

## **Department of Resources Recycling and Recovery**

### **Dealer Registration and Dealer Cooperatives Permanent Regulations**

#### **Economic and Fiscal Impact Statement (STD 399) Supplemental Information**

##### **Background of Bill and Regulations**

The Department of Resources Recycling and Recovery (CalRecycle) administers the California Beverage Container Recycling and Litter Reduction Act (the Act), which was added to state law by Assembly Bill No. 2020 (1985-1986 Reg. Sess.). The Act mandated CalRecycle to notify all dealers in any convenience zone where a recycling location or locations were initially established, but had ceased to operate, to establish a recycling location. In a convenience zone unserved by a recycling center, the Act requires dealers to either redeem all beverage container types on the premises or pay CalRecycle \$100 per day until a recycling location is established. The intent of the Act is to encourage increased, and more convenient, beverage container redemption opportunities for all consumers, and to provide the opportunity to return beverage containers conveniently, efficiently, and economically, in every region of the State.

Senate Bill 1013 (2021-2022 Reg. Session, Chapter 610 of the Statutes of 2022) (SB 1013) is the most recent amendment to Public Resources Code (PRC) section 14571.6, which repeals that section on January 1, 2025, eliminating the requirements for dealers to redeem all beverage container types or pay CalRecycle \$100 per day in an unserved convenience zone. In its place, SB 1013 established PRC sections 14510.2, 14578, and 14578.5 pertaining to dealers and dealer cooperatives and mandates dealers in any convenience zone where no recycling location exists to, commencing January 1, 2025:

- Redeem all beverage container types on the premises with three requirements related to (1) redemption location, (2) redemption signage, and (3) delivery of empty beverage containers received from the public (PRC section 14578(a)(1)(A)-(C));
- or join a dealer cooperative to provide a dealer cooperative redemption plan to CalRecycle and implement the approved plan for redeeming beverage containers in the unserved convenience zone (PRC section 14578(a)(2)(A)).

The Act exempts a dealer from either requirement if its gross annual sales are less than \$1.5 million, excluding fuel sales, or if the dealer is less than 5,000 square feet (PRC section 14578(b)(1) and (2)). Throughout this economic and fiscal impact analysis, such dealers are referred to as “exempt dealers”.

SB 1013 bolsters the intent of the Act by expanding redemption opportunities for consumers to redeem beverage containers at a dealer cooperative redemption site in underserved communities, incentivizing formation of dealer cooperatives with eligibility for program payments, increasing clean streams of recyclable materials to support a

circular economy, and reducing environmental litter by providing accessible and convenient recycling options.

Pursuant to PRC section 14578.5(b)(1) and (2), the Legislature mandated CalRecycle to adopt regulations “that provide access and convenience for consumers that are comparable to subdivision (a) of Section 14571”. Therefore, the Legislature has directed CalRecycle to address the current lack of consumer convenience and access to California Redemption Value (CRV) refund recycling opportunities.

Specifically, pursuant to PRC section 14578.5, the Legislature mandated that CalRecycle address the problem of access and consumer problems by adopting regulations that “include the registration process for dealers, the application and registration process for the dealer cooperative, and the process for updating information after registration as needed, and other regulations necessary for the implementation and enforcement” of that subdivision. However, that section does not specifically dictate the processes to be used or what other regulations are necessary for implementation and enforcement. Rather, that section leaves the development of those processes and other regulations to the discretion of CalRecycle.

### **Anticipated Benefits from this Regulatory Action**

The goal of SB 1013 is to bolster the intent of the Act by expanding convenient redemption opportunities for consumers to redeem empty beverage containers for the refund value at dealer cooperative-operated collection sites in areas underserved with redemption opportunities. SB 1013 incentivizes the formation of dealer cooperatives with eligibility for program payments under the Act, including handling fees, administrative fees, processing payments, and reimbursement for the CRV refund value paid out to consumers. The operation of dealer cooperatives in unserved convenience zones increases clean streams of recyclable materials to support a circular economy and reduces environmental litter by providing accessible and convenient recycling options tailored to the communities where the dealer cooperatives are located. The proposed amendments in these regulations will provide the following anticipated benefits that are aligned with the goal of SB 1013:

- Allows, through dealer registration, an accurate count of all dealers located in convenience zones to enable the department to determine which dealers are redeeming beverages in-store, participating in a dealer cooperative, or that are exempt from those requirements pursuant to PRC section 14785(b) due to being a small dealer in terms of sales figures or square footage. This promotes business transparency by ensuring that CalRecycle has the information necessary to answer basic consumer questions as to where and when consumers may redeem empty beverage containers in a convenience zone not served by a recycling center.
- Provides incentives for dealers to participate in a dealer cooperative such as eligibility for program payments under the Act from CalRecycle, including handling fees, administrative fees, processing payments, and reimbursement for

the refund value paid out to consumers. This increases recycling, which benefits the environment by reducing litter and landfill disposal of beverage containers. Increased recycling of beverage containers will also create a larger recycled content market for beverage manufacturers, which will encourage use of post-consumer content and therefore reduce greenhouse gas emissions by using less virgin plastic.

- Prevents discrimination and promotes fairness and social equity by requiring education materials regarding dealer cooperative redemption to be distributed in languages suitable to the community being served. The regulations also increase social justice by incentivizing the formation of more redemption locations in unserved convenience zones.
- Increases openness and transparency in business and government by requiring the dealer cooperative stewardship plans to be posted on publicly available websites and also by requiring the Department to engage in a public comment process when reviewing a stewardship plan.
- Enables dealer cooperatives to be economically sustainable through both of the following: (1) the receipt of program payments and dealer cooperative stewardship fees and (2) protecting a dealer cooperative's investment in its stewardship program from recycling centers that would locate in the same unserved convenience zones, thereby making the dealer cooperative ineligible for program payments.
- Promotes environmental stewardship through educational awareness to consumers to recycle CRV beverage containers.
- Defines procedures to record and report data on beverage container redemption in specific unserved convenience zones in California. This increases the transparency of businesses in the state.
- Establishes a performance standard for dealer cooperatives to redeem an amount equal to 80 percent performance of the beverages containers sold by the dealer members of the dealer cooperative in an unserved convenience zone, which aligns with the 80 percent beverage container recycling goal in PRC section 14501(c).
- Establishes clear standards for a dealer cooperative's compliance with the Act and Regulations while ensuring maximum flexibility for a dealer cooperative to create its own stewardship program that will best serve the needs of the community, rather than imposing a one-size-fits-all approach that has been shown to need improvement due to the large number of convenience zones in the state unserved by traditional recycling centers.
- Increases opportunities for consumers to conveniently recycle CRV beverage containers in unserved convenience zones by allowing dealer cooperatives to tailor redemption services to their community through creation of a stewardship plan.

- Increases the amount of-CRV containers that are diverted from becoming litter or disposed of in landfills into clean recycling streams.
- Provides employment and contracting opportunities in unserved convenience zones for persons working to implement a dealer cooperative stewardship program.
- Decreases the amount of litter and associated pollution to the environment caused by beverage container material.
- Decreases the risk of negative human health impacts or worker injury resulting from the litter abatement or landfill processing of beverage container material.

These anticipated benefits are also aligned with CalRecycle’s policy goals to do all of the following:

- Increase CRV beverage container redemption rates to 80 percent pursuant to PRC section 14501(c).
- Transition from a disposable, single-use system to a society with zero waste.
- Create a network of convenient redemption opportunities for consumers statewide.
- Support California’s transition to a circular economy by increasing clean streams of recyclable materials.
- Facilitate resource conservation in the state by providing consumers with beverage container redemption opportunities that are tailored to their communities, thereby increasing convenience and redemption.
- Increase markets for beverage container material to ensure that beverage container material is reused or becomes feedstock for the production of new products rather than littered or landfilled.
- Reduce litter and the associated negative impacts to human health, wildlife, and the environment.
- Protect the environment and climate by providing an economically feasible business model for the redemption and recycling of beverage containers, thereby removing those beverage containers from the waste stream.
- Modernize California’s beverage container recycling program by implementing a producer-run extended producer responsibility stewardship program for the redemption of beverage containers, which has been proven to work in the neighboring state of Oregon.
- Increase the opportunity for small businesses to operate beverage container redemption services in unserved convenience zones under a more flexible model than traditional recycling centers.

## **General process, data sources, and assumptions**

There are two major components of these proposed regulatory requirements, which each affect a different number of businesses and therefore costs are calculated separately: dealer registration and dealer cooperatives. Dealer registration is required of all regulated businesses (see PRC section 14510) located in convenience zones, which, based on CalRecycle data in the Division of Recycling Integrated Information System (DORIIS), there are approximately 30,000 dealers in the state of California.

Government Code (Gov. Code) section 11342.610 defines a “small business” as a retail trade that is independently owned and operated, not dominant in its field, and does not exceed annual gross receipts of \$2,000,000. Exempt dealers are defined in PRC section 14578(b) as those which have either:

- Gross annual sales of less than \$1,500,000, excluding sales of fuel, or
- Less than 5,000 square feet

For the purpose of discussing impacted “small businesses”, the PRC exemption is a narrower, and more relevant, definition than the Gov. Code definition, and so cost estimates applicable to “small businesses” will be discussed in the context of the exempt dealer definition set forth in PRC 14578(b).

