

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 and hours, (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”.

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 consumer access 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

Implementation of SB 1013 should expand redemption opportunities for consumers to redeem beverage containers in underserved communities, increasing clean streams of recyclable materials to support a circular economy and reducing environmental litter by providing accessible and convenient recycling options. Dealers are incentivized to form dealer cooperatives by 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 regulations will provide the following anticipated benefits:

- Allows, through dealer registration, an accurate account of all dealers located in convenience zones, as well as which dealers are redeeming beverages in-store, participating in a dealer cooperative, or exempt from redemption requirements pursuant to PRC section 14578(b) due to being a small dealer. This promotes business transparency and ensures that CalRecycle has the information necessary to ensure businesses are carrying out their obligations under the Act.
- 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 opportunities for consumers, which benefits the environment by reducing litter and landfill disposal of beverage containers. Increased redemption of beverage containers creates a larger recycled content market for manufacturers, which enables use of post-consumer content and therefore reduces greenhouse gas emissions by using less virgin materials.
- 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, specifically in languages that

5 percent or more of the non-English speaking people in the community speak.¹ 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 CalRecycle 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 locating in the same unserved convenience zones and divesting the dealer cooperative from eligibility 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 of the beverage 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.
- 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.

¹ In Documents Relied Upon, see this interactive map showing the leading languages spoken by the Limited English Proficient population in California: <https://dru-data-portal-cacensus.hub.arcgis.com/apps/edaf9becf66d4a16be9844726c29cf2f/explore>

- 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 stewardship program for the redemption of beverage containers.
- 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. Based on CalRecycle data in the Division of Recycling Integrated Information System (DORIIS), there are approximately 30,000 dealers in convenience zones 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 section 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, and 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 dealers 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 an unserved 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 2023² to approximately 6,000 dealers by January 2025. The September 2023 data additionally revealed that approximately 13 percent 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 percent 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 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. Scaling the projected 780 Option 2 dealers to 46 percent 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 related 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.

To guide the calculation of costs associated with proposed regulatory requirements for different businesses, CalRecycle estimates the total number of dealers in convenience zones that are either (1) small businesses exempt from redemption, (2) typical businesses that redeem in-store, or (3) typical businesses that participate in a dealer cooperative. Only dealers that join a dealer cooperative will be subject to additional investments for stewardship plan development, infrastructure, and recycling service labor, whereas other dealers will only incur costs related to registration.

As discussed above, there are approximately 30,000 total dealers in the state located in convenience zones comprising approximately 21,900 small businesses and 8,100 dealers that are not considered small businesses. Only 360 dealers are projected to join a dealer cooperative and are referred to in this Appendix as "dealer cooperative typical businesses." In the tables below estimating costs, CalRecycle uses these figures to determine the fiscal impact of the proposed regulations.

To conservatively estimate the fiscal impact of these proposed regulations, CalRecycle assumes that each dealer in a dealer cooperative is in a different convenience zone than every other participating dealer. Thus, CalRecycle estimates that approximately 360 convenience zones in the state would have dealer cooperative redemption infrastructure deployed. Due to the requirement in the proposed regulations that each

² 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.

convenience zone have at least one staffed redemption location open 10 hours per week, and that the most cost-efficient technology to supplement that requirement would be to deploy a Reverse Vending Machine (RVM), CalRecycle estimates that dealer cooperatives statewide will deploy 360 RVMs and 360 staffed redemption locations each open for 10 hours per week.

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 211 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 staffed redemption programs requiring an attendant 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 week needed to complete the required tasks as outlined in the proposed regulations by job type, then multiplied by 52 weeks, to determine the approximate total number of hours needed in a year. These hours are then divided by a standard 2,080-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 of anticipated costs associated with the administration and implementation of the stewardship plan, recommend a funding level for the stewardship plan’s budgeted costs, maintain all customer transactions in a five-year period, and assist with preparing quarterly reports that include budgetary information and submitting the reports to CalRecycle. CalRecycle estimated that it would require approximately 4 hours of work per week, or approximately 208 hours per year. When compared to a 2,080-hour work year, this would calculate to 0.1 FTE contract accountant per cooperative ($208 / 2,080 = 0.1$).

