

ECONOMIC IMPACT ANALYSIS / ASSESSMENT

Statement of the Mandate

The proposed regulation changes do not require local entities to undertake a new program or to provide an increased level of service in an existing program. This is based on the fact the proposed regulation changes do not impose a new mandate but modify an existing mandate. The changes to the existing mandate reduce the daily allowable size of a consumer transaction that is eligible for a claim of reimbursement from the California Beverage Container Recycling Fund (CBCRF). In addition, the proposed regulation changes eliminate a mandate for certified recycling center operators to provide weekly reports to the Department. Elimination of this reporting requirement will reduce certified recycling center operators operating cost and avoid potential administrative penalty assessments for failing to comply with the current reporting requirement.

The proposed modification to the existing regulations does not:

- 1) Implement a federal mandate.
- 2) Implement a court mandate.
- 3) Implement a mandate in a ballot measure approved by the voters.
- 4) Result from a documented request from the only local governments affected.
- 5) Provide (or fall within the purview of existing) revenue sources or other financing mechanisms.
- 6) Result in savings that are equal to or exceed any costs.
- 7) Create, eliminate, or change the penalty for a new crime or infraction.

Background / Introductory Material

The California Beverage Container Recycling and Litter Reduction Act (AB 2020, Statutes of 1986; effective September 29, 1986) is the basis for the Regulation changes being proposed. The Department of Resources Recycling and Recovery (Department), proposes to adopt amendments to the California Code of Regulations (CCR). Commencing with Subchapter 6, Chapter 5, Division 2, Title 14 of the CCR, the Department will propose permanent regulations, regarding the reduction of daily load limits for aluminum, plastic and glass beverage containers and reporting of 250 pound aluminum transaction, after the consideration of all comments, objections or recommendations. The proposed changes to existing regulations are as follows:

SUBCHAPTER 6. RECYCLING CENTERS Article 3. Accounting and Reporting Requirements

§ 2530. REPORTING

~~Subsection 2530(i): Each recycling center shall maintain a separate list of all purchases of more than 250 pounds of aluminum beverage containers. Such list (or legible copies of the receipts) shall be sent to the Division weekly and shall contain all of the following information, taken from the receipt prepared pursuant to section 2525(a) of these regulations:~~

- ~~(1) The receipt number of the transaction; and~~
- ~~(2) The name of the person selling the material; and~~
- ~~(3) The additional identifying information of the person selling the material; and~~

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- ~~(4) The name, address, and certification number of the recycling center submitting the list;~~
- ~~(5) The transaction date; and~~
- ~~(6) The pounds purchased on the receipt; and~~
- ~~(7) The total amount paid~~

§ 2535. PAYMENTS TO CONSUMERS, CURBSIDE PROGRAMS, COMMUNITY SERVICE PROGRAMS AND DROPOFF OR COLLECTION PROGRAMS

Subsection 2535 (f): A certified recycler shall not pay the refund value to, or claim refund value for any material received from any person, operation or entity who is not certified by the Division, delivering a load of material in excess of ~~500~~ 100 pounds of aluminum or plastic beverage containers, or ~~2,500~~ 1,000 pounds of glass beverage containers, per day. This limitation is applicable to all transactions, including those performed pursuant to Section 2500(h) of these regulations.

Additions = underlined

Deletions = ~~strikeout~~

The Department of Resources Recycling and Recovery (Department), Division of Recycling (Division) proposes to amend sections 2530 and 2535 of Title 14 of the California Code of Regulations (14CCR). The Department has both observations and anecdotal evidence that a significant number of individuals/entities frequently import large loads of used beverage containers (UBCs) from other states (e.g., Nevada, Arizona and New Mexico, etc.). To facilitate fraud, they break large loads into smaller load sizes that are compliant with the current regulations, thus avoiding detection, then illegally redeeming them for California Refund Value (CRV) at certified recycling centers throughout California. Additionally, the Department's analysis of actual consumer transactions found that the typical consumer transaction was significantly smaller than the current daily load limits. Pursuant to Chapter 3.5 of the Government Code (commencing with Section 11340) of Part 1 of Division 3 of Title 2, the Department is undertaking a rulemaking proceeding to amend the current daily load limits for empty beverage containers received by certified recycling centers from individuals/entities not certified by the Department (i.e., consumers). Additionally, the Department proposes to eliminate the current requirements for reporting loads of 250 pounds or more of aluminum empty beverage containers. The Department strongly believes that lowering the daily load limits for consumers will help resolve issues associated with the individuals/entities importing out-of-state (OOS) UBCs into California and illegally redeeming them for CRV at certified recycling centers. Reductions in the daily load limits will also help to address issues associated with noncertified recyclers and illegal scavenging of curbside program materials. Additionally, the proposed reductions will facilitate certified recycling center operators' compliance with requirements for visually inspecting loads of beverage containers being presented for redemption by consumers to determine the proper payment basis of the loads and eligibility for CRV payment. Finally, if the daily load limits are reduced as proposed, the 250 pound aluminum reporting requirement will no longer be necessary. Eliminating this weekly reporting requirement will result in cost savings for all certified recycling centers California.

Under the existing law, the California Beverage Container Recycling and Litter Reduction Act (Act) encourages recycling of specific beverage containers and the reduction of beverage container litter in the State. Under this Act, the Department, through the Division, is responsible for administering the Act and protecting the integrity of the California Beverage Container Recycling Fund (Fund).

As provided by Title 14 of the California Code of Regulations (14CCR), Section 2535(f), certified recycling centers are restricted from paying or claiming CRV for loads of aluminum and plastic beverage containers if the weight of the load exceeds 500 pounds per person per day. For glass beverage containers, the limit is 2,500 pounds per person, per day. Additionally, in accordance with 14CCR, Section 2530(i), certified recycling centers must report to the Division any loads of aluminum empty beverage containers over 250 lbs. purchased from consumers. The Department proposes to reduce the daily load limits for

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consumer redemption of empty beverage containers to 100 pounds for aluminum and plastic, and to 1,000 pounds for glass. The Division also proposes to eliminate the current requirement for certified recycling centers to report to the Division all purchases of 250 pounds or more of aluminum empty beverage containers from a single consumer because that requirement will no longer be necessary. Eliminating this reporting requirement will reduce costs for certified recycling centers and will not significantly impact the Department's ability to combat program related fraud.

Section 14595 of the Act declares that the redemption of beverage container material imported from OOS presents a significant threat to the integrity of the California Beverage Container Recycling Program (CBCRP) and the Fund. Furthermore, Section 14595.5 (a)(1) of the Act states that no person shall pay, claim, or receive any refund value, processing payment, or handling fee, or administrative fee for beverage container material that the person knew, or should have known, was imported from OOS.

Although OOS UBCs often contain a CRV label, they are not eligible to be redeemed for CRV because they were not sold in California and beverage distributors do not pay CRV into the Fund for beverages sold outside California. For every OOS UBC illegally redeemed for CRV, the Fund, and more importantly the people of California, loses five or ten cents. Although it is illegal to redeem OOS UBCs for CRV, it is not illegal to import OOS UBCs into CA if individuals/entities only receive the applicable scrap value of the commodity. These factors complicate efforts by the Department and our enforcement partner, the California Department of Justice (DOJ), to deter and/or detect fraudulent activities. These factors also complicate certified recycling center operators' ability to effectively perform inspections for qualifying materials.

Based upon observations made, and evidence/data gathered by the Department's Investigators, DOJ Agents, and California Department of Food & Agriculture (CDFA) Border Protection Station Agents, it is clear that a substantial number of vehicles/individuals are buying and/or collecting UBCs in other states and transporting them into California to redeem them for CRV.

During the period of June 15, 2011 through September 15, 2011, the Department and CDFA initiated a pilot program to survey vehicles importing used beverage containers into California through all 16 CDFA Plant Quarantine Inspection Station locations. During this time CDFA data documented 3,588 vehicles transporting OOS UBCs through the Plant Quarantine Inspection Stations (this included 518 rental trucks filled to capacity). While it is not illegal to import UBCs into California, it is illegal to redeem imported UBCs for CRV. A conservative projection based on this CDFA survey data results in an estimated minimum fraud exposure of \$7 million annually to the CBCRF for OOS UBCs transported in 'rental trucks' alone.

