but are not limited to, the following:

- Continue to engage and recruit as well as promote reuse outlets, such as Habitat for Humanity ReStores and The ReUse People, to expand their market and capacity for carpet reuse.

- Provide technical assistance (in addition to outreach and potential grants) to Collector/Sorters, building owners and managers, commercial contractors, and venues to support reuse.
- Explore ways to expand the number of deconstruction contractors and support existing deconstruction contractors in expanding their outlets for reuse.
- Work with municipalities that are focused on reducing C&D debris to support deconstruction ordinances that require buildings that are slated for demolition to instead be deconstructed. For example, the City of Palo Alto has an ordinance that requires source separation and reuse or recycling of building materials, including carpet. Deconstruction results in cleaner carpet as the contractor removes carpet first, before contamination occurs.
- Evaluate the potential for reuse brokers, who can match buyers to sellers (or donors to recipients) to expand PCC reuse. Evaluation results and decisions will be shared in annual reports.
- Technical assistance to help establish and/or promote reuse programs and opportunities.

6. MARKET DEVELOPMENT & GRANTS

> **14 CCR Section 18943(a)(6). Market Development.** Describe incentives or methods to increase recycling of carpet into secondary products.

This chapter describes the Program's work to develop new markets and expand existing markets for recycled carpet materials and products. The chapter is organized as follows:

- **6.1 Market Development Goals and Metrics**
- **6.2 Grants**
- **6.3 Research and Development**
- **6.4 Technical Assistance**
- **6.5 Increasing Recyclability**
- **6.6 Processor Capacity**

The Market Development program will support the primary Plan goals by continuing to work with Collector/Sorters, Processors, Manufacturers, and California public agencies to advance carpet collection, recycling, and reuse and to expand the market in the following ways:

- Supporting the development of recycled carpet products produced in California, particularly PC4-based products and pellets.
- Increasing manufacturers producing recycled carpet products in California and building market demand for products made with California PCC content.
- Offering large and small capital grants for projects that expand Gross Collection, California processing, and manufacturing infrastructure.
- Continuing to refine testing protocols at processing and manufacturing operations so that the appropriate subsidies are paid.
- Offering subsidies to increase collection and recycling of post-consumer carpet and to advance development of products made from recycled output.
- Supporting reuse through grant funding, collaboration with construction and demolition and collection stakeholders, and promotion of reuse outlets accepting California-sourced post-consumer carpet tiles.
- Introducing **new research programs** to analyze recycler waste streams to increase yield and identify hard-to-recycle carpet types collected for recycling.
- Technical assistance and education and outreach will also support the efforts listed above.

This Plan presents emphasis areas and strategies to advance market development. It also outlines the metrics that will be used to measure market development success. Program strategy areas will be reviewed regularly by Program staff, with recommendations for major adjustments, additions, or other modifications presented by the Executive Director to the Stewardship Planning Committee for consideration on an as-needed basis.

The consideration and decision-making process for activating or adjusting these various strategy areas will generally employ the following sequence: 1) submit to CARE's Stewardship Planning Committee (SPC) for review, 2) review with CalRecycle and seek approval if and when appropriate, 3) implement after final approval by CARE's Sustainable Fund Oversight Committee (SFOC), and 4) issue notice of decision and rationale. As recommended by CalRecycle and from experience gained in prior years, the Plan incorporates flexibility in its operation and execution of these strategy areas, allowing the Program to react quickly and efficiently to changing market conditions that history has instructed we can expect in the next five-year Plan period.

6.1 Market Development Goals and Metrics

The program's baseline for market development is end-of-year 2021, at which time CARE recorded 103 products, 27 vendors, and 10 California-based vendors (of the 27 total vendors) using California-sourced post-consumer carpet.

In order to expand and incentivize PCC-product markets and ensure the health of this industry, CARE will add 2 to 3 new California-sourced PCC-products and 1 to 2 new vendors using California-sourced PCC per year, or 14 new products and 9 new vendors by the end of five years (2027).

- A California-sourced PCC **product** is defined as a product that contains 10 percent or more California-sourced PCC by weight on average during the reporting year. Seasonal and/or operational variations may occur, with the intent that the company is using PCC content on a regular, ongoing basis throughout the reporting year. A single and separate product is defined by the manufacturer of the product.
- A **vendor** of California-sourced PCC products is defined as manufacturing one or more California-sourced PCC products within a calendar year. Vendors are counted separately if they are incorporated as a single business entity, corporation, partnership, or sole proprietorship.

The PCC-product marketplace is already robust and pulling through (or anticipating to pull through) the necessary volumes to meet Plan goals; however, CARE recognizes the importance of continuing to grow and diversify markets to continue this success into the future. CARE anticipates the start-up of chemical recycling will aid these efforts.

Additionally, CARE recognizes that the creation of PCC pellets opens more market opportunities; therefore, CARE plans to support the establishment of at least one extrusion operation based in California over the next five years, based on recycler willingness and ability. CARE will also support more recyclable PCC-content products and those with a lower environmental footprint over the course of five Innovation & Design grant cycles in the next five years.

CARE will measure this success through gathering annual data from California-sourced PCC-content product manufacturers and recyclers, and from its own grants program.

CARE will assist PCC recyclers and manufacturers in achieving new advances in technology and markets through testing and capital grants, technical assistance and technical assistance funding described earlier in this chapter.

The table below summarizes goals for increasing Processor Capacity, Recyclability, and Markets, as addressed in this chapter.

Table 6-1. Goals for Processor Capacity, Recyclability, and Markets, 2023–2027 (Market Development Chapter)

Metric	Baseline (2021)	2023 Goal	2024 Goal	2025 Goal	2026 Goal	2027 Goal
Processor Capacity (West Coast)	132 million pounds	134 million pounds	138 million pounds	140 million pounds	143 million pounds	146 million pounds
Recyclability: Recyclable PCC Types	Estimated at 70% based on 2021 sales	Ensure program capacity to recycle 70% of PCC types and understand baseline PCC types not being recycled at recycling locations	Ensure program capacity to recycle 73% of PCC types	Ensure program capacity to recycle 75% of PCC types	Ensure program capacity to recycle 78% of PCC types	Ensure program capacity to recycle 81% of PCC types
Recyclability: Innovation & Design (I&D) Grants	Awarded zero I&D grants	Award 2 I&D grants	Award 2 I&D grants	Award 2 I&D grants	Award 2 I&D grants	Award 2 I&D grants
Markets: New Products	103 products using California PCC	2 new products; 105 total products	3 new products; 108 total products	3 new products; 111 total products	3 new products; 114 total products	3 new products; 117 total products
Markets: New Vendors	27 vendors using California PCC	1 new vendor; 28 total vendors	2 new vendors; 30 total vendors	2 new vendors; 32 total vendors	2 new vendors; 34 total vendors	2 new vendors; 36 total vendors

In addition to the Goals described above, the Program considers the following factors in evaluating the success of its market development and grant programs:

- Additional post-consumer carpet pounds collected, reused, processed, or remanufactured into new products compared to Program and grantee baselines and anticipated timelines.
- New California jobs created.
- New collection/reuse or recycling sites brought into the Program.
- Convenient collection and reuse goals met as a result of grants.
- Volume impact, including how it will affect the recycling rate.
- In-state versus out-of-state, with a priority on California activities.
- Consistent with product guidelines.
- Impact on human health and the environment.
- Availability of resources and funding to support the effort.
- Prioritization relative to other opportunities.
- Consistent with Advisory Committee and CalRecycle feedback.
- Team review of value toward achieving Program objectives.

6.2 Grants

The Carpet Stewardship Program includes a multifaceted grant program designed to increase collection, processing, manufacturing capacity, and throughput of post-consumer recycled carpet in California. The grant program was modeled after CalRecycle's grants program.

Historically, the Program's grant funding has focused in three primary areas:

- **Capital Improvements** (capital grants) for expansion of processing and manufacturing capacity, with a maximum of $500,000 per award.
- **Micro-Grants for Collection/Reuse**, focused on improving existing as well as establishing new collection and reuse programs, with a maximum of $15,000 per award. Flooring installer unions are also eligible to apply for funds under the Micro-Grants program.
- **Product Testing, Research, and Development** of new and existing PCC-content products, with a maximum of $50,000 per award.

This Plan continues Capital and Micro grants based on past subscription levels and projected future needs to meet recycling, collection, and convenient collection goals.

The current capacity available from California processors is sufficient to accommodate the pounds of recycled output required based on CARE's modeling through 2027. Given this observation, the Plan modifies its allocation of available funding to procure additional capacity during this period.

These grants may also be used to support collection activities as increased collection is an area of need to meet Plan goals. PC4 is a focus of Testing grants based on weaker markets for this material.

This new Plan also contains grant elements that may fund pilot collection programs, targeting small-volume generators. In 2022, the Program initiated a pilot to fund small-volume generators. At the end of the first year, the Program will evaluate its effectiveness and determine whether to extend the pilot for another year or potentially convert the pilot into an ongoing part of the grant program.

In 2022, the Program also introduced an Innovation & Design (I&D) grants pilot intended to increase the circularity of PCC-content end-use products. At the end of 2022, the Program will evaluate its effectiveness and determine whether to extend the pilot for another year or potentially convert the pilot into an ongoing part of the grant program. Results of pilot programs will be shared in annual reports.

Following the passage of AB 1158, the Program modified its grants program to incentivize Highest Recyclability under the law. To meet the requirements of Carpet Stewardship Law, the Program prioritizes and incentivizes Highest Recyclability through its grant solicitations and selection process. The Capital Improvements and Product Testing solicitations list the preferential criteria available to encourage project submissions that specifically target Highest Recyclability. The Highest Recyclability score is considered in the grant proposal scoring process and weighted at 15 percent of the total proposal score. The Program measures the percentage of funded projects considered Highest Recyclability in each grant cycle.

The full table of scoring criteria for each grant cycle can be found within the Program's grant solicitations, which are posted to the **CARE Grants** webpage.

Grant Funding Process and Structure

The grant program funds a range of activities to advance collection, recycling, and reuse of post-consumer carpet in California:

- Increasing processing and manufacturing capacity in California.
- Developing and manufacturing more California-sourced PCC-content products.
- Increasing recycled and manufactured output.
- Incentivizing Highest Recyclability.

- Increasing Recycling Efficiency.
- Recycling the most abundant PCC components discarded or those with less stable or one-time use markets, such as PC4.
- Creating feedstock that can be transported more cheaply and used in a wider variety of applications, such as pellets.
- Feeding existing capacity through collection grants.
- Increasing reuse through collection and sourcing more reuse outlets.
- Consideration of carpet design grants based on new research into non-recyclable designs.

Eligible grantees are private companies, public agencies, and nonprofit organizations. This program dedicates 80 percent of capital improvements and product testing funds to California-based entities, and 100 percent of collection and reuse funds to California-based entities. Capital projects run on a two-year term and all other grant types allow one year for project completion. $1.1 million is allocated each year of this Plan.

If annual recycled output pounds are lower than expected in a given year, resulting in lower subsidy fund payouts, the Program may elect to reallocate surplus funding toward other Program needs such as, but not limited to, grants or technical assistance. In this way, the program can use grant funding to specifically stimulate particular areas of need in a manner which also aligns with concurrent strategy approaches included in this Plan.

The grant process begins with the release of a solicitation followed by a two-week question-and-answer period and posting of answers and comments to the Program's website. After the application deadline, all proposals are evaluated, based on the posted scoring criteria, by an independent technical advisory committee. This committee then makes a funding recommendation to the CARE Stewardship Planning Committee. All applicants receive an award or decline notice, and awardees who accept their grants sign the Program's grant Terms and Conditions, Procedures and Requirements, and a Security Agreement (Capital Improvements only).

Grantees are required to submit quarterly reports, final reports and payment requests that include supporting documentation for this reimbursement-based program. Capital Improvements grantees may need to return funds or equipment if they do not hit at least 50 percent of their committed recycled or manufactured output listed within their contract package. The Program also tracks the dollar amount spent per additional pound of carpet collected, reused, processed and/or manufactured into a new product.

Grant Program Protocols and Procedures

Over time, the Program has added various protocols and procedures to strengthen performance and governance of grants, including the following:

- Added a security agreement for Capital grantees to ensure that funding or equipment could be repossessed in the event of nonperformance.
- Required Testing grantees to disclose any information discovered about the general nature of PCC and the application or product's potential impact on the environment.
- Required Micro grantees to remain as CARE public Drop-off Sites for at least two years if they are a new public Drop-off Site.
- Enhanced inventory management and tracking for Program-owned equipment and containers.
- Required CARE-produced carpet recycling decals for grant-funded containers to increase carpet recycling awareness.

Each year, the Program conducts Agreed Upon Procedures (AUPs) on grantees, primarily under the Capital Improvements and Product Testing categories, to ensure that all grant contract commitments are executed.

See Chapter 8 (*Education & Outreach*) for how the marketing team supports the grants program through outreach to potential applicants, case studies and more.

The Program provides detailed information about **Grants on its website**, including grant solicitations released to date, questions and answers about grants, past grantees, application templates, online reporting forms and other supporting materials.

Grant Funding Impact

The Program understands that many market factors—including both grants and subsidies—may influence business decisions to invest in new capacity, product development, design, or other areas, making it difficult to quantify the effects of grant funding versus subsidies, a combination, or other factors. It is generally understood that grants can provide "activation energy" to bring companies, partners, and new concepts to fruition; accelerate adoption of innovations; encourage businesses to locate or expand in California; speed up project initiation; and help secure investments from additional collaborators. The Program is allocating $1.1 million annually for grant funding, split across Capital Improvements; Micro Grants for Collection/Reuse; and Product Testing, Research, and Development.

In analyzing the results of previous capital improvement and collection/reuse grant cycles, the Program has found it generally costs about 6 cents per pound of Tier 1 output combined with Tier 2 material usage in end products over the five-year period. This means that an investment of $750,000 in Year 1 is anticipated to yield about 2.5 million pounds of additional Recycled Output on average each year, or a total of approximately 12.5 million pounds over Years 1 through 5. The annual figure represents over 3% growth in Recycled Output compared to the 2021 baseline of 67.6 million pounds. Funds dedicated to capital grants will continue to increase Recycled Output throughout the life of the five-year Plan and beyond.

The $200,000 allocated each year to the Micro-Grants for Collection/Reuse program or Capital Improvements collection projects has enabled an average of approximately 10 million pounds of additional collection over a five-year period, or 2 cents per pound in urban areas. The reader should note, this 2 cents per pound is for added capacity and is different from the estimated 10 cents per pound required to service public Drop-off Sites in urban areas. The cost for rural site collection is 23 cents per pound at this time. Under this Plan, the Program anticipates awarding up to $200,000 per year to mostly urban collection projects, which is anticipated to generate about 10 million additional pounds of collected or reused PCC in total over 5 years. This amounts to about a 2 percent increase over the 2021 Gross Collection baseline of 88.5 million pounds if the 10 million pounds is divided equally over 5 years.

Micro- and small-volume pilot grants awarded in 2021 and 2022 ($250,000 budget in 2022) are anticipated to add to this 2021 baseline number and contribute to additional pounds of collected PCC in 2023 and beyond.

Over the course of this Plan, the Program may modify the amounts allocated to each grant program based on increased or decreased need for collection, recycling capacity, secondary markets expansion, reuse, research, and product design. Recyclers are expected to contribute to securing the post-consumer carpet feedstock needed to supply existing recycling capacity and capacity expansions. Based on CARE's current modeling, **the current capacity available from California processors is sufficient** to accommodate the pounds of recycled output required to achieve CalRecycle's May 2022 RFA recycling rate goals from 2023 to 2027. CARE will conduct an annual analysis of capacity available from participating California and other West Coast processors (including Arizona and Nevada) using an annual survey to monitor available capacity levels.

Grant Programs

Capital Improvements Grants

The Program launched its first capital grants in 2015. These grants are anticipated to be offered on an annual basis throughout the term of the Plan, subject to available funding, and will continue to be modeled after the Cycle 1A grant solicitation issued in 2015 and

refined as needed over time. Under this new Plan, the Program anticipates focusing capital improvements funding on projects that produce higher end use products such as densified material and pellets that can be transported more cheaply and used in a wider variety of applications to replace virgin materials. PC4 screening equipment would also allow for its use in a wider variety of durable products that are not short life, one-time use products. It is anticipated that capital grants will be a primary grant investment area under this Plan for infrastructure, capital equipment, and investment. The grants program will also prioritize the following:

- Preference for Highest Recyclability materials and products.
- Preference for California-based businesses and projects.
- Support collection, reuse, processing, recycling, and recycled-content manufacturing.
- Increase capacity and throughput.

The success of these grants is measured not only by additional pounds of recycled or manufactured output produced, but also by the number of processors or manufacturers brought into the Program as a result of grants. Additional pounds mean those pounds formerly sent to landfill. The Program also measures the number of new California jobs added annually as a result of Capital Improvement grants. The Program plans to allocate $850,000 to this program each year depending on need.

Micro-Grants for Collection/Reuse

In 2017, the Program launched Cycle 1M offering $50,000 in Micro-Grants for collection and reuse. These grants are expected to be offered on an annual or continuous basis, subject to available funding. Grants in this category are anticipated to continue to be modeled after the Cycle 1M grant solicitation and refined as needed over time. Annual allocation for these grants is expected to be $100,000 per year based on the request level from previous cycles and additional volume captured. This may include larger collection awards for small-volume generator pilot grants depending on the success of the first round in 2022. These grants do not prefer collection of particular carpet types; they focus on collecting all carpet types and diverting as much volume as possible away from landfill. Reuse projects should focus on carpet tile, which is the most reusable carpet type. The success of these grants is measured not only by additional pounds collected and reused, but also by the number of new collection or reuse sites brought into the Program. Additional pounds refers to those pounds that were formerly sent to landfill.

- Supports low- to medium-cost equipment, infrastructure improvements, and promotion to establish or improve reuse and collection.
- For reuse centers, Collector/Sorters, retailers, haulers, disposal sites, transfer stations, recycling facilities, public agencies, Processors, and schools/universities.

Research, Development, and Testing Grants

The Program launched its university research grants in 2014, and it initiated Product R&D and Testing grants in 2015. This grant category combines product, processing, and manufacturing into a broad R&D and testing category. Grants in this category are anticipated to be offered on an evergreen basis, subject to available funding and market need, and are expected to be modeled after the Cycle 1B grant solicitation issued in 2015 and refined as needed over time. Specific focus areas for each grant cycle within this category may be adjusted over the term to optimize impacts and may include areas such as:

- R&D grants to Processors and manufacturers to improve recycled output quality and yield.
- R&D grants to Processors and manufacturers to increase the number and diversity of recycled-content products.
- Preference for Highest Recyclability materials and products.
- Fundamental R&D through innovation grants, research studies, testing grants, innovation awards, and design competitions leading to increased recyclability and recycled content use.

Innovation grants for new product research, development, testing, and promotion to address focus areas, which may be modified from year to year.

To further expand potential California outlets for PCC materials, product development initiatives are being evaluated in multiple areas. Uncommitted or reallocated budget funds may be the source of funding for these or other projects going forward. This grants program will also prioritize:

- Long-term, durable applications and products containing further screened PC4.
- Development of recycled-carpet-content products that can be readily recycled into closed-loop systems.
- To qualify as a PCC-content product, the product or application must contain at least 10 percent PCC.

The Product Testing grants program measures the number of new products and applications developed as well as the increased amount of PCC that will be used in secondary products annually. Each grantee has historically developed between one and three products as a result of the grant program. The Program plans to allocate $50,000 to this program each year of the five-year plan.

Apprentice and Journey-Level Installer Grants and Incentives

Per statute, the Program has specifically budgeted an additional $100,000 per year toward incentives or micro grants to support state-approved apprenticeship programs for training apprentice and journey-level carpet installers in proper carpet recycling practices. These activities are described in the *Installer Training* section in Chapter 8 *(Education & Outreach)* on page 84.