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 attended recycling redemption methods. CalRecycle estimated that each RVM would need approximately 2 hours of labor per week, or approximately 104 hours per year. When compared to a 2,080-hour work year, this results in 0.05 FTE per RVM ($104 / 2,080 = .05$). Staffed redemption locations open to the public for 10 hours per week, each requiring two employees to collect, process, and transport materials, is the equivalent of 0.5 FTE ($1,040 / 2,080 = 0.5$).

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 211 new jobs created (13 administrative jobs from Table 1 + 198 recycling service jobs from Table 2).

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.

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

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 staffed redemption programs will require higher levels of labor compared to RVMs. The number of recycling service jobs is determined by the number of FTE staff for each location.

Recycling Jobs by Infrastructure Type	Estimated Number of Locations	Estimated Number of FTE Staff Per Infrastructure Type	Number of Jobs Created
Reverse Vending Machine	360	0.05	18
Staffed Redemption Locations (10 hr/week)	360	0.5	180
		Total Number of Recycling Jobs	198

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 360 staffed redemption locations.
- 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. This was the highest minimum wage in California according to the UC Berkeley Labor Center³ on January 1, 2024, and is selected rather than the statewide hourly minimum wage of \$16 since in many high-cost cities, local measures require higher pay than the statewide hourly minimum wage.

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

³ 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>

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 regulated 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.

Business Type	Number of Entities	Hourly Wage	Cost
Small Business	21,900	\$19.08	\$417,852
Typical Business	7,740	\$19.08	\$147,679
Dealer Cooperative Typical Business	360	\$19.08	\$6,869
		Total Dealer Registration Cost	\$572,400

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 Planning and Reporting Costs – 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. Additional costs will also be incurred for financial management activities, reporting to CalRecycle, and provision of public information online. 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 FY 23-24 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, submittal of budgets and reports, and online information posting.

Administrative Labor	FTE Staff for Each Dealer Cooperative	FTE Staff for 20 Dealer Cooperatives	FTE Rate	Cost
Organizational Management	0.5	10	\$135,000	\$1,350,000
Accounting	0.1	2	\$99,000	\$198,000
Information Technology Services	0.05	1	\$142,000	\$142,000
			Total Stewardship Program Cost	\$1,690,000

Dealer Cooperative Typical Business Estimated Infrastructure Cost - CalRecycle estimates that 360 dealer cooperative typical businesses may form approximately 20 dealer cooperatives over various regions in California. These dealer cooperative typical businesses will incur additional initial costs. In the first year, it is projected each dealer cooperative will experience infrastructure costs associated with the purchasing and deployment of an innovative method of redemption, due to the most cost-efficient technology to supplement a staffed redemption location being to deploy an RVM. 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 that 360 unserved convenience zones will have dealer cooperative infrastructure deployed. Section 2375.4(f)(4) and (6) of the proposed regulations requires each dealer cooperative to have at least one redemption location per zone to redeem all beverage container material types with immediate payment, be attended for a minimum of 10 hours per week, and have the same daily load limits as section 2535(f) of Title 14 of the California Code of Regulations. In order to fully redeem the 80-percent beverage container volume as required by section 2375.6(c) of the proposed regulations, and meet other standards in the Act and proposed regulations, provision of a single redemption location for 10 hours per week will not provide sufficient redemption opportunity in the area covered by a dealer cooperative’s stewardship plan, therefore CalRecycle assumes that each convenience zone will also utilize one RVM, a cost-efficient and convenient type of innovative redemption, for a total of 360 RVMs statewide.

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.

Infrastructure Type	Number of Units	Cost Per Unit	Cost
RVM	360	\$45,000	\$16,200,000
Staffed Redemption Locations (10 hr/week)	360	\$12,500	\$4,500,000
		Total Infrastructure Cost	\$20,700,000

Dealer Cooperative Typical Business Estimated Operation Cost - In the first year, it is projected each dealer cooperative will expend labor costs associated with the operation and maintenance of an innovative method of recycling. Above, CalRecycle estimated that there will be 360 RVMs and 360 staffed redemption locations. CalRecycle estimates each RVM will require 0.05 FTE positions and each staffed redemption location will require 0.5 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.

Recycling Services Labor	FTE Staff for All Infrastructure	FTE Rate	Cost
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by Infrastructure Type			
RVM	18	\$39,686	\$714,348
Staffed Redemption Locations (10 hr/week)	180	\$39,686	\$7,143,480
		Total Recycling Service Cost	\$7,857,828

Table 7. Summary of initial costs estimated by entity type. Registration costs are derived from Table 3, stewardship program 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 (\$30.8 million).