Furthermore, investigations conducted by the Department and DOJ have revealed that large loads (up to and greater than 5,000 pounds) of aluminum and plastic UBCs are being transported by individuals/entities into California on a daily basis, often using rental trucks. These large loads are subsequently broken down into smaller loads, typically less than 500 or 250 pounds to avoid the daily load limits and/or possible detection through required reporting. Multiple individuals then transport the smaller loads of UBCs in pick-up trucks, vans, and passenger cars to certified recycling centers and illegally redeem the UBCs for CRV. Because this type of activity constitutes fraud and is a felony crime, individuals/entities doing so have taken drastic measures to avoid being detected, such as performing counter-surveillance, entering into California using auxiliary roads to avoid CDFA Plant Quarantine Inspection Stations, entering into California late after midnight and before sunrise, trying to hide materials from view when transporting them, storing or breaking down large loads of UBC materials, etc. The actions of these individuals/entities, and the certified recycling centers that purchase from them knowing, or suspecting the UBCs are ineligible for CRV redemption, are draining the Fund of millions of dollars each year. Certified recycling center operators who facilitate or participate in illegal redemption pose a significant threat to the businesses of honest recycling center operators who know or suspect the UBC materials are ineligible and do the right thing by refusing to purchase the OOS UBCs.

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By reducing the daily consumer load limit from 500 pounds to 100 pounds for aluminum and plastic, and 1,000 pounds for glass, the Department will be able to reduce the risk of large scale fraudulent activity and monitor it more effectively. Doing so will also make it much more difficult, complex and costly for the importers to sell the larger loads of OOS UBCs by pretending to be consumers. For example, an OOS importer only needs to divide a 5,000 lb. load of OOS UBCs into 10 transactions to stay under the current daily load limit for aluminum, (i.e., $5,000/500 = 10$). Under the proposed reduced daily load limit for aluminum the OOS importers would have to divide the same load 50 times (i.e., $5,000/100 = 50$). In turn, complicit recycling center operators actively engaged in splitting loads to avoid exceeding the daily load limit will be forced to produce additional fraudulent transactions in order support their illegal purchases/claims for reimbursement. In doing so, they create a larger 'footprint' for the Department and DOJ investigators to detect, investigate, and use as evidence for administrative action and/or criminal prosecution. Finally, reduced load limits will greatly facilitate a recycling center's ability to properly inspect loads of beverage containers because the maximum size of the load of aluminum and plastic beverage containers to be inspected will be 100 pounds, which equates to approximately 2,970 aluminum beverage containers equivalent to 495 six-packs (using the most recent (2013) containers per pound rate posted by the Department) or 1,700 PET plastic beverage containers equivalent to 283 six-packs. As proposed, the maximum size of a load of glass beverage containers will be 1,000 pounds, which equates to approximately 1,920 beverage containers, which is equivalent to 320 six-packs.

The Department's Division of Recycling, Recycling Enforcement Branch, Risk Assessment & Data Analysis Section conducted an analysis of approximately 95,000 consumer transactions, accounting for more than 2.4 million pounds of material, collected from 158 certified recycling centers which produced the following results:

ALUMINUM:

- Average (mean) weight = 8.7 pounds
- Median weight = 4.3 pounds
- 99.6% of all transactions surveyed are \leq 100 pounds

PLASTIC:

- Average weight = 11.6 pounds
- Median weight = 6 pounds
- 99.2% of all transactions surveyed are \leq 100 pounds

GLASS:

- Average weight = 77.4 pounds
- Median weight = 27 pounds
- 99.1% of all transactions surveyed are \leq 1,000 pounds or less

This analysis demonstrates that the proposed reductions in the daily load limits will not adversely impact the average consumer attempting to redeem their CRV beverage containers. The results of the analysis also clearly indicate that current daily load limits of 500 pounds for aluminum and plastic and 2,500 pounds for glass are much too high and are not indicative of typical consumer transactions. The Department believes that individuals/entities that frequently redeem large loads of empty beverage containers are OOS importers, non-certified recycling centers, and/or are engaged in illegal scavenging from curbside programs.

In August 2011, the Department held a public workshop for all interested parties and presented the results of our analysis of consumer transaction activity and, based upon the results, expressed our intentions to pursue regulatory change to reduce the daily load limits for consumer transactions. Interested parties were provided with the option of attending the workshop in person or via webinar. The Department requested and received feedback from individuals who attended/participated in the workshop. Several

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attendees expressed concerns that, dependent on the level of the reduced load limits, opportunities for recycling by non-profit groups (e.g., Boy Scout, Girl Scouts, church groups, schools, etc.) could be adversely impacted by reduced daily load limits. Attendees also expressed concerns that some of their 'large volume' clients would also be adversely impacted. The Department documented their responses and committed to review the feedback provided and attempt to mitigate the issues/concerns expressed. The Department committed to providing details at a subsequent workshop to be held at a later date.

In October 2011, the Department held a second public workshop for all interested parties to present several alternative reduced daily load limits for discussion and proposed actions to mitigate the issues/concerns regarding potential adverse impacts on opportunities/abilities to redeem empty beverage containers that were expressed at the August 2011 workshop. Interested parties were provided with the option of attending the workshop in person or via webinar. None of the individuals that attended/participated in this workshop expressed any significant concerns/issues about the proposed mitigating activities or the proposed level of the daily load limit reductions. As a result, the Department committed to finalizing details associated with the mitigating activities, the proposed level of the daily load limit reductions, and to conduct a final public workshop at a later date prior to proceeding with a formal rulemaking process.

In January 2012, The Department held the third and final workshop for all interested parties to discuss the proposed daily load limits of 50 pounds for aluminum and 250 pounds for glass and the proposed actions to mitigate issues/concerns regarding potential adverse impacts on opportunities/abilities to redeem empty beverage containers. Interested parties were provided with the option of attending the workshop in person or via webinar. Attendance at this workshop was significantly greater than at the prior two workshops, even though all the same interested parties were notified for all three workshops. While several workshop attendees voiced support for the proposed daily load limits, a larger number of attendees expressed concern that the proposed daily load limits of 50 pounds of aluminum and plastic, and 250 pounds of glass would have adverse impacts/create hardships for some of their customers. For example, representatives from recycling centers located in rural regions of the State claimed that consumers in rural areas aggregate their CRV materials over a longer period of time and redeem them for CRV infrequently (e.g., 'every couple of months', 'once or twice per year, etc.). They claim these individuals would potentially exceed the proposed daily load limit(s) and be denied CRV redemption and be paid only scrap for their materials. Recycling center operators in attendance also stated that some of their customers are bars and restaurants that bring in beverage container materials that they collect at their respective establishments. They claimed that these 'consumers' would routinely exceed the proposed 250 pound daily load limit for glass and as a result would be denied CRV redemption for their CRV eligible loads of materials. The Department captured all information and feedback provided by workshop attendees, as well as feedback provided in writing by other interested parties who were not able to attend the workshop. At the conclusion of this workshop, the Department reiterated our commitment to review all the feedback provided and would consider additional revisions before finalizing the rulemaking package and submitting it to OAL. Revisions to the proposed regulations referenced in this notice were made based upon feedback received before, during and immediately after the January 2012 workshop.

The scope of economic (private sector) and fiscal (government agency) impacts for consideration in this analysis is defined by their relationship to the disbursement of California Refund Value (CRV) dollars. The modifications to current regulations being recommended will decrease the daily load limits that the State of California will accept as the basis for a claim for reimbursement of CRV.

The California Beverage Container Recycling Program was designed as a pass-through program. It provides consumers the opportunity to recover the CRV collected from them by a dealer when they purchase a CRV beverage. This is the economic incentive for consumers to save the beverage containers and redeem them for the CRV, thereby reducing litter from empty beverage containers and increasing the recycling of those containers.

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The private sector provides the infrastructure for collecting empty beverage containers and paying CRV to consumers. Certified recycling centers are the primary locations for redemption of CRV by consumers and are the channel for distribution of California Beverage Container Fund moneys claimed for CRV by consumers.

Working Data:

The analysis of the economic and fiscal impacts associated with the proposed regulation modification uses several data sources. The primary source of data is the CBCRP payment and reporting system which is used to receive and process claims for reimbursement of CRV by private sector certified or registered program participants (i.e., certified recycling centers). Consumers redeem their UBCs at certified recycling centers located throughout the state. The operators of these recycling centers consolidate their purchases of UBC materials redeemed by consumers and prepare a Shipping Report when they ship the material to another certified entity (i.e., certified recycling center or certified processor). Shipping Reports are ultimately attached to a Processor Invoice and submitted to the Department for reimbursement of CRV paid out to consumers. Certified recycling center operators are eligible to receive administration fees, processing payments, and handling fees in addition to the CRV reimbursement. The Shipping Report, Processor Invoice and Handling Fee Application data are managed and maintained in the Division of Recycling Integrated Information System (DORiis).

For the economic and fiscal impacts analysis, the affected universe was all claimed consumer transaction redemption weight and refund value for calendar year 2011, as identified on Shipping Report Receipt and Log (RL) period "From" and "Thru" dates. These dates and the associated claimed redemption weight and refund value should correspond to actual receipt and log documentation certified recycling centers are mandated to maintain as source documents for auditing of claims submitted to the Department for reimbursement of refund value, and calculated payments for administration fees and processing payments, if applicable. The analysis also includes Handling Fee payments paid for each reporting month in 2011 (i.e., 12 months). Handling Fee payments are also based upon the underlying consumer transactions documented on RLs that support redemption weight and refund value reimbursement claimed on Shipping Reports.