Innovation & Design Grants (new)

The Program offered Innovation & Design (I&D) grants as a pilot program in 2022. The purpose of these grants is to stimulate thinking for future design and processing innovations. Based on the success of this pilot, the Program commits to issuing at least two I&D grants annually. “Innovation” grants, intended for colleges and universities, may be within the $10,000 to $100,000 range and are intended to encourage ideas around recyclability and design of sustainable products made from PCC. “Design” grants could be made available in the future as needed to meet Program goals; examples of potential topics include:

- Support design R&D leading to recyclability and recycled-content use to support industry awareness and adoption of new innovations.
- Support design R&D leading to increased carpet-to-carpet utilization, recycling of post-consumer carpet content into carpet/non-carpet closed-loop products, or similar innovations.
- Innovation awards for significant advances in recycling, upcycling, carpet-to-carpet utilization, or other closed-loop systems.
- For Carpet Mills, manufacturers of recycled-content products, and universities.

Funding for this program has not yet been allocated but may be extracted from Capital Improvements, Product Testing, or Micro-Grant budgets depending on Program need during the early years of the Plan. Results of the pilot round will be shared in annual reports.

Table 6-2. Grants Release Typical Annual Timeline Cycle

Capital Improvements	Micro-Grants for Collection/Reuse	Product Testing
March: Solicitation Release	**January**: Solicitation Release	**March**: Solicitation Release
April: Question and Answer (Q&A) Period	**February**: Q&A Period	**April**: Q&A Period
June: Application Review	**Ongoing**: Application Review	**Ongoing**: Application Review
July: Award Notices and Contract Execution	**Ongoing**: Award Notices and Contract Execution	**Ongoing**: Award Notices and Contract Execution
Quarterly: Progress Reporting and Payment Request Processing	**Quarterly**: Progress Reporting and Payment Request Processing	**Quarterly**: Progress Reporting and Payment Request Processing
End of Two-Year Term: Final Report and Payment Request Due	**End of One-Year Term**: Final Report and Payment Request Due	**End of One-Year Term**: Final Report and Payment Request Due

6.3 Research and Development

The Program will fund the following types of research and development (R&D) activities:

- **Reuse opportunities R&D.** Evaluations for expanding reuse will be supported through market and product development efforts in coordination with reuse outlets, demolition/construction industry, Collector/Sorters, and Processors.
- **Continued refinement of Recycled Output testing protocols** to ensure that the proper subsidies are being paid, and products are aligned with approved grants and subsidies.
- **New research programs to analyze processor waste streams** (waste characterization studies) coming from Gross Collection in order to increase yield and identify hard-to-recycle carpet types collected for recycling.
- **Other new research efforts** which may include collecting more information about Tier 1 products so that they can be used more readily by Tier 2 manufacturers.
- **Additional R&D** as identified.

Fiber markets have become quite strong in the last 5 years; but PC4 will continue to be a focus based on weaker markets. Procurement of PCC-content products and PCC tear-out capture via SABRC, DGS, and through legislation such as AB 661 and SB 1369 are a continuing focus.

Industry Collaboration and Annual Mill Survey

The carpet industry is working to advance carpet design and use of recycled output, including development of carpet that is easier to recycle and supports use of more post-consumer carpet content into new products, including new carpet (carpet-to-carpet or closed-loop recycling). Much of this work is taking place at individual Carpet Mills, and the Program will support and advance these efforts.

Carpet Mills have been investing in research and development (R&D) to make product improvements that better balance durability and performance concerns with recycled content, recyclability, and closed-loop considerations in response to changing market expectations, in addition to a continuing trend of lower weights per square yard. The Program will gather data and support industry innovation.

CARE will survey each mill at the end of each year regarding the following topics:

- New construction techniques to assist in deconstruction at end of life.
- The weight of carpet per square yard.
- The percentage of carpet being back-stamped to identify polymer type, and the distance between identifying stamps.
- Development of new methods to recycle/deconstruct current construction methods that exist today.
- New ways to incorporate the output of post-consumer carpet fiber into new carpet products and into the engineered resin market and other outlets.
- New ways to incorporate the output of post-consumer carpet's backing/fillers into new carpet products and into other products that require fillers.

The compiled information will be provided as part of the Program's annual report.

The Carpet Mills will be required to complete this survey as part of being a "mill in good standing" to sell into the California market. Additionally, the Carpet Mills will know that this information can and will be audited in the years where their company is selected for an AUP audit.

Data collected through these annual surveys will be reported in the Program's annual report.

6.4 Technical Assistance

The Program leverages staff and contractor resources to provide technical assistance in several program areas. Resources will be evaluated and prioritized annually by Program staff to support performance goals and develop tactics for continued improvement. At the same time, the Program will work to be responsive to opportunities as they arise. Target audiences or eligible parties may differ for various tactics in line with Program needs. In general, technical assistance is concentrated in California, although some market development activities may support processors and manufacturers throughout the country to increase the utilization of California-generated PCC or support other performance goals such as manufacturer recyclability or source reduction. Potential technical assistance activities may include but are not limited to the following areas.

- Improve recycled output quality and quantity; scale existing secondary markets; increase number and type of secondary products using recycled output; support testing programs and infrastructure.
- Support recyclability advances, accelerate adoption of new technologies, support R&D for innovation, support statutory Highest Recyclability concepts.
- Coordinate with CalRecycle and Department of General Services (DGS) to expand and promote recycled-carpet-content products under the State Agency Buy Recycled Campaign (SABRC), Recycling Market Development Zones (RMDZ), and other databases.
- Coordinate with CalRecycle to encourage state projects to recycle tear-out carpet.
- Conduct regular site visits to PCC grantees, processors, and manufacturers to assist with troubleshooting as well as ensure proper use of stewardship funds.
- Collaborate with GoBiz, RMDZ, DGS, and CalRecycle to leverage resources, grants, and support for California facilities.
- Work with Carpet Mills' sales representatives to educate retailers and, in turn, to inform customers.
- Business assistance to Collector/Sorters, Processors, and Manufacturers, which may include services such as website and marketing materials development.
- Support development of identification technology to ensure reliable and robust tools remain commercially available.

Technical assistance is a dynamic process. Criteria for evaluating technical assistance includes the metrics listed in Section 6.1. Using expert experience and judgment, the Program will evaluate the impact and value of the effort through internal review and documentation of results. The Program will work with and be responsive to the recycling community for such assistance and will strive to adapt to the shifting demands of this dynamic program through stakeholder dialog, surveys, meetings, and other methods.

6.5 Increasing Recyclability

In the 2018–2022 Plan, CalRecycle approved a definition and metric for *Recyclability* that was based on Yield. That approval reflected the interrelationship between increasing the weight of PCC that is recycled and the efficiency of the recycling process. Recycling Efficiency (previously Yield) is also a reflection of how much carpet recyclers are able to process for recycling and sell to end markets. In its May 2022 RFA, CalRecycle stated, without explanation, that CARE could no longer utilize Yield as the measure of recyclability and provided an open-ended directive to CARE to include new annual and five-year metrics for increasing recyclability.

Currently, 100% of carpet as manufactured is technically recyclable. Some PCC cannot be recycled due to contamination or is not recycled because the appropriate equipment is not in place, the economics do not support recycling, or end markets for recycled output are not available.

CARE commits to investigating an annual sample of PCC that is not recycled at a minimum of one recycling location over a three-day period. The sample will be weighed and compared to the total weight of PCC collected for recycling during that time period; contaminated PCC will not be part of this total or sample. CARE can then determine the actual percentage of PCC not being recycled for reasons such as mixed fiber content or backing type on commercial tiles in 2023. CARE will then use these insights to inform new carpet designs, equipment investments at recyclers, and exploration of new markets for PCC material. The percentage of PCC that is not recycled will thereby be reduced incrementally and total PCC that is recycled will increase incrementally through 2027. Results from annual sampling at one or more recyclers will be published in CARE annual reports. CARE has used an estimated baseline of 70 percent recyclability of PCC types in 2021 based on sales data of carpet types currently being recycled in California. To be clear, it will never be feasible to recycle 100% of PCC principally due to contamination.

In addition, CARE will continue to explore additional advances through the issuance of Innovation & Design grants. Each year, CARE will award at least two Innovation & Design grants to individual entities or partnerships undertaking projects to address challenges associated with recycling PCC carpet, such as the use of mixed or contaminated fiber in carpet face fiber and carpet backing materials. Recipients may include universities, NGOs, and/or private companies. CARE will review grant results and make this information available to Carpet Mills for evaluation to determine economic and technical feasibility and commercial translation as appropriate. Carpet recyclers will also have a role to play as potential Innovation & Design grant partners and may themselves test new technological methods. By the end of 2027, CARE commits to having funded at least 10 Innovation & Design projects focused on creating more recyclable PCC, to further reduce landfilled components at carpet recycling facilities.

Data will come from the CARE grants program in terms of dollars spent on Innovation & Design projects, matching partner funds for projects, and number of projects funded. Data will also come from in-depth biannual waste characterization studies of carpet recyclers, starting in 2024, during which CARE will record unrecyclable components of the PCC waste stream due to contamination and other factors. These waste characterization studies will inform Innovation & Design projects as well as create a baseline for the next five-year plan, as the program seeks to reduce or eliminate this residual.

Results and updates from Innovation & Design grants and any resulting pilot projects will be published in CARE annual reports and on the CARE website.

Incentivizing Highest Recyclability

As of 2018, the Carpet Stewardship Laws require grants or subsidies provided for the recycling of post-consumer carpet to be structured to incentivize the recycling of carpet materials that have the "highest recyclability." Neither the statute nor the regulations specifically define this term.

Accordingly, CARE developed a methodology for analyzing highest recyclability, as described in the previous Plan. With input from CalRecycle and the Advisory Committee, CARE developed a table of recyclability criteria based on PCC market expertise and recycling technology experience regarding the form and purity requirements for various markets. Table 6-2 presents the criteria that constitute the definition of highest recyclability and evaluation of those criteria by type of carpet material. CARE has established a Highest Recyclability Committee that meets periodically to review and update this information as needed.

Table 6-2 lists carpet material components in column headings, and recyclability criteria are listed in rows. Each carpet material is given a value on a scale of 0 to 10, with 0 indicating that the material negatively addresses the criterion (is less recyclable) or makes no contribution to meeting the criterion, and 10 indicating it positively addressed the criterion—that is, the criterion being rated contributes strongly to it being more recyclable. Thus, the higher the score the better the recyclability. As technology, product options, and markets have developed and advanced, the Highest Recyclability Committee set a score of 500 or greater as meeting the criteria of Highest Recyclability.

The rankings in Table 6-2 were generated by calculating the average score of input (0 through 10) from carpet manufacturers, collector/sorters, and processors, and then multiplying by the weighting factor (5 through 15 were used). The weighting factor was a composite average of member input based on extensive experience with carpet manufacturing, collection, sorting, and processing. The table shows the resulting weighted scores for each criterion and the totals for each material type.

The Highest Recyclability Committee met multiple times and, after discussing a number of options to modify this definition, agreed this is still the best operational definition. The Committee will reconvene in 2024 to again revisit the current environment and determine if a modification is justified.

Table 6-2. Highest Recyclability Criteria, with Weighting (Wt.)

Highest Recyclability Criteria	**Wt.**	**N6** (Res)	**N66** (Res)	**PET** (Res)	**PTT** (Res)	**PP** (Res)	**Wool** (Res)	**PC4**	**Tile N6** (Com)	**Tile N66** (Com)	**B'loom N6** (Com)	**B'loom N66** (Com)	**B'loom Wool** (Com)
Ease of deconstruction	15	105	105	105	105	105	105	**75**	150	150	30	30	105
Safely recycle all layer similar or higher material performance	15	60	150	150	60	105	60	**75**	150	150	75	75	60
Cost-effectiveness	10	50	100	20	10	10	40	**20**	80	80	10	10	40
Energy-saving	5	20	25	45	45	45	45	**10**	45	45	20	20	45
Identification of resin type	5	50	50	50	50	50	45	**50**	45	45	45	45	45
Extent of subsidy required	10	40	100	20	20	40	0	**20**	100	100	30	30	0
Reusability	5	10	10	0	0	0	15	**5**	50	50	15	15	15
Markets (a): Closed-loop recycle back into carpet	10	100	0	0	30	0	0	**0**	100	100	0	0	0
Markets (b): Non-carpet closed-loop (recycled multiple times)	10	30	60	60	60	60	0	**30**	100	100	0	0	0
Markets (c): Downcycled (one-time)	10	50	40	40	50	40	0	**90**	0	0	0	0	0
Volume available	5	30	15	15	5	15	0	**45**	35	20	20	20	0
TOTAL	**100**	**545**	**655**	**505**	**435**	**470**	**310**	**420**	**855**	**840**	**245**	**245**	**310**

Table Notes: **Res** = Residential. **Com** = Commercial. **N** = Nylon. **B'loom** = broadloom carpet.

6.6 Processor Capacity

The Program established a baseline to quantify increases in processor capacity for the year ending December 31, 2021, was 132 million pounds for West Coast processors. To measure the specific capacity attainments over the next five-year period, CARE will annually analyze the capacity in California necessary to meet the Recycling Rate goals of the Plan. Processor capacity was calculated against the necessary pounds of capacity to meet the Recycling Rate goals for 2023 to 2027.

To demonstrate the Program's quantifiable goals for measuring capacity for 2023–2027, CARE will measure the following results annually:

- Absolute availability of Capacity pounds.
- To measure total capacity, CARE will utilize surveys to obtain and monitor recycler capacity. The Processor Capacity goals are shown in Table 6-1 at the start of this chapter.

7. FINANCING MECHANISMS

14 CCR Section 18943(a)(7). Financing Mechanism. Include a funding mechanism that provides sufficient funding to recover, but not exceed, the cost of the carpet stewardship program, including the administrative, operational, and capital costs of the plan. The funding mechanism includes the following:

(A) A carpet stewardship assessment per square yard of carpet sold in the state, or by some other unit, as approved by the department.

(B) A budget for the program that includes revenue estimates from the assessment, full program costs, and administrative costs; including those pursuant to Section 18948 regarding service payments to the department.

(C) A requirement that any surplus funds will be put back into the program to reduce the costs of the program, including the assessment amount.

(D) An assessment amount that is sufficient to meet, but not exceed, the anticipated cost of carrying out the plan.

(E) An assessment amount that does not create an unfair advantage in the marketplace.

(F) An allocation of funds that support the solid waste management hierarchy and program goals identified in the stewardship plan.

a. Funds designated for CAAF, must be supported with documentation that provides evidence of a net environmental benefit over landfilling and that without an incentive more materials would be landfilled.

b. A carpet stewardship organization shall not expend funds from the assessment for engineered municipal solid waste conversion, as defined in Public Resources Code Section 40131.2, the use of cement kilns to burn carpet, or transformation, as defined in Public Resources Code Section 40201.

This chapter describes the funding mechanism that provides funding that is sufficient to, but does not exceed, the costs to carry out the Plan as required in Public Resources Code (PRC) Section 42972. Table 7-1 summarizes these requirements and identifies where in this Plan they are addressed.

The assessments are based on extensive modeling of program costs, inflation, new carpet sales and taking into consideration the goals stated in CalRecycle's May 2022 signed RFA.

At the outset, CARE must balance legal obligations both to budget on a five-year basis to fully fund this Plan for its full term, and to ensure assessments meet but do not

exceed the level necessary to implement the Plan. As both CARE and CalRecycle have recognized, future economic conditions and other key variables cannot be forecast with certainty at the time of Plan approval. Moreover, many years of experience under prior Plans demonstrate the need for periodic assessment increases during the life of the Plan. Just as the assessment has increased from 5 cents to 35 cents over time, assessments will almost certainly need to be higher in the later years of this Plan to account for foreseeable and unforeseeable economic and other trends, while keeping pace with the fixed annual and five-year goals in CalRecycle's May 2022 RFA.

Based on initial feedback from CalRecycle, CalRecycle will not pre-approve assessment increases to occur during the life of this Plan, in lieu of CARE approaching CalRecycle for any assessment increase as a Plan amendment after initial Plan approval. However, CARE believes that the Plan's inclusion of an estimated schedule of anticipated assessment increases will help ensure fair notice to industry and CalRecycle. Accordingly, CARE previews such a schedule within this Plan. If/when an assessment increase is necessary, CARE will submit and Plan amendment subject to Advisory Committee review and CalRecycle approval. Nor does the assessment schedule in Plan predetermine the form of or any changes to the system of differential assessments per the approach approved by CalRecycle.

The remainder of this chapter is organized as follows:

- **7.1 Program Expenditures**
- **7.2 Stewardship Assessment on Carpet Mills**

Table 7-1. Summary of Financing Mechanism Plan Elements and Plan Locations

Program Element and Plan Section	Summary
Carpet stewardship assessment per square yard of carpet sold (see **Section 7.2**)	The Program is funded by an assessment on Carpet Mills or distributors for every square yard of carpet sold in California. The assessment is collected by retailers and paid to the Carpet Mills. Mills report sales volume and pay CARE retroactively on a monthly basis commencing May 1, 2023. As of April 1, 2023, the assessments per square yard of carpet sold will increase from their starting amount in 2022 (in parentheses) to the following, pending a Plan amendment proposal and CalRecycle review and approval: • Broadloom carpet with at least 10% post-consumer recycled content (PCR) ($0.33): **$0.56** • Broadloom carpet with less than 10% PCR ($0.35): **$0.58** • Carpet tile with at least 10% PCR ($0.48): **$0.71** • Carpet tile with less than 10% PCR ($0.50): **$0.73** As described in this chapter, the Program will evaluate and adjust the differential assessment as necessary to meet Program goals.
Budget that includes revenue estimates, full program costs, and administrative costs (see **Figure 7-1**)	The Program has developed a projected budget for the 2023–2027 Plan that summarizes assessment revenue, subsidies, and incentives by recycler type, program costs, and administrative payments including to CalRecycle. The Program tracks budget to actual on a monthly basis.
Requirement that any surplus funds will be put back into the program (see **Figure 7-1**)	Surplus funds will be put back into the program. See also additional text below regarding program reserve levels.

Program Element and Plan Section	Summary
Assessment amount that is sufficient to meet, but not exceed, the anticipated costs of carrying out the plan (see **Section 7.2** and **Figure 7-2**)	The Program's financial modeling projects subsidies and program costs necessary to support the program over the five-year plan. Assessments likely will need to be adjusted in the later years of this five-year Plan, and CARE will make a formal request for a Plan Amendment.
Assessment amount that does not create an unfair advantage in the marketplace (see **Section 7.2**)	In developing the Differential Assessment, the Program incorporated this provision into its analysis, defining the assumptions, approach, and guiding principles, as follows: • Comply with all requirements of AB 729. • Work toward achievement of the May 2022 RFA goals. • Support increasing the Program's recycling rate. • Design a system that is understandable and implementable at scale. • Minimize the burden on retailers and carpet dealers. • Validate conclusions with supporting data.
Allocation of funds that supports the solid waste management hierarchy and program goals (see **Chapter 4**)	Program subsidies support reuse and recycling of PCC and use of RO as an input to various end-products. The Program does not provide subsidies for CAAF, engineered municipal solid waste conversion, the use of cement kilns to burn carpet, or transformation. In the cases in which PC4 from PCC is used by cement manufacturers, it is replacing calcium carbonate, an input to production as a raw material.
Allocation of revenues and expenditures in accordance with Generally Accepted Accounting Principles (see **Section 7.1**)	The Program maintains its accounts on the accrual basis of accounting in accordance with Generally Accepted Accounting Principles (GAAP). The Program includes annual financial statements, prepared in accordance with Government Auditing Standards (GAS), in Annual Reports.

Program Element and Plan Section	Summary
Description of how the collection and expenditure of carpet assessment funds shall be kept separate from other activities (see **Section 7.1**)	Carpet Mills report sales and will remit assessments collected from retailer/dealer sales on a monthly basis as reported to a third-party accounting firm. The funds are deposited into an escrow account. After a monthly review with the Program, the assessment funds are transferred to the California Program operating account so that funds can be used to support California carpet recycling activities.
System of Differential Assessments (see **Section 7.2**)	The Program established a system of Differential Assessments (DA) under the existing Plan that was accepted by CalRecycle and implemented in April 2022. The Program will be evaluating the DA on an annual basis. During the five-year plan, if the Program determines that subsidy changes or other changes to a particular carpet material's financial burden warrants a modification of the DA, the Program will review the DA basis. The DA may also be considered in the event that the assessment is increased or decreased to meet funding requirements.

