

# AB 901 Economic Impact Statement - Supplemental Information

## Background of bill and regulations

Existing California law requires solid waste handlers and transfer station operators to provide information to disposal facilities about the jurisdiction of origin of solid waste sent to those facilities. In turn, disposal facilities must submit information to counties regarding tonnages of materials disposed of at their site, by jurisdiction of origin. Counties must then submit periodic reports to CalRecycle on the amounts of solid waste disposed of and/or diverted to recycling and composting facilities within their county.

AB 901 (Chapter 746, Statutes of 2015) revises existing reporting requirements. Waste, recycling, and compost facilities, as well as exporters, brokers, and transporters of recyclables or compost will be required to submit disposal and recycling information directly to CalRecycle on the types, quantities, and destinations of materials that are disposed of, sold, or transferred inside or outside of the state. Counties will no longer be required to collect disposal information or to submit disposal reports to CalRecycle. AB 901 also gives CalRecycle enforcement authority to obtain information from facilities or operations. Reports will be submitted electronically through the Recycling and Disposal Reporting System (RDRS).

## General process, data sources, and assumptions

### AB 901 regulation overlap with existing state regulation

Because certain parts of AB 901 regulations overlap with disposal data collection and reporting requirements under existing law, CalRecycle identified those areas of overlap and only considered costs associated with new requirements under AB 901 regulations in this economic impact analysis. If AB 901 regulations require new data to be reported, but facilities already collect that information under current business processes, the cost to collect that data was not included as part of the economic impact assessment. Only the cost to compile and submit that data to CalRecycle was included as a cost to businesses as this would be a new task for them.

### Data Sources

CalRecycle's Facility Information Toolbox (FIT)<sup>1</sup> is an inventory of California's solid waste handling, recycling, and market infrastructure. FIT became active in 2013, with a public facing portal available on CalRecycle's website, and an internal application for use by CalRecycle staff. This data system is the basis for most of the facility activity information and counts used in this economic analysis.

One of the main goals of FIT was to develop a comprehensive inventory of California's disposal, recycling, and market infrastructure, including landfills, primary processors (such as transfer stations,

---

<sup>1</sup> <http://www.calrecycle.ca.gov/FacIT/>

material recovery facilities, and compost processors), secondary recycled materials processors and manufacturers, and emerging technology facilities. Various CalRecycle programs regulate many of these facilities, and FIT is updated with information from those program's data systems, such as the Disposal Reporting System (DRS), the Solid Waste Information System (SWIS), and Division of Recycling Integrated Information System (DORIIS).

Other, non-regulated recycling facilities are also included in FIT and were initially populated in the database when the system was first built. Since then, CalRecycle staff have conducted outreach efforts to enhance the list of non-regulated facilities and improve the accuracy of the information about those facilities. Staff have also continually added new recycling facilities to FIT whenever they have come to our attention. In addition, recycling facilities and businesses that hear about FIT may request to be added to the system, and facilities may provide information to CalRecycle staff to update facility information. Facilities can even update their own information by signing up for access to the public FIT system. Because of these reasons, FIT is considered the most up-to-date and comprehensive system available for disposal and recycling facility information upon which to base the majority of our economic impact analysis.

Other CalRecycle data sources besides FIT were used to estimate costs, including facility permit documents, tonnages provided in DRS, and lists of wastewater treatment plants and exporters/brokers obtained by CalRecycle staff research. In addition, during the almost yearlong informal process, staff repeatedly encouraged workshop participants to inform others who might be affected by the regulations about AB 901 so they could get involved. We also asked workshop participants to help us identify other affected entities in order to add them to FIT.

CalRecycle surveyed stakeholders that signed up for the AB 901 listserv mailing list to get input on some of their processes and estimated costs. Of the approximately 520 entities who received the survey between January 25-30, 2017, 92 responded. The respondents consisted of: 25 transfer stations (TSs)/mixed waste processing facilities (MWPFs), 21 disposal facilities, 20 haulers, 20 recyclers, 6 composters. No transporters/brokers responded to the survey (Table 1). Counties were also surveyed and the data used to estimate the savings they may realize once regulations take effect. DRS coordinators from the following 27 counties responded to the survey: Alameda, Contra Costa, Del Norte, El Dorado, Humboldt, Imperial, Kings, Los Angeles, Marin, Mendocino, Merced, Nevada, Orange, Placer, Riverside, Sacramento, San Diego, Santa Barbara, Santa Clara, Shasta, Solano, Sonoma, Stanislaus, Tehama, Tulare, Tuolumne, and Ventura. The results of these surveys were analyzed, and used in the development of cost estimates. However, there are some parameters used in the analysis that differ from the results of the survey, based on CalRecycle staff best judgment. Results from the surveys are mentioned when used in calculations.

Please note that this economic analysis was performed primarily in Microsoft Excel. While monetary values in tables have been rounded to the nearest dollar for display purposes, calculations based upon these values utilize fractions. As a result, subtotals and totals shown in tables in this report may differ from the sum of the displayed (rounded) values.