It should be noted that the consumer transaction values for CRV and redemption weight used as source data for this analysis from DORiis are overstated. When Shipping Reports are submitted, the values provided/entered by operators of certified recycling centers for RL values are stored in the system exactly as claimed. If a Shipping Report is reduced due to business rules used to validate claims prior to payment, the reduction is applied to the total redemption weight and CRV of the shipping report, not the RL values. This is necessary to maintain the auditability of Shipping Report RL data to source documents.

Also included in the source data are fraudulent Shipping Report claims for reimbursement and associated calculated values. As a result of these factors and adjustments, the Department's analysis errs to the benefit of certified recycling centers operators by overstating the potential economic impacts somewhat.

The Department is responsible for maintaining a survey of open market scrap values associated with the material types included in the program. This survey is used to determine processing payment rates used to subsidize program participant's purchase and processing of container material types that lack sufficient scrap value to cover the cost of transporting and processing the applicable material type. The scrap value survey data was used to derive a reasonable estimate of the scrap value for claimed consumer transaction redemption weight and refund value (CRV).

As noted in the background section above, the Recycling Enforcement Branch Risk Assessment and Data Management Unit aggregated approximately 95,000 consumer transactions, accounting for more than 2.4 million pounds of material, collected from 158 certified recycling centers. This data was gathered during standardized compliance activities performed by Department investigators in the course of

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evaluating the legitimacy of claimed consumer transaction volumes. The compliance activity is called a Consumer Transaction Profile (CTP). CTPs involve a team of investigators being present at a certified recycling center and documenting every consumer transaction thereby duplicating the recycling center's daily receipts and logs of consumer purchases. The standard CTP lasts 3 – 7 days, weekends included, for all hours the certified recycling center is open. The data is compiled and documented in a report. In cases where there is illegitimate recycling activity, the Department consistently observes a decrease in transaction volumes ranging from 50% – 90% during the period the CTP is performed. In cases of legitimate recycling activity, the Department notes immaterial changes in consumer transaction volumes.

Another source of data used was a study funded and published by CRI (Container Recycling Institute) titled "Returning to Work", Understanding the Domestic Jobs Impacts from Different Methods of Recycling Beverage Containers", published date of December 2011. This report was used to estimate the potential jobs impacts associated with the estimated affected economic value and loss of non CRV revenue by certified recycling center operators.

Assumptions:

- Data regarding the portion of affected consumer transactions that would result in loss of business activity at certified recycling centers due to implementation of the proposed regulation modifications is not readily obtainable. The Department has made a reasonable assumption as to the percentage of consumer transactions that could be lost at 10% of the affected population. Worst case scenario would be to assume that 100% of the affected consumer transactions would be lost. The Department assumes that legitimate consumer transactions would not be lost because the relatively small number of impacted consumers will simply modify their behavior and reduce the size of the loads they redeem and/or redeem materials more frequently. If these consumers do so, no legitimate transactions would be lost.
- Based upon field observations and prior enforcement activity, the Department assumes that a substantial portion of large consumer transactions for glass over 1,000 lbs. and all other material over 100 lbs., have a higher concentration of ineligible and/or illegal consumer transactions due to source(s) of the UBC materials (i.e., out of state material (OOS), non-CRV material purchased as commingled, and previously redeemed material that has not been properly cancelled and then is redeemed a second time for CRV). For purposes of practicality and to be conservative, the Department cannot, and does not, make an assumption of the percentage of lost consumer transactions associated with ineligible materials and/or illegal transactions. Because these UBC materials are ineligible and/or illegal the associated consumer transactions lost are not legitimate losses to certified recycling center operators or consumers.
- The CTP data only included four material types. For the remaining material types (i.e., Bi-Metal, and Plastic resins #3-#7) the Department applied the same rate as HDPE, which is 6%. The Department assumes and understands that doing so overstates the value of these beverage container material types. To be conservative and to avoid understating the economic impacts to certified recycling center operators the Department determined this to be the reasonable approach for deriving a value for these material types.

Calculations:

The economic impact analysis identifies the scope / universe of economic activity (i.e., consumer transactions) that could be affected by implementation of the proposed regulation modifications which would reduce the daily load limits for redeeming eligible UBCs for CRV.

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- The economic impact analysis starts with a valuation of all consumer transactions ascribed to the CBCRP in calendar year 2011. All consumer transactions CRV and non-CRV value = 100% of universe.
- Secondly, the CTP survey results are used to estimate the quantity of consumer transactions that are greater than 1,000 lbs. for glass and greater than 100 lbs. for Aluminum, PET, and HDPE as a percentage of all consumer transactions of the corresponding material types. The assumed 6% is used for Bi-metal, PVC, LDPE, PP, PS, Other 7.
- The percentage of transactions estimated as being greater than the proposed consumer load limits of 1,000 lbs. and 100 lbs. respectively, is applied to the universe in order to estimate the values of the population of consumer transactions that potentially could be affected.
 - Consumer transaction valuation for 2011 (i.e., 100% of economic activity) multiplied by the CTP survey results, equals the subset of CBCRP consumer transactions (i.e., economic activity) that potentially could be affected by implementation of the proposed regulations to reduce the daily allowable load limits.

It is important to note that this is not an estimate of potential impacts, only the population of economic activity that could be impacted / affected. As stated previously, the Department assumes that only a portion of this economic activity will be affected. The quantity of affected consumer transactions (i.e., economic activity) that will be impacted which result in a loss of revenue for certified recycling center operators is assumed to be less than 30% of the population of consumer transactions greater than 1,000 lbs. and 100 lbs for the applicable UBC material types.

There are two components to the consumer transaction values: claimed consumer transaction CRV and non-CRV values.

- CRV is paid to consumers by certified recycling center operators, which are reimbursed dollar for dollar out of the California Beverage Container Recycling Fund (Fund). As such, this is not revenue for certified recycling center operators.
- Non-CRV value associated with CRV material redemption includes; administrative fees, processing payments, Handling Fees, and commodity scrap value. Loss of non-CRV value due to lost consumer transactions define the potential negative economic impacts to certified recycling center operators.
 - Administrative fees, processing payments, and Handling Fees are monies paid out of the Fund to certified recycling center operators to subsidize the redemption and processing of CRV UBC material.
 - Scrap value is the private sector, open market value of UBC materials as a commodity that certified recycling center operators realize when they process and sell the redeemed UBC materials exclusive of CRV.

For clarification and explanation, we offer the following hypothetical example:

- All CBCRP consumer transactions for calendar year 2011 are \$450 of CRV and \$550 of non-CRV.
- Multiplied by CTP survey results of transactions greater than 1,000 lbs. and 100 lbs. (for example 10%) produces the potentially affected population of consumer transaction values. For CRV, this is \$45, and for non-CRV it is \$55 of the potentially affected population of consumer transaction values.

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- The potentially affected consumer transaction values are multiplied by the Department's 10% assumption for potential economic impact/loss. This results in \$13.50 of CRV, and \$16.50 of non-CRV dollars in potential economic impact/loss due to potentially lost consumer transactions.

The following calculations are used to derive estimated dollar valuations for the economic impacts:

- Shipping Report consumer transaction (claimed refund value, redemption weight, administration fee, and processing payment) data was aggregated and summed by material type for each certified recycling center and its associated Operator. This is represented in the universe of all consumer transactions.
- Handling Fee amounts paid were aggregated and summed by material type for each certified recycling center operator. This is also represented in the universe of all consumer transactions.
- Scrap value for consumer transactions were estimated by using the Department's December 2011 Monthly Scrap Value Survey data and applying the rates contained therein to the consumer transactions claimed redemption weights. This is how the scrap value for the universe of all consumer transactions was calculated. (See Table 1 on Page 14)

CTP survey data for transactions greater than 1,000 lbs. for glass and greater than 100 lbs. for aluminum, PET, and HDPE were summed, and then divided by the total weight of all consumer transactions for the corresponding material type to derive a percentage, by weight (not count), of applicable material type transactions greater than 1,000 lbs. or greater than 100 lbs., respectively. These percentages were applied to the universe of all consumer transaction values for the corresponding UBC material type to estimate the potentially affected population of consumer transaction values.

As stated previously, the CTP data only included four material types (AL, GL, PET1 and HDPE2), for all other material types (Bi-Metal and Plastic resins #3-#7) the Department assumed and applied the same rate as HDPE, which is 6%. The Department assumes and understands that doing so is very likely to overstate the value of these other beverage container material types. In order to be conservative and to avoid understating the economic impacts on certified recycling center operators, the Department determined this to be a very reasonable approach in deriving a value for these material types.