7.1 Program Expenditures

Funds collected through the assessment are used to fund various Program resources offered under this Plan, which may include subsidies, grants, technical assistance, education and outreach, research and development, Drop-off Site collection, accounting services for routine reporting, Agreed Upon Procedures (AUPs), report preparation, special analyses, legal support for program administration, report generation, Advisory Committee expenses, and other incentives. As shown in Figure 7-1, over 80% of Program funds were distributed as recycler payments (including subsidies and/or incentives to Collector/Sorters, Processors, and Manufacturers as well as enhanced collection programs) in 2021. Figure 7-2 illustrates average program expenditures over the Plan, 2023 to 2027. Average recycler payments for enhanced collection, Collector/ Sorters, Processors, and Manufacturers are projected as 76% of Program funds over the five years.

Figure 7-1. Program Expenditures for 2021, by Category

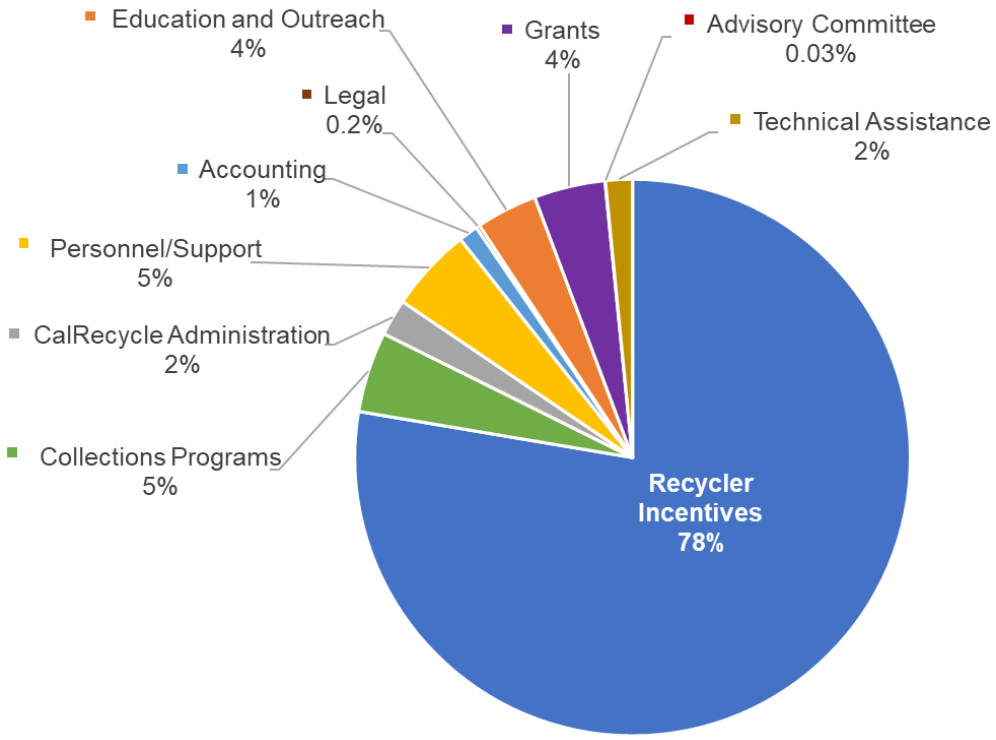
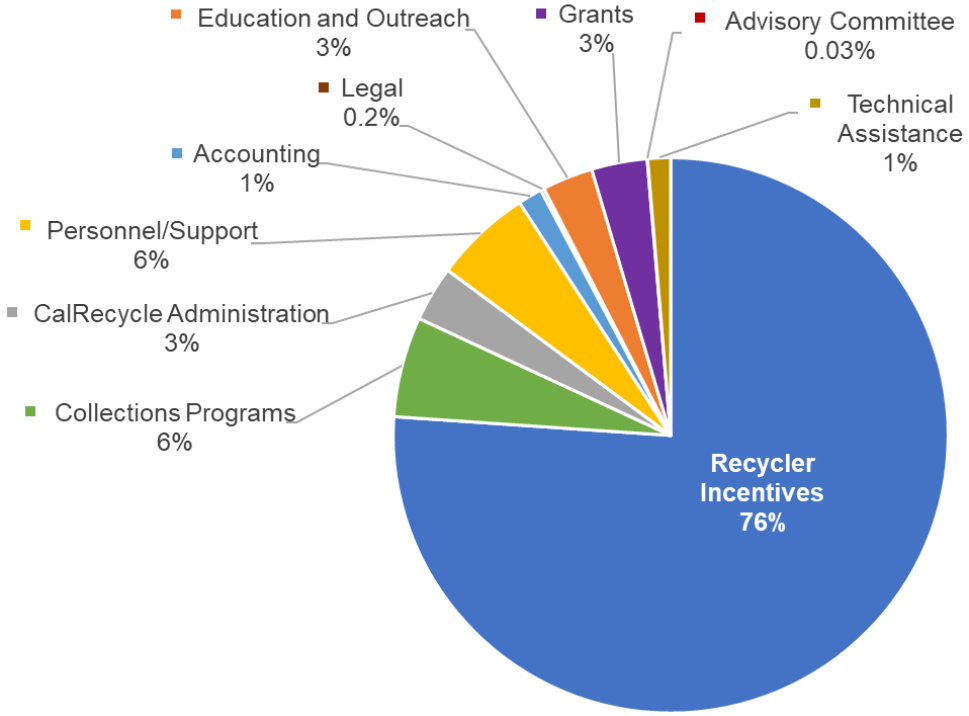


Figure 7-2. Estimated Program Expenditures for 2023–2027, by Category



Subsidies and Incentives

The Program will implement four types of subsidies and incentives: 1) base subsidies, 2) supplemental subsidies, 3) pilot subsidies, and 4) targeted collection support. Base subsidies (recycler payments) will remain the principal investment strategy to achieve Program goals and continue the 1-year notification of change provision (annual subsidies are anticipated to range from 75% to 80% of total Program expenses). Supplemental and pilot subsidies, along with targeted collection support, are meant to be shorter-term and have no notification time constraints.

The general structure of the current subsidy program has been in existence for approximately a decade and has undergone numerous fine-tuning adjustments, driven by developments in PCC recycling and fluctuating PCC market prices, while addressing ever-changing supply and demand challenges. To date, the Program has aggressively addressed the greatest need whether it was processor capacity, manufacturer demand, or acquiring enough collected PCC volume to feed the system.

In preparation of this five-year Plan, the Program evaluated the current subsidy program and alternative subsidy approaches against a set of evaluation criteria. The evaluation criteria addressed six broad categories:

- Compliance with California carpet stewardship laws and regulations and adherence to CalRecycle's May 2022 RFA goals.
- Performance, meaning ability to meet recycled output and recycling rate targets.
- Financial impact.
- Administration and enforcement.
- Policy impacts.
- Impact on competition.

The Program also identified guiding principles to further support the development and analysis of subsidies and incentives. The guiding principles are as follows:

- Meet all statutory and regulatory requirements of the California Carpet Stewardship Law and adhere to CalRecycle's May 2022 RFA goals.
- Seek to build a robust, expanding, and sustainable carpet recycling ecosystem with a focus on in-state processing capacity.
- Ensure financial stability and viability throughout the life of the Plan.
- Build resilience into the financial model.
- Endeavor to keep the Plan as simple to administer as possible, maintaining appropriate transparency and accountability.

- Maintain Program flexibility and incorporate forecasting and responsiveness to react quickly to the dynamic, and in recent times volatile, market.
- Enhance options or "levers" that allow timely responsiveness to the dynamic ecosystem in which the recycling community operates.
- Seek to advance market-based solutions and drive operational efficiencies by leveraging competitive markets and incentivizing success.
- Minimize market disruptions and unintended consequences of incentive programs.
- Seek technical and financial guidance from those who know and understand the economics, technologies, markets, supply chains, and competitive landscapes of the ecosystem.
- Make all analyses and decisions in an unbiased manner; promote a level playing field for program participants.
- Enable all engaged recyclers to participate fully and to be accountable to the Program.
- Seek to maintain a healthy and viable carpet business and industry to support the recycling program.
- Seek overall environmental improvements that align with the Program's guiding principles.

Within this Plan, it is critical to support forward-looking goals and objectives while leaving space to adapt to the unknown. The last several years have clearly illustrated the potential for volatility, technological innovation and failure, and disruption. The Program's subsidy approach for the 2023–2027 Plan provides a stable foundation to support the long-term viability of PCC recycling. The Program may also enact other creative and innovative mechanisms to further achieve the goals of the Program. These mechanisms, which will be implemented as pilot subsidies, may include the ability to implement short-term increases in subsidies to quickly adapt to market disruptions and performance incentives to reward significant increases in overall recycled output (RO) or collection. The Program may consider enacting California-specific (or California-only) subsidies for Processors or modifying subsidies for out-of-state Processors to further incentivize in-state processing. Such a decision would be based upon further analysis.

The Program will use market intelligence, and CARE's **Cost Conversion Model** and **Subsidy Justification Model** (SJM) to determine whether an event triggers significant increases in estimated costs or decreases in projected revenue that would trigger the need for short-term subsidy increases or to changes in the base or supplemental subsidies. Decisions to implement supplemental subsidies or a pilot mechanism to augment base subsidies will be made collectively by leveraging this suite of tools and using the expert judgment of the Program staff, CARE, and their independent partners.

Supplemental and pilot subsidies will be targeted to specific fiber and recycler types (Collector/Sorters, Processors, Manufacturers) as appropriate to the need. The Program will monitor economic conditions and decrease supplemental pilot subsidies, returning to the base level, when conditions stabilize. Every six months, the Program will evaluate market conditions and leverage CARE's models to determine whether a change to the base subsidies is warranted.

The Program's intent is that **base subsidies** remain stable for the first two years of the Plan, providing a consistent and reliable foundation to incentivize collection, processing, and manufacturing end products with PCC. The Program established the base subsidies, as defined in Table 7-2, at values that have proven to provide adequate levels of incentive to meet Program goals. The Program will provide a one-year notification before making changes to the base subsidy levels.

To provide additional flexibility, the Program will implement **supplemental subsidies** to address specific market needs. The supplemental subsidies shown in Table 7-2 were added to address market conditions and/or the extreme volatility of 2020 and 2021. They are consistent with the subsidy levels that have been in place since April 2020, when the Program implemented supplemental payments in response to the COVID-19 pandemic (except for the Carpet Tile subsidies, which were modified as part of a carpet tile pilot program effective on April 1, 2021). At the time this Plan is being written, the Program will maintain the supplemental subsidies (formerly COVID-19 subsidies) in 2023. However, the Program may modify to supplemental subsidies based on market and financial conditions. Changes in supplemental subsidies will not be subject to the 12-month advance notice. The Program will endeavor to provide at least 60 days' notice for changes to supplemental subsidies but may shorten this time period if more immediate changes are warranted.

Pilot subsidies are intended to test new subsidy mechanisms for specific collection, processing, or manufacturing needs and/or specific fiber types. They are intended to be relatively short-term in order to determine effectiveness, at which time the Program will reevaluate the need for the pilot. The Program will extend the carpet tile pilot subsidy shown in Table 7-2 through 2022; however, the Program will reconsider an alternative structure once this pilot phase is complete. Changes in pilot subsidies will not be subject to a 12-month advance notice. The Program will endeavor to provide at least 60 days' notice for changes to pilot subsides but may shorten this time period if more immediate changes are warranted.

Targeted collection support subsidies, budgeted at up to $2.5 million per year, will be utilized by the Program to support expanded collection efforts as described in the Collection System chapter. The Program expects that additional resources in support of collection will be needed to ensure an adequate supply of PCC to meet the collection and RO goals outlined in CalRecycle's May 2022 RFA.

Table 7-2. Recycler Base and Current Supplemental/Pilot Subsidies (per pound)

Subsidy Category	PET	PP	Nylon 6	Nylon 66	Other Broad-loom	Carpet Tile	Other
Collector/Sorter Broadloom, Shipped (Base)	$0.02	$0.02	$0.02	$0.02	$0.02	NA	NA
Collector/Sorter Broadloom, Shipped (Supplemental)	$0.02	$0.02	$0.02	$0.02	$0.02	NA	NA
Collector/Sorter Broadloom, Reused (Base)	$0.10	$0.10	$0.10	$0.10	$0.10	NA	NA
Collector/Sorter Carpet Tile Reuse or Recycling, Shipped (Base)	NA	NA	NA	NA	NA	$0.15	NA
Collector/Sorter Carpet Tile Reuse (Pilot)	NA	NA	NA	NA	NA	$0.20	NA
Processor Type 1 RO (Base)	$0.10	$0.10	$0.10	$0.10	$0.10	NA	NA
Processor Type 1 RO (Supplemental)	$0.05	$0.05	NA	NA	NA	NA	NA
Processor Highest Recyclability	NA	NA	$0.05	$0.05	NA	$0.05	NA
Processor PC4 as Raw Material (Base)	NA	NA	NA	NA	NA	NA	$0.17
Processor Carpet Tile Recycled (Base)	NA	NA	NA	NA	NA	$0.10	NA
Processor Carpet Tile Recycled (Pilot)	NA	NA	NA	NA	NA	$0.20	NA
Manufacturer, RO Utilized (Base)	$0.25	$0.25	$0.10	$0.10	NA	NA	NA
Manufacturer, RO Utilized (Supplemental)	NA	NA	$0.15	$0.03	NA	NA	NA
Manufacturer, Pellet Subsidy (Base)	$0.11	$0.05	NA	NA	NA	NA	NA

Table Notes: “Other Broadloom” includes wool and other mixed fibers.

Highest Recyclability Incentives

Public Resources Code Section 42972(a)(4) includes the Highest Recyclability provision: "Any grants or subsidies provided for the recycling of post-consumer carpet shall be structured to incentivize the recycling of carpet materials that have the highest recyclability." The enabling statute did not define Highest Recyclability, nor did any regulation. The 2018–2022 Plan developed a definition of Highest Recyclability, with input from CalRecycle, the Advisory Committee, and outside experts. The definition and accompanying Highest Recyclability Criteria table were approved by CalRecycle and incorporated as Table 6 in the 2018–2022 Plan (page 116).

The Program has analyzed the Highest Recyclability definition, implications, and subsidy level for this category. The current system is working well and complies with the statutory requirement. Thus, no changes are recommended as part of this new Plan. The complete description outlined in the prior 2018–2022 Plan is incorporated by reference into this new Plan without modification. The existing Highest Recyclability incentives are $0.05 per pound subsidy paid to Tier 1 Processors on Nylon 6 and Nylon 66 Recycled Output. The Highest Recyclability Committee will meet periodically (no less than biennially) to further refine the criteria and evaluation of Highest Recyclability as technology and markets evolve.

Program Administrative and Capital Costs

Program administration and capital costs include grants, technical assistance, education and outreach, research and development (R&D), Drop-off Site collection, accounting services for routine reporting, Agreed Upon Procedures (AUPs), report preparation, special analyses, legal support for program administration, or other incentives. These are in addition to recycler payments, which make up the majority of expenditures. Program investment areas included in the budget are described below:

- **Staffing, technical assistance, and administration** is an essential investment area to support successful implementation of all strategy areas adopted under this Plan (anticipated to range from 5% to 10% of total expenses).
- **Grants and R&D** have proven to be an important activation incentive in expanding capacity, developing new recycled products and technology innovations, improving collection/reuse, and supporting other goals under this Plan (anticipated to range from 3% to 5% of total expenses).
- **Collection** supports Drop-off Site subsidized service for California counties in line with convenient collection goals as well as **additional $2.5 million per year** for direct support of collection programs through recycler and other incentives (see Chapter 5) to help achieve the 2023 through 2027 collection rate goals (anticipated to range from 10% to 13% of total expenses).

- **Education and Outreach** (E&O) activities increase awareness and encourage participation among the wide variety of audiences across all Program goals. In accordance with Advisory Committee recommendation since February 2018, the Program will limit E&O expenditures to a maximum of approximately 3% to 3.5% of the total annual budget.
- The **CalRecycle administrative fee** is established by legislation (it is anticipated that this fee will remain at a relatively constant dollar amount over the Plan, although it may constitute a smaller percentage of the overall budget over time as the fund increases with higher assessment levels).
- **Legal/Accounting** (inclusive of audits) and related administrative oversight is expected to represent the smallest portion of the budget (historically less than 2% of total expenses).

The budget, summarized in Table 7-3, provides estimates by budget category for the term of the Plan. The Program retains the ability to shift budgeted dollars between line items based on total available funds and Program priorities. As market conditions change, subsidies may change as needed to achieve Program goals throughout the Plan term. The Program will target building to a reserve sufficient for CalRecycle to carry out the activities in the plan for up to one year in the event of plan termination or revocation. This reserve enables the Program to deploy more funding to achieve the goals of the Program while maintaining an adequate risk control reserve. Table 7-4 provides a summary of projected carpet sales and resulting key metrics required to meet annual collection and recycling goals over the five years of the Plan.

The figures in Tables 7-3 and 7-4 are based on: 1) meeting the May 2022 RFA goals, 2) projections of 70.6 million pounds of RO in 2022 and 62 million square yards of carpet sales in 2022, 3) a reduction in carpet sales of 32% between 2022 and 2027, and 4) a consistent mix of PCC fiber types between 2021 and 2027. These projections reflect mid-year 2022 carpet sales and RO results, and carpet sales trends consistent with historical data. These budget projections serve as a starting point for the Plan. The Program will report on actual revenue and expenditures in the Annual Report and will update the budget projections to financial and market conditions.

Uncertainty Factors

The broad economic and social disruptions of the last two years highlight the significant uncertainty that is inherent in projecting revenues and expenditures over the next five years. There are several known variables that could impact the Program through 2027 and beyond, and correspondingly the feasibility of attaining CalRecycle's May 2022 RFA goals. Similar to CARE's rapid response to COVID-19 disruptions, the Program will closely monitor and respond to conditions, as warranted, to maintain progress toward the May 2022 RFA goals. The Program's responses could include, but are not limited to, actions such as: increased or decreased assessments, increased or decreased

subsidies, enhanced technical or logistical support for recyclers, and special research studies or analyses.

As CARE has explained to CalRecycle previously through written comments and numerous conversations, it may be impossible for any stewardship plan to feasibly achieve CalRecycle's numerous new RFA goals. CARE has serious concerns about the manner in which the various RFA goals were adopted, and about the lack of supporting evidence or analysis. CalRecycle did not respond to concerns raised in comments, and adopted its proposed RFA goals without any changes. Accordingly, there exists no opportunity to submit a proposed Plan containing different goals. Yet CARE is compelled to take into account the myriad factors influencing carpet recycling that are beyond CARE's control, such as inflation, an ongoing pandemic, declining sales, and supply chain issues.

One key factor that will affect this Plan is the continued projected decline in carpet sales in California. The carpet-recycling infrastructure is funded by an assessment on the sale of new carpet, and declining sales results in less revenue to run the program and less available feedstock for recyclers in the future. This sets up a situation where increased assessments drive sales declines which means less carpet available to feed processing operations, necessitating another increase in assessments.

Recyclers have also expressed concern about the availability of feedstock to support the mandated growth in collections and associated recycling rate. Independent economic experts likewise have cast doubt on achieving success of the RFA goals. The recent closing of Aquafil's Woodland facility underscores that the recycling market in California is fragile and subject to disruptions that are beyond CARE's control.

Specific uncertainties include but are not limited to the following:

- The economy remains in uncharted territory related to inflation, oil pricing, supply chain disruptions, and the ongoing impacts of COVID-19.
- Advances in carpet recycling technology or recycling techniques may have a material impact on current market dynamics.
- Conversely, failures in specific carpet recycling technology or recycling techniques, or bankruptcies of carpet recycling entities in California, may create market shocks and cap short-term carpet recycling capabilities.
- Within two to four years, chemical recycling could become viable at large scale and dramatically increase demand for recycled plastic, including PCC (in the range of hundreds of millions of pounds).
- Changing dynamics and demand could lead large resin manufacturers to respond to reduced demand for virgin resins by lowering the price of virgin materials relative to recycled plastics, disrupting current demand for recycled plastics.