Entity Type	Small Businesses	Typical Business	Dealer Cooperative Typical Business	Total
Number of Entities	21,900	7,740	360	30,000
Registration Cost	\$417,852	\$147,679	\$6,869	\$572,400
Stewardship Program*	NA	NA	\$1,690,000	\$1,690,000
Infrastructure*	NA	NA	\$20,700,000	\$20,700,000
Operation*	NA	NA	\$7,857,828	\$7,857,828
Total Cost	\$417,852	\$147,679	\$30,254,697	\$30,820,228
Total Cost Per Entity	\$19.08	\$19.08	\$84,041	

*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. Only dealer cooperative typical businesses have annual ongoing costs for administration and operation of a stewardship program.

Dealer registration – Section 2372(d) of the proposed regulations requires all regulated businesses to annually submit confirmation that their 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 retail location 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.

Business Type	Number of Entities	Wage	Cost
Small Business	21,900	\$4.77	\$104,463
Typical Business	7,740	\$4.77	\$36,920
Dealer Cooperative Typical Business	360	\$4.77	\$1,717
		Total Registration Cost	\$143,100

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 operation of the stewardship plan. 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.

Entity Type	Small Businesses	Typical Businesses	Dealer Cooperative Typical Business	Total
Number of Entities	21,900	7,740	360	30,000
Registration	\$104,463	\$36,920	\$1,717	\$143,100
Administrative*	NA	NA	\$1,690,000	\$1,690,000
Operations*	NA	NA	\$7,857,828	\$7,857,828
Total Cost	\$104,463	\$36,920	\$9,549,545	\$9,690,928
Total Cost Per Entity	\$4.77	\$4.77	\$26,527	

*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:

$$\begin{aligned} \text{Lifetime Cost} &= (\text{Year 1 Costs}) + (9 \text{ Years} \times \text{Ongoing Costs}) \\ \text{Total Lifetime Cost} &= (\$30,820,228) + (9 \text{ Years} \times \$9,690,928) \\ &= \$118,038,580 \end{aligned}$$

1. The total statewide dollar costs that businesses and individuals may incur to comply with this regulation over its lifetime is approximately \$118,038,580.

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 \$84,041 and the annual ongoing cost is \$26,527 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 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, 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.

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.

The dealer cooperative regulatory framework promotes several benefits for the health and welfare of California residents, worker safety, and the State's environment and quality of life. Dealer cooperative redemption sites will provide access, convenience, and a customer service experience that will result in consumers utilizing dealer cooperative redemption sites over curbside mixed recycling options, or disposal in trash bins. Encouraging segregated beverage container material types to be redeemed at dealer cooperative redemption sites rather than discarded through commingled curbside bins also results in cleaner material streams for recycling. This benefits the State's environment by facilitating more efficient processing of clean material streams into new products rather than risking contamination of high value recyclable material that may then be disposed of at a landfill. Also, by making recycling more convenient, litter into the environment will be reduced and wildlife will be protected from trash pollution in the State's lands and waterways.

The state's environment will benefit from requirements for dealer cooperatives to develop educational materials and conduct outreach to enhance consumer awareness of new redemption sites. CalRecycle expects a reduction in environmental litter and landfilling of contaminated beverage containers as consumers will more readily utilize the dealer cooperative redemption opportunities. As consumers are educated on the new redemption sites created, coupled with the performance standard of requiring dealer cooperatives to collect an amount equal to 80 percent of their beverages sold in an area proposed in the regulations, consumers may readily choose recycling over littering or discarding beverage containers in trash bins.

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 of redemption opportunities in zones previously unserved increases consumer opportunities to recycle and collect CRV refunds. In addition to serving as an incentive for recycling, these refunds effectively put money back into the pockets of California consumers and therefore improve their quality of life.

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 in unserved convenience zones 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 in unserved convenience zones 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

businesses from compliance with 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(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 CalRecycle, 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, 2023⁴. 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

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

administrative fee per beverage container is approximately \$0.000446 (\$0.05941 x .0075 = ~\$0.00446).