Conclusions:

Based upon the analysis performed, the Department concludes that the proposed modification existing regulations reducing the daily load limits for the redemption of empty beverage containers to 1,000 lbs. for glass and 100 lbs. for all other material types does not impose a reimbursable mandate on local government. The Department has also concluded the proposed changes to the regulations will not impose non-reimbursable local costs.

For calendar year 2011 consumer transactions claimed by certified recycling center operators were as follows:

(See Table 2 on Page 15)

- ~\$868,330,000 for reimbursement of CRV paid to consumers for redeemed UBC materials based on their receipts and logs. This accounted for ~1,680,007,000 lbs. of redemption weight.
- The Department has estimated the total non-CRV value of this material to be ~\$385,930,000. The total non-CRV value includes:
 - ~\$6,377,000 of administration fees,
 - ~\$67,395,000 of processing fees,

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- ~\$37,488,000 of handling fees, and
- ~\$274,670,000 of scrap value.
- Combined, the total CRV and total non-CRV values for all consumer transactions accounted for an estimated ~\$1,254,260,000 of economic value associated with the redemption of UBC materials via consumer transactions at certified recycling centers.
- The following are the applicable material type percentages of the total claimed refund value for consumer transactions in CY 2011:
(See Table 3 on Page 16)
 - Aluminum ~48%,
 - PET ~37%,
 - Glass 12%,
 - HDPE ~2%,
 - PS ~.03%,
 - Other .02%,
 - Bi-metal ~.02%, and
 - LDPE, PP, and PVC are negligible as a percentage of total claimed CRV for consumer transactions.

Certified recycling center operators are a diverse population of business entities and, as such, are not easily categorized. The Department aggregated the identified economic value by certified recycling center operators and the results are as follows:

(See Table 4 on Page 16)

- 1,066 operators, operating 2,616 certified recycling centers, received CRV reimbursements in calendar year 2011.
- Handling Fees were paid based upon Handling Fee Applications submitted and approved for 1,292 certified recycling centers in calendar year 2011.
- There were 144 certified recycling center operators with an estimated combined CRV and non-CRV economic value of \$2 million dollars or more during calendar year 2011.
- The mean of CRV value for UBCs redeemed by certified recycling center operators was ~\$322,000.
- The mean of non-CRV estimated value for UBCs redeemed by certified recycling center operators was ~\$147,000.

Results from the analysis of CTP data identified the percentage of transactions by weight greater than 1,000 lbs. for glass and greater than 100 lbs. for aluminum, PET, and HDPE are as follows:

(See Table 5 – 10, Pages 17 thru 21)

- Glass 18%.
- Aluminum 7.4%,
- PET 10.5%,
- HDPE 6%, and

As stated previously, the Department assumed 6% for Bi-Metal, and Plastic resins #3-#7.

Based upon the preceding data, the Department estimated the CRV and non-CRV values of consumer transactions greater than 1,000 lbs. for glass and 100 lbs. for the remaining CRV UBC material types which could be affected by the implementation of the proposed regulation modifications to reduce the daily load limits are as follows;

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(See Table 11, Page 22)

- Estimated CRV value of the potentially affected population is ~\$85,142,000. This would account for ~242,834,000 lbs. of consumer transaction redemption weight.
- Estimated non-CRV value of the potentially affected population is ~\$36,698,000. The non-CRV value includes;
 - ~\$624,000 of administration fees,
 - ~\$9,838,000 of processing payments,
 - ~\$3,659,000 of handling fees paid, and
 - ~\$22,577,000 of scrap value.

The Department estimated CRV and non-CRV values of consumer transactions greater than 1,000 lbs. for glass and 100 lbs. for the remaining CRV UBC material types potentially affected by implementation of the proposed regulation modifications to reduce the daily load limits for each certified recycling center based on their individual volumes in 2011.

The mean of CRV and non-CRV values for potentially affected consumer transactions associated with the 2,619 certified recycling centers are as follows;

(See Table 12, Page 22)

- ~\$33,000 of CRV and
- ~\$14,000 of non-CRV.

As stated previously, the Department estimated potential economic impacts for consumers and certified recycling center operators using an assumption of 10% for potential loss of consumer transactions (economic activity). This 10% loss would be CRV UBC material currently redeemed for CRV by consumers which would go unredeemed after implementation of the proposed regulation modifications to reduce the allowable daily load limits.

Consumer's CRV economic impact:

Based upon the Department's previously stated assumption, consumers would potentially not redeem approximately \$8,514,200 worth of CRV UBC material (~\$85,142,000 CRV x 10%). The unredeemed CRV would remain in the Fund and not be disbursed for reimbursement of consumer CRV transactions. CRV is a reimbursement / pass through and has no direct economic value for certified recycling center operators. The non-CRV value associated with consumers redeeming CRV material has economic value for certified recycling center operators.

The Department assumes this is not an indication of a negative impact on consumers' economic opportunity to redeem CRV UBC material and recover CRV paid at the dealer when the filled containers are purchased.

The Department has calculated consumers' annualized economic opportunity to recover CRV by redeeming CRV UBC material for the four primary material types that comprise ~99% of CRV payments based on consumer transactions in 2011. The bases for annualized economic opportunity to recover CRV by consumers are current program rates, redeeming at the proposed consumer daily allowable load limits, 5 days per week for 50 weeks, allowing two weeks' vacation in a calendar year.

(See Table 13 & 14 on Pages 23 and 24, respectively)

If implemented, the proposed regulation modifications to reduce the daily load limits will provide consumers with the economic opportunity to annually redeem CRV UBC material for CRV in the following amounts:

- \$39,250 of Aluminum (717,500 containers weighing 25,000 lbs.)
- \$25,000 of PET (392,500 containers weighing 25,000 lbs.)

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- \$26,250 Glass (465,000 containers weighing 250,000 lbs.)
- \$14,250 of HDPE (170,000 containers weighing 25,000 lbs.)

Combined, the annual CRV value of the four primary material types an individual consumer can recover based upon the assumptions stated above is \$104,750.

Certified recycling center operators' non-CRV economic impact:

As stated previously, the Department has estimated the non-CRV value of the potentially affected population to be approximately \$36,698,000.

Based upon the Department's previously stated assumption of a 10% loss, all certified recycling center operators have a potential combined economic impact estimated to be approximately \$3,669,800 of non-CRV value associated with consumers not redeeming CRV UBC material. (~\$36,698,000 non-CRV value x 10%)

As stated previously, the mean of non-CRV value for potentially affected consumer transaction is ~\$14,000 per certified recycling center. (~\$36,698,000 / 2,619)

Based upon the Department's previously stated assumption of a 10% loss, the mean of potential non-CRV economic impact, per certified recycling center, is estimated to be approximately \$1,400. (~\$14,000 non-CRV x 10%)

The Department assumes the overestimation included in the analysis producing estimated potential economic impacts is material in nature and provides a substantive contingency as to future potential economic impacts to consumers and certified recycling center operators should the proposed regulation modifications to reduce the allowable daily load limits be approved and implemented.

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TABLES 1 - 14:

Table 1: Monthly Scrap Value Notice used to calculate Estimated Scrap Value of Consumer Transactions.

Scrap Value Per Ton					
	Aluminum	Glass	Bimetal	#1 PET Plastic	#2 HDPE Plastic
Oct-11	\$1,571.94	\$5.59	\$18.78	\$510.46	\$385.27
Nov-11	\$1506.67	\$5.42	(\$2.15)	\$445.45	\$363.81
Dec-11	\$1,459.00	\$5.03	(\$3.57)	\$387.96	\$324.91

Scrap Value Per Ton					
	#3 PVC Plastic	#4 LDPE Plastic	#5 PP Plastic	#6 PS Plastic	#7 Other Plastic
Oct-11	\$0.00	(\$20.35)	(74.00)	(\$5.40)	(\$6.97)
Nov-11	\$0.00	\$290.71	(\$225.63)	(\$0.59)	(\$18.64)
Dec-11	\$0.00	(\$300.00)	(\$37.61)	\$31.48	\$7.70

GLASS YEAR TO DATE OCTOBER 2011 – SEPTEMBER 2012 AVERAGE \$/TON: \$5.34 RC + CS + SP + CP TONS: 125,597.52	RC = Recycling Centers CS = Curbside Programs SP = Community Service Programs CP = Dropoff and Collection Programs
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Table 2: Summary of Consumer Transaction Values for Calendar Year 2011 by Material Type.