- Market volatility could increase the cost-revenue differential between PCC and alternatives, reducing the demand for PCC or requiring large increases in subsidies. The current funding mechanism assumes that current subsidy rates are sufficient to support the growth of recycled output to the forecasted rates in the following table.
- Labor shortages and higher operating costs due to inflation could result in significant increases in recyclers' operating costs, requiring large increases in subsidies. This may result in economic challenges for individual recyclers based on each recycler's unique cost structure.
- Higher assessment levels could lead to significant reductions in sales of carpet, particularly of lower-price carpet for multi-family residences, reducing the carpet available for collection and recycling, and further hampering attainment of CalRecycle's May 2022 RFA numeric goals.
- The proposed Plan anticipates a 32% reduction in sales over the five years of the Plan through 2027.
- Impact of international recycling efforts to drive acceptance of post-consumer content products.
- Impact of the Russian invasion in general or dramatic increases in energy prices.

Nevertheless, CARE is committed to meeting statutory requirements and achieving the CalRecycle May 2022 RFA goals reflected in this Plan. Our track record of steady growth in the Recycling Rate over the last 6 plus years and the fact that CARE will meet all program targets for 2022 further proves that commitment. CARE looks forward to a productive working relationship with CalRecycle in implementing this Plan which represents the best plan for success based on months of modeling, discussions, feedback, and analysis.

Table 7-3. Carpet Stewardship Program Budget, 2021 Actual and 2022–2027 Forecast (in thousands of dollars)

Budget Components	2021	2022	2023	2024	2025	2026	2027
Annual Recycling Rate Goal	27.9%	30%	31%	34%	37%	41%	45%
Beginning Fund Balance	$18,387	$12,148	$4,672	$2,757	$12,024	$18,272	$18,377
Carpet Sales (thousand square yards)	67,340	62,020	57,679	53,641	49,886	46,095	42,407
Assessment Revenue	$23,545	$22,766	$31,623	$43,222	$40,196	$33,915	$31,202
Total Expenditures	$29,802	$30,252	$33,538	$33,955	$33,949	$33,810	$33,626
Ending Fund Balance	$12,148	$4,672	$2,757	$12,024	$18,272	$18,377	$15,953
Recycler Incentives (total)	**$23,142**	**$23,019**	**$25,536**	**$25,881**	**$25,834**	**$25,653**	**$25,426**
Collector/Sorter Subsidies	$3,093	$3,827	$4,009	$3,968	$3,926	$3,884	$3,842
Processor Subsidies	$9,339	$9,306	$9,250	$9,153	$9,055	$8,958	$8,860
Processor Highest Recyclability Subsidies	$1,099	$1,285	$1,271	$1,258	$1,245	$1,231	$1,218
Tier 2 Manufacturer Subsidies	$9,609	$8,602	$8,506	$9,002	$9,109	$9,080	$9,006
Collection Support (expanded)	$0	$0	$2,500	$2,500	$2,500	$2,500	$2,500
Program Administration (total)	**$6,660**	**$7,233**	**$8,002**	**$8,074**	**$8,114**	**$8,156**	**$8,201**
Collection Programs (Drop-off Sites)	$1,398	$1,825	$1,980	$1,980	$1,980	$1,980	$1,980
CalRecycle Administration	$635	$930	$1,190	$1,143	$1,120	$1,097	$1,074
CARE Administration	$47	$67	$48	$52	$54	$57	$59
Personnel/Support	$1,411	$1,466	$1,719	$1,802	$1,849	$1,897	$1,946
Accounting	$335	$379	$441	$467	$481	$495	$511
Legal	$65	$65	$70	$70	$70	$70	$70
Advisory Committee	$7.5	$6	$10	$10	$10	$10	$10
Education & Outreach	$1,062	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Grants	$1,235	$1,047	$1,100	$1,100	$1,100	$1,100	$1,100
Technical Assistance	$465	$448	$445	$450	$450	$450	$450

Table Notes: *Collector/Sorter Subsidies* line includes all carpet tile subsidies. *Personnel/Support* includes salaries and benefits, professional services, and travel.

Table 7-4. Summary of Projected Carpet Sales and Key Metrics (in thousands)

Category	2023	2024	2025	2026	2027
Carpet Sales (square yards)	57,679	53,641	49,886	46,095	42,407
Discards (pounds)	202,383	188,216	175,041	161,738	148,799
Gross Collection (pounds)	93,453	92,469	91,486	90,502	89,518
Recycled Output (pounds)	69,903	69,167	68,431	67,695	66,960

7.2 Stewardship Assessment on Carpet Mills

This Plan includes funding amounts that are projected to provide sufficient funding to carry out the Program, including the administrative, operational, and capital costs of the Plan; payment of fees; and subsidy and incentive payments that will advance the objectives of Carpet Stewardship Law. CalRecycle's review of CARE's submitted annual reports has confirmed the propriety of the assessments to date. The Program has consulted with the flooring industry to best ensure, pursuant to PRC Section 42972(c)(2), that the amount of the fees described in this Plan does "not create an unfair advantage in the marketplace."

Reserve Funds

The Plan provides for a significant level of increase in the assessment to fund recycled output, reserve, and program growth as dictated by market dynamics. As such, this Plan is fully and aggressively funded pursuant to Carpet Stewardship Law. The Program will continue with its monthly monitoring of financial performance. If any unanticipated funding concern arise in the future, the Program will meet with CalRecycle to discuss an appropriate plan of action.

Pursuant to the March 2023 signed RFA:

a. CARE will update its reserve policy to assure uninterrupted implementation of the plan, including assuring the reserve amount is sufficient for CalRecycle to carry out the activities in the plan for up to one year in the event of plan revocation or termination.

b. CARE will commit to achieving the increased reserve level by the end of the fourth quarter of 2025 (i.e., December 31, 2025), which is inclusive of mill assessment remittances for the fourth quarter of 2025.

c. CARE will commit to providing quarterly updates regarding its reserve level to CalRecycle (e.g., in quarterly reports). CARE will demonstrate by March 31,

2026, via its quarterly report for the fourth quarter of 2025, that it has achieved the required reserve level.

Consistent with the direction from CalRecycle, CARE will achieve a reserve by December 31, 2025, that amounts to six months of average program costs. CalRecycle has directed that CARE may not incorporate future assessments into the Plan for automatic implementation. For 5-year budgeting purposes and to demonstrate the Plan is adequately funded and the reserve level is met, CARE has shown possible future assessment adjustments. Based on required quarterly updates, when the time becomes apparent that an assessment adjustment is warranted, CARE will follow the approved protocol for submission of such requests.

Since the Program launched in 2011, retailers and dealers have been partners in helping California achieve its carpet recycling goals by collecting and remitting the Carpet Stewardship Assessment. For retailers or dealers, the assessment is charged by the Carpet Mills as an after-tax line item on all invoices for carpet sold or shipped into California. In turn, retailers and dealers are responsible for including the assessment as an after-tax line item on all consumer invoices for carpet sold in California at the point of sale. Carpet Mills have historically remitted the assessments collected from retailer/dealer sales on a quarterly basis to a third-party accounting firm. Beginning in May 2023, remittances will shift to a monthly schedule. Upon receipt, the Program manages these funds to support recycling of post-consumer carpet. When retailers and dealers pay Carpet Mill invoices that include this assessment, retailers and dealers are doing their part in remitting the assessment.

Differential Assessment

In adherence to the statutory requirements of California Assembly Bill 729, the Program engaged in a process to evaluate and design a system of Differential Assessments (DA). The Program first submitted a DA Approach report to CalRecycle in June 2021, a revised report in October 2021, and a subsequent required revision again in February 2022. The final approved Differential Assessment Plan was signed by CalRecycle in April 2022, with the initial approved system of Differential Assessment, implemented starting April 1, 2022. The DA Plan describes the guiding principles, data, assumptions, modeling, and validation process used to develop the Differential Assessment. In April 2023, the Program increased the Differential Assessments, as illustrated in Table 7-5.

In developing the 2023–2027 Plan, the Program determined that the April 1, 2023, increase in Differential Assessment amounts was not adequate to support the Program over the five-year planning period. The Program expects that differential assessments will increase again pending the revised analysis as required by CalRecycle. Accordingly, the Plan will include an updated system of Differential Assessments amounts using the DA modelling approach, intended to cover Program expenditures as required through 2027.

Table 7-5. Differential Assessment as of April 1, 2023 (per square yard of carpet sold), Pending Plan Amendment Proposal and CalRecycle Review and Approval

Carpet Material	10% or More Post-Consumer Content	Less than 10% Post-Consumer Content
Broadloom Carpet	$0.56 per square yard	$0.58 per square yard
Carpet Tile	$0.71 per square yard	$0.73 per square yard

Beginning in 2026, the Program will establish an annual (or more frequent, if necessary) process to review and update, as needed, the Differential Assessment amounts as market conditions and subsidies change. The Program will conduct an analysis of lessons learned based on the first year of implementing the approved system of Differential Assessments. Furthermore, the Program will also undertake an annual review of the cost burden analysis as it relates to DA. Based on lessons learned through the early implementation stages, the Program may adjust the review process.

In addition, the Program has adopted a schedule to evaluate and update, as needed, its system of Differential Assessments, considering additional factors such as face fiber types, to accurately align the assessment levels with the financial burden various carpet materials have on the program. An automatic evaluation of the system of DA will be triggered in the event that a change in subsidies results in a $0.10 or greater subsidy per pound difference between particular carpet materials. The evaluation will occur in conjunction with the activity above regarding DA amounts. Any change less than $0.10 per pound will not require a reevaluation or change in the DA.

Consistent with the **Differential Assessment Approach** document submitted in February 2022, the Program has committed to the following actions:

- **Implement the initial differential assessment system** effective April 1, 2022. (This action was completed as scheduled.)
- **Commence the first annual review** of the DA program in 2023. The results will be reported in the next Annual Report.
- **Adopt a schedule to evaluate and update**, as needed, its system of differential assessments, considering additional factors such as face fiber types, to accurately align the assessment levels with the financial burden various carpet materials have on the program.

The preliminary schedule is as follows:

- Implement differential assessment system by April 1, 2022 (completed), with updated differential assessments implemented on April 1, 2023, per direct order from CalRecycle.
- Monitor rollout and develop lessons learned in the execution of differential assessments in the marketplace and seek retailer and mill feedback (2022–2023).

- Revisit prior work on other differential assessment factors for background; update prior models taking into account 2021–2022 results and current market trends, pricing, and supply chain dynamics; and issue annual report on implementation analysis (2023).
- Develop updated proposal for differential assessment model for implementation, and seek input from Advisory Committee and CalRecycle (2023).
- Create proposed rollout plan for incorporation into revised 2023 Plan document for submission, and seek approval by CalRecycle (2024).
- Tentative implementation of updated differential assessments, and annual review will commence (2025).
- In the event a change in assessment is required, CARE will make every effort to follow the typical 90-day notification cycle. However, in the event of unusual circumstances, CARE may choose at its discretion to implement an approved assessment change in a shorter timeframe, such as 30 to 60 days.

The Program anticipates additional assessment adjustments during the 2023–2027 Plan if warranted by future performance and economic conditions. These adjustments will be based on the Differential Assessment reviews described above. The Program will follow required notification and Plan amendment approval requirements for adjusting the assessment.

The Program reserves the ability, in consultation with CalRecycle, to modify the schedule as the work evolves. This schedule assumes approval of the new Plan in spring 2023, a stable economy, and a return to normal operations as the pandemic abates and contingency plan terminates. Any discontinuities may impact the timeline. The Program will submit a written request and justification to CalRecycle for approval of any modifications to the schedule if deemed necessary.

Coverage of Costs

The Program's financial modeling projects subsidies and program costs necessary to support the Program over the five-year Plan. The estimated schedule of assessments modeled herein are expected to cover program costs over the full five years, based on achieving a 45% recycling rate by 2027, and targeting a reserve of 6 months, on average, achieved by December 31, 2025. The reserve will fluctuate as a result of the changes in carpet sales, program expenses, and market uncertainties.

The fund coverage ratio is a comparative tool to confirm whether the assessment can fund the Program's planned recycling goals and reserve requirement through 2027. The fund coverage ratio provides an assurance that the Program has the necessary funds on hand to weather any short-term economic volatility. For example, if the fund has a fund coverage ratio of 1.5, then this means the fund has 150 percent of the

necessary funds to cover its expenditures. The fund coverage ratio is calculated as follows:

$$\textit{Fund Coverage Ratio} = \frac{\text{Fund Beginning Balance + Revenues}}{\text{Divided by Expenditures}}$$

Figure 7-3 and Figure 7-4 illustrate the Program's projected fund coverage ratios and fund reserve balance from 2022 through 2027. The planned fund coverage ratio, after December 31, 2025, is 1.5, demonstrating that the assessment levels, as provided in Table 7-5 and subsequent adjustments to be determined, will provide adequate coverage of the projected Program expenditures necessary to achieve a 45% recycling rate and to meet the reserve requirement. The Program tracks costs on a detailed monthly basis, by individual recycler and subsidy category, and has the ability to examine trends with sufficient lead time to make adjustments if needed.

Figure 7-3. Projected Fund Coverage Ratio, 2022–2027

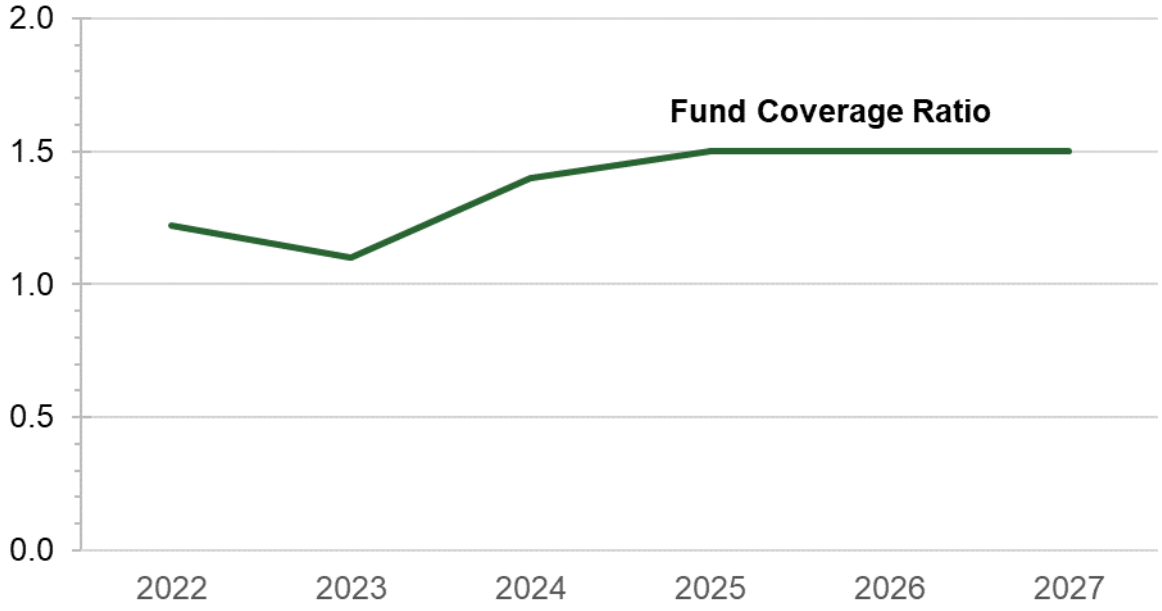
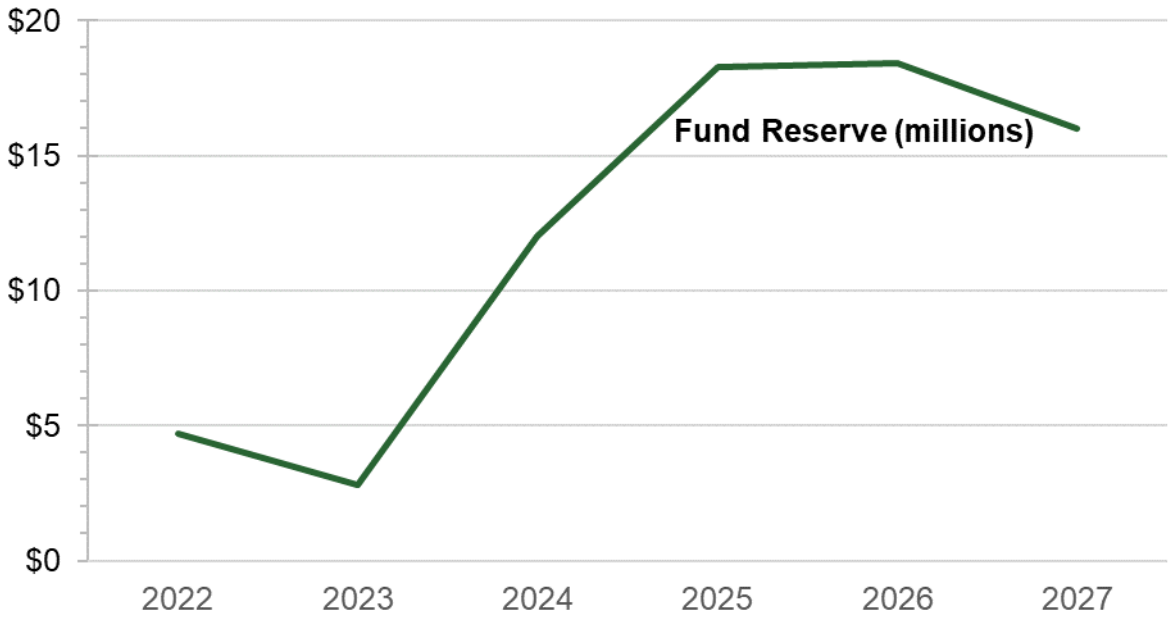


Figure 7-4. Projected Fund Reserve Balance (millions), 2022–2027



8. EDUCATION & OUTREACH

> **14 CCR Section 18943(a)(8). Education and Outreach.** Include education and outreach efforts to consumers, commercial building owners, carpet installers, and retailers to promote their participation in achieving the purposes of the carpet stewardship plan. The description shall include how the outreach and education methods will be used and distributed, and how effectiveness of these activities will be measured. Educational information may include, but is not limited to, signage, written materials, advertising or other promotional materials pursuant to Section 42972(a)(5).

The Education and Outreach (E&O) portion of this Plan builds on the assets and learnings of prior years. With the Program's public Drop-off Sites now available in every county, more attention can be given to statewide outreach. Another expanded effort will be reaching new property owners and beginning work on commercial outreach, as commercial broadloom and tile can now be processed for recycling. Outreach to the general and subcontractor audience must also be expanded based on previous efforts and the need to grow collections. (These activities are also referred to as MEO, for marketing, education, and outreach.)

All marketing and outreach tactics are directly related to supporting the Program's operational goals. For marketing and outreach to work, the infrastructure of convenient collection must be in place, and the economics must also favor recycling (over disposal). Convenient and economical collection options must be in place for outreach efforts to increase carpet collection and be effective.

Guiding strategies for the Program's E&O efforts include the following:

- Conducting baseline and ongoing measurements of awareness and behavior, with particular attention to identifying and addressing barriers.
- Multi-touch campaigns to reach target audiences with a consistent message multiple times to increase the likelihood of message awareness and retention.
- Combining one-on-one contacts with digital, print, and social media content.
- Connecting marketing metrics (hits, reach, uptake of calls to action) to the operational goals of increasing collection, recycling, recycled output, and more.
- Expanding and developing target audiences as new initiatives warrant, including new subsidies, products, services, and grant programs.
- Coordinating with partners to broadcast messaging through trusted sources, such as Fuse Alliance, CCA Global, and Starnet for the flooring industry.

- Coordinating concentrated outreach targeted where and when new collection points come into service.
- Now that collection and recycling opportunities have expanded to cover every county in the state, promotion efforts can expand to statewide campaigns.

At the heart of E&O efforts is the creation and maintenance of a database of stakeholders, housed in a customer relationship management (CRM) platform that allows the tracking of contacts, collateral and other communication sent, survey and research results, reporting over time, and changes in behavior. This chapter includes the following sections:

- **8.1 E&O Audience and Budget**
- **8.2 How E&O Supports Program Goals**
- **8.3 Audience-Specific Education and Outreach**
- **8.4 Multi-Audience Tactics and Ongoing Efforts**
- **8.5 E&O Evaluation Metrics**

8.1 E&O Audience and Budget

This Plan continues education and outreach efforts to retailers, commercial building owners and managers, flooring installation contractors, Drop-off Sites, reuse outlets, local government, manufacturers, and consumers to promote their participation in achieving the Program's overall goals. E&O funding will remain relatively steady at $1.2 million annually, or about 3.6% of the Program's total budget.