CalRecycle conducted an analysis of the DORIIS dealer data to determine the approximate number of small businesses or exempt dealers under this statutory definition to determine the total number of businesses that would be required to either choose to redeem empty beverage containers in-store or participate in a dealer cooperative. The methodology involved collecting a sub-sample of 300 dealers currently registered in DORIIS and differentiated each dealer in the sub-sample as either not exempt or exempt. CalRecycle has no data on sales or square footage of dealers. Therefore, CalRecycle individually evaluated each business based on store name, store type, and internet research to make informed estimates on whether the business was likely exempt or likely not exempt. The results revealed that 27 percent of the sub-sample are likely not exempt and 73 percent of the sub-sample are likely exempt. The ratio of the 73 percent of exempt dealers to the total number of dealers in the state of California (approximately 30,000) determines that approximately 21,900 exempt dealers (generally speaking, small businesses) will be required by section 2371 of the proposed regulations to register as a dealer with CalRecycle, and to submit annual confirmation of their exempt status as required by section 2372(d) of the proposed regulations. These small business dealers must notify CalRecycle if there are updates to their registration information, or if their exempt status changes (i.e., if their annual gross sales exceed \$1.5 million a year, excluding fuel sales, or their square footage increases to 5,000 square feet or more). Aside from these minimal requirements, these dealers are exempt, regardless of being located in an unserved convenience zone, from any further requirements mandated in PRC section 14578. The remaining 8,100 businesses are dealers that are not considered small businesses, and will be required to either redeem empty beverage containers in-store or opt into a dealer cooperative if they are located in a served convenience zone, and therefore incur additional costs associated with these regulations.

CalRecycle also undertook efforts to determine the number of businesses that are currently redeeming in-store (Option A, discussed below) as required by PRC section 14571.6 that would continue redeeming in store when PRC section 14578 becomes operative. Several considerations factored into the analysis of how many dealers would continue in-store redemption compared to how many would join a dealer cooperative. CalRecycle made the assumption that dealers who are currently redeeming in-store will continue to do so, and those who have chosen the option to pay an in-lieu fee under the current statutory requirement in PRC section 14571.6 would be the most likely to join a dealer cooperative. Additionally, CalRecycle estimated the number of dealers based on SB 1013's changes to the size of convenience zones set forth in PRC section 14509.4. This statutory amendment increased the size of a convenience zone, and so it is approximated that the current number of dealers located in an unserved zone will increase from approximately 5,500 in September 2023<sup>1</sup> to approximately 6,000 dealers by January 2025. The September 2023 data additionally revealed that approximately 13% of the dealers had chosen Option B (paying CalRecycle \$100/day in-lieu of in-store redemption) or were nonresponsive to the Option A/Option B decision.

Applying that same 13% metric to the projected 6,000 dealers located in unserved convenience zones across the state results in 780 dealers selecting Option 2, which is the option to join a dealer cooperative that replaces Option B as of January 1, 2025. The remaining 5,220 dealers (780 subtracted from 6,000 is 5,220) are projected to choose Option 1 (redeeming beverage containers in-store), which replaces Option A as of January 1, 2025. Further analysis of the September 2023 Option B dealers revealed that 46 percent of those dealers were large gross annual sales businesses, such as supermarkets or warehouse stores, and the rest of the Option B dealers would likely meet the exempt dealer definition for small dealers. Applying that same 46% metric to the projected 780 Option 2 dealers results in approximately 360 dealers that are not small, exempt dealers. Assuming that these dealers would continue to choose not to redeem in-store, CalRecycle approximates that these 360 dealers would join a dealer cooperative. Calculations regarding dealer cooperatives rely on this figure and assumptions, specifically, the 360 non-exempt dealers that are projected to join a dealer cooperative are later described in this Appendix as "dealer cooperative typical businesses" in "B. Estimated Costs," below.

It is imperative to identify the total number of dealers in convenience zones, and then to determine how many of that total number of dealers are either small businesses, typical businesses, or dealer cooperative typical businesses. This determination is necessary to calculate the fiscal impact of the various costs associated with specific requirements of the proposed regulations. For example, dealer registration is required of all dealers located in convenience zones, however, only large businesses that are located in an unserved convenience zone will be required to redeem in-store or join a dealer cooperative. Only those who opt to join a dealer cooperative will be subject to additional investments for stewardship plan development, infrastructure, and recycling service labor whereas the dealers who continue to redeem in-store or that are located in a

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<sup>1</sup> The September 2023 data can be found in the document entitled "Comparative Analysis of Convenience Zone Data: Status, Dealers in Unserved Zones, and Paid Handling Fees in September 2022 and 2023" in Documents Relied Upon.

served convenience zone will only incur fiscal impact as it relates to the registration process. To understand the fiscal impact to each of these types of businesses, CalRecycle divided the dealers into three groups: small businesses, typical businesses, and dealer cooperative typical businesses. As mentioned above, there are approximately 30,000 total dealers in the state located in convenience zones comprising 21,900 small businesses and 8,100 dealers that are not considered small businesses. These 8,100 dealers that are not considered small businesses represent dealers in both served and unserved convenience zones. Using the analysis from the previous paragraph, CalRecycle then determined that there would be 7,740 typical businesses that would either be in a served zone or redeem in-store, and therefore are not projected to join a dealer cooperative. The remaining 360 dealers that are not considered small businesses are projected to join a dealer cooperative and are called “dealer cooperative typical businesses” (8,100 dealers that are not considered small businesses – 7,740 typical businesses = 360 dealer cooperative typical businesses). In the tables below estimating costs, CalRecycle uses these figures to determine the fiscal impact of the regulations. To estimate the number and cost of RVM and bag drop technology used to calculate the fiscal impact of these proposed regulations, CalRecycle conservatively estimated that each dealer in a cooperative would host an RVM at each of their retail locations. CalRecycle estimates that approximately 360 RVMs would be deployed in the state. The use of bag drop or mobile recycling may be required in areas where large numbers of beverage containers are sold in an unserved area. CalRecycle estimates that these types of technologies have the capacity to manage about 10-times as many empty beverage containers when compared to RVM technology. Therefore, to conduct a fiscal impact analysis, CalRecycle estimates that dealer cooperatives will deploy approximately 36 bag drop or mobile recycling operations in the state.

## **Methodologies for individual answers – Economic Impact Statement**

### **A. Estimated Private Sector Cost Impacts**

#### **3. Estimated number of businesses impacted**

The analysis required by this section was discussed in the preceding section, general process, data sources, and assumptions of this appendix, and is incorporated as responsive to this section.

#### **4-6. Number of businesses and jobs that will be created or eliminated**

CalRecycle estimates 20 businesses will be created if the proposed regulations are adopted. PRC section 14571.6 will be repealed on January 1, 2025 that currently mandates all dealers to redeem in-store or pay to CalRecycle \$100 in lieu of in-store redemption. PRC section 14578 replaces section 14571.6 and mandates, on January 1, 2025, that dealers in unserved convenience zones redeem in-store or join a dealer cooperative, and exempts small businesses. Based on CalRecycle’s initial conversations with dealers and their representatives during the informal rulemaking process, there appear to be a few large store chains (up to 10) that intend to form or join dealer cooperatives to manage redemption for their stores statewide, and a few regional

entities who intend to form dealer cooperatives to manage redemption in their local areas. CalRecycle estimates approximately 10-20 separate dealer cooperative organizations will be formed statewide, so for the purpose of estimating costs, CalRecycle used the estimate of 20 dealer cooperatives for all subsequent calculations. The estimated 20 businesses created will be stewardship organizations that are exempt from taxation under Section 501(c)(3) of the federal Internal Revenue Code of 1986 and formed for the purpose of providing redemption opportunities.

CalRecycle estimates 0 businesses will be eliminated if the proposed regulations are adopted. Small businesses that would be susceptible to elimination due to increased cost pressure are exempt from the proposed regulations pursuant to PRC section 14578(b). Further, those dealers who are already redeeming beverages in store can continue to operate in the same manner and not incur any additional costs that may cause financial burdens as a result of the proposed regulations. Finally, dealers participating in a dealer cooperative are financially incentivized by PRC section 14578.5(d), allowing dealer cooperatives reimbursement of CRV refunds paid to consumers, as well as processing payments, handling fees, and administrative fees. Therefore, it is not anticipated that the proposed regulations would result in the elimination of any business because of the cost.