Processing payments are regularly recalculated and vary based on container type. CalRecycle used historical data on the proportions of container types redeemed at recycling centers from July 2022 through June 2023 to calculate an estimate of the average processing payment per container redeemed. Applying those proportions to the processing payments published by CalRecycle on January 1, 2024⁵, 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 participated 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
Staffed Redemption Locations (10 hr/week)	360	600,000	216,000,000
Total Containers Redeemed*			432,000,000
Handling Fees (\$0.01092 per container)			\$4,717,440
Administrative Fees (3/4 of 1% of the average CRV refund value) (\$0.000446 per container)			\$192,672
Processing Payments (on average, \$0.009584 per container)			\$4,140,288
Benefit Total			\$9,050,400

*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

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

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 comparable and sufficient 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 dealer cooperative program.

Alternative 1: Remove the requirement for at least one redemption location that is attended by 10 hours a week, offer immediate payment, redeem all beverage container types, and have the same daily redemption limits as section 2535(f) of Title 14 of the California Code of Regulations and replace with a requirement of one innovative method of redemption per zone. This alternative would neither lessen nor increase any impact on small businesses.

Reason for Rejecting Alternative 1: This alternative was proposed in the original draft regulations as it is the most cost-effective option considered, however multiple public commenters suggested that CalRecycle take an approach that instead focused on the “comparable” and “sufficient” levels of convenience offered under other sections of the Act. Regardless of whether it is required by regulations, it is likely that dealer cooperatives would utilize innovative methods of redemption because these technologies are cost-effective to operate. Additionally, funding is available for dealer cooperatives under AB 179 (Section 127 of Chapter 249 of the Statutes of 2022), budget item 3970-101-0133, schedule (1); SB 101 (Chapter 12 of the Statutes of 2023), budget item 3970-101-0133, schedule (1); and AB 107 (Chapter 22 of the Statutes of 2024), budget item 3970-011-0133, schedule (1) for innovative methods of redemption and can be awarded by CalRecycle to dealer cooperatives to incentivize use of innovative methods of redemption.

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. This alternative would neither lessen nor increase any impact on small businesses.

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 reducing the success of the program to provide accessible redemption opportunities for consumers across California, and lowering the cost-effectiveness relative to the proposed regulations.

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 \$30.8 million, as shown 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 redemption locations.

The benefit is a financial incentive only offered to dealer cooperative typical businesses and constitutes 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 \$30.8 million, which includes registration, administrative costs, and infrastructure costs.

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 businesses 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 lower cost because this alternative removes the requirement for dealer cooperatives to have at least one redemption location that is attended 10 hours a week, offer immediate payment, redeem all beverage container types, and have the same daily redemption limits as section 2535(f) of Title 14 of the California Code of Regulations and replaces it with a requirement of one innovative method of redemption per zone. CalRecycle assumes that most dealer cooperatives would still implement RVM technology because of the lower labor costs. For this reason, the cost of RVM infrastructure remains the same as the proposed regulations and is unchanged in Tables 11 and 12 below. CalRecycle assumes that under this scenario, dealer cooperatives would open a few large-volume redemption locations in targeted areas, rather than provide staffed locations in every convenience zone. Specifically, CalRecycle estimates a 10 fold reduction of the number of locations (36 instead of 360), but that each location would be larger, have more staff, and therefore be capable of redeeming 10 times as many beverage containers as the smaller redemption sites in the proposed regulations scenario (4,500,000 containers per site year instead of 450,000 per site per year). Thus, under Alternative 1, the

dealer cooperatives system overall could achieve the same performance standards as under the proposed regulation scenario. Traditional large-volume recycling redemption methods have a low initial cost of approximately \$50,000 to establish a site and require on average four FTE employees to provide services.

Based upon these assumptions, Alternative 1 has a lower cost for infrastructure and staffing due to the reduction in number of 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 reduced number of staffed locations, despite the cost per unit rising from \$12,500 to \$50,000.

Infrastructure Type	Number of Units	Cost Per Unit	Cost
RVM	360	\$45,000	\$16,200,000
Staffed redemption locations (large volume)	36	\$50,000	\$1,800,000
		Alternative 1 Total Infrastructure Cost	\$18,000,000

Table 12. Estimation of Alternative 1 operations costs. Similar to Table 6, the costs for RVM labor are constant. The lower labor cost is attributed to the reduced number of staffed locations, despite the labor per unit rising from 0.5 FTE to 4 FTE.