The primary goals for education and outreach are to:

- Establish and maintain communication/education networks and channels among key target audiences—flooring retailers and installers for both hard and soft surfaces, collection sites, commercial building owners, property managers, and local government—to encourage more carpet collection and recycling.
- Raise positive awareness of CARE, the California Carpet Stewardship Program, and Carpet Stewardship Law.
- Increase and measure compliance with requirements of Carpet Stewardship Law among retailers and other stakeholders.
- Conduct surveys and outreach to provide data and analytics to aid program analysis, strategy, and reporting.

8.2 How E&O Supports Program Goals

Increased Recycling and Reduced Disposal

To increase the **recycling rate**, several audiences need specific kinds of outreach, including flooring retailers, collection sites, flooring installers, and commercial contractors. Additional audience-specific information is included in Section 8.3.

Flooring Retailers

The California flooring retailer universe includes both hard-surface and soft-surface retailers, totaling 2,372 in 2022. The Program provides retailers with information through one-to-one and mass communication channels on recycling opportunities that are convenient and affordable in order to increase collections. The message is repeated many times and in different ways to reach business owners who are often facing many other challenges. The Program also provides one-on-one contacts about assessment compliance.

Collection Sites

Increasing the number of Drop-off Sites and improving how they communicate helps audiences know where the sites are and how to use them, thus reducing disposal and increasing recycling. The Program currently supports each new Drop-off Site with signage and customized, bilingual flyers to distribute to installers and others who will bring carpet to the site. The Program maintains a **Drop-off Site Services** page on its website that includes site procedures, reporting requirements, recordings of past webinars, and resources for promotion of Drop-off Site services, such as press release templates, sample social media posts, and signage examples. The Program also holds quarterly webinars for Drop-off Sites to introduce new and innovative program ideas, help sites with troubleshooting, recognize high-performing sites, and more. Drop-off Sites will also be informed of incentives where applicable.

Flooring Installers

Flooring installers are a key audience for increasing the amount of carpet collected in California. The Program commits to spending at least 10 percent of the E&O budget on installer outreach in each year of this Plan. It is challenging to reach this highly mobile audience that is largely unreachable via mass media such as newsletters or ads. The Program focuses on trainings, in-person tabling where installers purchase carpet and supplies, direct mail, and encouraging word-of-mouth to spread the word about carpet recycling. To further understand this group's needs and challenges, Program staff will consult with a committee of professionals to advise on best practices for communicating with this difficult-to-reach audience.

CARE learned early on through in-person installer tablings that there is a large population of Spanish speaking installers in the industry. From the get-go we have created installer sheets with English on one side and Spanish on the other for each drop-off site to distribute. CARE also has a Spanish version of its original installer video, created five years ago with 180,000 views in Spanish and 254,000 views in English. CARE also fulfilled a request from Kiefer NARS in 2018 to create Russian language drop-off signs and will continue to meet the specific language needs of stakeholders. For the installers audience, language will be kept simple, clear, and concise for this audience, and will rely on imagery to assist in relaying the message.

Commercial Contractors

Several recyclers can now accept commercial broadloom and carpet tile in the state for recycling and reuse. Building on the model of outreach to the C-15 list of licensed carpet installers, the Program will work with the state's list of approximately 1,700 C-21 Building/Moving Demolition Contractor licensees available from the Contractors State License Board to increase collection and recycling of commercial carpet as a new initiative. As noted earlier, commercial carpet, both broadloom and tile, run at a reduced processing speed and produce less yield, thus have negative economic consequences for recyclers.

Installer Training

Carpet Stewardship Law mandates that the Program provide incentives or grants to state-approved apprenticeship programs for training of apprentice and journey-level installers in proper carpet recycling practices. The Program will dedicate up to $100,000 annually to installer grants and incentives for training programs to train carpet installers in proper carpet recycling practices to be implemented by approved apprenticeship and journey-level training programs or other appropriate organizations. In addition to the grant program, E&O will provide additional support as needed through the production of training materials, videos, and other materials that are needed to meet Union training needs. These installer apprentice and journey-level training programs are also eligible to apply for up to $15,000 per year per entity for equipment or infrastructure to enable carpet collection for recycling, reuse, or both.

Market Development

Increasing recycled output involves supporting the efforts of the market development and grant programs of the California Carpet Stewardship Program. Market development for the Program consists of supporting the creation of more products using recycled carpet or a higher percentage of PCC used in existing products and increasing awareness and demand for these products through avenues such as the CARE Product Catalog.

The Program's strategy around **market development** focuses on supporting and increasing the number of Processors that take post-consumer carpet and manufacturers that make it into useful products, including more carpet and padding as well as products such as insulation, plastic lumber, automotive parts, etc. E&O supports product testing and capital improvement **grant programs** with stakeholder communication via media releases, email, website content, case studies, presentations, and handouts. The Program will continue to provide handouts and other support for Program staff attending conferences such as GreenBuild and CAPPO. The Program will continue to offer business and marketing assistance to support grantees. Relevant efforts include the following:

- Promote the adoption of environmentally preferable purchasing (EPP) policies for local governments and businesses and promote procurement of recycled-content and recyclable carpet products through a continuation of the collaborative product presentations with CalRecycle.
- Update annually the Program's consumer-facing recycled products web portal.
- Further develop "Buy Recycled" campaign and online resources to promote available products.
- Attend all pertinent conferences and tradeshows which promote green building practices.

In addition to building on past efforts, the Program will focus on promoting higher end uses for post-consumer carpet materials. The E&O team will promote grant opportunities, requests for proposals, and new product news to build awareness and encourage interaction.

8.3 Audience-Specific Education and Outreach

Audience-specific education and outreach will be targeted to each stakeholder group and may include such tactics as those listed below, but not limited to, the following examples presented in each category. Precise tactics may be modified over the course of the term to meet evolving program needs and respond to changing market conditions.

A large amount of outreach messaging includes twin goals of increasing collection while decreasing/preventing contamination. Contamination prevention and collection expansion (how to for new and existing sites) is a primary message for all outreach to flooring contractors (including Union apprentices and journeymen) and public drop-off sites; outreach to these two audiences constitutes approximately 25% of the marketing, education, and outreach budget ($275,000 budgeted in 2022). Surmounting operational barriers (primary challenges include space, expense of labor and liability issues) are

addressed in Chapter 5 (*Collection System*) of the Plan and elsewhere in the CARE budget, such as in grants and operations. Examples include:

- All Drop-off Site collateral (maps, signage, handouts) includes instruction on keeping carpet dry and debris-free.
- Videos focused on flooring contractors include education and examples of contamination to avoid, while explaining that wet or smoke-contaminated carpet cannot be recycled and should not be included in recycling, as do the union training materials (presentation and video). CARE promotes installer video views via online advertising; installer videos on the CARE YouTube channel (in Spanish and English) have received over 430,000 views since inception five years ago.
- Anti-contamination messaging plays a part in other budget categories. For example, during regional mass media efforts, “Carpet must be dry and debris-free” is included in advertising and on website landing pages.

Retailers

- Ongoing retailer contacts through one-to-one outreach calls and direct mail. Prioritize areas where there are new collection sites or collection services available. Include regular compliance reminders.
- Inform about changes to the carpet Differential Assessment and its impacts.
- Reassure retailers that the assessment money is going to promote the recycling system in the state and inform of its results.
- Confirm that recycled carpet is made into useful new products.
- Research and engage new retailers.
- Offer specialized collection services to retailers outside of proximity targets.
- Promote grant funding for collection and reuse among retailers who could benefit from equipment such as onsite collection containers, portable loading docks. weather covers, and small trailers for source separation at job sites.
- Survey high-volume and big box retailers to understand waste flow and barriers to improvement.

Installers

To reach Installers, the Program will conduct the following efforts:

- **Continue outreach to all licensed installers.** Using the state's list of C-15 licensees, the Program will send regular direct mail reminders on the benefits of collection for recycling to approximately 7,000 flooring and floor covering contractors. Various formats will be tested. The Program will regularly download the state's refreshed list to reach current licensed general and subcontractors. Outreach to general and subcontractors is a new initiative.
- **Expand work with the flooring installers union**, comprising DC 16 in northern California and DC 36 in the southern part of the state, offering micro-grants, train-the-trainer sessions, and educational materials. The Program has created a training video with an accompanying quiz to inform both apprentice and journey-level installers of the details of how and why to recycle broadloom and carpet tile. The training video can be used to introduce and refresh union members' understanding and practice of carpet recycling. Program staff will offer regular "train-the-trainer" refresher courses on-site at the Union offices.
- **Hold regular tabling events at training centers** for apprentice and journey-level installers and will consider reimbursing event costs incurred by centers, which intend to draw in apprentice and journey-level installers for training. The E&O budget dedicates at least 10 percent of its resources to installer training and outreach.
- **Work with retailers** to enable them to communicate recycling options and incentives to their contractors. Regular retailer communications (described above in the *Retailers* section) will include information along with grant- and location-based incentives to encourage their flooring contractors to recycle all carpet removed, regardless of whether it is being replaced by carpet.
- **Raise public awareness to encourage consumers to ask their contractors** to recycle the carpet. The Program will empower consumers with the information and reasons for recycling to build "bottom-up" pressure on installers to choose recycling. Consumer outreach efforts are described below.

Consumers

Outreach to consumers is most effective when they are at the point of replacing or purchasing residential carpet. The Program will continue to use standard mass media tactics to reach this audience at the most effective point, including but not confined to:

- Search engine advertising, targeting keywords that go with home renovation or purchase. This may include information for real estate brokers. This is a new initiative.

- New consumer-facing website landing pages.
- Advertising and advertorials in appropriate sections of mainstream media outlets.
- Outdoor advertising (billboards).
- Consumer-facing information for home and garden shows.
- Social media, including video creation and distribution.
- Cooperative article placements in major media outlets. The Carpet Stewardship Program has collaborated with the Mattress Recycling Council, Call2Recycle, and PaintCare to place articles about “recycling difficult items” through a media placement agency. This ensures wide and efficient exposure in outlets statewide. Articles will be placed in both English- and Spanish-language media.
- Request and confirm the inclusion of carpet recycling information on consumer-facing recycling apps and local government agency websites. This may include information that haulers can provide to their service area.

In the last few years, CARE has partnered with the other Stewardship groups to promote awareness about hard-to-recycle items (carpet, mattress, paint, and batteries). These articles were created and distributed in both English and Spanish and 30% of distribution was done in Spanish newspapers. The Program will continue to create collateral in languages beyond English based on the percentage of the target population speaking that language.

Collection Sites

Key to enabling a reduction in disposal is to increase not only the number of drop-off sites in the state but also to improve how they communicate, so that the right audiences know where the sites are and how to use them. The Program currently supports each new drop-off site with signage and custom, bilingual flyers to distribute to the installers and others who will bring carpet to the site. In the coming years, the Program will:

- Support current and additional sites with signage, brochures, sample press releases, and marketing assistance.
- Work with local government (such as recycling coordinators and permit offices) and haulers to promote new and added sites to the public.
- Provide marketing support for technical assistance where appropriate.

Local Government Recycling Coordinators and Procurement Staff

The Program will continue to work with local waste and public works agencies as appropriate to:

- Promote Buy Recycled procurement of products made with recycled carpet content.
- Inform about SABRC, AB 341, AB 661, and other developments that impact carpet recycling and PCC product promotion.
- Promote adoption of Environmentally Preferable Purchasing (EPP) policies with state/local governments and businesses.
- Provide regular information/reminders to be included in Recycling Guides, newsletters, websites, and social media.
- Work with local governments to coordinate with waste agencies within their region, outreach to commercial businesses, coordinate with planning and building departments, and the like, as budget allows. This work may include informational webinars for jurisdictions.
- Coordinate with Department of General Services to support new requirements related to carpet procurement with minimum recycled content and removal of tear-out carpet, consistent with AB 1158.
- Coordinate with local governments to identify countywide outlets for reused carpet tile.

Builders, Contractors, Building Owners, and Facilities Managers

The Program is looking at one-to-one and mass communication with building owners, contractors, and facility managers in order to promote best practices on recycling, recyclability, and reuse and recyclable and recycled-content products through Conference attendance, article placement, and one-to-one contacts.

The Program will use the list of approximately 1,700 C-21 Building/Moving Demolition Contractor licensees available from the Contractors State License Board to send customized collateral about collection and recycling of commercial carpet. The Program will also explore outreach to a list of state B-license general contractors who may be tearing out carpet during the project demolition phase.

The Program will use focus groups, interviews, or surveys to better understand how best to communicate with commercial building owners and other stakeholder groups that are not yet engaged with the California program.

To increase collection of commercial broadloom and carpet tile, as well as residential carpet, the Program will continue outreach to unions, green building conferences, and

Carpet Mills to locate new sources of commercial carpet tear-out as well as run location-based pilot programs which target multifamily dwelling (MFD) residential property owners who are tearing out carpet during renovation projects. This outreach to MFDs will involve locating area hauling services which specifically fit the timing, space constraints, and other logistical needs of the MFDs during the tear-out process.

All efforts described above are new initiatives.

8.4 Multi-Audience Tactics and Ongoing Efforts

Multi-audience tactics and other ongoing efforts for multiple audiences may include activities such as, but not limited to:

- **Monthly E-news**.
- **Media campaigns** aimed at raising awareness of the Program's activities and accomplishments.
- **Social media**, including using CARE's Twitter account to insert carpet recycling in the conversations among influencers. Explore other channels for content placement and advertising as appropriate and usage trends warrant
- **Partnership activities with other stewardship organizations** (see also *Consumers* section above).
- **New and ongoing program outreach**, such as for the Grants or research program.

In the early years of the California program, there were significant differences among regions of the state in terms of Drop-off Site and Processor availability. The Program conducted focused campaigns, including one-to-one and mass-media tactics, in several regions in recent years to test the effectiveness of a concentrated, multi-touch effort.

For this Plan, Program staff will continue testing tactics in specific regions but also will conduct more generalized, statewide mass communications now that the entire state has access to carpet recycling opportunities.

In terms of reaching non-English speakers, CARE will consider including the Google Translate widget in its website. Although imperfect (literal translations with no nuances), it is a tool for any one of many languages to be used to view the site. If CARE observes a high number of interactions with a particular language, CARE could use that particular language on its webpage. CARE has installed this widget for its **Livermore Recycles** client in order for viewers to change languages.

Other considerations to determine which languages are needed are:

- Survey the Union Installers being trained and tally their primary and secondary languages.
- Put out a request to its stakeholders for desired languages (via E-News or survey to a particular audience).

If CARE discovers the need, it could certainly change the language in its materials, starting with the installer training video translated into more languages.

8.5 E&O Evaluation Metrics

Table 8-1 and Table 8-2 provide a list of marketing metrics that may be used in evaluating the effectiveness of the Program's education and outreach activities. These metrics are in addition to the operational data already collected and analyzed under the other portions of the Plan. The program attempts to correlate E&O activities to operational data, such as outreach to installers and resulting changes to Gross Collection levels from a nearby Drop-off Site, as feasible. These metrics may be refined with time, based on feedback and efficacy.

In summary, the Program evaluates the effectiveness of its marketing, education, and outreach strategies in the field using standard marketing measurements for advertising, direct mail, and online tactics, and quantitative and qualitative data gathered via in-person/phone contacts, along with data compiled via surveys and quizzes. As far as possible, MEO efforts are compared with operational results to judge effectiveness. For example, after a regional mass media campaign, awareness and reach are measured first, then compared with operational data to look for an increase in carpet collection/recycling service uptake. This uptake has been confirmed after several past efforts.

Metrics include:

- **Standard marketing metrics**, including website analytics (traffic numbers, acquisition method, content consumption, etc.); advertising channel performance; QR code hits; social media impressions; monthly email opens and clicks; video views, etc. Basic measurements such as growth in qualified website traffic are essential to document the first step in behavior change, which is raising awareness of carpet recycling opportunities.
- **In-person outreach data** gathered through phone calls (focused on retailers) and tabling (focused on installers). Extensive and regular telephone contacts with retailers measure and record use of, and experience with, CARE public Drop-off Sites, barriers to recycling uptake, awareness of post-consumer carpet derived products, and more. Leads and comments garnered via phone calls are regularly

passed on to CARE staff for follow-up and have led to acquisition of new CARE Drop-off Sites, database growth and other Program improvements. In-person tablings at Regional Distribution Centers serving as drop-off sites have raised awareness of this new service and increased the number of installers using it.

- **Online surveys of retailers or drop-off sites** around specific issues, such as differential assessment awareness and implementation, give quantitative confirmation that information is received and actions are taken.
- **Post-training quizzes** are available for flooring contractor union members. The online quiz administered after training reinforces basic learnings from the carpet recycling curriculum. The quiz platform provides results to the taker and helps the Program track who has taken the quiz and whether content is retained by the trainees.

Based on above results, the Program shifts strategies and modifies collateral or changes tactics to maximize the desired results in the field: primarily increasing collections and Program awareness.

Table 8-1. Education & Outreach Impact Metrics for General Reach

Tactic	Metric (goal to increase from baseline)
Print advertising (industry and general media)	• Numbers reached • Uptake of collateral requests • Content consumption
Digital ads (industry and general media)	• Impressions (numbers reached) • Click-through rate (CTR)
Radio sponsorships	• Impressions
Environmental graphics (billboards)	• Impressions
Monthly E-News	• List growth • Open rate • Click-through rate (CTR) • Content consumption
CARE website and California Program webpages	• Traffic (Google Analytics) • Pages visited • Content added and consumed • Uptake of call to action
Partner outreach (Mills, Processors, Collector/Sorters, etc.)	• Number of contacts • Positive feedback • Uptake of call to action (sign-up for email alerts, etc.)
Outreach with Partners	• Impressions • Placements (e.g., stewardship group advertorial placements)
Events/conference presentations	• Number of events • Reach (number of participants, etc.) • Leads generated
Press releases/ earned media	• Number sent • Number of placements • Feedback
Social media, including video creation and distribution	• Number of posts and views • Reach • Increase in followers, amplification/shares

Table 8-2. Education & Outreach Impact Metrics for Specific Sectors

Sector	Tactic	Metric (goal to increase from baseline)
Retailers	Print collateral (brochures, window clings, FAQs, signage), including multilingual	• Number of copies requested and distributed • Stakeholder feedback • Number and length of website visits
Retailers	In-person and telephone outreach	• Number of businesses reached • Uptake of call to action (brochure requests, webpage visits, etc.) • Increased awareness of CARE and the Carpet Stewardship Program • Increased compliance with labeling and other requirements
Local Government	In-person outreach	• Number of recycling coordinators and other government staff reached • Collateral requested and posted • Webinars conducted • Increase/uptake of procurement policies regarding recycled carpet content • Uptake and amplification of provided content (e.g., posting to local government websites, social media, and newsletters)
Installers	Direct mail	• Number sent • Number and impressions
Installers	Tablings	• Number of installers reached
Installers	Union curriculum	• Feedback
Collection Sites	One-to-one outreach (installer sheets, signage)	• Number of contacts • Collateral requests
Consumers/Public	Website	• Website traffic • Number of visits to collector map • Number of visits to consumer page

Sector	Tactic	Metric (goal to increase from baseline)
Consumers/Public	Video	• Number of views • Number of shares
Consumers/Public	Awareness	• Collateral requests from retailers and recycling coordinators
Processors/ Manufacturers	Business assistance	• Number of requests • Feedback/results
Commercial Building Owners, Managers, Contractors	Conferences	• Number of events and contacts
Commercial Building Owners, Managers, Contractors	Articles	• Number of articles and shares
Commercial Building Owners, Managers, Contractors	One-to-one contacts	• Number of contacts and information requests
Commercial Building Owners, Managers, Contractors	Focus groups	• Number of events and feedback

9. PROGRAM PERFORMANCE MEASUREMENT

14 CCR Section 18943(a)(9). Program Performance Measurement. Describe how attainment of the goals will be measured per § 18943(a)(3)(c). Program data shall be collected for purposes of annual report submittal (see § 18944 Annual Report Compliance Criteria). Information to be provided includes, but is not limited to:

(A) Specific information on the measurement methodology, assumptions, conversion factors, if used, and data sources.

The previous chapters of this Plan describe the Program's major activities to advance the goals of carpet recycling and reuse. Each chapter includes Program performance measurements, or metrics, which are also summarized in Table 3-1 in Chapter 3 (*Performance Goals & Activities*).