*Table 1: Number of Survey Respondents by Reporting Entity Type*

<b>Reporting Entity</b>	<b>Number of Survey Respondents</b>
Haulers	20
Composters	6
Recyclers	20
Transfer Stations & Mixed Waste Processing Facilities	25
Disposal Facilities & Transformation Facilities	21
Transporters/Brokers	0
<b>TOTAL</b>	<b>92</b>

### Reporting Entities

In FIT, facilities are noted as participating in one or more recycling, composting, and/or disposal-based activities. Under AB 901 regulations, facilities that engage in multiple recycling activities at a single location may report as a single reporting entity for those recycling activities. Facilities that have multiple disposal or transfer/processing operations at the same site, or have disposal and recycling operations co-located at the same site, must report as separate reporting entities. Because of this, the number of reporting entities we estimate is greater than the number of facilities found in FIT. Reporting entity is the unit used throughout these analyses.

For these analyses, haulers have been split into two reporting entity sub-categories (Non-reporting and reporting) due to their having different requirements under AB 901. Based on the proposed regulations, contract haulers are not always required to compile and submit reports to CalRecycle. Haulers that deliver material directly to a reporting entity (e.g., Landfill, Transfer Station, or Material Recovery Facility) are not required to report to CalRecycle. They are required to inform the receiving facility of the jurisdiction of origin and source sector of solid waste. The only new requirement from the proposed regulations for this group of haulers is to communicate source sector to the receiving facility. These haulers are referred to as “Non-reporting haulers” in these analyses.

Haulers are only required to compile and submit reports to the Department if they: are food-waste self-haulers meeting the weight and volume thresholds, contract haulers taking material directly out-of-state, or contract haulers taking material to direct land application. These haulers are referred to as “Reporting haulers” in these analyses.

### Wages and Hours

CalRecycle initially estimated the hourly wage of those who would compile and submit reports by looking up bookkeeping, accounting, and auditing clerk wages in California via the U.S. Bureau of Labor Statistics website<sup>2</sup>. The California hourly mean wage on this site was estimated to be \$21.25. However,

---

<sup>2</sup> <https://www.bls.gov/oes/current/oes433031.htm>

through CalRecycle's survey, we found the average estimated wage for this activity to be \$30.33 per hour. This is the amount used in cost estimates. An overhead cost of 30 percent was applied to the wage to account for benefits.

### Data Collection and Tracking Costs

The collection and tracking of data could constitute a significant cost to facilities and operations. Therefore, efforts were made to minimize the impact of data collection and tracking costs on reporting entities by providing multiple methods by which entities could collect the required information. The various methods provided in regulations were intended to use data that reporting entities already collect under normal business processes, or because of current disposal reporting regulations.

Information on the percentage of materials originating from each source sector, for instance, was never before required. However, reporting entities may use information such as truck type or account billing information to estimate these percentages. Facilities may even request this information from haulers who can also use the various methods laid out in regulations to estimate the percentages of materials from each source sector.

Material flow to end users by region is another area we expect reporting entities to already have data on. If a reporting entity ships material to an end user, it is reasonable to assume they have the address of the end user and can identify the county where that end user is located. If an end user picks material up from a reporting entity's site, the reporting entity may indicate the county where its site is located as the end user region.

Some data that must be reported to CalRecycle, such as jurisdiction of origin of waste, is already required to be collected under current regulations. Collecting this data would not be an additional cost to facilities and operations and is therefore not a new cost included in this impact statement. Any new data collection and tracking costs are included in the cost summary below.

## Economic Impact Statement – Methodologies for individual answers

### A. Estimated Private Sector Cost Impacts

#### 2. *Estimated economic impact of this regulation:*

The table below summarizes the estimated direct economic impact of AB 901 regulations.

*Table 2: Economic and Fiscal Impact Summary*

	Privately-Owned Businesses	Publicly-Owned Businesses	Total in First 12 Months
<b>Data Tracking</b>			
Other beneficial reuse by material type	\$ 84,000	\$ 84,000	\$ 168,000
Purchase of scales at landfills	\$ -	\$ 400,000	\$ 400,000
<b>Sub-total</b>	<b>\$ 84,000</b>	<b>\$ 484,000</b>	<b>\$ 568,000</b>
<b>Compile Data and Submit Reports</b>			
Haulers			
Non-reporting	\$ 375,206	\$ 8,044	\$ 383,250
Reporting	\$ 299,660	\$ 4,731	\$ 304,392
Composters	\$ 346,975	\$ 291,775	\$ 638,750
Recyclers	\$ 2,457,215	\$ 104,093	\$ 2,561,308
Transfer Stations	\$ 419,525	\$ 328,049	\$ 747,574
MWPFs	\$ 227,111	\$ 69,395	\$ 296,506
Disposal Facilities	\$ 211,339	\$ 290,197	\$ 501,537
Transformation Facilities	\$ 20,503	\$ 4,731	\$ 25,235
Transporters/Brokers	\$ 27,679	\$ -	\$ 27,679
<b>Sub-total</b>	<b>\$ 4,385,215</b>	<b>\$ 1,101,015</b>	<b>\$ 5,486,230</b>
<b>Training</b>			
Haulers			
Non-reporting	\$ -	\$ -	\$ -
Reporting	\$ 59,932	\$ 946	\$ 60,878
Composters	\$ 104,093	\$ 87,532	\$ 191,625
Recyclers	\$ 491,443	\$ 20,819	\$ 512,262
Transfer Stations	\$ 125,857	\$ 98,415	\$ 224,272
MWPFs	\$ 45,422	\$ 13,879	\$ 59,301
Disposal Facilities	\$ 31,701	\$ 43,530	\$ 75,231
Transformation Facilities	\$ 8,201	\$ 1,893	\$ 10,094
Transporters/Brokers	\$ 24,604	\$ -	\$ 24,604
<b>Sub-total</b>	<b>\$ 891,253</b>	<b>\$ 267,013</b>	<b>\$ 1,158,266</b>
<b>State Agencies (CalRecycle)</b>			
Additional PY Expenditure			\$ 118,000
<b>Sub-total</b>			<b>\$ 118,000</b>
<b>Total Economic and Fiscal Impact</b>	<b>\$ 5,360,468</b>	<b>\$ 1,852,029</b>	<b>\$ 7,330,496</b>
		<b>Rounded</b>	<b>\$ 7,330,000</b>