Recycling Services Labor by Infrastructure Type	FTE Staff for All Infrastructure	FTE Rate	Cost
RVM	18	\$39,686	\$714,348
Staffed Redemption locations (large volume)	144	\$39,686	\$5,714,784
		Alternative 1 Total Recycling Service Cost	\$6,429,132

Table 13. Estimated costs of Alternative 1.

Year One Investments Cost	Amount in Dollars
All Dealer Registration ⁶	\$572,400

⁶ Total dealer registration cost from Table 3.

Infrastructure⁷	\$18,000,000
Administrative^{8*}	\$1,690,000
Operations^{9*}	\$6,429,132
Total Cost of Alternative 1	\$26,691,532

*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 \$30.4 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.

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

This alternative considers not requiring an education and outreach component of the stewardship plan or web posting of information by the dealer cooperatives. This scenario only affects costs to dealer cooperative typical businesses, and furthermore only the administrative costs. CalRecycle reduced the number of organizational management staff hours and removed the cost of the IT Support role 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.

Infrastructure Type	Number of Infrastructure Type Deployed	Annual Containers Redeemed Per Infrastructure Type	Total Containers Redeemed
RVM	360	450,000	162,000,000
Staffed redemption location (10 hr/week)	360	450,000	162,000,000
Total Containers Redeemed*			324,000,000
Handling Fees (\$0.01092 per container)			\$3,538,080

⁷ Alternative 1 total Infrastructure cost from Table 11.

⁸ Administrative costs from Table 4.

⁹ Alternative 1 operational costs from Table 12.

Administrative Fees (\$0.000446 per container)			\$144,504
Processing Payments (\$0.009584 per container)			\$3,105,216
			Benefit Total
			\$6,787,800

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

Table 15. Estimated administrative 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.

Administrative Labor	FTE Staff for Each Dealer Cooperative	FTE Staff for 20 Dealer Cooperatives	FTE Rate	Cost
Organizational Management	0.4	8	\$135,000	\$1,080,000
Accounting	0.1	2	\$99,000	\$198,000
Information Technology Services	0	N/A	N/A	\$0
			Total Stewardship Plan Cost	\$1,278,000

Table 16. Summary of Alternative 2 estimated cost.

Year One Investments Cost	Amount in Dollars
All Dealer Registration ¹⁰	\$572,400
Infrastructure¹¹	\$20,700,000
Administrative^{12*}	\$1,278,000
Operations^{13*}	\$7,857,828
Total Cost of Alternative 2	\$30,408,228

*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.

¹⁰ Total Dealer Registration cost from Table 3.

¹¹ Regulations as proposed Infrastructure cost from Table 5.

¹² Alternative 2 Administrative costs from Table 15.

¹³ Regulations as proposed Operational costs from Table 6.

CalRecycle has a legislative mandate to ensure that beverage container recycling is convenient and available. CalRecycle has considered simply imposing the performance standard of redeeming 80 percent of containers sold by dealer members of a dealer cooperative instead of the prescribed procedures included in the stewardship plan in the proposed regulations. However, as demonstrated by the current 70 percent beverage container redemption rate across the state¹⁴, traditional methods of implementing the Act are not achieving the consumer accessibility, convenience, and incentive structure necessary to meet the goal established in PRC section 14501(c). Therefore, solely requiring an 80 percent performance standard for redemption is rejected and the prescribed procedures included in the stewardship plan will remain in the proposed regulations.

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 littered 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^{15,16} 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.

For developing the cost-effectiveness ratio, the total cost of the proposed regulation and each alternative is amortized over a period of 10 years. The cost-effectiveness analysis for each alternative below assumes that the environmental benefit equals the number of beverage containers diverted from landfills and recycled instead.

Amortized annual cost formula:

$$\text{Amortized annual cost} = \frac{(\text{Initial Costs}) + (9 \text{ Years} \times \text{Ongoing Costs})}{10 \text{ Years}}$$

Cost-effectiveness ratio formula:

¹⁴ CalRecycle 2022 Beverage Container Recycling in California Fact Sheet, <https://www2.calrecycle.ca.gov/Publications/Details/1726>

¹⁵ Comment Letter Submitted by Container Recycling Institute, dated September 8, 2022

¹⁶ [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)

Cost – effectiveness ratio

$$= \frac{\textit{Amortized annual cost}}{\textit{(Number of beverage containers recycled)(40% loss to landfill)}}$$

Regulations as Proposed: The annual amortized cost is \$11,803,858 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 loss to landfill is 6.8 cents.