To measure progress toward attainment of the primary performance goals, including CalRecycle's May 2022 RFA goals, the Program will collect and analyze data on an ongoing basis and report it in annual report submittals, including information on the measurement methodology, assumptions, conversion factors, and data sources.

Tracking Program performance data involves regular reporting from participants, including Carpet Mills, Collector/Sorters, Processors, and Tier 2 Manufacturers. The Program and its participants will maintain records in accordance with the regulatory requirements, including making records accessible to the Program and CalRecycle upon request to determine compliance. Requirements related to record-keeping and retention are included in agreements with all Program participants. Agreed Upon Procedures (AUPs) are the audit action that ensures compliance.

In addition to quantitative Program performance data, the Program also obtains and considers feedback from the Advisory Committee, frontline Collector/Sorters, Processors, Tier 2 Manufacturers, retailers, installers, building owners, consumers, and other stakeholders (see Chapter 9, *Stakeholder Consultation*).

Performance is monitored and analyzed monthly, published quarterly, and reported annually as well as through voluntary interim reports, including quarterly reporting, tracking how is the Program delivering with regard to goals and metrics. Regular financial analyses review assessments collected, subsidies, and payout levels. Ongoing performance measurement is intended to support rapid responses if needed, such as to the COVID-19 global pandemic and associated economic changes in California.

10. STAKEHOLDER CONSULTATION

14 CCR Section 18943(a)(10). Stakeholder Consultations.
A manufacturer or stewardship organization that submits a plan shall include a process of consultation with affected stakeholders and consider the existing infrastructure in the development of the plan. Stakeholders may include, but are not limited to, other manufacturers and stewardship organizations, service providers, state and local governments, non-governmental organizations, haulers, demolition or other contractors, recyclers, retailers and wholesalers, installers, and consumers.

To develop this updated Plan, the Program has evaluated its work to date, including successes, challenges, and lessons learned. The Program obtains feedback on an ongoing basis from CalRecycle, the California Carpet Advisory Committee, Carpet Mills, retailers and wholesalers, installers, contractors, Collector/Sorters, Processors, Manufacturers, service providers, recycling and disposal sites, nongovernmental organizations, local governments, residents, and other recycling stakeholders. This updated Plan builds on input from these many stakeholders and the Program's implementation experience in recent years. Feedback includes in-person and on-site, meetings, written comments, online comments, and surveys. These tools will continue to be deployed as needed and as market dynamics dictate over the course of the 2023–2027 Plan.

The **California Carpet Advisory Committee** established under AB 1158 is intended to provide recommendations to CARE and CalRecycle on carpet stewardship plans, plan amendments, and annual reports. It serves as a primary mechanism for stakeholder input and representation from carpet mills, nongovernmental organizations, waste industry, local government, retailers, installers, unions, carpet collectors, recyclers, and secondary product manufacturers. The Program provides drafts of the five-year Plan, amendments as needed, and annual reports to the Advisory Committee for review and comments prior to revisions and submittal of these materials. The Program reviews and responds to all written comments from the Advisory Committee in preparing the Plan and annual reports and will incorporate recommendations to the extent feasible or provide with a written explanation for any recommendations not adopted and as required by statute.

A draft of this Plan was submitted to the Advisory Committee on July 21, 2022. The Committee met on August 3, 2022, with Program staff participating in these meetings as an observer and to address questions. On August 3, 2022, the Advisory Committee met and voted on 13 motions making recommendations to CARE on the draft Plan. A summary of Advisory Committee recommendations and responses to these

recommendations is presented in *Appendix 3. Response to Advisory Committee Recommendations*.

Consistent with the 2018–2022 Plan, CARE expanded the composition of its Stewardship Planning Committee to add one additional California-based non-Mill member. As a result of the pandemic, regular meetings typically are now conducted online via Zoom.

As described in Chapter 8 (*Education & Outreach*), the Program also conducts ongoing outreach efforts to and obtains feedback from retailers, local governments, installers, Drop-off Sites, building owners, and other stakeholders.

11. AUDITS

> **14 CCR Section 18943(a)(11). Audits.** Include a process by which the financial activities of the stewardship organization and individual manufacturer that are related to implementation of the stewardship plan will be subject to an independent audit, results of which will be submitted in the manufacturer or stewardship organization's annual report and reviewed by the department.

The Program's annual reports will include audits of the financial statements of CARE and the California Carpet Stewardship Program. An independent certified public accounting firm will conduct the audits. The audit report on the California Carpet Stewardship Program will explicitly report on the Carpet Mill or stewardship financial statements as they relate to the Program and its compliance with Public Resources Code Section 42970 and Title 14, Article 1, of the California Code of Regulations. The audit report will include the following:

- Total square yardage carpet shipped into California for the reporting period.
- Aggregate assessments collected.
- List of non-compliant Carpet Mills who are registrants with the Plan.
- Results of Agreed Upon Procedures conducted on the Carpet Mills and fund recipients during the reporting period.

The Program will share with the accounting firm confidential information on sales and assessments on a quarterly basis and in aggregate form to protect the confidentiality of individual Carpet Mills. The Certified Public Accounting firm will do the following:

- Perform certain Agreed Upon Procedures (AUPs) on Carpet Mills, recipients of the carpet assessment funding, and grant recipients to ensure compliance with the guidelines in Carpet Stewardship Law.
- Conduct regular audits for Collector/Sorters according to AUPs. These audits will include inspection of material flows to support convenient collection as well as Reuse AUPs.
- Conduct audits in accordance with Generally Accepted Accounting Principles (GAAP) and Generally Accepted Government Audit Standards (GAGAS).

CARE will also continue to regularly correspond with CalRecycle regarding CalRecycle field audits with the goal of bringing all auditees in compliance with the carpet stewardship law. CARE will additionally establish a webpage on its website, **www.carpetrecovery.org**, where potentially noncompliant businesses selling carpet can be reported to CARE and shared with CalRecycle Enforcement.

12. ENVIRONMENTAL INFORMATION

14 CCR Section 18943(a)(12). Environmental Information. Plans shall be accompanied with information to assist in completing an initial study under the California Environmental Quality Act.

CalRecycle's 2012 review of the California Carpet Stewardship Plan found the following:

> "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." *(emphasis added)*

We do not anticipate any changes since that time that would result in adverse environmental effects.

APPENDICES

The Plan includes the following attachments:

1 **Definitions** 102

2 **Online Resources Referenced in Plan** 110

3 **CARE Response to Advisory Committee Recommendations** 111

4 **Contingency Plan** 118

Appendix 1. Definitions

Advisory Committee: A mandated committee under Public Resources Code Section 42972.1(a) to provide recommendations on carpet stewardship plans, plan amendments, and annual reports. The **Advisory Committee webpage** provides more information.

Agreed Upon Procedure (AUP): A prescribed procedure executed by an external accounting firm or contractor to examine the records of Program participants to verify compliance and prevent fraud.

Assessment: The amount added to the purchase price of carpet that is subsequently remitted to a stewardship organization or manufacturer, which shall be spent on implementing the carpet stewardship plan.

Calcium Carbonate: See *Post-Consumer Carpet Calcium Carbonate (PC4)* below.

Capacity: Theoretical maximum volume of carpet discards able to be processed by participating processors in a given year, based on self-reported estimates and/or permitted capacity figures.

Carpet: A manufactured article that is used in commercial or residential buildings affixed or placed on the floor or building walking surface as a decorative or functional building interior feature and that is primarily constructed of a top visible surface of synthetic or natural face fibers or yarns or tufts attached to a backing system derived from synthetic or natural materials. *Carpet* includes, but is not limited to, a commercial or a residential broadloom carpet or modular carpet tiles. *Carpet* does not include a rug, pad, cushion, or underlayment used in conjunction with, or separately from, a carpet.

Carpet America Recovery Effort (CARE): A nationwide, 501(c)(3) non-profit organization whose focus is on post-consumer carpet stewardship.

Carpet as Alternative Fuel (CAAF): Fuel that has been produced from source-separated and sorted post-consumer carpet and processed, including 1) extraction of components for recycling if at all possible, and 2) size reduction, shredding, and/or blending with coal fines, etc. *CAAF* is not a type of recycling or reduction in disposal for purposes of this Program. *CAAF* is an alternative fuel source to other fuel sources such as coal, natural gas, and fuel oil.

Carpet-Derived Aggregate (CDA): A potential utilization of Recycled Output as an alternative to heavy rock and soil for use in geotextiles, road construction, or similar civil engineering application; similar to *Tire-Derived Aggregate (TDA)*. Examples might include lightweight wall backfill, vibration attenuation, embankment repair, etc.

Carpet Industry: The universe of participants involved in the production of carpet, including Carpet Mills, fiber manufacturers, material suppliers, etc. It includes but is not limited to members of the Carpet and Rug Institute (CRI).

Carpet Mill: A primary producer of carpet, carpet tiles, or related products covered under the Plan. A Carpet Mill is also referred to as a *Carpet Manufacturer*.

Carpet Manufacturer: With regard to a carpet that is sold, offered for sale, or distributed in the state, includes, at a minimum: those who manufacture and sell or distribute the carpet under their name or brand; the owner or licensee of a trademark or brand under which the carpet is sold or distributed in the state; those who import carpet into the state for sale or distribution. See California Carpet Stewardship Law for expanded detail.

Carpet Stewardship Law: Includes Assembly Bill 2398 passed in 2010 and amended by AB 1158 in 2017, AB 2097 in 2018, AB 729 in 2019, and their associated regulations, as codified in sections 18940 through 18948 of the California Code of Regulations (CCR), Title 14, and in sections 42970 through 42983 of the Public Resources Code.

Cement Kiln: Cement production facility that may use CAAF as a source of energy, which does not qualify as recycling, and/or as a raw material in the form of enriched PC4 for cement production.

Collected: Gross collected pounds of California PCC (total includes material that may eventually be sent to landfill). Also referred to as *Gross Collected or Gross Collection*.

Collection: Any method of consolidating and temporarily storing recovered commercial and/or residential carpet.

Collector/Sorter: A business that provides carpet recycling collection services for retailers, disposal sites, or other sites. *Collector/Sorters* sort received PCC by material type for third-party reuse, or wholesale to Tier 1 processors for recycling; they do not convert material into Recycled Output. Sometimes referred to as *Collector/Sorter Entrepreneur (CSE)*.

Collector/Sorter Entrepreneur (CSE): See *Collector/Sorter* above.

Demolition: Represents the teardown of a building (one-time carpet removal). There is no estimate of percentage of flooring covered by carpet.

Discards: Carpet that has completed its lifecycle as a consumer item or is no longer used for its manufactured purpose. Also referred to as *post-consumer carpet materials.*

Disposal: The management of solid waste through landfill disposal, transformation, or engineered municipal solid waste conversion, at a permitted solid waste facility (per

Public Resources Code Section 40192). Under this Plan total pounds of post-consumer carpet sent to landfill and incineration are counted as disposal.

Disposal Facility: Facilities that are licensed and permitted to provide final disposal for the specific wastes they accept, including incineration and landfill.

Diversion: “Diversion” or “divert” means activities which reduce or eliminate the amount of solid waste disposed at landfills in a manner consistent with the state's hierarchy for waste management pursuant to Section 40051. (Reference: 14 CCR §18941)

Diversion (Net): See *Net Diversion* below.

Diversion (Reported): See *Reported Diversion* below.

DSC: Differential Scanning Calorimeter. Analytical testing device for identification of polymer/fiber type based on differential melting points.

Education/Communication or **Education and Outreach (E&O) Costs**: Refers to expenses incurred in support of marketing, education, and outreach (also referred to as MEO) efforts conducted under the Plan. Includes the cost of market development promotion on-the-ground education and outreach support, communications, collateral and materials development, and related expenses, as well as costs related to the California Carpet Advisory Committee.

End-of-life (EOL) Costs: Program cost associated with the management of carpet discards from the point when a product is discarded by the consumer or the end of the useful life of the product, whichever occurs first. Costs may include subsidies, incentives or other expenditures related to reuse, recycling, landfilling, and other forms of carpet disposition in line with Program goals. It also includes storage and transportation for the collection Drop-off Site program.

Energy recovery: Burning carpet in a kiln or waste-to-energy facility or as carpet as alternative fuel (CAAF) to replace other fuels such as coal, natural gas, or fuel oil.

Filler: Materials such as calcium carbonate and the like used in the production of carpet backing.

Governance Costs: Includes costs charged quarterly by CalRecycle for regulatory oversight of the Program.

Gross Collection (GC): Estimated pounds of California PCC removed from waste stream for reuse, recycle, CAAF, kiln, or WTE, as reported to CARE by Collector/Sorters, prior to processing. This also includes unrecyclable PCC or carpet processing waste that may eventually be sent to landfill.

ID: Identification number.

Implementation Costs: Includes total expenses associated with Program implementation, as the sum of EOL subsidies, incentives, grants, technical assistance, education/communication costs and program administration costs.

Incineration: Complete burning of material to ashes, with no energy recovery, to reduce waste volume.

In-ground and On-ground Applications (subject to testing protocols): Placing PCC and/or byproducts of carpet at or below the surface of the earth. This application of using PCC must consist of transforming PCC into a useful product, must meet all local government laws and codes, and must be approved by the CARE SPC Definitions Subcommittee.

Input: The post-consumer carpet that is collected, sorted, and readied for processing.

Landfilling: Landfilling includes the placement of post-consumer carpet and/or the residuals from a post-consumer carpet management method into a landfill disposal facility.

Manufacturer: A manufacturer of secondary products made with post-consumer carpet content. Manufacturers receive finished (Type 1) Recycled Output from Tier 1 processors and utilize this material in the production of finished secondary products. In this Plan, secondary manufacturers are referred to as Tier 2 Manufacturers.

Marketing, Education & Outreach (MEO): Communications, education, and outreach activities related to Program promotion, technical assistance, or stakeholder support to increase Program adoption, impact, and/or effectiveness. Also referred to as *Education & Outreach (E&O)*.

Memorandum of Understanding (MOU) for Carpet Stewardship: An agreement entered into by multiple stakeholders, including carpet industry, entrepreneurs, government entities and nongovernmental organizations.

Net Diversion: Estimated total PCC managed for reuse, recycle, CAAF, kiln, WTE, or export, rather than disposal in California landfills. It is calculated as the difference of Gross Collection pounds minus unrecyclable PCC and process waste pounds that ultimately go to landfill from Tier 1 Processors or Collector/Sorters. Based on *Gross Collection* being an estimate by Collector/Sorters, *Net Diversion* is also an estimate.

Nongovernmental Entities: Nongovernmental entities or organizations (NGOs).

On-ground Applications See *In-ground and On-ground Applications* above.

PC4: See *Post-Consumer Carpet Calcium Carbonate* (PC4) below.

Plasma: An extreme thermal process using plasma which converts organic matter into a syngas (synthesis gas), which is primarily made up of hydrogen and carbon

monoxide. A plasma torch powered by an electric arc is used to ionize gas and catalyze organic matter into syngas, with slag remaining as a byproduct. It is used commercially as a form of waste treatment and has been tested for the gasification of municipal solid waste, biomass, industrial waste, hazardous waste, and solid hydrocarbons, such as coal, oil sands, petcoke, and oil shale.

Post-Consumer Carpet Calcium Carbonate (PC4) (subject to testing protocols): The residual, non-fiber content that is collected by a *Type 1 Processor* when a carpet is separated. This is typically in the form of a powder, which is associated with the "ash content" when an ash test is performed. The substance can be a high PC4 product or a mix that could include coal fly ash, cured adhesives, and some residual fibers. Because of the carpet manufacturing processes, PC4 in PCC processing will always have residual latex or other backing binder.

Post-Consumer Carpet (PCC) Materials: Carpet that has completed its lifecycle as a consumer item or is no longer used for its manufactured purpose. Also referred to as *Discards* above.

Post-Industrial/Pre-Consumer Carpet Material: Carpet materials generated in manufacturing and conversion processes, including, but not limited to, manufacturing scrap and trimmings/cuttings.

Processing: Preparing carpet material for reuse, recycling, CAAF, kiln, WTE, or disposal. It is meant to refer to some form of mechanical or chemical processing beyond cutting flats, sorting, or baling whole carpet.

Processor: A company that uses a process including but not limited to shredding, grinding, shearing, depolymerization, etc., to convert discarded whole carpet into finished recycled output that is ready to be utilized as an input material for manufacturing products. In this report, processors are referred to as Tier 1 processors. Some processors may also function as Collector/Sorters or Tier 2 manufacturers.

Program Administrative Costs: Non-subsidy Program expenses, including accounting, legal services, CARE facilities and operational expenses, staffing/contractor expenses, professional services, and marketing, education, and outreach activities. Program administration also includes service payments (governance costs) to CalRecycle for Program oversight.

Pyrolysis: A thermochemical decomposition of organic material in the absence of oxygen (or any halogen). It involves the simultaneous change of chemical composition and physical phase and is irreversible. Pyrolysis is a type of thermolysis and is most commonly observed in organic materials.

RCRC: Rural County Representatives of California, a 35-member county service organization that champions policies on behalf of California's rural counties.

Recovered: See *Gross Collection* above.

Recyclability: Recyclability means program capacity to recycle the various types of PCC fiber types that are collected. Currently, there is program capacity to recycle 100% of carpet as manufactured and 100% of the various PCC fiber types that are collected. Recyclability is a function of many variables including collectability, processability, and market demand.

Recycled Content: Also known as recovered material content, it is the percentage of material, by weight, a product is made from that has been recovered from consumers in the municipal solid waste stream (post-consumer recycled content), plus any industrial materials salvaged for reuse (pre-consumer/post-industrial content).

- **Post-Consumer Recycled Carpet Content (PCRCC)**: The amount or percent of carpet, by weight, that is no longer used for or has served its manufactured purpose, that is incorporated into the manufacturing process of the same or a different product.
- **Post-Industrial/Pre-Consumer Recycled Carpet Content**: The amount or percent of carpet material, by weight, generated by manufacturers or product converters, such as trimming, overruns, and products returned to the Carpet Mills that are incorporated back into the manufacturing process of the same or a different product.

Recycled Output (RO): The sum of reuse plus the material that results from the industry-recognized processing (shredding, shearing, hammer-milling, depolymerization, etc.) of PCC from a Processor. Examples of Recycled Output include fiber, shredded carpet tile, depolymerized chemical components, carpet filler, PC4, etc. The Program currently distinguishes between two types of material:

- **Type 1 Recycled Output Material:** Higher value Recycled Output with the most benefits to manufacturers of finished products and which generally takes more processing to achieve. Type 1 recycled materials must meet requirements set by CARE. This includes maximum allowable ash content requirements, which are presently set at 25% or less and verified with quarterly ash testing in line with CARE-approved testing protocols. Examples of Type 1 recycled materials include PCC fiber, PCC backing, engineered resins, and material for carpet cushion.
- **Type 2 Recycled Output Material:** Lower-valued Recycled Output with generally lower benefit to manufacturers of finished products and a lower value than Type 1 recycled materials. Type 2 recycled materials exceed 25% ash content in line with CARE-approved testing protocols. Examples of Type 2 recycled materials include carpet filler and non-functional filler.

Recycling: The process, consistent with PRC Section 40180, of converting post-consumer carpet into a useful product that meets the quality standards necessary to be used in the marketplace. Transforming or remanufacturing discarded carpet materials into usable or marketable materials, rather than for disposal, incineration, WTE, CAAF, or reuse.

Recycling Efficiency Rate: The ratio of Gross Collection converted into Recycled Output, expressed as a percentage of Gross Collection; formerly referred to as *Yield*. See also Gross Collection Conversion Rate above.

Recycling Rate: The proportion of carpet discards converted into *Recycled Output*, expressed as a percentage of carpet *Discards*.

Reported Diversion: The sum of reported PCC that reduces disposal in California landfills. It is calculated as the sum of reported pounds of Reuse + Recycled Output (Type 1 + Type 2) + Carcass + CAAF + Kiln + WTE + Export.

Retailer: A person who offers new carpet in a retail sale, as defined in Section 6007 of the Revenue and Taxation Code, including a retail sale through any means, including remote offerings such as sales outlets, catalogs, or an internet website or other similar electronic means.

Reuse: The donation or sale of recovered carpet back into the market for its original intended use. The reuse of recovered carpet retains the original purpose and performance characteristics of the carpet.