CalRecycle estimates 103 jobs will be created by the proposed regulations. The newly created jobs are a result of the 20 businesses created by the proposed regulations operating to provide redemption opportunities for consumers in unserved convenience zones. These dealer cooperatives will require two types of jobs: first is the jobs required for administration of the dealer cooperative (administrative jobs), and the second is the jobs required for providing the empty beverage container CRV refund services (recycling service jobs). For dealer cooperative administrative jobs, CalRecycle estimates that each dealer cooperative will require general staffing for organizational management tasks such as business incorporation, stewardship plan writing, quarterly reporting to CalRecycle, managing contracted services, and acting as a liaison to the dealer members. CalRecycle also estimates that contract accounting and information technology services will be required from individuals with specialized certifications and skills. For recycling service jobs, CalRecycle considered the operation and maintenance of two different types of technologies to estimate the number of jobs created: Reverse vending machines (RVM), which are unstaffed redemption technologies that require periodic emptying and maintenance, and bag drop or mobile redemption programs requiring full time staffing to operate.

To determine the estimated number for full-time equivalent (FTE) staff per cooperative, CalRecycle estimated the number of hours required for each cooperative per month needed to complete the required tasks as outlined in the proposed regulations by job type, then multiplied by 12 months, to determine the approximate total number of hours needed in a year. These hours are then divided by a standard 2,000-hour work year to determine each value in the columns of Table 1 and Table 2 titled “Estimated Number of FTE Staff Per Cooperative” and “Estimated Number of FTE Staff Per Infrastructure Type.”



For example, in Table 1, CalRecycle considered the following duties of the contract accountant role as required by the regulations: obtain and maintain the federal tax identification number and tax exemption status under section 501(c)(3) of the federal Internal Revenue Code of 1986, file articles of incorporation with the California Secretary of State or equivalent, plan a budget and assess fees on dealer members, prepare an itemized list in accordance with Generally Accepted Accounting Principles of anticipated costs associated with the administration and implementation of the stewardship plan, recommend funding for the stewardship plan’s budgeted costs and operation over a multi-year period, maintain all customer transactions in a five-year period, and assist with preparing quarterly reports and submitting the reports to CalRecycle. CalRecycle estimated that it would require approximately 16 hours of work per month, or approximately 200 hours per year. When compared to a 2,000-hour work year, this would calculate to 0.1 FTE contract accountant per cooperative ( $200 / 2,000 = 0.1$ ).

For Table 2, the number of FTE staff per cooperative considered the infrastructure type rather than the administrative job by type. For example, RVM is an unattended innovative method of redemption, and therefore requires less labor than bag drop or mobile recycling. CalRecycle estimated that each RVM would need approximately 8 hours of labor per month, or approximately 100 hours per year. When compared to a 2,000-hour work year, this would calculate to 0.05 FTE per RVM ( $100 / 2,000 = .05$ ).

CalRecycle conducted similar estimations for each position type based on duties required by the regulations or the number of infrastructure types. Calculations are shown below in Table 1 and Table 2, resulting in an estimated 103 new jobs created (13 administrative jobs from Table 1 + 90 recycling jobs from Table 2 = 103 total new jobs created).

CalRecycle estimates 0 jobs will be eliminated by the proposed regulations, because of the same reasoning provided above for the number of businesses eliminated.

**Table 1. Estimated number of administrative jobs created by 20 dealer cooperatives. The number of administrative jobs created is determined by the number of Full Time Equivalent (FTE) staff for each cooperative.**

<b>Administrative Job by Type</b>	<b>Estimated Number of Dealer Cooperatives</b>	<b>Estimated Number of FTE Staff Per Cooperative</b>	<b>Number of Jobs Created</b>
<b>Organizational Management</b>	20	0.5	10
<b>Contract Accountant</b>	20	0.1	2
<b>Contract IT Services</b>	20	0.05	1
		<b>Total Number of Administrative Jobs</b>	<b>13</b>

**Table 2. Estimated number of recycling service jobs created by 20 dealer cooperatives. The number of recycling jobs is dependent on the infrastructure type, being that bag drop or mobile redemption programs will require higher staffing compared to RVMs. The number of recycling service jobs is determined by the number of FTE staff for each location.**

<b>Recycling Jobs by Infrastructure Type</b>	<b>Estimated Number of Locations</b>	<b>Estimated Number of FTE Staff Per Infrastructure Type</b>	<b>Number of Jobs Created</b>
<b>Reverse Vending Machine</b>	360	0.05	18
<b>Bag Drop/Mobile Recycling</b>	36	2	72
		<b>Total Number of Recycling Jobs</b>	<b>90</b>

## **B. Estimated Costs**

The STD 399 requires estimates for initial, annual, and lifetime costs of the regulations for individuals, small businesses, and typical businesses. The regulatory updates do not impose costs on individuals, so CalRecycle does not provide estimates for this group. When estimating costs for businesses, CalRecycle does provide separate costs for small and typical businesses as it relates to annual ongoing costs for the proposed dealer registration and notification requirements. For the initial and ongoing costs proposed for stewardship plan submission, stewardship plan updates, quarterly reporting requirements, operation and maintenance of the stewardship plan, and enforcement costs associated, only typical businesses are reported because PRC section 14578(b) exempts small businesses from these proposed requirements.

As mentioned in the general process, data and assumptions section of the STD 399 appendix, above, with additional context provided for wages, CalRecycle estimates the following:

- The total number of businesses affected by the dealer registration requirements proposed in the regulations is 30,000. This includes all dealers located in a convenience zone, whether served or unserved.
- The total number of small businesses is 21,900.
- The total number of dealers that are not considered small businesses to be 8,100.
- Of the total 8,100 dealers that are not considered small businesses, 7,740 would be required to only incur costs related to registration and are referred to “typical businesses” throughout the cost estimates. Those 7,740 typical businesses are not projected to join a dealer cooperative. The remaining 360 typical businesses

are projected to join a dealer cooperative and will be referred to as “dealer cooperative typical business” throughout the cost estimates.

- Dealer cooperative typical businesses are estimated to deploy and operate 360 RVMs and 36 bag drop or mobile recycling activities.
- The estimated total number of dealer cooperatives created by the dealer cooperative typical businesses in California is 20.
- Dealer registration and recycling service jobs are based on the hourly minimum wage of \$19.08<sup>2</sup>. This is the highest minimum wage in California according to the UC Berkeley Labor Center<sup>3</sup>.

The estimates below consider these figures to determine the initial, ongoing, and lifetime costs. These costs will be calculated for small businesses, typical businesses, and dealer cooperative typical businesses. Typical businesses in unserved convenience zones have an option to continue to redeem beverage containers in-store, incurring no new costs under these regulations, or to choose the option provided in the proposed regulations to join a dealer cooperative.

*Initial Costs*

When estimating initial costs, or the Year 1 costs associated with the adoption of the proposed regulations, CalRecycle delineated between small businesses, typical businesses, and dealer cooperative typical businesses for costs associated with dealer registration. Small businesses and typical businesses that are not part of a dealer cooperative will not incur initial costs for the development and submittal of a stewardship plan, infrastructure investments, and operation because PRC section 14578(b) exempts small businesses from these proposed requirements and typical businesses not part of a dealer cooperative may continue to redeem beverage containers in-store and incur no new costs, or may be in a served zone where a recycling center exists.

Dealer registration – All businesses within convenience zones are required to submit a dealer registration according to section 2371 of the proposed regulations. There are 21,900 small businesses, 7,740 typical businesses, and 360 dealer cooperative typical businesses subject to this requirement. The estimated average time to complete dealer registration is approximately one hour per dealer in the first year, which CalRecycle calculated at \$19.08/hour for the employee completing the registration.

**Table 3. Estimated initial cost for dealer registration. This is the only initial cost for small businesses and typical businesses.**

<b>Business Type</b>	<b>Number of Entities</b>	<b>Hourly Wage</b>	<b>Cost</b>
<b>Small Business</b>	21,900	\$19.08	\$417,852
<b>Typical Business</b>	7,740	\$19.08	\$147,679.20

<sup>2</sup> West Hollywood Minimum Wage, <https://www.weho.org/business/operate-your-business/minimum-wage>

<sup>3</sup> UC Berkeley Labor Center, California City and County Current Minimum Wages (1/1/2024), <https://laborcenter.berkeley.edu/inventory-of-us-city-and-county-minimum-wage-ordinances/#s-2>

<b>Dealer Cooperative Typical Business</b>	360	\$19.08	\$6,868.80
		<b>Total Dealer Registration Cost</b>	<b>\$572,400</b>

All further cost estimates will apply only to the dealer cooperative typical businesses because the regulations propose two options for all typical businesses. CalRecycle estimates that 7,740 typical businesses are either in served convenience zones or will continue to redeem beverage containers in-store and will therefore not bear additional costs associated with the proposed regulations. However, 360 typical businesses are expected to join a dealer cooperative and will be subject to the costs presented below.

Dealer Cooperative Typical Business Estimated Stewardship Plan Cost – CalRecycle estimates that 360 dealer cooperative typical businesses will form approximately 20 dealer cooperatives over various regions in California. These dealer cooperative typical businesses will incur additional initial costs. In the first year, each dealer cooperative will expend labor costs associated for development, submittal, and revision of the dealer cooperative plan. Table 4 estimates an approximate \$1,690,000 cost for these activities and assumes an hourly wage commensurate to a senior analyst manager, an accountant, and an information technology specialist with benefits. CalRecycle used the following salaries for the corresponding positions in Table 4:

- Organizational management uses a Staff Services Manager I’s salary, benefits, and cost of \$135,000.
- Accounting uses an Accounting Officer (Specialist)’s salary, benefits, and cost of \$99,000.
- Information technology services uses an Information Technology Specialist I’s salary, benefits, and cost of \$142,000.