## Data Tracking

### Other Beneficial Reuse by Material Type at Landfills

CalRecycle DRS records indicate that from 2006 to 2015 an average of 70 landfills per year reported that materials were used for other beneficial reuse at their facilities. Seventy-five percent of survey respondents who self-identified as disposal facilities indicated that they currently track the tonnages used for other beneficial reuse by material type. In the first year of implementation, of the 70 landfills expected to have other beneficial reuse, about 25 percent may need new tracking procedures. From our survey, respondents who self-identified as disposal facilities estimated an average cost of \$2,400 per quarter to track this information.

Calculation: Number of landfills X percent of landfills that need to tracking procedures X cost per quarter X number of quarters = total

*Table 3: Cost Estimate of tracking Other Beneficial Reuse by material type at Landfills*

	Number of landfills that reported other beneficial reuse	% of landfills that do not track other beneficial reuse by material type	Cost per quarter to track	Number of quarters	Total cost
Private	35	25%	\$ 2,400	4	\$ 84,000
Public	35	25%	\$ 2,400	4	\$ 84,000
<b>Total</b>	<b>70</b>	<b>25%</b>	<b>\$ 2,400</b>	<b>4</b>	<b>\$ 168,000</b>

### Equipment Purchases – Scales

Under current DRS regulations, landfills that accept an annual average of more than 100 tons per operating day or an annual average volume of more than 400 cubic yards of solid waste per operating day shall be equipped with scales. Under proposed regulations, a disposal facility must use scales to obtain weights of material received, unless that facility does not receive more than 4,000 tons of material per year from contract haulers.

CalRecycle staff reviewed DRS reports and SWIS permitting information to identify disposal facilities that fall within the new tonnage threshold, and do not currently have scales. Only four publicly owned landfills were identified as possibly needing to purchase scales. Ultimately, some of these facilities may not need to purchase scales if they fall under exclusions detailed in section 18815.9 (d)(2) of the regulations.

During workshops, stakeholders estimated the cost of the purchase and installation of truck scales as being between \$60,000 and \$100,000. Through online research, CalRecycle staff found websites that confirmed this general price estimate<sup>3</sup>. These sites noted that the overall price is dependent on many factors that may impact costs such as freight and delivery, costs to rent a crane, or the installation of a

<sup>3</sup> <http://www.carltonscale.com/much-truck-scale-cost/>; <http://www.truckscale.net/2014/12/02/what-does-a-truck-scale-cost/>; <http://www.scaletrader.net/scale-trader-equipment-for-sale-listings-scales-and-more/used-truck-scales>

concrete foundation for the scales. Because of this, the \$100,000 cost estimate is used in order to establish an upper cost that may be expected.

Calculation: 4 landfills X \$100,000 = \$400,000

### Compile Data and Submit Reports

Reporting entities must compile data and submit quarterly reports to CalRecycle. To calculate the costs of these activities we used the number of reporting entities and wage data mentioned above, and, based on survey responses, a calculated average time estimate of how long it would take to compile and submit a quarterly report for each type of reporting entity. Upon review, some of the respondents' average time estimates for specific reporting entity types appeared too high or too low compared to CalRecycle's estimate, which was based on a more thorough understanding of reporting requirements. Table 4 summarizes the average time estimates for compiling and submitting reports calculated from responses from each type of reporting entity, as well as the adjusted time estimates generated by CalRecycle staff and used for the cost analysis.

*Table 4: Estimates of amount of time needed to compile and submit one quarterly report (hours)*

Reporting Entity	Average from Survey Results	CalRecycle Estimate
Haulers	10	Non-reporting: 3 Reporting: 10
Composters	25	10
Recyclers	17	20
Transfer Stations (TSs) & Mixed Waste Processing Facilities (MWPFS)	9	TSs: 10 MWPFS: 20
Disposal Facilities & Transformation Facilities	19	Disposal: 20 Transformation: 10
Transporters/Brokers	-	15

The survey result for the average time to compile and submit a quarterly report for haulers was 10 hours. CalRecycle staff used this estimate for reporting haulers, but lowered the estimate to 3 hours for non-reporting haulers. Haulers are only required to compile and submit reports to CalRecycle if they are food-waste self-haulers meeting the weight and volume thresholds, contract haulers taking material directly out-of-state, or contract haulers taking material to direct land application. For this group of haulers, the survey results were appropriate.

However, based on the proposed regulations, contract haulers are not always required to compile and submit reports to CalRecycle. Non-reporting haulers, or haulers that deliver material directly to a reporting entity (e.g., Landfill, Transfer Station, Material Recovery Facility), are not required to report to CalRecycle. Instead, they are required to inform the receiving facility of the jurisdiction of origin and source sector of solid waste. The only new requirement from the proposed regulations for non-reporting haulers is to communicate source sector to the receiving facility. Haulers and receiving

facilities are given options in the regulations to determine source sector using least cost alternatives, such as using data they already collect on truck type or account billing. These alternatives reduce time needed to meet requirements for reporting haulers, and so a lower time estimate of 3 hours per quarter was assumed.