Rug: A loose-laid (not installed or attached at wall base) soft floor covering manufactured from natural or synthetic fiber, including carpet cut into room or area dimensions that is not intended to cover the entire floor. Consistent with statute, the scope of this Plan excludes Rugs.

Rural County: California counties that meet the CalRecycle definition of rural: “A rural county is defined as a county which disposes of less than 200,000 tons of waste annually.” (Public Resources Code Section 40183-4)

SFOC: Sustainable Fund Oversight Committee of CARE.

Sorting: The method used for separating collected carpet into the various backing types (e.g., PVC, SBR latex, etc.) and/or fiber types (e.g., Nylon 6, Nylon 66, polypropylene, polyester).

Source Reduction: The result of using less product or material in manufacturing and use of carpet (also known as dematerialization), and/or reducing the amount of discarded carpet generated. For the purposes of this plan, source reduction specifically refers to the reduction of PCC ultimately sent to landfill.

Source Separation: The process by which carpet is separated/segregated from all other materials at the end of its useful life (or when discarded).

SPC: Stewardship Planning Committee of CARE.

Throughput: The total amount of material received at a facility, in tons or pounds per year for a specific activity in a given year, equal to *Gross Collection*. *Throughput* is presented in combination with a summary of final disposition data for gross collected discards managed by participating Processors and Collector/Sorters.

Tier: Distinguishes end-market uses of PCC Recycled goods. Where the term *Type* distinguishes between the level of processing of PCC, *Tier* is used to differentiate the end product applications that may or may not need incentives to facilitate their adoptions. Examples of Tier 2 finished products from Type 1 PCC fibers: depolymerization, fiber pad, home insulation batting, plastic lumber, engineered pellet, and non-woven filtration waddles.

Type: See *Recycled Output (RO)* above.

Waste-to-Energy (WTE): Process of recovering thermal energy from solid waste through combustion.

Appendix 2. Online Resources Referenced in Plan

Carpet America Recovery Effort (CARE) website

California Carpet Advisory Committee (CalRecycle website)

CARE California Carpet Stewardship Program Contingency Plan (see Appendix 4)

CARE Grants (CARE website)

Carpet Stewardship Plan Compliant Manufacturers List (CalRecycle website)

Drop-off Site Services (CARE website)

Differential Assessment Approach (CARE website)

Highest Recyclability Update (June 2021, CalRecycle website)

Processing Capacity Reports:

- **Capacity Survey Report** (June 2021, CalRecycle website)
- **2022 Processor Capacity Goal** (January 2021, CalRecycle website)

Reuse Action Plan (CARE website, June 2021)

Appendix 3. Response to Advisory Committee Recommendations on Draft Plan

September 1, 2022

CARE Response to Advisory Committee Recommendations on Draft 5-Year Plan 2023–2027

CARE has carefully reviewed the comments and recommendations of the Advisory Committee. In accordance with California's Carpet Stewardship Law, CARE is providing a response to the 13 recommendations generated by the Advisory Committee at its August 3, 2022, meeting regarding CARE's Draft California Carpet Stewardship Plan 2023–2027.

The Advisory Committee's letter dated August 3, 2022, listing the motions considered is reproduced on the following pages. CARE responses immediately follow each recommendation in **bold, blue** font and are labeled as "**CARE Response**." In cases where recommendations have been adopted, appropriate language has been incorporated into the new Plan as noted.

California
Carpet Stewardship
Advisory Committee

August 3, 2022

To: CARE and CalRecycle
From: Carpet Stewardship Advisory Committee

Re: Recommendations on CARE's DRAFT 5-year plan (2023-2027)

Dear CARE and CalRecycle,

The following motions were discussed and voted on during the AC meeting on 8/3/22 according to the Bagley-Keene rules. This letter was written during the meeting and approved by the roll call vote included at the bottom.

Motions:

1. The AC recommends addressing contamination reduction through the use of studies/research grants on the scope of the problem, financial costs and effectiveness of pre-processing dirty carpet.

   Motion by Nat; Second Gail
   The motion does not pass
   Roll call votes are detailed in the meeting minutes

CARE Response: No response required as motion did not pass.

2. The AC recommends more transparency and documentation in the program plan on the barriers to collection site participation, and a summary of insights and lessons learned, and how insights and lessons are being systematically shared with potential collection sites.

   Motion by Suna; Second: Gail
   The motion passes.
   Roll call votes are detailed in the meeting minutes

CARE Response: CARE agrees and has documented, under Section 5.2, the primary barriers to public drop-off site participation as well as the strategies CARE is using or plans to use in order to overcome these barriers. CARE also describes how lessons learned are shared with new public drop-off sites.

3. The AC recommends that a study is done on how to keep PCC out of the waste stream and include discussion on other limitations that could prevent attaining the 60% collection rate.

   Motion by Gail; Second by Nat
   The motion passes.
   Roll call votes are detailed in the meeting minutes

CARE Response: CARE agrees and has noted in Section 5.3 that it will design and implement a study by 2024 to understand potential PCC collection opportunities and barriers to attaining the 60% collection rate (five-year goal), as recommended by the Advisory Committee.

4. The AC recommends adding more transparency, analysis, and discussion on how results will impact the Plan for pilots, such as Landfill fee pilot, Milk run pilot, and Reuse brokers pilot.

   Motion by Joanne; Second by Franco
   The motion passes.
   Roll call votes are detailed in the meeting minutes

CARE Response: CARE agrees and has modified the Plan accordingly to note under each pilot description that it will share pilot results within its annual reports as well as the rationale to continue or discontinue these new practices.

5. The AC recommends adding more description for how CARE will “encourage” the mills for source reduction and design for recyclability, including but not limited to an incentive for the reduction in Calcium Carbonate and/or other feedstock materials that impact recyclability, such as mixed fibers.

   Motion by Nat; Seconded by Franco
   The motion passes.
   Roll call votes are detailed in the meeting minutes

CARE Response: CARE has added annual and five-year goals to address how CARE will encourage carpet mills to reduce virgin materials used in new carpet, increase the use of recycled-content in carpet, identify nonrecyclable carpet designs, and increase the recyclability of carpet under Section 3 (Performance Goals and Activities) and Section 4.1 (Source Reduction).

6. The AC recommends specifying what percentage of collection funds will be applied to education and outreach to lower contamination and other collection barriers. For example, increasing the funds for installer apprentice and journey-level training programs.

   Motion by Wes; Seconded by Eric

The motion passes.
Roll call votes are detailed in the meeting minutes

CARE Response: CARE is unclear on the intended meaning of "collection funds" in this motion, though the revised narrative attempts to address this topic in the Education & Outreach chapter in Section 8.3. A large amount of marketing, education, and outreach (MEO) messaging includes twin goals of increasing collection while decreasing/preventing contamination. Contamination prevention and collection expansion (how to for new and existing sites) is a primary message for all outreach to flooring contractors (including Union apprentices and journey-level installers) and public drop-off sites; outreach to these two audiences constitutes approximately 25% of the $1 million annual MEO budget. Surmounting operational barriers (primary challenges include space, expense of labor and liability issues) are addressed in the Collections section of the Plan and elsewhere in the CARE budget, such as in grants and operations. $100,000 is additionally allocated in the Plan for installer apprentice and journey-level grants and other incentives such as trainings.

7. The AC recommends that CARE expands its education and outreach to other languages beyond Spanish, including but not limited to Chinese and Russian with its outreach materials considering the audience and geographic location of dissemination. At a minimum, starting with installer outreach materials.

   Motion by Suna; Seconded by Wes
   The motion passes.
   Roll call votes are detailed in the meeting minutes

CARE Response: CARE agrees and has described current and ongoing efforts to reach program stakeholders in relevant languages beyond English within Sections 8.2 and 8.3. CARE has also described how it will expand outreach in multiple languages, after identifying the need, under Section 8.4.

8. The AC recommends more effort to reach out to local governments to attain information on the number of carpet disposal requests, and tonnages of carpet being landfilled, and consider incentives to the local government to capture this information. Also, include an updated list in the annual report on which local governments are being contacted and share any compiled data.

   Motion by Nat; Seconded by Suna
   The motion passes.
   Roll call votes are detailed in the meeting minutes

CARE Response: CARE agrees to increase outreach to local governments and identify new or existing opportunities to collect data that identifies public requests for proper carpet disposal. The Program will work in concurrence

with existing government reporting programs for construction and demolition materials, to specifically identify and capture carpet disposal tonnages if/when available. CARE may also consider developing an incentive measure for local governments' participation. Reporting data will be collected on an annual basis from each participating jurisdictions, and shall be made available in annual reports.

9. The AC recommends CARE provide specific data in the program Plan and Annual Report on baseline and subsequent measures of awareness and behavior and indicate how it has been and will be used to systematically improve education and outreach and other aspects of the program.

   Motion by Suna; Seconded by Joanne
   The motion passes.
   Roll call votes are detailed in the meeting minutes

CARE Response: CARE agrees. Under Section 8.5, E&O Evaluation Metrics, CARE has elaborated on how it continues to assess the effectiveness of its marketing, education, and outreach (MEO) strategies in the field using standard marketing measurements for advertising, direct mail, and online tactics, and quantitative and qualitative data gathered via in-person/phone contacts, along with data compiled via surveys and quizzes. Where possible, MEO efforts are compared with operational results to judge effectiveness. Table 8-1 describes baseline metrics that CARE intends to increase and evaluates in its annual reports.

10. The AC recommends that the processing capacity discussion be expanded to include forward projections to determine if existing processing facilities with their current equipment are adequate to reach the 45% recycling rate goal.

    Motion by Gail; Seconded by Howard
    The motion passes.
    Roll call votes are detailed in the meeting minutes

CARE Response: CARE has evaluated current processor capacity with regard to capacity required to achieve the recycling rate goals from 2023 to 2027. Analysis of the existing California current processing capacity is more than adequate to meet the 45% recycling rate goal. CARE will continue to work with recyclers to expand capacity when needed. CARE cannot publish the capacity data at this time due to the limited number of participants and confidential business information considerations.

11. The AC recommends that CARE works with CalRecycle to expand the field audits on carpet retailers, vendors, or distributors to ensure all assessments from carpet sales are properly sent to the carpet mills and CARE. CARE should

consider a mechanism that individuals can report to both CARE and CalRecycle any unfair competition by businesses not charging the assessment.

Motion by Franco; Seconded by Eric
The motion passes.
Roll call votes are detailed in the meeting minutes

CARE Response: CARE already corresponds regularly with CalRecycle regarding CalRecycle field audits with the goal of bringing all auditees into compliance with Carpet Stewardship Law. As noted in Section 11.1, CARE will additionally establish a page on the CARE website, where potentially noncompliant businesses selling carpet can be reported. Such a report will also be directed to CalRecycle. As a reminder, CARE's role is to facilitate compliance and not to function in an enforcement capacity.

12. The AC recommends that CARE provide specific information on the lessons learned (positive and negative) and data analyses from the prior plan's time period and how they are being used to improve the new proposed program Plan.

    Motion by Suna; Seconded by Joanne
    The motion passes.
    Roll call votes are detailed in the meeting minutes

CARE Response: CARE agrees and has summarized additional lessons learned during the previous five years, and associated improvements based on those lessons, within the Collection System (Chapter 5), Market Development & Grants (Chapter 6), Financing Mechanisms (Chapter 7), and Education & Outreach (Chapter 8) chapters of the new 5-year Plan. Lessons learned are also reflected in other submissions beyond the Plan.

13. The AC recommends that CARE phase-in a reduced subsidy amount from the baseline for out-of-state processing companies to level the playing field for operating costs in California.

    Motion by Gail; Seconded by Howard
    3 Ayes/2 Noes/4 Abstentions
    Unsure if the motion passes- Follow-up with CalRecycle will add determination
    Roll call votes are detailed in the meeting minutes

CARE Response: It is not feasible or consistent with CARE's role to implement such a change at this time. During the course of the AC meeting, there were multiple opposing opinions expressed. The new Plan does include a discussion of this topic (in Section 7.1, Program Expenditures).

Sincerely,
Wes Nelson, Chair

Roll call votes approving this letter as written on 8/3/2022

Member	**Organization**	**Vote on the Letter**
DOUGLAS WILLIAMS	LA Fiber	Y
ERIC NELSON	Aquafil	Y
FRANCO ROSSI	Aquafil	Y
GAIL BRICE	XT Green	Y
HOWARD SAPPER	Carpet Manufacturers Warehouse	Y
JOANNE BRASCH	CA Product Stewardship Council	Y
JOE YARBROUGH	The Carpet and Rug Institute	Absent
NAT ISAAC	City of Los Angeles Bureau of Sanitation	Y
STEVE BELONG	Carpet, Linoleum, & Soft Tile Workers Local Union #12; N. CA Floor Covering Finishing Trades Institute Joint Apprenticeship Training Committee	Y
STEVE LANDRETH	ProSpectra Contract Flooring; Senate Rules Committee Appointee	Absent
SUNA BAYRAKAL	Product Stewardship Institute	Y
WES NELSON	GreenWaste Carpet Recycling	Y

Appendix 4. Contingency Plan

As required under statute, the following **California Carpet Stewardship Program Contingency Plan**, submitted by CARE (Revised May 14, 2020) and approved by CalRecycle in 2020, is included on the following pages and available online. As described in Section 2.3 (*Contingency Plan*), CARE will submit a Plan amendment with a revised Contingency Plan to the Carpet Advisory Committee by September 30, 2023, and to CalRecycle by October 30, 2023, which includes the elements identified in the March 2023 signed Request for Approval.

CARE California Carpet Stewardship Program

Contingency Plan

California Carpet Stewardship Program

An initiative of CARE:
Carpet America Recovery Effort

Submitted by:

Robert Peoples, Ph.D.
Executive Director
Carpet America Recovery Effort (CARE)
100 South Hamilton Street
Dalton, GA 30722
bpeoples@carpetrecovery.org

Submitted to:

Ken DaRosa
Acting Director
California Department of Resources,
Recycling, and Recovery (CalRecycle)
1001 I Street
Sacramento, CA 95814

Revised on May 14, 2020

Table of Contents

Introduction 2
Contingency Plan 2
Revenue Flows - Mill Payments 3
Subsidies 4
Program Expenses 4
Operational Expenses 4
Employees 5
Contractors 5
Documentation 5
Participant Contracts 6
Grants Administration 7
Escrow Account 7
Accounting Protocols 8
Reporting Protocols 8
Review and Subsidy Authorization Protocol 8
Assessment 8
Confidential Business Information 9
SPC Operations 9
Technical Assistance 10
Education and Outreach 10
Drop Off Site Management & Reporting 11
Audits 11
Use of Models 12
Management of Projects 14
Advisory Committee Engagement 15
Annual Surveys 15
Miscellaneous 15
General Timeline (project management plan) 16
Miscellaneous 16
Glossary (ADDED) 18

Introduction

The purpose of this Contingency Plan is to outline a framework for detailed implementation of a transition to a new Carpet Stewardship Organizations (CSO) and training requirements should CARE be deselected as the Carpet Stewardship Program manager in California. It is focused on future Actions to be undertaken. Since it is impossible to fully know future actions, in cases where gaps in program activities may occur outside the transition window, CARE will work with CalRecycle to aid program continuity.

Based on dialog with CalRecycle and to facilitate a smooth and uninterrupted transition, CARE recommends a maximum six-month transition period to enable detailed documentation and training. The primary goal of such a transition is to ensure no interruption of subsidy flows to recyclers who depend critically for such cash flow to manage their businesses. Thus, consistent with the requirements of the AB 729, this document is not a step-by-step how to guide but lays out the action steps to be followed should a transition be necessary.

During the transition CARE commits to work with CalRecycle or its designated representative(s) to ensure continuity of all program functions, both those internal to CARE and those contracted to CARE. CARE recognizes subsidy payments will need CalRecycle authorization to release if a contingency plan is invoked. CARE will work to build that into the monthly review process on a restricted, need to know basis, due to the confidential details of each business receiving subsidy payments. CARE will be compensated as usual during the transition period.

In the absence of an alternative approved Plan and if requested by CalRecycle, CARE will continue to administer the program, in concert with CalRecycle oversight, according to the most recently approved Plan and under a signed contract.

Contingency Plan

1. Overview

The Contingency Plan is organized into areas of efforts in a fashion that fully integrates the functions necessary to comply with all Carpet Stewardship Laws and Regulations and enable execution of the day-to-day operational logistics necessary to run a dynamic, complex and growing enterprise for carpet recycling.

2. Training

The Contingency Plan is focused on the basic elements of each area and actions recommended to enable the smooth transition. As noted, this is not meant to be the “how to” instructions, nor the specific training, but rather lays out the action steps that will enable such training and the necessary depth of understanding required to maintain the program until such time as a new path forward would be approved by CalRecycle. Worthy of note is for any transition plan, reductions in or restructuring of subsidies or changes in the assessment must allow sufficient time for proper notification, programming and training. In

some cases, commercial contracts, which tend to be longer term activities, may need to be considered. Currently, a 12-month notice is required for any subsidy reductions, excluding pilots.

3. Timing

After consultation with CalRecycle, CARE recommends a maximum six-month transition for training and hand-off to avoid misunderstanding or interruptions to program management.

ACTIONS:

A. CARE will meet with CalRecycle or its Designee(s) upon notification of termination or revocation to create a schedule for meetings and training sessions per the action items outlined as part of this Contingency Plan.
B. To avoid confusion and misunderstanding, all communications during the transition should be thru the CARE Executive Director and the California CARE Program Director unless otherwise designated by CARE.

NOTE: All dates and timing that are not explicitly outlined in the following action items will be determined by the detailed plans developed under Action A above.

Revenue Flows - Mill Payments

1. Relationship to retailers

Readers are referred to CARE's approved 2018-2022 Plan (page 187) to gain insight into the flow of funds in support of the CA Carpet Stewardship Program. It should be noted, retailers must collect the visible assessment per square of carpet. Mills are responsible to CARE to file a report of quarterly CA sales and remit their assessment payment within 30 days of the end of the prior quarter. It is the responsibility of the mill to ensure payment by the retailer to the mill. CARE does not have a role in the mill-retailer relationship. CARE is responsible for education and outreach to retailers to enable participation across the state along with education and outreach to retailers as well as notification of any assessment changes. CARE is responsible to secure reporting and payments of assessments by mills based on California sales.

Mills file their quarterly reports through Aprio, CARE's independent accounting firm. After assessment remittance period, Aprio prepares a standard slide deck summarizing the mill results, consistent with confidentiality considerations: CARE is not privy to the sales of individual mills but reviews cumulative results. CARE does have access to shipments into CA broken out by fiber type, commercial vs residential and tile.

ACTIONS:

A. CARE will facilitate a confidential (CBI) meeting to include Aprio with CalRecycle or its Designee(s) to review the mill filing protocol, data analysis, and consolidation

B. Aprio will review the roll up process for incorporation of this information into the quarterly summary slide deck with CalRecycle or its Designee(s)

Subsidies

The subsidy program has evolved over time in an effort to drive more recycled output (RO) and ensure program success. As a result of this process and the dynamic markets for recycled materials derived from post-consumer carpet (PCC), the subsidy program has evolved to be a complex set of considerations, which will continue to be developed and modified over the life of the CARE approved Plan.

ACTIONS:

A. CARE will facilitate a meeting with Aprio to review the detailed recycler filing protocol, data analysis and dashboard review with CalRecycle or its Designee(s)
B. CARE will review the roll up process for incorporation of this information into the quarterly summary slide deck with CalRecycle or its Designee(s)
C. Once the high-level flow is understood, CARE will work confidentially with the CalRecycle designated parties to conduct live reviews over a 3 or 4-month cycle. This will be live recycler data and thus will have restricted access.

Program Expenses

CARE distinguishes between on-going program expenses and administrative expenses. Program expenses exclude subsidies, which are tracked in detail separately. Expenses are tracked across a range of account ledgers for accounting purposes. CARE uses the former Morehouse Accounting Group, now part of Nichols Cauley, for routine accounting support and tax filings.

ACTIONS:

A. CARE will facilitate a transfer of the necessary fund balance sheet to CalRecycle or its Designee(s) within 45 days of notification as required under AB 729
B. Tax records and other information as may be necessary for the AB 2398 account will be copied to the CalRecycle or its Designee(s)
C. CARE will review the roll up process for incorporation of this information into the Planful dashboard and quarterly summary slide deck

Operational Expenses

CARE distinguishes program operational expenses which includes salaries, staff activities, office and service allocations, accounting fees, legal fees (exclusive of any litigation against the State), and fees paid to CalRecycle.