Each dealer cooperative will at a minimum require 0.5 full time equivalent (FTE) for organizational management and, 0.1 FTE for accounting, and 0.05 FTE for informational technology services.

**Table 4. Estimated initial cost for dealer cooperative typical business stewardship plan development, submittal, and revision.**

<b>Administrative Labor</b>	<b>FTE Staff for 20 Dealer Cooperatives</b>	<b>FTE Rate</b>	<b>Cost</b>
<b>Organizational Management</b>	10	\$135,000	\$1,350,000
<b>Accounting</b>	2	\$99,000	\$198,000
<b>Information Technology Services</b>	1	\$142,000	\$142,000

		<b>Total Stewardship Plan Cost</b>	<b>\$1,690,000</b>
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Dealer Cooperative Typical Business Estimated Infrastructure Cost - CalRecycle estimates that 360 typical businesses may form approximately 20 dealer cooperatives over various regions in California. These typical businesses will incur additional initial costs. In the first year, each dealer cooperative will experience infrastructure costs associated with the purchasing and deployment of innovative methods of redemption. Section 2375.1(b)(6) of the proposed regulations require each dealer cooperative to utilize at least one innovative method of redemption such as a RVM, bag drop, or mobile recycling for each unserved convenience zone in which the dealer cooperative is operating. CalRecycle assumes infrastructure deployment is dependent on the geographic and demographic needs of each dealer cooperative. The most conservative approach for CalRecycle's estimate is to assume maximum geographic spread between dealers and assume there will be one RVM (a cost efficient and convenient type of innovative redemption) for each typical business in a dealer cooperative, for a total of 360 RVMs. Additionally, CalRecycle expects that some dealer cooperatives will deploy bag drop, mobile recycling, or other staffed redemption options in order to fully redeem the 80-percent beverage container volume as required by section 2375.1(b)(8)(A)(iii) of the proposed regulations. CalRecycle also assumes these dealer cooperatives, due to being larger than an individual dealer redeeming in store, will need to handle beverage container intake capacity of approximately 10 times the capacity of a RVM, and so these dealer cooperatives will require an additional 36 bag drop, mobile recycling, or other staffed redemption options in total for all dealer cooperatives across the state.

The costs per unit for each infrastructure type is an estimation based on conversations with interested parties during informal workshops and from pilot program applications submitted to CalRecycle.

**Table 5. Estimated initial cost for dealer cooperative typical business infrastructure.**

<b>Infrastructure Type</b>	<b>Number of Units</b>	<b>Cost Per Unit</b>	<b>Cost</b>
<b>RVM</b>	360	\$45,000	\$16,200,000
<b>Bag drop, mobile recycling, other staffed innovative redemption options</b>	36	\$120,000	\$4,320,000
		<b>Total Infrastructure Cost</b>	<b>\$20,520,000</b>

Dealer Cooperative Typical Business Estimated Operation Cost - In the first year, each dealer cooperative will expend labor costs associated with the operation and maintenance of each innovative method of recycling. Above, CalRecycle estimated that

there will be 360 RVMs and 36 bag drop, mobile recycling, or other staffed redemption options. CalRecycle estimates each RVM will require 0.05 FTE and each bag drop, mobile recycling, or other staffed redemption options will require 2 FTE positions. The FTE rate is calculated using the minimum wage of \$19.08 per hour multiplied by 40 hours a week, multiplied by 52 weeks in a year for an annual salary of \$39,686.

**Table 6. Estimated initial cost for dealer cooperative typical business recycling service jobs for the maintenance and operation of each purchased infrastructure.**

<b>Recycling Services Labor by Infrastructure Type</b>	<b>FTE Staff for All Infrastructure</b>	<b>FTE Rate</b>	<b>Cost</b>
<b>RVM</b>	18	\$39,686	\$714,348
<b>Bag drop, mobile recycling, other staffed innovative redemption options</b>	72	\$39,686	\$2,857,392
		<b>Total Recycling Service Cost</b>	<b>\$3,571,740</b>

**Table 7. Summary of initial costs estimated by entity type. Registration costs are derived from Table 3, stewardship costs are derived from Table 4, infrastructure costs from Table 5, and operation costs from Table 6. The total cost per entity is calculated by dividing the total cost by the number of entities. The total cost of the regulations is the sum of all total costs (\$26.4 million).**

<b>Entity Type</b>	<b>Small Businesses</b>	<b>Typical Business</b>	<b>Dealer Cooperative Typical Business</b>
<b>Number of Entities</b>	21,900	7,740	360
<b>Registration Cost</b>	\$417,852	\$147,679.20	\$6,868.80
<b>Stewardship Plan</b>	NA	NA	\$1,690,000*
<b>Infrastructure</b>	NA	NA	\$20,520,000*
<b>Operation</b>	NA	NA	\$3,571,740*
<b>Total Cost</b>	\$417,852	\$147,679.20	\$25,788,608.80
<b>Total Cost Per Entity</b>	<b>\$19.08</b>	<b>\$19.08</b>	<b>\$71,635.02</b>

\*The asterisked costs are later referenced and used in a calculation for the Lifetime Costs in section E of this appendix.

### Annual Ongoing Costs

When estimating annual ongoing costs CalRecycle delineated between small businesses and typical businesses for costs associated with dealer registration. Small businesses have no annual ongoing costs for the stewardship plan updates, quarterly reporting, five-year stewardship plan review, or maintenance and operation costs because PRC section 14578(b) exempts small businesses from these proposed requirements. The costs for a typical business are further separated by estimated administrative and recycling service costs.

Dealer registration – Section 2372(d) of the proposed regulations require all businesses to annually submit confirmation that the original registration is accurate. The estimated average time for a dealer employee to confirm the original dealer registration is approximately one quarter of an hour per dealer site per year, which CalRecycle calculated at \$4.77 for the employee completing the registration (\$19.08 per hour X 0.25 hours to confirm original dealer registration).

**Table 8. Estimated ongoing annual cost for dealer registration. This is the only annual ongoing cost for small businesses and typical businesses.**

<b>Business Type</b>	<b>Number of Entities</b>	<b>Wage</b>	<b>Cost</b>
<b>Small Business</b>	21,900	\$4.77	\$104,463
<b>Typical Business</b>	7,740	\$4.77	\$36,919.80
<b>Dealer Cooperative Typical Business</b>	360	\$4.77	\$1,717.20
		<b>Total Registration Cost</b>	<b>\$143,100</b>

Dealer Cooperative Typical Business Estimated Administrative Costs – CalRecycle estimates each dealer cooperative to have annual ongoing administrative costs for stewardship plan updates, organizational management, and quarterly reporting to CalRecycle. CalRecycle’s assumption is that this cost will be the same annually as the initial costs found in Table 4 for administrative labor.

Dealer Cooperative Typical Business Estimated Operational Costs – CalRecycle estimates each dealer cooperative to have annual ongoing recycling service costs for maintenance and operation of the stewardship plan. An assumption is made that the labor necessary for the operation of RVMs is less labor intensive and requires little employee oversight compared to other innovative methods of redemption such as bag drop or mobile recycling. CalRecycle’s assumption is that this cost will be the same annually as the initial costs found in Table 6 for recycling services labor.

**Table 9. Summary of the annual ongoing costs by entity type. The total cost per entity is calculated by dividing the total cost by the number of entities.**

<b>Entity Type</b>	<b>Small Businesses</b>	<b>Typical Businesses</b>	<b>Dealer Cooperative Typical Business</b>
<b>Number of Entities</b>	21,900	7,740	360
<b>Registration</b>	\$104,463	\$36,919.80	\$1,717.20
<b>Administrative Operations</b>	NA	NA	\$1,690,000*
<b>Total Cost</b>	\$104,463	\$36,919.80	\$5,263,457.20
<b>Total Cost Per Entity</b>	<b>\$4.77</b>	<b>\$4.77</b>	<b>\$14,620.71</b>

\*The asterisked costs are later referenced and used in a calculation for the Lifetime Costs in section E of this appendix.