The survey results for the average time to compile and submit a quarterly report for composters was 25 hours, which CalRecycle staff lowered to 10 hours. While reporting requirements for these entities are completely new, composting facilities have fewer material types to report on than recyclers, and are not required to maintain records of material inflow and have fewer material. Material outflows are only required to indicate the material type to the level of sorting, meaning that entities are not expected to sort and measure materials beyond the level required by their business transactions. Composting facilities already maintain records of transactions for tax purposes, and the only additional requirement in the proposed regulations is to file a quarterly report that contains how much of the material is sent, the type of end user consumer to whom the materials were sent, and the region of the end user.

The survey results for the average time to compile and submit a quarterly report for mixed waste processing facilities was 9 hours, which CalRecycle staff increased to 20 hours since MWPFs will have significant new reporting requirements and reporting complexities.

The survey results for the average time to compile and submit a quarterly report for transformation facilities was 19 hours, which CalRecycle staff reduced to 10 hours because they do not have many reportable on-site uses as compared to traditional disposal facilities, only receiving and burning materials.

Since no transporters/brokers responded to the survey, CalRecycle staff estimated the average time to compile and submit a quarterly report for this reporting entity to be 15 hours per quarter because they collect information from upstream reporting entities and do not have to collect or report information themselves.

To err on the side of caution, time estimates for recyclers, transfer stations, and disposal facilities were rounded up to the nearest ten.

Calculation: Number of reporting entities X wage X hours = total



Table 5: Estimate of Cost to Compile and Submit Reports

	# of reporting entities in each category	Estimated hourly wage	Annual hours to compile and submit data	Salary costs	Plus 30% for benefits
<b>Haulers</b>					
Private: Non-reporting	793	\$ 30.33	12	\$ 288,620	\$ 375,206
Private: Reporting	190	\$ 30.33	40	\$ 230,508	\$ 299,660
Public: Non-reporting	17	\$ 30.33	12	\$ 6,187	\$ 8,044
Public: Reporting	3	\$ 30.33	40	\$ 3,640	\$ 4,731
<b>Composters</b>					
Private	220	\$ 30.33	40	\$ 266,904	\$ 346,975
Public	185	\$ 30.33	40	\$ 224,442	\$ 291,775
<b>Recyclers</b>					
Private	779	\$ 30.33	80	\$ 1,890,166	\$ 2,457,215
Public	33	\$ 30.33	80	\$ 80,071	\$ 104,093
<b>Transfer Stations</b>					
Private	266	\$ 30.33	40	\$ 322,711	\$ 419,525
Public	208	\$ 30.33	40	\$ 252,346	\$ 328,049
<b>MWPFs</b>					
Private	72	\$ 30.33	80	\$ 174,701	\$ 227,111
Public	22	\$ 30.33	80	\$ 53,381	\$ 69,395
<b>Disposal Facilities</b>					
Private	67	\$ 30.33	80	\$ 162,569	\$ 211,339
Public	92	\$ 30.33	80	\$ 223,229	\$ 290,197
<b>Transformation Facilities</b>					
Private	13	\$ 30.33	40	\$ 15,772	\$ 20,503
Public	3	\$ 30.33	40	\$ 3,640	\$ 4,731
<b>Transporters/ Brokers*</b>					
Private	11.7	\$ 30.33	60	\$ 21,292	\$ 27,679
Public	0	\$ 30.33	60	\$ -	\$ -
<b>Private Reporting Total</b>					
	2,439			\$ 3,373,242	\$ 4,385,215
<b>Public Reporting Total</b>					
	563			\$ 846,935	\$ 1,101,015
<b>Total Reporting Cost</b>					
	<b>3,002</b>			\$ <b>4,220,177</b>	\$ <b>5,486,230</b>
				<b>Rounded</b>	<b>\$ 5,486,000</b>

\*Only 30 percent (11.7 out of 39) of Transporters/Brokers are expected to be required to submit reports due to the regulatory requirements.

## Training

CalRecycle plans to provide training to reporting entity staff on how to complete quarterly reports. We anticipate staff at reporting entities will need between 2 and 8 hours of training on the new data system. All reporting entity types will receive about 2 hours-worth of training on background information, requirements, enforcement, and basic practices. Reporting entity types with additional and/or more complex reporting activities will receive additional training time. We plan to minimize the impact on reporting entities by recording and making training videos available online, and utilizing webinar technology so entities can attend training classes with little to no travel needed.

To estimate the number of reporting entity staff that will need training, the number of reporting entities were multiplied by two. The number of staff were then multiplied by the estimated average hourly wage, and by the number of hours of training for each reporting entity type to get the estimated salary costs.