Mat Type	A	B	G	C	D	E	F
	Shipping Report Claims Data CY2011*	Shipping Report Claims Data CY2011*	Sum (C, D, E, F)	Shipping Report Claims Data CY2011*	Shipping Report Claims Data CY2011*	Handling Fee Claims Data CY2011*	Calculated DRRR Notice ***
	Material Type Total Claimed** Redemption Weight For Consumer Transactions (Lbs)	Material Type Total Claimed** Refund Value For Consumer Transactions	Material Type Total Non-CRV Value For Consumer Transactions	Material Type Total Admin Fee For Consumer Transactions	Material Type Total Processing Fee For Consumer Transactions	Material Type Total Handling Fee Claim Amount For Consumer Transactions	Material Type Total Estimated Scrap Value For Consumer Transactions
AL	272,613,000	\$ 419,734,000	\$ 220,722,000	\$ 3,083,000	\$ -	\$ 18,768,000	\$ 198,871,000
PET	344,176,000	\$ 320,052,000	\$ 105,167,000	\$ 2,356,000	\$ 22,434,000	\$ 13,614,000	\$ 66,763,000
GL	1,022,746,000	\$ 106,365,000	\$ 47,658,000	\$ 774,000	\$ 39,872,000	\$ 4,440,000	\$ 2,572,000
HDPE	39,066,000	\$ 21,483,000	\$ 11,779,000	\$ 160,000	\$ 4,645,000	\$ 627,000	\$ 6,347,000
PS6	67,000	\$ 280,000	\$ 35,000	\$ 2,000	\$ 21,000	\$ 11,000	\$ 1,000
Other 7	567,000	\$ 210,000	\$ 208,000	\$ 1,000	\$ 194,000	\$ 11,000	\$ 2,000
Bi-Metal	759,000	\$ 197,000	\$ 354,000	\$ 1,000	\$ 222,000	\$ 17,000	\$ 114,000
LDPE4	3,000	\$ 6,000	\$ 2,000	\$ -	\$ 2,000	\$ -	\$ -
PP5	10,000	\$ 3,000	\$ 5,000	\$ -	\$ 5,000	\$ -	\$ -
PVC3	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	1,680,007,000	\$ 868,330,000	\$ 385,930,000	\$ 6,377,000	\$ 67,395,000	\$ 37,488,000	\$ 274,670,000

*** SR Claims Data CY 2011** - is sourced using the Department ERP system used to processing claims for payment. This is data is post adjudication and payment. Shipping Report (DR6) data is used for Consumer Transaction information.

*** Handling Fee Claims Data CY2011** - is sourced using the Department ERP system used to processing claims for payment. This is data is post adjudication and payment. Shipping Report (DR6) data is used for Consumer Transaction information.

**** Total Claimed** - Consumer Transaction data uses the claimed amounts and are not reduced for Percentage reduction applied to shipping reports. The consumer Transaction data is overstated for this reason and to provide a conservative estimate for use in this analysis.

*****Calculated DRRR Notice** - The December 2011 Statewide Average Monthly Scrap Value Per ton notice was used to calculate the estimated scrap value of claimed Redemption weight for consumer Transaction by applying the appropriate value.

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Table 3: Summary of Shipping Report population used to derive the Consumer Transaction Values for Calendar Year 2011.

Mat Type	H	I	J	K	L	M
	Shipping Report Claims Data CY2011*	Calculated I	A / Total A	B / Total B	Shipping Report Claims Data CY2011*	Shipping Report Claims Data CY2011*
	Material Type Number of Shipping Reports	Material Type Mean of Average Daily Volume Per Shipping Report For Consumer Transactions	Material Type as % of Total Claimed Redemption Weight For Consumer Transactions	Material Type as % of Total Claimed Refund Value For Consumer Transactions	Material Type Receipt & Log Range Date From	Material Type Receipt & Log Range Date Through
AL	159,205	308	16.23%	48.34%	12/10/2010	1/18/2012
PET	205,370	368	20.49%	36.86%	12/11/2010	1/31/2012
GL	141,638	1104	60.88%	12.25%	12/14/2010	2/7/2012
HDPE	126,507	49	2.33%	2.47%	12/13/2010	2/27/2012
PS6	820	7	0.00%	0.03%	1/1/2011	12/31/2011
Other 7	8,716	6	0.03%	0.02%	12/11/2010	1/20/2012
Bi-Metal	8,998	8	0.05%	0.02%	12/21/2010	2/29/2012
LDPE4	73	8	0.00%	0.00%	1/2/2011	12/31/2011
PP5	126	3	0.00%	0.00%	12/20/2010	12/31/2011
PVC3	9	5	0.00%	0.00%	2/4/2011	12/24/2011
Total	651,462					

I Mean of Average Daily Volume per Shipping Report- was calculated when shipping report data was extracted from the Departments Data Warehouse. Claimed Redemption Weight for Consumer Transactions divided by (Receipt and Log Date Range+1) = Average Daily Volume for a shipping Report. This is an average of what the daily volume for redemption weight from consumer transaction at the shipping Recycling Center. This was calculated for each shipping report and then the average for all shipping reports was calculated.

Table 4: Summary of Consumer Transaction Values for Calendar Year 2011 by Operator

Quartiles	Number of Operators	Operator Number of RC Accounts	Operator Number of RC Accounts Receiving HF	Operator Total RL Refund Value *	Operator Total Non-CRV Values **	Operator Total Values	Number of Operators with Total Values Over 2 Million	Mean of RC Account Total Claimed RL	Mean of RC Account Total Non-CRV Values **
							Dollars	Refund Value *	Values **
1st Quartile	13	917	813	\$ 207,294,000	\$ 101,233,000	\$ 308,527,000	13	\$ 226,000	\$ 110,000
2nd Quartile	76	309	129	\$ 221,578,000	\$ 94,931,000	\$ 316,509,000	76	\$ 717,000	\$ 307,000
3rd Quartile	176	361	104	\$ 220,956,000	\$ 94,014,000	\$ 314,970,000	55	\$ 612,000	\$ 260,000
4th Quartile	801	1,032	246	\$ 218,502,000	\$ 95,752,000	\$ 314,254,000	0	\$ 212,000	\$ 93,000
Total	1,066	2,619	1,292	\$ 868,330,000	\$ 385,930,000	\$ 1,254,260,000	144	\$ 332,000	\$ 147,000

***RL Refund Value** - RL is an abbreviation for Receipt and Log Transactions these are Consumer Transactions. these are the claimed amounts are not reduced amounts if the claim was reduced for percentage reduction taken due to claimed redemption weight being greater than the received weight by a margin greater than 2.5%
****Non-CRV Values** - include Administration Fees, Processing Fees, Handling Fees, and Estimated Scrap Value

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Table 5: Consumer Transaction Profile Survey Data for Transactions of AL, PET1, and HDPE2 Greater than 100 lbs and Glass Greater than 1,000 lbs

Consumer Transaction Profile Survey Data for Transactions (AL, PET1, HDPE2) > 100 Lbs or Glass > 1,000 Lbs							
	<u>Number of Transaction Over 100 or 1000 Lbs</u>	<u>Number of Transaction Over 100 or 1000 LBS as % of Total Count</u>	<u>Weight of Transaction Over 100 or 1000 Lbs</u>	<u>Weight of Transaction Over 100 or 1000 LBS as % of Total Weight Lbs</u>	<u>Average Weight of Transaction Over 100 or 1000 Lbs</u>	<u>Median Weight of Transaction Over 100 or 1000 Lbs</u>	<u>Standard Deviation Weight of Transaction Over 100 or 1000 Lbs</u>
ALUMINUM	155	0.38%	25,875	7.4%	166.9	144.0	76.5
PET 1	255	0.76%	40,926	10.5%	159.9	133.0	75.3
GLASS	194	0.89%	303,383	18.0%	1,563.8	148.0	447.1
HDPE 2	27	0.19%	5,041	6.0%	186.7	1,437.5	96.8

Table 6: Consumer Transaction Profile Summary Data for all Survey data.