### *Lifetime Costs*

The previous section *Initial Costs and Annual Ongoing Costs* describes the Year 1 and Ongoing costs associated with all entities affected by these regulations. In calculating the lifetime costs of these proposed regulations, the following formula was applied, where lifetime costs refer to a 10-year cost associated with these regulations, for each type of business entity:

$$\textit{Lifetime Cost} = (\textit{Year 1 Costs}) + (9 \textit{ Years} \times \textit{Ongoing Costs})$$

The following formula was applied to determine the total lifetime cost for all entities affected by these regulations.

$$\textit{Total Lifetime Cost} = (\textit{Small Business Lifetime Cost}) + (\textit{Typical Business Lifetime Cost}) + (\textit{Dealer Cooperative Typical Business Lifetime Cost})$$

#### Small Business

$$\textit{Lifetime Cost} = (\$417,852) + (9 \textit{ Years} \times \$104,463)$$

$$\textit{Lifetime Cost} = \$1,358,019$$

#### Typical Business

$$\textit{Lifetime Cost} = (\$147,679.20) + (9 \textit{ Years} \times \$36,919.80)$$

$$\textit{Lifetime Cost} = \$479,957.40$$

#### Dealer Cooperative Typical Business



$$\text{Lifetime Cost} = (\$25,788,608.80) + (9 \text{ Years} \times \$5,263,457.20)$$

$$\text{Lifetime Cost} = \$73,159,723.60$$

Total Lifetime Cost

$$\text{Total Lifetime Cost} = (\$1,358,019) + (\$479,957.40) + (\$73,159,723.60)$$

$$\text{Total Lifetime Cost} = \$74,997,700$$

**1. The total statewide dollar costs that businesses and individuals may incur to comply with this regulation over its lifetime is approximately \$74,997,700.**

CalRecycle assumed 10 years in the calculations for lifetime costs to account for sufficient time for the full effect of the dealer cooperatives stewardship plan operation. Reporting requirements, 5-year plan review, and the 80 percent container redemption rate standard, are incorporated in these costs.

**1a. The initial cost is \$19.08 and the annual ongoing cost is \$4.77 for a small business.**

**1b. The initial cost is \$19.08 and the annual ongoing cost is \$4.77 for a typical business. The initial cost is \$71,635.02 and the annual ongoing cost is \$14,620.71 for a dealer cooperative typical business.**

**1c. Costs are not applicable to individuals because the regulations do not impose any requirements on members of the general public.**

**1d. There are no other economic costs that may occur.**

**2. Multiple industries are not impacted.**

**3. The regulation imposes a reporting requirement only for dealer cooperative typical businesses to incur an annual cost of \$4,694.44 to comply.**

Dealer cooperative typical businesses will be required to comply with specific recordkeeping and reporting requirements imposed by the regulation. These recordkeeping and reporting requirements include beverage container and redemption information, customer information, rejected beverage container information, operational and downtime reports of innovative methods of redemption, quarterly reports, and 5-year stewardship plan review.

CalRecycle's assumption is that the annual costs of reporting and related requirements will be the same as the cost for annual dealer cooperative typical businesses administrative activities as established in Table 4 and repeated in Table 9: \$1,690,000. This total for all dealer cooperative typical businesses was divided by the number of dealer cooperative typical businesses, 360, to equal \$4,694.44.

## **C. Estimated Benefits**

**1. Summary of benefits for the health and welfare of California residents, worker safety and the State's environment and quality of life.**

Requiring the use of an innovative method of redemption as a dealer cooperative component promotes several benefits for the health and welfare of California residents, worker safety, and the State's environment and quality of life. Innovative methods of redemption will increase consumer access to CRV reimbursement by providing convenience through the expansion of the number of sites for redemption and lessening the wait time required for consumers to claim the refund value of beverage containers. Access and convenience provide a customer service experience that will result in consumers utilizing dealer cooperative redemption sites over curbside mixed recycling options, where CRV fees are passed from the consumer to the mixed recycling hauler collecting the curbside bin. By encouraging segregated beverage container material types to be redeemed at dealer cooperative redemption sites rather than recycled through commingled curbside bins, this results in cleaner material streams that benefit the State's environment by facilitating more efficient processing of the clean material streams into new products rather than disposal of contaminated material at a landfill. Diverting contaminated materials from landfills and reducing the number of workers necessary to process commingled and contaminated beverage container material at materials recovery facilities (MRFs) benefits the health and welfare of Californians in general and landfill and MRF worker safety specifically by reducing exposure to contaminants that may cause illness such as respiratory diseases, infections, and dermatological diseases. Wildlife located near landfills will also be spared from exposure to contamination by reducing the amount of material that ends up in landfills.

Innovative methods of redemption use technology that safeguards worker safety. For example, RVMs use an automatic sorter to separate plastic, aluminum, and glass containers into bins. These bins have a weight threshold programmed to limit or reduce the lifting weight required by an employee, thus reducing injury. Another example of safety is the use of artificial intelligence (AI) with bag drop style collections. Bag drop redemption promotes smaller quantities due to bag size restrictions, so there is a reduction of weight required for an employee to lift. Once the employee lifts the bag onto the processing tray and opens the bag, the AI then scans the contents to credit the consumer's account with the CRV, and the contents are then moved forward to machine sortation. These technologies reduce the worker's time required to interact with the delivered material for sorting and provide for the safe handling of bags, which are inherently designed for the ease of lifting for both consumer and worker safety.

For the reasons previously stated, the increased access, convenience, and safety of transporting small quantities of beverage containers on a more frequent basis may reduce environmental pollution of beverage containers. Additionally, the proposed regulations will benefit the state's environment because the requirement for dealer cooperatives to develop educational materials and conduct outreach will enhance consumer awareness of new redemption sites. As consumers are educated on the new redemption sites created by the proposed regulations, and become familiar with the use of innovative methods of redemption proposed, along with the performance standard of requiring dealer cooperatives to collect an amount equal to 80 percent of their

beverages sold in an area, CalRecycle expects a reduction in environmental litter as well as a reduction in landfilling of contaminated beverage containers as consumers will more readily utilize the redemption opportunities over littering or disposing of beverage containers in the trash. These environmental benefits combined with the physical and mental benefits of worker safety improve the quality of life for residents of California and make it a more desirable state in which to reside.

Lastly, there are quality of life benefits for consumers to redeem empty beverage containers due to the expanded access and convenience of recycling provided by dealer cooperatives. The expanded access and convenience as a result of innovative methods of redemption may increase the number of opportunities to recycle and collect the CRV refunds of the empty beverage containers. This is a quality of life benefit for those who wish to participate, and now have access to regular and more frequent opportunities to complete transactions to collect CRV refunds. For these reasons, the regulations as proposed serve as quality of life benefits to California residents.

## **2. The benefits are a result of a specific statutory requirement.**

The driver of these regulations is SB 1013, which requires clarity via regulations in order to successfully implement. SB 1013 amends the Act to repeal, as of January 1, 2025, PRC section 14571.6, which requires dealers to redeem beverage containers in-store or pay CalRecycle \$100 per day in lieu of redeeming beverages in store. SB 1013 also added PRC section 14578 to require, commencing January 1, 2025, dealers to redeem beverage containers in-store or join a dealer cooperative to redeem beverage containers. SB 1013 also exempts, commencing January 1, 2025, certain small business from either option. SB 1013 also added PRC section 14578.5 that allows dealer cooperatives, commencing January 1, 2025, to be eligible for reimbursement of CRV refunds paid to consumers, processing payments, handling fees, and administrative fees.

Additionally, SB 1013 added PRC section 14578.5 paragraph (c) mandating a dealer cooperative to submit a redemption plan to CalRecycle to provide redemption in one or more unserved convenience zones, assess fees on dealers covered by the redemption plan, redeem all material types, be operational and fully implement the approved redemption plan, register as a dealer cooperative with the department, and provide reports to CalRecycle on redemption data or any other information. Replacing the dealer option of paying CalRecycle \$100 per day in lieu of in-store redemption with the option of joining a dealer cooperative benefits the health and welfare of California residents, worker safety, and the State's environment in the manner described above. The clarity provided by the regulations regarding the operation and stewardship plan of a dealer cooperative is necessary to successfully effectuate the benefits of the dealer cooperative framework established by SB 1013.

## **3. The total statewide benefits from this regulation over its lifetime is approximately \$9.1 million annually.**

The proposed regulations for dealer and dealer cooperative definitions; dealer registration and redemption; dealer cooperative stewardship plans, recordkeeping, and reporting requirements; and enforcement procedures improve the health and welfare of California residents, worker safety, and the State’s environment. Note that these benefits are all intangible. CalRecycle has no way of estimating monetary values for these benefits. In the next paragraph, CalRecycle does calculate the monetary value of the financial incentive benefit offered to typical dealer cooperative businesses.

Typical dealer businesses that redeem beverages in-store in unserved convenience zones are ineligible to receive CRV reimbursement, handling fees, processing payments, and administrative fees for the containers that they redeem, while dealer cooperative typical businesses participating in dealer cooperatives will be able to receive these payments from the State. No other entity within an unserved convenience zone is offered this financial incentive, including curbside mixed recycling haulers. Therefore, dealer cooperative typical businesses can realize new benefits from utilizing the dealer cooperatives option to meet the redemption obligations of their dealer members. Handling fees and administrative fees are calculated based on estimated redemption volume pursuant to the redemption methodology in the table below. Handling fees are calculated based on a rate of \$0.01092 per container, which CalRecycle set as the rate effective July 1, 2023<sup>4</sup>. Administrative fees for recyclers are calculated using the formula of 3/4 of 1 percent of the average refund value. The average CRV refund value calculated by CalRecycle in the most recent rate determination study was \$0.05941 per beverage container, and therefore the administrative fee per beverage container is approximately \$0.000446 ( $\$0.05941 \times .0075 = \sim\$0.00446$ ).