Calculation: number of staff to be trained X hourly wage X hours for training = salary costs

Table 6: Estimate of Training Costs

	# of reporting entities in each category	# of staff to be trained	Estimated hourly wage	Hours for training	Salary costs	Plus 30% for benefits
<b>Haulers</b>						
Private: Non-reporting	793	0	\$ 30.33	2	\$ -	\$ -
Private: Reporting	190	380	\$ 30.33	4	\$ 46,102	\$ 59,932
Public: Non-reporting	17	0	\$ 30.33	2	\$ -	\$ -
Public: Reporting	3	6	\$ 30.33	4	\$ 728	\$ 946
<b>Composters</b>						
Private	220	440	\$ 30.33	6	\$ 80,071	\$ 104,093
Public	185	370	\$ 30.33	6	\$ 67,333	\$ 87,532
<b>Recyclers</b>						
Private	779	1,558	\$ 30.33	8	\$ 378,033	\$ 491,443
Public	33	66	\$ 30.33	8	\$ 16,014	\$ 20,819
<b>Transfer Stations</b>						
Private	266	532	\$ 30.33	6	\$ 96,813	\$ 125,857
Public	208	416	\$ 30.33	6	\$ 75,704	\$ 98,415
<b>MWPFs</b>						
Private	72	144	\$ 30.33	8	\$ 34,940	\$ 45,422
Public	22	44	\$ 30.33	8	\$ 10,676	\$ 13,879
<b>Disposal Facilities</b>						
Private	67	134	\$ 30.33	6	\$ 24,385	\$ 31,701
Public	92	184	\$ 30.33	6	\$ 33,484	\$ 43,530
<b>Transformation Facilities</b>						
Private	13	26	\$ 30.33	8	\$ 6,309	\$ 8,201
Public	3	6	\$ 30.33	8	\$ 1,456	\$ 1,893
<b>Transporters/ Brokers*</b>						
Private	39	78	\$ 30.33	8	\$ 18,926	\$ 24,604
Public	0	0	\$ 30.33	8	\$ -	\$ -
Private Training Total	2,439	3,292			\$ 685,579	\$ 891,253
Public Training Total	563	1,002			\$ 205,395	\$ 267,013
<b>Training Total</b>	<b>3,002</b>	<b>4,294</b>			<b>\$ 890,974</b>	<b>\$ 1,158,266</b>
					<b>Rounded</b>	<b>\$ 1,158,000</b>

\*All transporters/brokers are assumed to require training to be able to determine whether or not they are required to report.

### State Agency Costs

The resources for enforcement implementation would be one limited term Environmental Scientist position (mid-salary range) with a cost of \$118,000 the first year and two limited term Environmental Scientist positions in the second year (\$236,000), to be funded out of the Integrated Waste Management Account (IWMA). See the “Fiscal Effect on State Government” section below for more details.

### 3. *Total number of businesses impacted:*

Information from CalRecycle data systems provides an estimate of approximately 3,000 facilities or operations that would be impacted by the regulations. Many of these facilities and operations may be owned by the same company. On a group basis, the regulations may impact businesses under the following North American Industry Classification System (NAICS) sectors:

- 562111 - Solid Waste Collection
- 562212 - Solid Waste Landfill
- 562213 - Solid Waste Combustors and Incinerators
- 562920 - Materials Recovery Facilities
- 562219 - Other Nonhazardous Waste Treatment and Disposal
- 423930 - Recyclable Material Merchant Wholesalers
- 221320 - Sewage Treatment Facilities

A small business is one that according to Government Code 11342.610 is independently owned and operated and not dominant in its field of operation. To estimate the number of small businesses affected by AB 901 regulations, CalRecycle staff identified facilities and operations that would not be considered small businesses because they are publicly owned, or that are privately owned but are under a large parent organization or company with multiple operations. The remainder, approximately 1,000 facilities, or 33 percent of the total facilities and operations, were assumed to be small businesses.

Government Code 11342.610 lists some exclusions to the definition of small business that may affect whether reporting entities are considered small businesses, notably:

- An entity organized as a nonprofit institution
- A utility company, a water company, or a power transmission company generating and transmitting more than 4.5 million kilowatt hours annually.
- Wholesale trade, where the annual gross receipts exceed nine million five hundred thousand dollars (\$9,500,000)
- Transportation and warehousing, where the annual gross receipts exceed one million five hundred thousand dollars (\$1,500,000)
- Services, where the annual gross receipts exceed two million dollars (\$2,000,000)

The information needed to make the determination of whether any of these exclusions apply to an individual facility or operation is not readily available, so the actual number of small businesses may be lower than staff's estimates.

*6. Number of jobs created:*

To estimate the number of full-time equivalent positions that may be created, we divided the estimated cost to California waste and recycling businesses by the average annual salary based on the wage information provided above and a year consisting of 2,088 hours (1,776 work hours + 312 hours for personal holidays, vacation, sick leave, etc., or 52 40-hour weeks with an additional 8 hour day). This assumes that none of the new AB 901 work can be done in the current hours worked or with existing resources, and that new staff will be hired rather than using overtime. It also assumes that full journey-level staff will be used for this work rather than data-entry staff or services.

Calculation: Annual salary = Cost of regulations / (\$30.33 X 2,088 hours) = \$63,329

*Table 7: Estimate of Jobs Created*

	<b>Cost (not including benefits)</b>	<b>Annual salary</b>	<b>Number of FTE positions needed</b>
Data tracking of other beneficial reuse	\$ 168,000	\$ 63,329	2.65
Compiling and submitting reports	\$ 4,220,117	\$ 63,329	66.64
Training	\$ 890,974	\$ 63,329	14.07
<b>Total</b>	<b>\$ 5,279,091</b>	<b>Rounded</b>	<b>83</b>

**B. Estimated Costs**

*1a-c. Cost over lifetime:*

Due to the frequency in statutory and industry changes affecting the solid waste industry, it is likely that reporting requirements will require revision in the future. A lifetime of 10 years was assumed for the calculations below. To calculate the initial cost for a business/reporting entity, the following data and calculations were used:

- Estimated (est.) statewide training costs / est. number of reporting entities
- \$1,158,266 / 3,002 = ~\$386