ACTIONS:

A. CARE will facilitate an accounting review of expense transactions for the AB 2398 program with CalRecycle or its Designee(s) and recognizing such expenses will be different in the hands of CalRecycle or another CSO.

Employees

Team Management

ACTIONS:

A. CARE will conduct an overview of CARE staff roles with CalRecycle or its Designee(s) at the time of any transition
B. CARE will work with CalRecycle or its Designee(s) to ensure CARE staff are treated appropriately during the transition period

Program Management

- CARE currently uses a system of Objectives and Key Results (OKRs) to manage operations.

ACTIONS:

A. CARE will conduct a review of existing OKRs with CalRecycle or its Designees) which includes current status and any planned adjustments within 60 days of notification of termination or revocation.

Contractors

CARE has confirmed with legal that contracts are transferable to CalRecycle or its Designated CSO. Contracts refer to CA-related contracts and not CARE Core contracts.

ACTIONS:

A. CARE will provide a list of all contractors CARE utilizes for the program to CalRecycle or its Designee(s).
B. CARE will review each contractor and their role.

Documentation

1. CA Annual Reports
   - CARE has a detailed report generating protocol and has worked with Cascadia Consulting for several years as the project manager on the generation of the annual report. CARE staff, GIS and Aprio are key contributors to sections and data for the report.

ACTIONS:

2. CARE will walk CalRecycle designated staff or Designee(s) through the report generation process which typically begins in late January to start the coordination and communications. CARE recognizes future Annual Reports, post termination or revocation, will be the responsibility of the next CSO. From the time of termination or revocation of program responsibilities, CARE will be available by negotiated contract, including compensation, to provide any information or support necessary for a new or replacing Stewardship Organization to complete an annual report.

Monthly meeting/calls

ACTIONS:

A. CARE has participated in voluntary and regular monthly calls with CalRecycle and under the need for a contingency transfer would anticipate the need and value for continuation of such calls. Scheduling, coordination and agendas for these calls would reside with CalRecycle to ensure information and understanding needs are being addressed.

Participant Contracts

1. Mills, CSE's, Processors, Manufacturers
    - CARE manages a contract process that outlines participants obligations under the program and sets expectations. These contracts have evolved considerably over time based on program learnings.
    - Individualized contracts are managed for four groups: CSEs, Processors, Manufacturers, and Mills. In the event a company engages in more than one functions (e.g., collections and processing) a distinct contract is executed for each function.
    - CARE's Program Coordinator manages all participant contract tracking.
    - The current contract cycle was renewed as of January 1, 2020 and runs for 3 years.

ACTIONS:

A. Copies of all contracts will be provided to CalRecycle or their Designee(s)
B. CARE will answer any contract related questions.
C. CARE will review its delisting protocol (used in the event of non-compliance)

2. On-boarding and training new participants (Mill/CSE/Processor/Manufacturer)
    - When a new company approaches CARE to participate in the program, we typically hold a call to understand who the company is and how they intend to operate. Once clarified, the interested party goes to the CARE website to become a member and pay their dues.

- Upon confirmation of dues payment, CARE issues an email to trigger the contracting process, Aprio notification to add to the appropriate section of the program (Mill/CSE/Processor/Manufacturer), create access to the secure on-line Planful reporting system and training for use of the system.
- CARE may visit the operation to make certain we understand what their operation is doing and is consistent with the subsidy program to qualify for payment. The applies to the CSE/Processor/Manufacturer members.

ACTIONS:

A. During the transition cycle, there will likely be an opportunity to on-board a new participant(s). At such time CARE will demonstrate how this process is conducted with CalRecycle or its Designee(s).
B. In the event no new mill is enrolled during the transition, CARE will walk CalRecycle or its Designee(s) through the mill on-boarding process.

Grants Administration

1. Prior Cycles
   - CARE has now administered 3 complete grant cycles which include several categories (capacity, product development & testing, procurement, and micro). Details of completed or existing grants are fully documented in CARE reporting materials.

ACTIONS:

A. CARE will conduct a meeting with CalRecycle or its Designee(s) to review the status of all grants and provide all documentation.

2. New Cycles
   - Current grant cycles will be transitioned and covered under action item A above.

Escrow Account

Institution, owner, transfer of ownership

- CARE has created an Escrow Account at Bank of America, after consultation with CalRecycle, the existing escrow account was deemed acceptable and meets statutory requirements.
- Actions listed below are consistent with the requirements of AB 729.

ACTIONS:

A. CARE will transfer ownership/control of this escrow account to the CalRecycle designated Account Manager [escrow agent in possession funds per AB 729 4297.7(d)] within 30 days of termination or revocation of CARE's CSO role.

B. CARE will transfer all unexpended funds to this escrow account within 30 days of termination or revocation of CSO role.
C. All mill assessment deposits will be directed to this escrow account with the next payment cycle.
D. CARE will work with CalRecycle or its Designee(s) and under a confidentially agreement to coordinate management by CalRecycle of subsidy reviews, payouts and a protocol for CalRecycle authorization until CalRecycle feels they have someone in a position to do this or until the end of the transition period.

Accounting Protocols

CARE maintains distinctly separate and appropriate accounting records for all three of its program elements (subsidy, programs, operations). Those relevant to CalRecycle and the Carpet Stewardship Program will be reviewed with CalRecycle or its Designee(s).

Reporting Protocols

1. Mills
2. Recyclers
3. Host Database & Archive

ACTIONS:

A. All reporting protocols will be reviewed with CalRecycle or its Designee(s) per the actions listed above under the following sections: Revenue Flows, Subsidies, Program Expenses and Operational Expenses.

Review and Subsidy Authorization Protocol

1. Monthly Reviews & Release of Funds

4. Quarterly Reviews

ACTIONS:

A. CARE will conduct a series of need to know confidential meetings with CalRecycle or its Designee(s) during the transition period to review the monthly subsidy reviews and the quarterly roll-up.
B. Upon termination or revocation of its CSO role, CalRecycle or its Designee must authorize payments from the escrow account.

Assessment

1. Change Protocol

2. Change Notification

3. Differential Assessments

    - To be determined once the decisions on how this is implemented are completed.

ACTIONS:

A. CARE will set a meeting with CalRecycle or its Designee(s) to review details for each step in the assessment change process.
B. CARE will facilitate a meeting with CalRecycle or its Designee(s) and Gigantic Idea Studio on the multi-touch communications protocol used for notification.

Confidential Business Information

All data and reporting on an individual company basis are considered confidential business information (CBI). Severe harm, both operationally and financially could result from any disclosure or leak of such information. Sharing of these details during the training and hand-off must be restricted to a small set of trained individuals who will honor the CBI commitment. Strict legally defined CBI protocols must be followed. Such CBI must be strictly limited to a small group of need to know individuals for the purpose of administering the subsidy system.

ACTIONS:

A. CARE will schedule a limited participation meeting with CalRecycle or its Designee(s) to develop a detailed protocol for handling all monthly, quarterly and annual data reviews along with Mill reporting. In addition, how to handle AUP results on individual companies along with special requests and issues will be reviewed.
B. CARE will work with CalRecycle and any designees to sign a Confidentially Agreement honoring the CBI protocols.

SPC Operations

1. Routine Reviews

ACTIONS:

A. Since this function will cease to exist there are no actions necessary

2. Special Requests

ACTIONS:

A. CARE will walk CalRecycle or its Designee(s) through the general protocol used to handle special requests.

Technical Assistance

1. CARE has an internal protocol in place to guide the deployment of technical assistance, which may take a variety of forms.

   ACTIONS:

   A. CARE will review that protocol with CalRecycle or its Designee(s).

Education and Outreach

In general, there are many facets to the Education and Outreach (E&O) program. In addition, the design is meant to be dynamic allowing response to shifting demands, priorities and opportunities which arise. CARE currently works with Gigantic Ideas Studio (GIS) who have developed a deep understanding of the Carpet Stewardship Program and communication mechanisms to help enable accomplishments.

1. Retailer Engagement
   - This aspect of CARE's Program continues to be refined and evolve. These changes are driven by the changing landscape of carpet sales and the shift that requires a significant expansion in collections.
   - A detailed database of contacts exists, and regular, on-going outreach occurs throughout the state.
2. Union Tracking
   - As a result of AB 1158 CARE has engaged in understanding and developing training materials for Union journey-level and apprentice flooring installers. This effort expanded the existing training video prepared in both English and Spanish. In-depth slide decks exist that will enable the continuation of this program but will require training of new personnel for effective delivery and relationship building.
3. Communications and Outreach-General
4. E-News, Social Media
5. Conferences
6. Recycler support (web, print, social media, presentation, etc.)
   - Probably one of the more extensive areas of focused E&O in the CARE portfolio. This effort spans a range of support services from help with website, preparing label and ad materials, production of the Product Catalog for products containing CA PCC. Continuation of these efforts will be relatively easy given focused resources.

   ACTIONS:

   A. Set a meeting with GIS, CARE and CalRecycle or its Designee(s) to review prior year and YTD activities:
      1. Includes all contacts and Zoho database operations
      2. Includes regular outreach schedule and justification
      3. Includes all electronic communications including social media

B. Update and review budget for current year
C. Review plans for remainder of year going forward
D. Make adjustments as may be requested
E. All education/outreach materials and databases generated with CA public funds will be provided to CalRecycle or its designee.

7. Assessment changes
    - CARE has worked with GIS to put in place a multi-touch approach for notifications when the assessment is set to change. There are 6 pathways to enable such notification including:
        1) E-news letter
        2) Social media
        3) Email direct
        4) Snail mail postcards
        5) Distribution of notice via mills to their retailers
        6) Notification(s) posted to the CalRecycle List-serve

ACTIONS:

A. Set a meeting to review the sequence of events and timing for notification of any assessment increase/change.
B. Review tracking and follow-up notification for non-responders

Drop Off Site Management & Reporting

CARE has put in place a public Drop-off Site (DOS) program that continues to expand.

- CARE currently maintains and services public DOS across the state.
- CARE will implement the following actions with CalRecycle or its Designee(s)

ACTIONS:

A. Define DOS role vs the private network of collection sites
B. Review detailed operational procedures for DOS off scheduling, tracking, quarterly reporting, etc.
C. Review the role of KKW in servicing CARE DOS locations
D. Review the logistics of KKW vs self-haul options
E. Review program growth and performance over the last 2 years
F. Review recommendations to further improve the program and control costs

Audits

1. Financial, Performance
    - CARE undergoes 4 independent audits every year: AB 2398, CARE Core, VPS, and a Performance Audit

- Audit results are reviewed by the Executive Committee every June and are incorporated into CARE annual reports intact (no editing of the PDF files from auditor)
- AB 2398 audit results are included in the CA Annual report intact
- Executive Committee actions are reviewed with the CARE Board typically at the July meeting
- CARE is also periodically audited by the audit branch of CalRecycle
- CARE periodically issues an RFP to competitively bid this service function
- Contracts are typically 3 years and often may be renewed for a second or third cycle due to the detailed and complicated nature of the program, thus enabling in-depth analysis

ACTIONS:

A. CARE will introduce CalRecycle or its Designee(s) to the current independent auditor, Brooks McGinnis (BM)
B. BM will walk CalRecycle through the detailed audit process which involves testing and interviews with a wide range of CARE assets, both internal and external relationships

NOTE: CARE's Core and VPS Programs are outside the scope of any terminated CSO role for this training.

Use of Models

CARE modeling efforts have grown in sophistication over the past several years. The models represent a set of tools to aid CARE in management of the program, in particular as it relates to setting subsides and justifying assessments. The models are reviewed every six months and updated or evolved as needed. CARE has now been working with Crowe in terms of field-based economic analyses and model refinements for the last 2 years. Market dynamics exacerbates the challenge of modeling due to the rapid shifts in commodity pricing for the materials of interest along with global supply chain challenges and macroeconomic factors.

1. Economic Model
    - The Economic Model (EM) was developed to provide forward looking forecasting and is a sophisticated model that draws upon public and private database information (including subscriptions)
    - This model was built with public funds

2. Financial Model
    - The Financial Model (FM) looks at a 5-year projection of costs vs revenue on a monthly basis
    - At the end of each monthly review session, the FM is updated with the actual results and then results vs budget is compared.

- Typically, in late August the FM will be updated to reflect what the year is projected to look like
- In September CARE begins to build the budget for the next year for review and approval in late October and consistent with the approved Plan. Changes will be reviewed with CalRecycle.
- This model was built with public funds

3. Cost Conversion Model (CARE proprietary)
    - The Cost Conversion Model (CCM) is a detailed analytical tool for understanding the costs to recycle materials under a wide range of approaches
    - The model is robust in its ability to handle a wide range of options from collections to processing to manufacturing pellets
    - The CCM takes proprietary data from individual recyclers to model their costs and profitability
    - The CCM is flexible/adaptable to handle a range of operations and geographical locations and with a number of toggles for input options
    - This model was built with CARE funds and is not a product of public funding. Thus, the CCM will not be shared. Its use as a service may be available to purchase on a consulting basis

4. Subsidy Justification Model
    - The SJM is a simple tool but underpinned by a need for deep understanding of how the recycled materials markets work to roll the cost of conversion into a format that evaluates the costs of competing materials, allows for a return on cost of conversion and adds a “transition incentive” to facilitate replacement of an existing materials, typically post-industrial, and calculates investment return
    - This model was built with public funds

ACTIONS:

A. CARE will arrange a series of meetings to present to a select group the details of the EM and FM
B. CARE will review the CCM, but will not transfer the programming for this Excel program unless CalRecycle wishes to purchase access, in which case CARE will consider such a request
C. CARE will make the Model Team available for 30 days and up to 2 meetings/web calls post-transfer of the Program
D. All actions to be initiated within 60 days of termination or revocation and based on mutual agreement on timing
E. Should the Contingency Plan be executed, copies of the EM, FM and SJM will be transferred as part of the training process.

Management of Projects

At any point in time there may be special projects that CARE is required to undertake or may choose to pursue. CARE has been required to undertake the development and coordination of various studies. Current outstanding and/or ongoing items include: Denominator Study, Convenient Collection Implementation, New Plan Integration of Chapter 0, Academic Studies and ongoing ADA Accessibility Requirements.

ACTIONS:

A. Denominator Study
   1. CARE will make sure CalRecycle or its Designee(s) has an ADA compliant version of the final report
   2. Should the project be incomplete for any reason at the time of termination or revocation, CARE will arrange a meeting with CalRecycle or its Designee(s) with Cascadia to facilitate the information transfer

B. Denominator in Future (dialogue with CalRecycle)
   1. Given the implications for both historical reporting and the statutory target, both of which are based on the currently employed discards formula, CARE will meet with CalRecycle to flesh out the implications of a shift in the denominator formula, including statutory implications on the recycling rate calculation

C. Convenient Collections
   - CARE's Collections Team will meet with CalRecycle or its Designee(s) to explain both the outreach, reporting process and expansion plans
   - CARE will introduce CalRecycle or its Designee(s) to the KKW representative as our contracted trucking and logistics provider to enable an uninterrupted continuous and smooth transition

D. New Plan - Integration
   - At CalRecycle's request, CARE intends to rewrite the approved Plan to integrate and streamline incorporation of all new approved elements under Chapter 0 and AB 729. Should program termination or revocation occur, CARE will cease all efforts to complete this project unless CalRecycle wishes to negotiate additional compensated work outside the CSO role

E. Academic Studies
   - UC Davis, HSU, GaTech, Others
     - CARE will provide all relevant files, not already published, and related to studies to CalRecycle designated participant
     - CARE will arrange a meeting, if desired, to introduce CalRecycle or its Designee(s) to resources working on any initiatives and facilitate a dialog for transition

F. ADA Compliant Requirements
   - This element is not relevant in a termination or revocation scenario

Advisory Committee Engagement

As legislated, CARE routinely engages with the Advisory Committee as it relates to the Plan and Annual Reporting

- All relevant documents are part of the public record
- No actions are anticipated in the event of a termination or revocation

Annual Surveys

As a regular part of preparing the Annual Report, as well as measuring appropriate Program metrics, regular and/or periodic annual Mill surveys are conducted relating to weight per square yard of carpet and backstamping progress.

ACTIONS:

A. Weight per Square Yard
   - How the acquisition of this data is handled will be up to CalRecycle in the future sans a role for CARE
   - The 2018 CalRecycle waste characterization study completed by Cascadia did a field assessment of weight per square yard and it agreed nicely with CARE's Mill survey data which is a composite average across all market sectors
   - If CalRecycle desires, CARE will meet and describe our Mill survey and analysis methodology

B. Setting of Discards Formula Parameters
   - Relevant data is updated on an annual basis as a result of the Mill survey and Market Insights reports
   - There are no specific actions anticipated in the event of a termination or revocation

C. Backstamping
   - Current information is updated via a Mill survey. It will be up to CalRecycle or its Designee(s) to determine how best to acquire this data in the event of CARE termination or revocation

Miscellaneous

ACTIONS:

A. One-off Problems, Challenges, Issues
   - CARE routinely must respond to issues that surface and for which there is no precedent or protocol in place
   - There is no training or transfer handoff for such cases
   - CARE will do its best to be responsive to questions if/when they arise

General Timeline (project management plan)

ACTIONS:

A. CARE will produce a Gant chart or other project management chart within 60 days after the initial transition meeting with CalRecycle or its Designee(s) to facilitate the agreed to transition period (6 months recommended)

B. CARE will set a meeting with CalRecycle to review the timeline elements and set responsibilities for each

Miscellaneous

For reference, the following relevant statutory excerpts of the Public Resources Code, Chapter 20. Product Stewardship for Carpets, as supplied by CalRecycle, shall preempt any inconsistencies in the contingency plan and is included here.

42972(a).

(7) Include a contingency plan should the plan expire without approval of a new plan or should the plan be revoked. The contingency plan shall demonstrate how the activities in the plan will continue to be carried out in the absence of a plan by the department through some other entity, such as an escrow company, consistent with Section 42972.7.

42972.7(a)

(1) A carpet stewardship organization, as part of its carpet stewardship plan, shall set up a trust fund or an escrow account, into which it shall deposit all unexpended funds and ongoing consumer assessments, for use in accordance with this section in the event that the plan terminates or is revoked.

(2) For purposes of this subdivision, “unexpended funds” means assessment money in the stewardship organization’s accounts that the stewardship organization is not already obligated to pay pursuant to a contract, claim, or similar mechanism.

(b) If a carpet stewardship plan terminates or is revoked, the trustee or escrow agent of a trust fund or escrow account set up pursuant to subdivision (a) shall do both of the following, starting within 30 days:

(1) Accept carpet stewardship assessment payments directly from manufacturers into the trust fund or escrow account that would have been made to the stewardship organization prior to the carpet stewardship plan’s termination or revocation.

(2) Make payments from the trust fund or escrow account as the department shall direct, in writing, to implement the most recently approved plan.

(c) If a new carpet stewardship plan has not been approved by the department within one year after termination or revocation, the department may make modifications to the previously approved plan, as it deems necessary, and continue to direct payments from the

trust fund or escrow account in accordance with paragraph (2) of subdivision (b) to implement the modified plan.

(d) A trustee or escrow agent in possession of assessment funds shall, as directed by the department, transfer those funds to a successor carpet stewardship organization with an approved plan.

Glossary

AC: Advisory Committee

ADA: Americans with Disabilities Act

CARE: Carpet America Recovery Effort, a 501c3 non-profit

CBI: Confidential Business Information

CCM: Cost Conversion Model (CARE proprietary tool)

CFO: Chief Financial Officer

CSE: Collector/Sorter Entrepreneur

CSO: Carpet Stewardship Program

ED: Executive Director

EM: Economic Model

FM: Financial Model

GIS: Gigantic Idea Studio

HSU: Humboldt State University

OKR: Objective and Key Result

PCC: Post-consumer carpet

PFAs: Perfluoroalkyl compounds (fluorochemicals)

Planful: New name of Host Analytics, the software platform that CARE employs to collect and process reporting information from recyclers and certain program elements

RFP: Request for Proposal

SJM: Subsidy Justification Model

SPC: Sustainable Planning Committee

SFOC: Sustainable Fund Oversight Committee

VPS: Voluntary Product Stewardship Program