Processing payments are regularly recalculated and vary based on container type. In order to calculate an estimate of the average processing payment per container redeemed, CalRecycle used historical data on the proportions of container types redeemed at recycling centers from July 2022 through June 2023. Applying those proportions to the processing payments published by CalRecycle on January 1, 2024<sup>5</sup>, CalRecycle calculated an average processing payment per container of \$0.009584. The column “Annual Containers Redeemed per Unit” was estimated based on comments from stakeholders who were participating in informal rulemaking workshops.

**Table 10. Estimated financial benefit realized by dealer cooperative typical businesses. These benefits are provided through statutory and regulatory amendments.**

Infrastructure Type	Number of Units	Annual Containers Redeemed per Unit	Total Annual Containers Redeemed
RVM	360	600,000	216,000,000

<sup>4</sup> CalRecycle Handling Fee Changes, Effective July 1, 2023: <https://www2.calrecycle.ca.gov/Docs/Web/123783>

<sup>5</sup> CalRecycle 2024 Processing Payments for Recyclers: <https://www2.calrecycle.ca.gov/Docs/Web/126528>.

<b>Bag drop, mobile recycling, other staffed redemption options</b>	36	6,000,000	216,000,000
<b>Total Containers Redeemed</b>			<b>432,000,000*</b>
<b>Handling Fees (\$0.01092 per container)</b>			<b>\$4,717,440</b>
<b>Administrative Fees (3/4 of 1% of the average CRV refund value) (\$0.000446 per container)</b>			<b>\$192,672</b>
<b>Processing Payments (on average, \$0.009584 per container)</b>			<b>\$4,140,288</b>
<b>Benefit Total</b>			<b>\$9,050,400</b>

\*The asterisked value is later referenced and used in a calculation for the Lifetime Costs in section E of this appendix.

## **D. Alternatives to the Regulation**

### **1. Alternatives considered**

CalRecycle is limited in its ability to consider many alternatives because PRC section 14578.5(b) requires CalRecycle to promulgate regulations “that shall include the registration process for dealers, the application and registration process for the dealer cooperative, and the process for updating information after registration as needed, and other regulations necessary for the implementation and enforcement” of that subdivision.

*Regulation as Proposed:* Require all dealers in convenience zones to register with CalRecycle, confirm their registration on an annual basis to inform applicable regulatory requirements and exemptions, create a network of dealer cooperatives to increase the convenience of recycling and redemption opportunities for consumers statewide, support California’s transition to a circular economy by increasing clean streams of recyclable materials, and reduce environmental litter.

*Reason for Accepting the Regulation as Proposed:* CalRecycle is statutorily mandated to adopt regulations pursuant to PRC section 14578.5(b) to include a registration process for dealers, application and registration process for dealer cooperatives, the process for updating information after registration as needed, and other regulations for the implementation and enforcement of the program.

*Alternative 1:* Do not require dealer cooperatives to use innovative methods of redemption.

*Reason for Rejecting Alternative 1:* Innovative methods of redemption such as RVMS, bag drop, mobile recycling, and other innovative recycling services are cost effective, convenient and handle large volumes of containers efficiently over time compared to traditional recycling services despite a higher initial cost to establish. It is likely that dealer cooperatives would utilize these technologies at the same rate regardless of whether the regulations required the use of innovative methods of

redemption because these technologies are cost effective to operate. According to CalRecycle's Division of Recycling Data, traditional recycling redemption methods may have a low initial cost of approximately \$50,000 to establish a site and may require on average 4 full-time equivalent (FTE) employees to operate. One FTE salary is approximately \$39,686 based on West Hollywood's minimum wage of \$19.08, the highest minimum wage in California. Over a five-year period, the cost to operate the traditional recycling services is approximately \$843,720 [\$50,000 initial cost + (4 FTE @ \$39,686 each for five years)]. Comparatively, bag drop has a higher initial cost of approximately \$120,000 to establish a site and has a lower labor cost of 2 FTE for operation. Over the same five-year period, the cost to operate the innovative method of redemption is approximately \$516,860 [\$120,000 initial cost + (2 FTE @ \$39,686 each for five years)]. While initial costs of traditional recycling services are lower, the long-term investment of these two methods demonstrate that innovative methods of redemption are the more cost-effective option and would be utilized over the more costly operation of traditional recycling methods. This alternative would neither lessen nor increase any impact on small businesses because dealers with gross annual sales of less than \$1.5 million (excluding fuel sales) or less than 5,000 square feet are exempt from this requirement pursuant to PRC section 14578(b)(1) and (2). Additionally, funding is available for dealer cooperatives under AB 179 (Section 127 of Chapter 249 of the Statutes of 2022) and SB 101 (Chapter 12 of the Statutes of 2023) budget item 3970-101-0133, schedule (1) for innovative methods of redemption and will be awarded by CalRecycle to dealer cooperatives for exactly this purpose.

*Alternative 2:* Remove requirements for dealer cooperative typical businesses to promote awareness using outreach, education, and internet posting of redemption locations to maximize consumer participation in the stewardship program.

*Reason for Rejecting Alternative 2:* This alternative presents lower administrative costs of reduced labor by dealer cooperatives for the development of educational materials, outreach to communities, and information technology support for the maintenance of a website. However, without the education and outreach to consumers, CalRecycle expects that fewer CRV beverage containers would be redeemed, therefore failing to further the intent of SB 1013 to bolster convenience and accessible redemption opportunities for all consumers in every region of California. This alternative would neither lessen nor increase any impact on small businesses.

## **2. Summarized total statewide costs and benefits from this regulation and each alternative considered.**

*Regulation as Proposed:* The benefit is \$9.1 million and the cost is \$26.4 million calculated in Table 7.

The benefit and cost are calculated over a 12-month period and considers the highest 12-month period for costs over the lifetime of the regulation. This period is the initial or first year, to incorporate the one-time cost to purchase infrastructure for the dealer cooperative requirements.

The benefit is a financial incentive only offered to dealer cooperative typical businesses to request payment of handling fees, administrative fees, and processing payments. Please see Table 10 above for a summary of the benefit calculation. Please refer to Lifetime Cost calculation in Section E of this appendix for a summary of the initial cost totaling the infrastructure and labor costs to \$26.4 million.

*Alternative 1:* The benefit is \$9.1 million and the cost is \$26.7 million.

The benefit and cost are calculated over a 12-month period and considers the highest 12-month period for costs over the lifetime of the regulation. This period is the initial or first year, to incorporate the one-time cost to purchase infrastructure for the dealer cooperative requirements.

Alternative 1’s benefit is the same as the regulation as proposed because dealer cooperative typical business would continue to be eligible for payment of handling fees, administrative fees, and processing payments. Please see Table 10 above for a summary of the benefit calculation.

Alternative 1 has a higher cost because this alternative removes the requirement for dealer cooperatives to use innovative methods of redemption resulting in increased labor costs to operate the dealer cooperative recycling services component. CalRecycle assumes that most dealer cooperatives would still implement RVM technology because of the lower cost entry and lower labor costs associated with RVM. For this reason, the cost of RVM infrastructure remains the same as the proposed regulations and is unchanged in Tables 11 and 12 below. Contrary to RVM, bag drop technology has a higher cost entry and CalRecycle assumes that dealers would instead utilize traditional staffed recycling redemption methods to meet their obligations. Traditional recycling redemption methods have a low initial cost of approximately \$50,000 to establish a site and require four full time equivalent employees to provide services. Comparatively, bag drop redemption technology has a higher initial cost of approximately \$120,000 to establish a site and requires less labor for maintenance and operation at two full time equivalent employees.

Based upon these assumptions, Alternative 1 is calculated with a lower cost for infrastructure due to the cost replacement of bag drop redemption sites with traditional recycling redemption methods and an increase cost of labor to operate these traditional staffed recycling redemption sites.