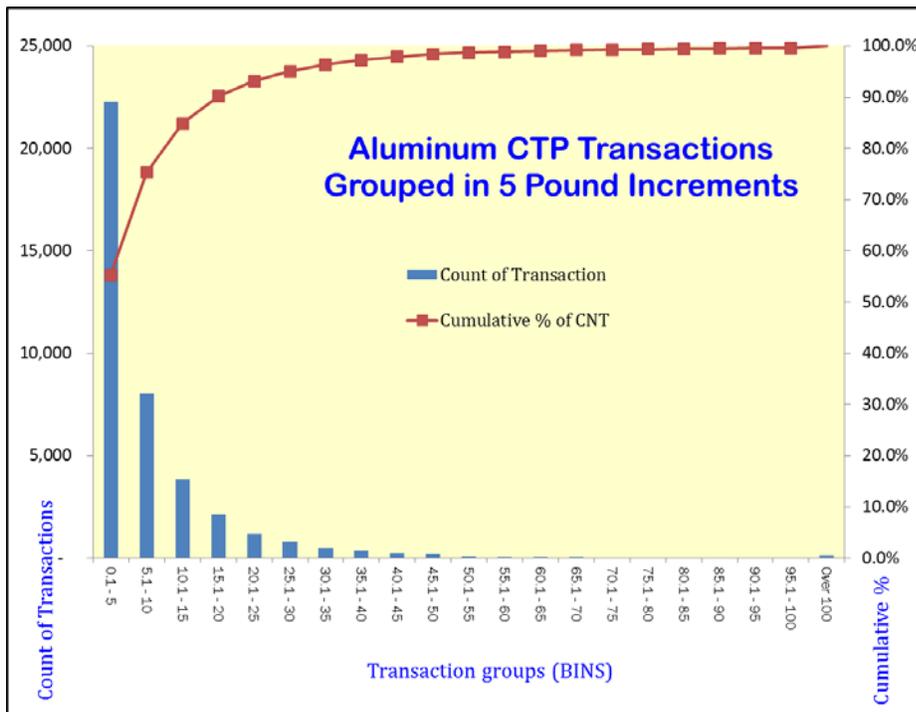
Consumer Transaction Profile Survey Data									
	<u>Total Number of Consumer Transactions</u>	<u>Total Weight of Consumer Transactions Lbs</u>	<u>Average Consumer Transaction Weight Lbs</u>	<u>Median Consumer Transaction Weight Lbs</u>	<u>Standard Deviation of Consumer Transaction Weight Lbs</u>	<u>Max Consumer Transaction Weight Lbs</u>	<u>Min Consumer Transaction Weight</u>	<u>Minimum CTP Date</u>	<u>Maximum CTP Date</u>
ALUMINUM	40,277	352,077	8.7	4.3	15.4	498	0.10	5/30/2001	8/23/2011
PET 1	33,744	390,529	11.6	6.0	19.6	500	0.10	5/30/2001	8/23/2011
GLASS	21,804	1,688,687	77.4	27.0	184.4	2,500	0.10	5/30/2001	8/23/2011
HDPE 2	14,494	84,068	5.8	2.9	12.1	467	0.10	6/2/2001	8/23/2011

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Table 7: Consumer Transaction Profile survey Aluminum data and histogram

ALUMINUM Consumer Transaction Profile Survey Data						
BIN Value	Count of Transaction	Cumulative % of CNT	Count of Transaction as % of Total	SUM Transaction Weight LBS	Sum Transaction Weight as % of Total	Cumulative % of Weight
0.1 - 5	22,282	55.3%	55.3%	49,911	14.2%	14.2%
5.1 - 10	8,043	75.3%	20.0%	58,905	16.7%	30.9%
10.1 - 15	3,856	84.9%	9.6%	47,553	13.5%	44.4%
15.1 - 20	2,148	90.2%	5.3%	37,664	10.7%	55.1%
20.1 - 25	1,196	93.2%	3.0%	26,916	7.6%	62.8%
25.1 - 30	779	95.1%	1.9%	21,496	6.1%	68.9%
30.1 - 35	517	96.4%	1.3%	16,850	4.8%	73.6%
35.1 - 40	347	97.2%	0.9%	13,053	3.7%	77.4%
40.1 - 45	261	97.9%	0.6%	11,163	3.2%	80.5%
45.1 - 50	199	98.4%	0.5%	9,496	2.7%	83.2%
50.1 - 55	118	98.7%	0.3%	6,229	1.8%	85.0%
55.1 - 60	82	98.9%	0.2%	4,741	1.3%	86.3%
60.1 - 65	68	99.1%	0.2%	4,283	1.2%	87.6%
65.1 - 70	55	99.2%	0.1%	3,733	1.1%	88.6%
70.1 - 75	38	99.3%	0.1%	2,759	0.8%	89.4%
75.1 - 80	37	99.4%	0.1%	2,871	0.8%	90.2%
80.1 - 85	33	99.5%	0.1%	2,726	0.8%	91.0%
85.1 - 90	22	99.5%	0.1%	1,931	0.5%	91.5%
90.1 - 95	18	99.6%	0.0%	1,674	0.5%	92.0%
95.1 - 100	23	99.6%	0.1%	2,247	0.6%	92.7%
Over 100	155	100.0%	0.4%	25,875	7.3%	100.0%
Grand Total	40,277		100.0%	352,077	100.0%	



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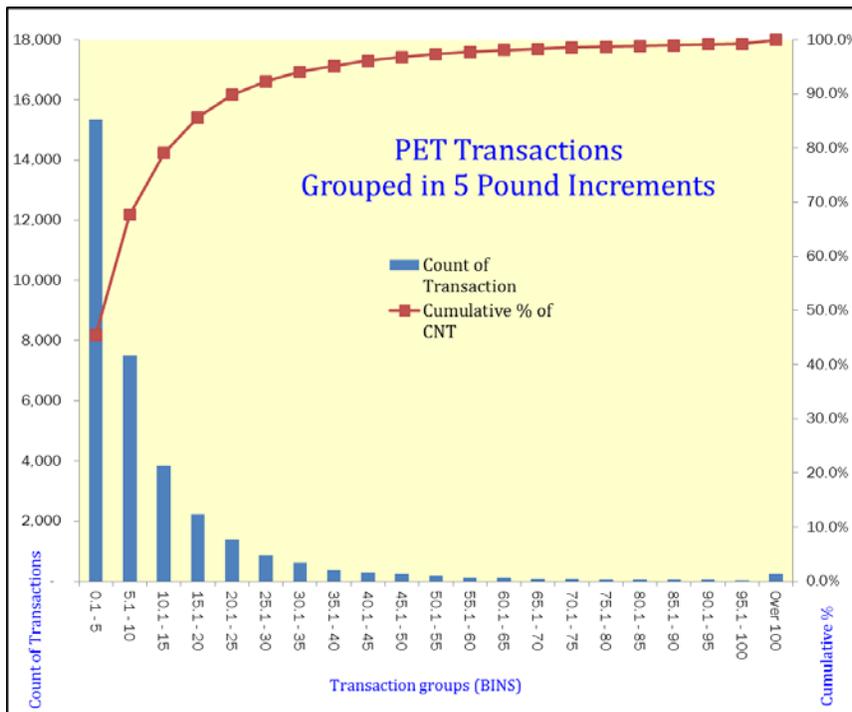
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Table 8: Consumer Transaction Profile survey PET data and histogram

PET Consumer Transaction Profile Survey Data						
BIN Value	Count of Transaction	Cumulative % of CNT	Count of Transaction as % of Total	SUM Transaction Weight LBS	Sum Transaction Weight as % of Total	Cumulative % of Weight
0.1 - 5	15,342	45.5%	45.5%	38,366	9.8%	9.8%
5.1 - 10	7,499	67.7%	22.2%	55,283	14.2%	24.0%
10.1 - 15	3,832	79.0%	11.4%	47,564	12.2%	36.2%
15.1 - 20	2,236	85.7%	6.6%	39,096	10.0%	46.2%
20.1 - 25	1,389	89.8%	4.1%	31,362	8.0%	54.2%
25.1 - 30	850	92.3%	2.5%	23,535	6.0%	60.2%
30.1 - 35	603	94.1%	1.8%	19,699	5.0%	65.3%
35.1 - 40	372	95.2%	1.1%	14,036	3.6%	68.9%
40.1 - 45	302	96.1%	0.9%	12,928	3.3%	72.2%
45.1 - 50	241	96.8%	0.7%	11,579	3.0%	75.1%
50.1 - 55	179	97.3%	0.5%	9,408	2.4%	77.6%
55.1 - 60	128	97.7%	0.4%	7,398	1.9%	79.4%
60.1 - 65	121	98.1%	0.4%	7,566	1.9%	81.4%
65.1 - 70	78	98.3%	0.2%	5,288	1.4%	82.7%
70.1 - 75	78	98.5%	0.2%	5,664	1.5%	84.2%
75.1 - 80	54	98.7%	0.2%	4,209	1.1%	85.3%
80.1 - 85	50	98.8%	0.1%	4,147	1.1%	86.3%
85.1 - 90	49	99.0%	0.1%	4,329	1.1%	87.4%
90.1 - 95	54	99.1%	0.2%	5,010	1.3%	88.7%
95.1 - 100	32	99.2%	0.1%	3,136	0.8%	89.5%
Over 100	255	100.0%	0.8%	40,926	10.5%	100.0%
Grand Total	33,744		100.0%	390,529	100.0%	