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 relevant values in Table 7 have been marked with an asterisk for ease of reference and include the administrative cost (\$1,690,000), operational costs (\$7,857,828) and infrastructure costs (\$20,700,000). The sum of all of these four costs listed above in this paragraph is \$30,820,228 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 relevant values in Table 9 have been marked with an asterisk for ease of reference and include the administrative cost (\$1,690,000) and operational costs (\$7,857,828). The sum of the three costs listed in this paragraph is \$9,690,928 and this value is used in the calculation below for the “Ongoing Costs” value.

Regulations as Proposed Amortized Annual Cost:

$$\textit{Amortized annual cost} = \frac{(\$30,820,228) + (9 \textit{ Years} \times \$9,690,928)}{10 \textit{ Years}} = \$11,803,858$$

Therefore, as shown by this calculation, the amortized annual cost of the Regulations as Proposed is \$11,803,858 each year averaged over 10 years. The total cost of the Regulations as Proposed over the 10 years is \$118,038,580, 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, as was shown in Table 10.

$$\begin{aligned} \textit{Cost – effectiveness ratio} &= \frac{\$11,803,858}{(432,000,000)(40\% \textit{ loss to landfill})} \\ &= \$0.068 \textit{ per container} \end{aligned}$$

Therefore, the cost per container of avoiding landfilling is 6.8 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 avoiding loss to landfill is 5.8 cents.

The initial costs of Alternative 1 of \$26,691,532 is shown 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 relevant values included in Table 13 have been indicated with an asterisk for ease of reference and include the administrative cost (\$1,690,000) and operational costs (\$6,429,132). The sum of these three costs is \$8,262,232 and this value is used in the calculation below as the “Ongoing Costs” value.

Alternative 1 Amortized annual cost:

$$\text{Amortized annual cost} = \frac{(\$26,691,532) + (9 \text{ Years} \times \$8,262,232)}{10 \text{ Years}} = \$10,105,162$$

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 is shown in Table 10.

$$\begin{aligned} \text{Cost – effectiveness ratio} &= \frac{\$10,105,162}{(432,000,000)(40\% \text{ loss to landfill})} \\ &= \$0.058 \text{ per container} \end{aligned}$$

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 \$11,391,858 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 loss to landfill is 8.8 cents.

The initial costs of Alternative 2 is \$30,408,228, which is shown 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 relevant values included in Table 16 are indicated with an asterisk for ease of reference and includes the administrative cost (\$1,278,000) and operational costs (\$7,857,828). The sum of these three costs listed above in this paragraph is \$9,278,928 and this value is used in the calculation below as the “Ongoing Costs” value.

Alternative 2 Amortized annual cost:

$$\text{Amortized annual cost} = \frac{(\$30,408,228) + (9 \text{ Years} \times \$9,278,928)}{10 \text{ Years}} = \$11,391,858$$

Therefore, as shown by this calculation, the total annual cost of Alternative 2 is \$11,391,858 each year averaged over 10 years. The total cost of Alternative 2 over the 10 years is \$113,918,580, 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 is shown in Table 14.

$$\begin{aligned} \text{Cost – effectiveness ratio} &= \frac{\$11,391,858}{(324,000,000)(40\% \text{ loss to landfill})} \\ &= \$0.088 \text{ per container} \end{aligned}$$

Therefore, as shown by this calculation of the cost-effectiveness ratio, the cost per container of avoiding landfilling is 8.8 cents for Alternative 2.

The cost-effectiveness ratio for the proposed regulations, Alternative 1, and Alternative 2 is 6.8, 5.8, and 8.8 cents per beverage container, respectively. Alternative 2 is the least cost-effective and Alternative 1 is the most cost-effective option. Despite not being the most cost-effective, CalRecycle is selecting the proposed regulation over Alternative 1 based on public comment received regarding Alternative 1 and what constitutes "comparable or sufficient" recycling opportunities under the Act.

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.

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

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

CalRecycle expects fiscal impact on two areas for 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 Cooperatives¹⁷:
 - \$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.

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

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.