**Table 11. Estimation of Alternative 1 total infrastructure cost. Similar to Table 7, the costs for RVM infrastructure are constant. The lower infrastructure cost is attributed to the replacement of the low entry cost of traditional staffed recycling redemption sites for bag drop technology, lowering the cost per unit from \$120,000 to \$50,000.**

Infrastructure Type	Number of Units	Cost Per Unit	Cost
RVM	360	\$45,000	\$16,200,000
Staffed traditional recycling redemption sites	36	\$50,000	\$1,800,000

		<b>Alternative 1 Total Infrastructure Cost</b>	<b>\$18,000,000</b>
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**Table 12. Estimation of Alternative 1 operations costs. Similar to Table 6, the costs for RVM labor are constant. The higher labor cost is attributed to dealer cooperative replacing bag drop redemption technology with traditional staffed recycling redemption sites, therefore doubling the number of staff needed to operate these types of sites.**

<b>Recycling Services Labor by Infrastructure Type</b>	<b>FTE Staff for All Infrastructure</b>	<b>FTE Rate</b>	<b>Cost</b>
<b>RVM</b>	18	\$39,686	\$714,348
<b>Staffed traditional recycling redemption sites</b>	144	\$39,686	\$5,714,784
		<b>Alternative 1 Total Recycling Service Cost</b>	<b>\$6,429,132</b>

**Table 13. Estimated costs of Alternative 1, if innovative methods of redemption are not required, and dealer cooperative typical businesses rely on higher labor costs to create redemption opportunities in unserved convenience zones.**

<b>One Time Investments Cost</b>	<b>Amount in Dollars</b>
<b>All Dealer Registration <sup>6</sup></b>	\$572,400
<b>Infrastructure<sup>7</sup></b>	\$18,000,000
<b>Administrative<sup>8</sup></b>	\$1,690,000*
<b>Operations<sup>9</sup></b>	\$6,429,132*
<b>Total Cost of Alternative 1</b>	<b>\$26,691,532</b>

\*The asterisked costs are later referenced and used in a calculation for the Lifetime Costs in section E of this appendix.

*Alternative 2:* The benefit is \$6.8 million and the cost is \$25.9 million.

The benefit and cost are calculated over a 12-month period and considers the highest 12-month period for costs over the lifetime of the regulation. This period is

<sup>6</sup> Total Dealer Registration cost from Table 3.

<sup>7</sup> Alternative 1 Total Infrastructure cost from Table 11.

<sup>8</sup> Administrative costs from Table 4.

<sup>9</sup> Operational costs from Table 12.



the initial or first year, to incorporate the one-time cost to purchase infrastructure for the dealer cooperative requirements.

Dealer cooperative typical business would continue to be eligible for payment of handling fees, administrative fees, and processing payments, and so the benefit offer is initially the same as the regulation as proposed. However, CalRecycle expects a reduction in the number of collected beverage containers resulting in a lower benefit. Please see Table 14 below for a summary of the benefit calculation.

This alternative considers not requiring an education and outreach component, therefore the cost change only affects Year 1 costs and annual ongoing costs to dealer cooperative typical businesses. CalRecycle removed the cost of the IT Support role and reduced the number of organizational management staff to calculate the cost of this alternative. Please see Table 15 below for a summary of reduced administrative labor costs and Table 16 for a summary of this alternative's cost.

**Table 14. Estimated benefit of Alternative 2. The benefit is less than the regulation as proposed and Alternative 1 because the education and awareness component is not required, therefore reducing consumer knowledge of redemption sites and number of beverage containers redeemed.**

<b>Infrastructure Type</b>	<b>Number of Infrastructure Type Deployed</b>	<b>Annual Containers Redeemed Per Infrastructure Type</b>	<b>Total Containers Redeemed</b>
<b>RVM</b>	360	450,000	162,000,000
<b>Bag drop, mobile recycling, other staffed redemption options</b>	36	4,500,000	162,000,000
<b>Total Containers Redeemed</b>			<b>324,000,000*</b>
<b>Handling Fees (\$0.01092 per container)</b>			<b>\$3,538,080</b>
<b>Administrative Fees (\$0.000446 per container)</b>			<b>\$144,504</b>
<b>Processing Payments (\$0.009584 per container)</b>			<b>\$3,105,216</b>
<b>Benefit Total</b>			<b>\$6,787,800</b>

\*The asterisked value is later referenced and used in a calculation for the Lifetime Costs in section E of this appendix.

**Table 15. Estimated cost of Alternative 2. The cost is less than the regulation as proposed because the education and awareness component is not required, therefore reducing dealer cooperative typical business labor costs for organizational management and IT services.**

<b>Administrative Labor</b>	<b>FTE Staff for 20 Dealer Cooperatives</b>	<b>FTE Rate</b>	<b>Cost</b>
<b>Organizational Management</b>	8	\$135,000	\$1,080,000
<b>Accounting</b>	2	\$99,000	\$198,000
<b>Information Technology Services</b>	N/A	N/A	\$0
		<b>Total Stewardship Plan Cost</b>	<b>\$1,278,000</b>

**Table 16. Summary of Alternative 2 estimated cost.**

<b>One Time Investments Cost</b>	<b>Amount in Dollars</b>
<b>All Dealer Registration</b> <sup>10</sup>	\$572,400
<b>Infrastructure</b> <sup>11</sup>	\$20,520,000
<b>Administrative</b> <sup>12</sup>	\$1,278,000*
<b>Operations</b> <sup>13</sup>	\$3,571,740*
<b>Total Cost of Alternative 1</b>	<b>\$25,942,140</b>

\*The asterisked value is later referenced and used in a calculation for the Lifetime Costs in section E of this appendix.

**4. Performance standards were considered to lower compliance costs.**

CalRecycle has a legislative mandate to ensure that beverage container recycling is convenient and available. CalRecycle has considered, as part of the alternative of not requiring a dealer cooperative to use an innovative method of redemption (Alternative 1), instead only imposing the performance standard of redeeming 80 percent of containers sold by dealer members of a dealer cooperative. This performance standard of mandating the number of containers redeemed, as opposed to the mandate of using the specific technology of an innovative method of redemption to redeem beverage containers, is insufficient to satisfy CalRecycle’s legislative mandate under the Act to ensure that beverage container recycling is convenient and available to consumers. As demonstrated by the current 70 percent beverage container redemption rate across the state<sup>14</sup>, traditional recycling center methods of redemption are not achieving the consumer accessibility and convenience necessary to reach the 80-percent redemption rate goal established in PRC section 14501(c). This shows that, in addition to traditional recycling center methods of redemption not lowering compliance costs as described

<sup>10</sup> Total Dealer Registration cost from Table 3.  
<sup>11</sup> Regulations as proposed Infrastructure cost from Table 5.  
<sup>12</sup> Alternative 2 Administrative costs from Table 15.  
<sup>13</sup> Regulations as proposed Operational costs from Table 6.  
<sup>14</sup> CalRecycle 2022 Beverage Container Recycling in California Fact Sheet, <https://www2.calrecycle.ca.gov/Publications/Details/1726>

above in Alternative 1, they do not achieve the beverage container redemption goals of the Act. Therefore, the performance standard of merely requiring 80 percent redemption without also mandating the specific technology of using a minimum of one innovative method of redemption is rejected.

## E. Major Regulations

Analysis was completed using the same alternatives discussed above to understand the number of beverage containers, or units of pollutant, that may otherwise be landfilled or polluted into the environment if they were not redeemed by consumers. Beverage container redemption reduces litter, preserves clean streams of high-quality recyclable materials, and typically results in higher resource recovery than curbside collection of mixed waste. CalRecycle does not have data on the amount or percentage of empty CRV beverage containers placed in mixed recycling curbside that is ultimately landfilled. Based on conversations with interested parties who participated in the informal rulemaking workshops, it is believed that approximately 40 percent<sup>15,16</sup> of glass beverage containers that enter mixed waste streams are not recycled, while almost all glass beverage containers that are redeemed in deposit systems are recycled. If it is assumed that figure holds for other material types, CalRecycle estimates that without convenient redemption opportunities provided by dealer cooperatives in unserved convenience zones, consumers will put their containers into mixed waste streams, resulting in approximately 40 percent loss of beverage containers going to landfill instead of recycling.

The total cost of the proposed regulation and each alternative is amortized over a period of 10 years. The cost-benefit analyses for each alternative below assume that the environmental benefit equals the number of beverage containers diverted from landfills and recycled instead. Formulas for each of these calculations are below.

Total cost formula:

$$Total\ Cost = \frac{(Initial\ Costs) + (9\ Years \times Ongoing\ Costs)}{10\ Years}$$

Cost-effectiveness ratio formula:

$$Cost - effectiveness\ ratio = \frac{Total\ Cost}{(Number\ of\ beverage\ containers\ recycled)(40\% \text{ loss to landfill})}$$

Regulations as Proposed: The annual amortized cost is \$7,499,770 for the estimated annual redemption of 432,000,000 beverage containers. If 40 percent would have otherwise been disposed of, then the cost per container avoiding landfilling is 4.3 cents.

<sup>15</sup> Comment Letter Submitted by Container Recycling Institute, dated September 8, 2022

<sup>16</sup> [North State Public Radio – California Has A Recycling Problem, April 25, 2021: https://www.myspr.org/news/2021-04-25/california-has-a-recycling-problem](https://www.myspr.org/news/2021-04-25/california-has-a-recycling-problem)

The initial costs are calculated by summing the dealer registration for all entities (\$572,400) from Table 3 and the values for dealer cooperative initial costs from Table 7. The values included in Table 7 have been asterisked for reference and includes the administrative cost (\$1,690,000), operational costs (\$3,571,740) and infrastructure costs (\$20,520,000). The sum of all of these four costs listed above in this paragraph is \$26,354,140 and this value is used in the calculation below for the “initial costs” value.