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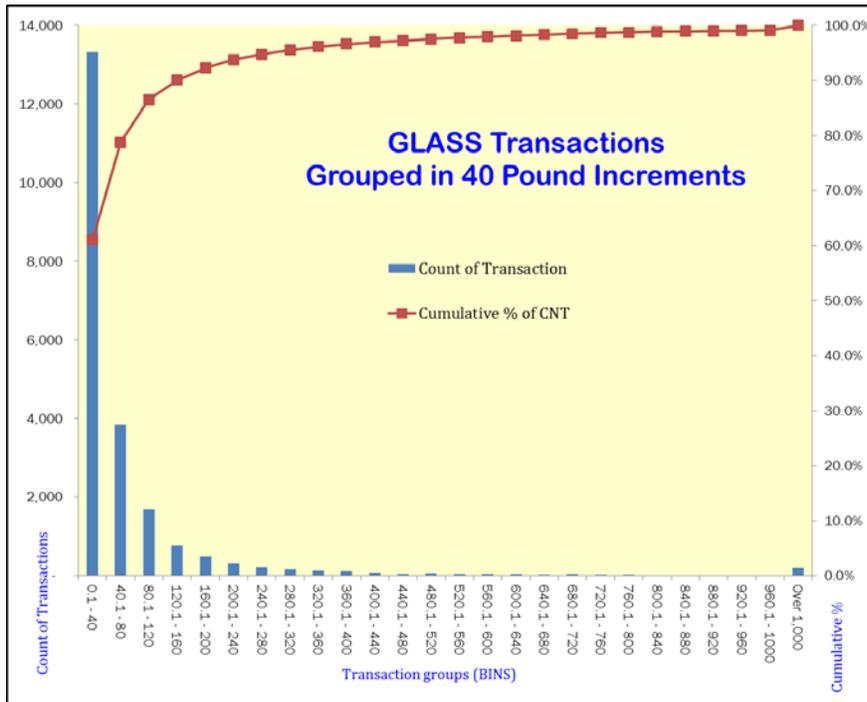
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Table 9: Consumer Transaction Profile survey Glass data and histogram

GLASS Consumer Transaction Profile Survey Data						
BIN Value	Count of Transaction	Cumulative % of CNT	Count of Transaction as % of Total	SUM Transaction Weight LBS	Sum Transaction Weight as % of Total	Cumulative % of Weight
0.1 - 40	13,324	61.1%	61.1%	206,462	12.2%	12.2%
40.1 - 80	3,851	78.8%	17.7%	221,815	13.1%	25.4%
80.1 - 120	1,686	86.5%	7.7%	166,376	9.9%	35.2%
120.1 - 160	782	90.1%	3.6%	108,387	6.4%	41.6%
160.1 - 200	480	92.3%	2.2%	86,507	5.1%	46.8%
200.1 - 240	322	93.8%	1.5%	70,716	4.2%	50.9%
240.1 - 280	220	94.8%	1.0%	57,543	3.4%	54.4%
280.1 - 320	162	95.5%	0.7%	48,735	2.9%	57.2%
320.1 - 360	132	96.1%	0.6%	45,267	2.7%	59.9%
360.1 - 400	114	96.6%	0.5%	43,713	2.6%	62.5%
400.1 - 440	75	97.0%	0.3%	31,710	1.9%	64.4%
440.1 - 480	56	97.2%	0.3%	25,772	1.5%	65.9%
480.1 - 520	68	97.6%	0.3%	34,195	2.0%	67.9%
520.1 - 560	47	97.8%	0.2%	25,631	1.5%	69.5%
560.1 - 600	40	98.0%	0.2%	23,452	1.4%	70.8%
600.1 - 640	43	98.2%	0.2%	26,835	1.6%	72.4%
640.1 - 680	34	98.3%	0.2%	22,454	1.3%	73.8%
680.1 - 720	46	98.5%	0.2%	32,465	1.9%	75.7%
720.1 - 760	32	98.7%	0.1%	23,775	1.4%	77.1%
760.1 - 800	23	98.8%	0.1%	17,901	1.1%	78.2%
800.1 - 840	19	98.9%	0.1%	15,689	0.9%	79.1%
840.1 - 880	12	98.9%	0.1%	10,377	0.6%	79.7%
880.1 - 920	15	99.0%	0.1%	13,606	0.8%	80.5%
920.1 - 960	14	99.1%	0.1%	13,146	0.8%	81.3%
960.1 - 1000	13	99.1%	0.1%	12,777	0.8%	82.0%
Over 1,000	194	100.0%	0.9%	303,383	18.0%	100.0%
Grand Total	21,804	100.0%	100.0%	1,688,688	100.0%	



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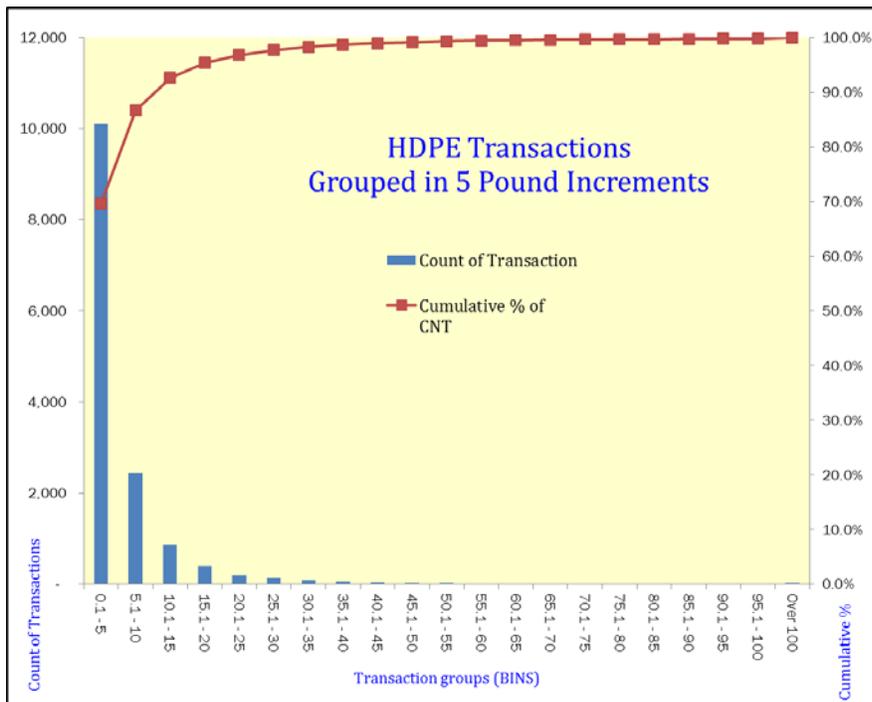
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Table 10: Consumer Transaction Profile survey HDPE data and histogram

HDPE Consumer Transaction Profile Survey Data						
BIN Value	Count of Transaction	Cumulative % of CNT	Count of Transaction as % of Total	SUM Transaction Weight LBS	Sum Transaction Weight as % of Total	Cumulative % of Weight
0.1 - 5	10,107	69.7%	69.7%	20,420	24.3%	24.3%
5.1 - 10	2,452	86.6%	16.9%	18,259	21.7%	46.0%
10.1 - 15	867	92.6%	6.0%	10,744	12.8%	58.8%
15.1 - 20	403	95.4%	2.8%	7,080	8.4%	67.2%
20.1 - 25	200	96.8%	1.4%	4,523	5.4%	72.6%
25.1 - 30	130	97.7%	0.9%	3,572	4.2%	76.8%
30.1 - 35	93	98.3%	0.6%	3,016	3.6%	80.4%
35.1 - 40	54	98.7%	0.4%	2,053	2.4%	82.9%
40.1 - 45	37	99.0%	0.3%	1,578	1.9%	84.7%
45.1 - 50	28	99.2%	0.2%	1,338	1.6%	86.3%
50.1 - 55	29	99.4%	0.2%	1,547	1.8%	88.2%
55.1 - 60	18	99.5%	0.1%	1,032	1.2%	89.4%
60.1 - 65	7	99.5%	0.0%	445	0.5%	89.9%
65.1 - 70	8	99.6%	0.1%	546	0.6%	90.6%
70.1 - 75	9	99.6%	0.1%	659	0.8%	91.4%
75.1 - 80	5	99.7%	0.0%	391	0.5%	91.8%
80.1 - 85	3	99.7%	0.0%	247	0.3%	92.1%
85.1 - 90	6	99.7%	0.0%	528	0.6%	92.8%
90.1 - 95	6	99.8%	0.0%	559	0.7%	93.4%
95.1 - 100	5	99.8%	0.0%	491	0.6%	94.0%
Over 100	27	100.0%	0.2%	5,041	6.0%	100.0%
Grand Total	14,494		100.0%	84,068	100.0%	



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Table 11: Estimated population of affected Consumer Transactions by Material Type and associated values.