To calculate the ongoing cost for a business/reporting entity, the following data and calculations were used:

- (est. statewide costs for other beneficial reuse by material type data collection + est. cost to compile and submit) / est. number of reporting entities
- (\$168,000 + \$5,486,230) / 3,002 = ~\$1,883

To calculate the total statewide costs that businesses/reporting entities may incur over the regulations' lifetime, the following data and calculations were used:

- ((est. statewide costs for Other Beneficial Reuse by Material Type data collection + est. annual cost to compile and submit) x 10 years) + est. annual statewide training costs
- ((\$168,000 + \$5,486,230) X 10) + \$1,158,266 = \$57,700,566 (rounded: \$57,701,000)

The same estimates were used for small businesses as typical businesses regarding initial and ongoing costs because although it is likely that small businesses will have less material flow to report on and will likely have lower costs, they have been previously unregulated making it difficult to estimate how much less their costs will be. Therefore, the typical businesses estimates were used for a conservative approach.

*1d. Other economic costs that may occur:*

A small number of facilities may need to purchase scales as described in section A2 above. Since this cost only applies to a small number of facilities, it is not included in the average estimated costs in B1a-b. See section A2 for more details.

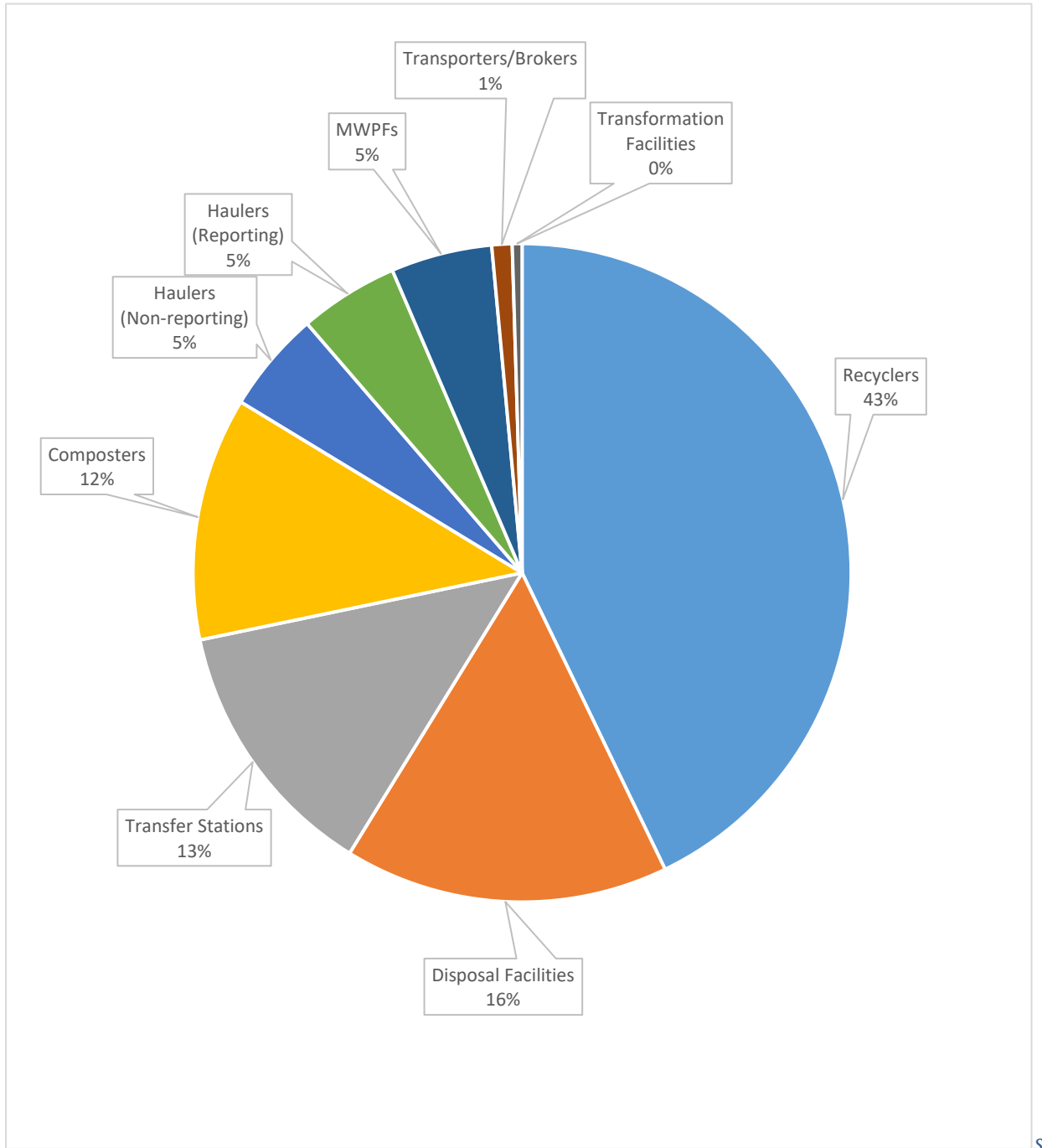
Staff looked at other CalRecycle programs to project non-compliance in the AB 901 regulated community. We focused our examination on a diverse set of new programs, targeting a range of California businesses. Staff found that although initial non-compliance ranged from 11 to 58 percent in these new programs, no enforcement actions were taken in the first year of any of the programs. We expect that it will likely be the same for AB 901 due to our “compliance first” approach.