The ongoing costs are calculated by summing the ongoing annual cost for dealer registration for all entities (\$143,100) from Table 8 and the values for ongoing dealer cooperative costs from Table 9. The values included in Table 8 have been asterisked for reference and include the administrative cost (\$1,690,000) and operational costs (\$3,571,740). The sum of all of these three costs listed above in this paragraph is \$5,404,840 and this value is used in the calculation below for the “Ongoing Costs” value.

Regulations as Proposed total cost:

$$Total\ Cost = \frac{(\$26,354,140) + (9\ Years \times \$5,404,840)}{10\ Years}$$

$$Total\ Cost = \frac{\$74,997,700}{10\ Years}$$

$$Total\ Cost = \$7,499,770$$

Therefore, as shown by this calculation, the total annual cost of the Regulations as Proposed is \$7,499,770 each year averaged over 10 years. The total cost of the Regulations as Proposed over the 10 years is \$74,997,700, which is listed on the STD 399 in section E.3.

Regulations as Proposed Cost-effectiveness ratio:

The number of beverage containers redeemed per year by a dealer cooperative typical business is 432,000,000, which was previously calculated in Table 10.

$$Cost - effectiveness\ ratio = \frac{\$7,499,770}{(432,000,000)(40\% \text{ loss to landfill})}$$

$$Cost - effectiveness\ ratio = \frac{\$7,499,770}{172,800,000\ beverage\ containers}$$

$$Cost - effectiveness\ ratio = \$0.043\ per\ beverage\ container$$

Therefore, as shown by this calculation of the cost-effectiveness ratio, the cost per container of avoiding landfilling is 4.3 cents for the Regulations as Proposed.

Alternative 1: The annual amortized cost is \$10,105,162 for the estimated annual redemption of 432,000,000 beverage containers. If 40 percent would have otherwise been disposed of, then the cost per container of avoiding landfilling is 5.8 cents.

The initial costs of Alternative 1 is \$26,691,532 was previously calculated in Table 13. This value is used in the calculation below as the “Initial Costs” value.

The ongoing costs are calculated by summing the ongoing dealer registration for all entities (\$143,100) from Table 8 and the values for ongoing dealer cooperative costs from Table 13. The values included in Table 13 have been asterisked for reference and include the administrative cost (\$1,690,000) and operational costs (\$6,429,132). The sum of these three costs listed above in this paragraph is \$8,262,232 and this value is used in the calculation below as the “Ongoing Costs” value.

Alternative 1 total cost:

$$Total\ Cost = \frac{(\$26,691,532) + (9\ Years \times \$8,262,232)}{10\ Years}$$

$$Total\ Cost = \frac{\$101,051,620}{10\ Years}$$

$$Total\ Cost = \$10,105,162$$

Therefore, as shown by this calculation, the total annual cost of Alternative 1 is \$10,105,162 each year averaged over 10 years. The total cost of Alternative 1 over the 10 years is \$101,051,620, which is listed on the STD 399 in section E.3.

Alternative 1 cost-effectiveness ratio:

The annual number of beverage containers redeemed by a dealer cooperative typical business is 432,000,000, which was previously calculated in Table 10.

$$Cost - effectiveness\ ratio = \frac{\$10,105,162}{(432,000,000)(40\% \text{ loss to landfill})}$$

$$Cost - effectiveness\ ratio = \frac{\$10,105,162}{172,800,000\ beverage\ containers}$$

$$Cost - effectiveness\ ratio = \$0.058\ per\ beverage\ container$$

Therefore, as shown by this calculation of the cost-effectiveness ratio, the cost per container of avoiding landfilling is 5.8 cents for Alternative 1.

Alternative 2: The annual amortized cost is \$7,087,770 for the estimated annual redemption of 324,000,000 beverage containers. If 40 percent would have otherwise been disposed of, then the cost per container of avoiding landfilling is 5.5 cents.

The initial costs of Alternative 2 is \$25,942,140, which was previously calculated in Table 16. This value is used in the calculation below as the “Initial Costs” value.

The ongoing costs are calculated by summing the ongoing dealer registration for all entities (\$143,100) from Table 8 and the values for ongoing dealer cooperative costs from Table 16. The values included in Table 16 have been asterisked for reference and includes the administrative cost (\$1,278,000) and operational costs (\$3,571,740). The sum of these three costs listed above in this paragraph is \$4,992,840 and this value is used in the calculation below as the “Ongoing Costs” value.

Alternative 2 total cost:

$$Total\ Cost = \frac{(\$25,942,140) + (9\ Years \times \$4,992,840)}{10\ Years}$$

$$Total\ Cost = \frac{\$70,877,700}{10\ Years}$$

$$Total\ Cost = \$7,087,770$$

Therefore, as shown by this calculation, the total annual cost of Alternative 2 is \$7,087,770 each year averaged over 10 years. The total cost of Alternative 2 over the 10 years is \$70,877,700, which is listed on the STD 399 in section E.3.

Alternative 2 cost-effectiveness ratio:

The number of beverage containers redeemed annually by a dealer cooperative typical business is 324,000,000, which was previously calculated in Table 14.

$$Cost - effectiveness\ ratio = \frac{\$7,087,770}{(324,000,000)(40\% \text{ loss to landfill})}$$

$$Cost - effectiveness\ ratio = \frac{\$7,087,770}{129,600,000\ beverage\ containers}$$

*Cost – effectiveness ratio = \$0.055 per beverage container*

Therefore, as shown by this calculation of the cost-effectiveness ratio, the cost per container of avoiding landfilling is 5.5 cents for Alternative 2.

Based on all analyses, the regulations as proposed provide the lowest cost per unit of pollutant reduced.

#### **5. CalRecycle has determined that there will be no increase or decrease of investment in the State.**

CalRecycle has determined these proposed regulations will allow dealer members when forming dealer cooperatives to find the most efficient and economical method for the verifiable redemption of empty beverage containers from consumers. CalRecycle anticipates that requiring an “innovative method of redemption” will unveil a variety of solutions that specifically address the local challenges in a community in regards to consumer redemption while enhancing and promoting consumer access to redemption opportunities. Dealer cooperatives will want to ensure the most efficient method of verifiable redemption to ensure the fees assessed on dealer members by the dealer cooperative are lower than the cost of redeeming in store as required by the Act.

The benefits of the proposed regulations are as described in the Estimated Benefits section of this appendix (Section C., above).

### **Methodologies for individual answers – Fiscal Impact Statement**

#### **A. Fiscal Effects on Local Governments**

**No fiscal impact exists.** The proposed regulations do not impose any costs or provide benefits to local governments.

#### **B. Fiscal Effects on State Government**

There will be two areas where there will be a fiscal impact on State Government. The first area is on the costs for staffing specified in the Dealer Registration and Dealer Cooperatives sections of the “Beverage Container Recycling: Implementation (SB 1013)” Budget Change Proposal (BCP) authorized in 2023 and as modified in the CalRecycle Request for Approval dated July 25, 2023 (RFA July 25). The second area is the impact as a result of allowing Dealer Cooperatives to apply for handling fees (see Section C: Estimated Benefits) and its impact on the California Beverage Container Recycling Fund.

To calculate staffing costs, the BCP had to be reconciled with the RFA July 25 to determine staffing costs and adjustments.

- Staffing:
  - \$539,434 in fiscal year 2023-2024 for dealer cooperatives (1 Senior Environmental Scientist (Supervisor) and 3 Environmental Scientists)

- \$176,608 in fiscal year 2023-2024 for dealer cooperatives (1 Attorney III)
- Total: \$716,042 in fiscal year 2023-2024
- \$1,840,820 in fiscal year 2024-2025 for dealer registration (1 Staff Services Manager 1, 5 Associate Governmental Program Analysts, and 10 2-year limited term Associate Governmental Program Analysts)
- Total: \$2,556,862 in fiscal year 2024-2025, includes both dealer cooperatives and dealer registration staffing costs from the prior bullet points.
- Total: \$1,414,784 in fiscal year 2025-2026 for both dealer cooperatives and dealer registration because 10 2-year limited term Associate Governmental Program Analysts positions expire beginning in fiscal year 2025-2026.
- Total: \$1,414,784 ongoing (annual funding) for both dealer cooperatives and dealer registration.
- Handling Fee, Processing Payments, and Administrative Payments made to Dealer Cooperatives<sup>17</sup>:
  - \$4,525,200 in handling fees, processing payments, and administrative payments beginning in fiscal year 2024-2025, calculated for the 6 months that Dealer Cooperatives will begin to be eligible for these payments beginning on January 1, 2025.
  - \$9,050,400 in handling fees, processing payments, and administrative payments beginning in fiscal year 2025-2026 will be an additional draw on the California Beverage Container Recycling Fund.
  - \$9,050,400 in handling fees, processing payments, and administrative payments for each subsequent year until the statute or regulations are repealed.
  - CalRecycle expects these costs to be absorbable by the Beverage Container Recycling Fund.

### **C. Fiscal Effects on Federal Funding of State Programs**

**No fiscal impact exists.** The proposed regulation will not result in any fiscal impact to any federally funded State agency or program.

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<sup>17</sup> The dollar amount for annual handling fees, processing payments, and administrative payments is from Table 10.