Mat Type	N	O	P	Q	R	S	T
	Calculated ^^CTP Data (x) A ^Material Type Estimated Impacted Redemption Wt (Lbs) for Consumer Transactions Over 100 Lbs Or Glass > 1,000 Lbs	^Material Type Estimated Impacted Refund Value (CRV) for Consumer Transactions Over 100 Lbs Or Glass > 1,000 Lbs	^Material Type Estimated Impacted Non-CRV Total for Consumer Transactions Over 100 Lbs Or Glass > 1,000 Lbs	^Material Type Estimated Impacted Admin Fee for Consumer Transactions Over 100 Lbs Or Glass > 1,000 Lbs	^Material Type Estimated Impacted Processing Fee for Consumer Transactions Over 100 Lbs Or Glass > 1,000 Lbs	^Material Type Estimated Impacted Handling Fee for Consumer Transactions Over 100 Lbs Or Glass > 1,000 Lbs	^Material Type Estimated Impacted Scrap Value for Consumer Transactions Over 100 Lbs Or Glass > 1,000 Lbs
AL	20,173,000	\$ 31,060,000	\$ 16,333,000	\$ 228,000	\$ -	\$ 1,389,000	\$ 14,716,000
PET	36,138,000	\$ 33,605,000	\$ 11,043,000	\$ 247,000	\$ 2,356,000	\$ 1,430,000	\$ 7,010,000
GL	184,094,000	\$ 19,146,000	\$ 8,578,000	\$ 139,000	\$ 7,177,000	\$ 799,000	\$ 463,000
HDPE	2,344,000	\$ 1,289,000	\$ 708,000	\$ 10,000	\$ 279,000	\$ 38,000	\$ 381,000
PS6	4,000	\$ 17,000	\$ 2,000	\$ -	\$ 1,000	\$ 1,000	\$ -
Other 7	34,000	\$ 13,000	\$ 13,000	\$ -	\$ 12,000	\$ 1,000	\$ -
Bi-Metal	46,000	\$ 12,000	\$ 21,000	\$ -	\$ 13,000	\$ 1,000	\$ 7,000
LDPE4	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PP5	1,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PVC3	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	242,834,000	\$ 85,142,000	\$ 36,698,000	\$ 624,000	\$ 9,838,000	\$ 3,659,000	\$ 22,577,000

^ Estimated - all estimated values are based on using the ratio of CTP transactions over 100 or 1,000 Lbs. by weight to proportionally identify estimated impacts in payments to Recycling Centers. This is the scope of value that can be impacted. The department does not expect that this value will be lost. The values were calculated for each RC Account for each material type, then these values were summed for each material type then rounded to the nearest thousands. These values aggregated at the material level and rounded will not calculate out to the percentage in the CTP data table in the smaller amounts due to rounding to the thousands.

^^ CTP Data - Consumer Transaction Profile data. The Department engage a project to aggregate 10 years of CTP data to provide a Survey of Consumer Transactions. The results of this survey is the primary source of data to determine potential financial impacts of changing load limits by providing a profile of consumer activity independently verified by Department staff.

^^ CTP Transactions Over 100 Lbs OR Glass > 1,000 LBbs - Consumer Transaction Profile transaction for Aluminum, PET1 and HDPE2 greater than 100 Lbs. and Glass transactions greater than 1,000 Lbs. This is the population being used to estimate potential impacts

^^^ Scope of valuations that could be impacted due to lowering consumer load limits - It is assumed that the majority of these values will still be available to program participants (RC Accounts), but based on more transactions under 100 or 1,000 pounds. These are not expected losses.

Table 12: Estimated population of affected Consumer Transactions by Operator

Quartiles	Operator			Estimated Scope of Value for Consumer Transactions Over 100 Lbs or Glass Transactions over 1,000 Lbs				
	Number of Operators	Number of RC Accounts	Number of RC Accounts Receiving HF	Operators	Operators	Operators	Mean of	Mean of
				RL Refund Value	Non-CRV Value	Total Value	RL Refund Value Per RC Account	Non-CRV Value Per RC Account
1st Quartile	13	917	813	\$ 20,396,000	\$ 9,639,000	\$ 30,035,000	\$ 22,000	\$ 11,000
2nd Quartile	76	309	129	\$ 22,014,000	\$ 9,132,000	\$ 31,146,000	\$ 71,000	\$ 30,000
3rd Quartile	176	361	104	\$ 21,598,000	\$ 8,927,000	\$ 30,525,000	\$ 60,000	\$ 25,000
4th Quartile	801	1,032	246	\$ 21,134,000	\$ 9,000,000	\$ 30,134,000	\$ 20,000	\$ 9,000
Total	1,066	2,619	1,292	\$ 85,142,000	\$ 36,698,000	\$121,840,000	\$ 33,000	\$ 14,000

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Table 13: Comparison of Annualized Valuations for Consumer Load Limits

Consumer Load Limit Scenario Annualized Valuations

ALUMINUM	500	100
Max transaction Limit:		
Daily Containers @ 28.7 per LB:	14,350	2,870
Daily CRV @ \$ 1.57 LB:	\$ 785	\$ 157
Annualized Containers @ 250 Workdays / Yr	3,587,500	717,500
Annualized CRV @ 250 Workdays / Yr	\$ 196,250	\$ 39,250

PET	500	100
Max transaction Limit:		
Containers @ 15.7 per LB:	7,850	1,570
Daily CRV @ \$ 1.00 Lb:	\$ 500	\$ 100
Annualized Containers @ 250 Workdays / YR	1,962,500	392,500
Annualized CRV 250 Workdays / YR	\$ 125,000	\$ 25,000

GLASS	2,500	1000
Max transaction Limit:		
Containers @ 1.86 per LB:	4,650	1,860
Daily CRV @ \$ 0.105 Lb:	\$ 263	\$ 105
Annualized Containers @ 250 Workdays / YR	1,162,500	465,000
Annualized CRV 250 Workdays / YR	\$ 65,750	\$ 26,250

HDPE	500	100
Max transaction Limit:		
Containers @ 6.8 per LB:	3,400	680
Daily CRV @ \$ 0.57 Lb:	\$ 285	\$ 57
Annualized Containers @ 250 Workdays / YR	850,000	170,000
Annualized CRV 250 Workdays / YR	\$ 71,250	\$ 14,250

*Workdays per year is a 50 week work year and 5 days per week = 250 workdays in a standard work year.

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Table 14: Program Rates Effective January 1, 2011

PAYMENT OF CALIFORNIA REFUND VALUE EFFECTIVE JANUARY 1, 2011			
California Code of Regulations, Title 14, Section 2500(e), requires recycling centers to post the following refund prices by weight or by container and by material type.			
Table 1. ALL RECYCLING CENTERS			
Material Type	(A) Containers Per Segregated Pound	(B)* Refund Value Per Segregated Pound	(C)* Refund Value Per Commingled Pound
Aluminum	29.1	\$ 1.54	\$ 1.43
Glass	1.86	\$ 0.104	\$ 0.073
#1 PET Plastic	14.5	\$ 0.93	\$ 0.73
#2 HDPE (High Density Polyethylene)	6.5	\$ 0.55	\$ 0.21
#3 PVC (Vinyl)	26.7	\$ 1.33	Segregated Only
#4 LDPE (Low Density Polyethylene)	39.7	\$ 1.98	Segregated Only
#5 PP (Polypropylene)	3.2	\$ 0.31	Segregated Only
#6 PS (Polystyrene)	83.7	\$ 4.18	Segregated Only
#7 Other (includes pouches and unspecified resins)	4.6	\$ 0.37	Segregated Only
Bimetal	5.0	\$ 0.26	Segregated Only
Table 2. REVERSE VENDING MACHINES ONLY**			
Material Type	Refund Value Per Commingled Pound		
Aluminum	\$ 1.54		
Glass	\$ 0.101		
PET Plastic	\$ 0.91		
Table 3. CURBSIDE PROGRAMS ONLY			
Material Type	Refund Value Per Commingled Pound		
Aluminum	\$ 1.35		
Glass	\$ 0.039		
PET Plastic	\$ 0.58		
HDPE Plastic	\$ 0.06		
Table 4. DROPOFF or COLLECTION PROGRAMS ONLY			
Material Type	Refund Value Per Commingled Pound		
Aluminum	\$ 1.46		
Glass	\$ 0.044		
PET Plastic	\$ 0.68		
HDPE Plastic	\$ 0.06		
Table 5. COMMUNITY SERVICE PROGRAMS ONLY			
Material Type	Refund Value Per Commingled Pound		
Aluminum	\$ 1.40		
Glass	\$ 0.056		
PET Plastic	\$ 0.72		
HDPE Plastic	\$ 0.08		
<p>*(B) and (C) only are to be used to calculate the Refund Payment.</p> <p>** For machines intake volumes only.</p> <p>Note: The containers that produce the <u>Containers Per Segregated Pound</u> (CPP) in column (A) vary in size. Consequently, the refund value is \$0.05 for some containers (<24 oz.) and \$0.10 for others (≥24 oz.). Therefore, one cannot simply multiply the CPP average by either refund value to get the <u>Refund Value Per Segregated Pound</u> rates, column (B).</p>			

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