CalRecycle utilizes a “compliance first” approach for enforcement that emphasizes education/training and cooperation before considering formal enforcement action. CalRecycle takes enforcement actions and imposes penalties when cooperative efforts are not successful and facilities do not correct deficiencies in a reasonable amount of time. As a result, most deficiencies are corrected in a timely manner and do not result in penalties. Staff recognize that there may be additional costs to businesses that do not comply with reporting requirements in these regulations. However, during the first several reporting cycles, CalRecycle will work very closely with businesses to make sure that they understand all the program requirements and thus decrease the number of penalties imposed, particularly for violations related to failure to submit on time or keep records, which may be more common during the first year. Thus, we expect the regulated community will correct deficiencies, as was the case with the other new CalRecycle programs, and CalRecycle will not likely need to impose penalties and take enforcement actions during the first year.

*2. Multiple industries are impacted:*

The pie chart below shows the estimated economic impact to each reporting entity group. See *Table 2* for details.

Chart 1: Impact on Industries



## C. Estimated Benefits

### 1. *Brief summary of the benefits of the regulation:*

AB 901 regulations will result in the collection of disposal information that includes amounts (in tons), jurisdiction of origin, and source sector of solid waste. This data will help to inform CalRecycle and jurisdictions on progress in achieving diversion mandates, and inform policy makers about the sources of disposed materials. Recycling and composting tonnages and flows will also be collected from reporting entities. This information will help CalRecycle evaluate California's recycling infrastructure and help guide strategies to achieve the statewide 75 percent recycling goal and goals related to mandatory commercial recycling, commercial organics recycling, and methane emissions reduction targets. The regulations also outline the framework for enforcement on reporting entities that do not meet reporting requirements. This enforcement ability will help ensure data reliability and accuracy.

## D. Alternatives to the Regulations

### **Alternative 1: Require recyclers and composters to also report jurisdiction of origin for materials disposed.**

**Cost:** In CalRecycle's survey, average recycler and composter estimates of the cost to change tracking systems was \$3,592, which would mean an estimated cost of about \$4,371,464 for all recyclers and composters to change tracking systems ( $\$3,592 \times 1,217$  recycler and composter reporting entities). Additional training hours would be needed, which would cost about \$191,940 ( $(2 \text{ hours} \times 2 \text{ employees} \times \$30.33 \times 1,217 \text{ recycler and composter reporting entities}) \times 1.3$  for employee benefits). Adding these additional costs to the proposed regulations would result in a total estimated cost of \$11,893,900 (rounded: \$11,894,000) for this alternative ( $\$7,330,496 + 4,371,464 + \$191,940$ ).

**Benefit:** Material sent to recyclers and composters often comes from multiple jurisdictions. The residual material these facilities are not able to recover and that is sent to disposal is assigned to the jurisdiction where the processing facility is located rather than the actual jurisdiction it originated from. By implementing this alternative, more precise jurisdiction of origin information would be collected and reported, resulting in more accurate allocation of disposed materials.

**Reason for rejecting:** Requiring recyclers and composters to report jurisdiction would create additional data collection and reporting burden on facilities. To reduce the burden, residual disposal from recyclers and composters will continue to be allocated to the jurisdiction where the processing facility is located.

### **Alternative 2: Require reporting entities to also list all end users individually instead of by category.**

**Cost:** Reporting entities that send material to end users would spend additional time entering those individual end users into the Recycling and Disposal Reporting System (RDRS). This additional time could be up to 5 hours and have an estimated cost of about \$247,614 ( $(5 \text{ hours} \times \$30.33 \times 1,256 \text{ recycler, composter, transporter, and broker reporting entities}) \times 1.3$  for employee benefits). Adding this additional cost to the proposed regulations would result in a total estimated cost of \$7,578,110 (rounded: \$7,578,000) for this alternative ( $\$7,330,496 + \$247,614$ ).



**Benefit:** Obtaining lists of individual end users would allow CalRecycle to confirm that material has reached the point at which reporting is no longer required.

**Reason for rejecting:** Individual end user information can be obtained by CalRecycle through audits of reporting entity records if necessary.

## E. Major Regulations

### 5. *Describe the benefits*

AB 901 regulations will result in the collection of disposal information including jurisdiction of origin and source sector. This data will help to inform CalRecycle and jurisdictions on progress in achieving diversion mandates, and inform policy makers about the sources of disposed materials. Recycling and composting tonnages and flows will also be collected from reporting entities. This information will help CalRecycle evaluate California's recycling infrastructure and help guide strategies to achieve the 75 percent recycling goal and goals related to mandatory commercial recycling, commercial organics recycling, and methane emissions reduction targets. Regulations also outline the framework for enforcement on reporting entities that do not meet reporting requirements. This enforcement ability will help ensure data reliability and accuracy.

## Fiscal Impact Statement – Methodologies for individual answers

### A. Fiscal Effect on Local Government

#### 6 (a) *Other fiscal costs: Costs to publicly owned facilities*

Local governments will have additional costs from increased reporting by haulers and locally owned disposal, recycling, and composting facilities, but will also realize benefits because counties will no longer be required to report disposal information to CalRecycle.

Hauling companies and disposal, recycling, and composting facilities owned by local governments will see an increase in costs due to increased reporting requirements as a result of these regulations just as privately owned businesses do. Information from CalRecycle data systems was used to identify those facilities that are publicly owned. The cost estimates for publicly owned facilities were calculated the same way as was done for privately owned facilities.

We identified approximately 563 publicly owned facilities that would need to report to CalRecycle. Using the various data estimates as explained above, the costs publicly owned facilities and haulers would have in the first and two subsequent years were calculated and are summarized in Table 9.

Costs in the 2<sup>nd</sup> and 3<sup>rd</sup> years are expected to mirror the costs in the first year, with the exception of the one-time purchase of scales, and training costs, which are expected to be lower after the initial year. Training in the 2<sup>nd</sup> and 3<sup>rd</sup> years will likely be 1 to 3 hour refresher information, or will focus on any changes in the reporting system.

Table 8: Fiscal Impact on Publicly Owned Facilities

	Public Entities Cost Estimates		
	1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year
<b>Data Tracking</b>			
Other Beneficial Reuse by Application	\$ 84,000	\$ 84,000	\$ 84,000
Purchase of Scales at Landfills	\$ 400,000	\$ -	\$ -
<b>Sub-total</b>	<b>\$ 484,000</b>	<b>\$ 84,000</b>	<b>\$ 84,000</b>
<b>Compile Data and Submit Report</b>			
Haulers			
Non-reporting	\$ 8,044	\$ 8,044	\$ 8,044
Reporting	\$ 4,731	\$ 4,731	\$ 4,731
Composters	\$ 291,775	\$ 291,775	\$ 291,775
Recyclers	\$ 104,093	\$ 104,093	\$ 104,093
Transfer Stations	\$ 328,049	\$ 328,049	\$ 328,049
MWPFs	\$ 69,395	\$ 69,395	\$ 69,395
Disposal Facilities	\$ 290,197	\$ 290,197	\$ 290,197
Transformation Facilities	\$ 4,731	\$ 4,731	\$ 4,731
Transporters/Brokers	\$ -	\$ -	\$ -
<b>Sub-total</b>	<b>\$ 1,101,015</b>	<b>\$ 1,101,015</b>	<b>\$ 1,101,015</b>
<b>Training</b>			
Haulers			
Non-reporting	\$ -	\$ -	\$ -
Reporting	\$ 946	\$ 237	\$ 237
Composters	\$ 87,532	\$ 43,766	\$ 43,766
Recyclers	\$ 20,819	\$ 5,205	\$ 5,205
Transfer Stations	\$ 98,415	\$ 32,805	\$ 32,805
MWPFs	\$ 13,879	\$ 5,205	\$ 5,205
Disposal Facilities	\$ 43,530	\$ 21,765	\$ 21,765
Transformation Facilities	\$ 1,893	\$ 710	\$ 710
Transporters/Brokers	\$ -	\$ -	\$ -
<b>Sub-total</b>	<b>\$ 267,013</b>	<b>\$ 109,691</b>	<b>\$ 109,691</b>
<b>Total</b>	<b>\$ 1,852,028</b>	<b>\$ 1,294,706</b>	<b>\$ 1,294,706</b>
<b>Rounded</b>	<b>\$ 1,852,000</b>	<b>\$ 1,295,000</b>	<b>\$ 1,295,000</b>

6 (b) Other fiscal costs: Savings to Counties

CalRecycle staff surveyed county DRS coordinators on the amount of time spent and costs related to collecting, compiling, and submitting disposal information to CalRecycle. Because counties will no longer be required to collect and report this information, the current costs associated with reporting will become money saved by counties. CalRecycle used county survey responses to calculate the average number of hours spent per quarter to collect, compile, verify, and submit DRS reports. Responses were also used to calculate the average hourly wage of county staff responsible for working on DRS reports.

Fifty-two counties submit disposal as well as station notification information to CalRecycle. Five counties only submit station notification information. Costs for these sets of counties were calculated separately as shown in Table 10 below.

Calculation: Hours X wage X quarters X number of counties = total

*Table 9: Estimated savings to counties*

	Avg. hrs. per quarter	Avg. hourly wage	Quarters per year	Number of Counties	Salary costs	Plus 30% for benefits
Counties that submit disposal and station notification data	105	\$ 39.87	4	52	\$ 870,761	\$ 1,131,989
Counties that submit station notification data only	4	\$ 37.74	4	10	\$ 6,038	\$ 7,850
<b>Total</b>					<b>\$ 876,799</b>	<b>\$ 1,139,839</b>
<b>Rounded</b>						<b>\$ 1,140,000</b>

## B. Fiscal Effect on State Government

### 4. *Other fiscal impacts:*

CalRecycle staff who currently work on FIT and DRS would develop, use, and provide training for a new streamlined Recycling and Disposal Reporting System. Significant time is currently spent manually entering disposal data sent to CalRecycle in formats not compatible with electronic DRS data entry. Time is also spent on efforts related to gathering voluntary or third party recycling data for FIT. It is anticipated there will be little to no costs or savings as staff transition into new duties implementing and using RDRS. Despite there being a significant increase in the estimated number of reporting entities and reports from DRS to the new system, all reports must be entered using the electronic system, saving staff time and effort associated with manually entering and checking data.

In addition, CalRecycle's Information Technology Services Branch will need to develop RDRS to accommodate electronic reporting and to replace existing DRS and/or FIT data systems. RDRS development is anticipated to be accomplished without additional resources, as part of the maintenance and normal updating of data systems.

The resources needed for enforcement implementation are 1 limited term Environmental Scientist position the first year (\$118,000) and two limited term Environmental Scientist positions in the second year (\$236,000), to be funded out of the Integrated Waste Management Account (IWMA).