

tire, consistent with CalRecycle regulations. Other conversion factors are available for other size/type of tires.<sup>17</sup>

- WTMS data are used to estimate the approximate magnitude of tires flowing to and from facilities in this study. This information helps to identify facilities and haulers handling large volumes of tires and to ask the right questions in surveys and interviews. In a very limited number of cases, if a survey response is not provided and there are no other options, WTMS data may be used to estimate deliveries to a particular facility.
- CalRecycle's WTMS database provides all data in PTEs (defined as 20 pounds), although companies may provide the data in Comprehensive Trip Logs (CTLs) as either tons, cubic yards, or the actual number of tires (regardless of the tire size or type). CalRecycle converts cubic yards to PTEs using 10 PTEs/cubic yard. CalRecycle converts the number of tires to PTEs using 20 pounds per tire, regardless of the type or size of tires (which is not identified in the CTL). These conversions are some of the main reasons why WTMS data can often differ markedly from survey responses, and why it is only used as an indicator or as a last-resort flow estimate when more reliable data are not available.

## **Conclusions**

As this methodology description illustrates, estimating California waste tire flows is challenging due to a variety of data gaps, data quality issues, and conflicting sources of information. Nevertheless, this report provides data that can be used to evaluate trends over time. The authors strive to provide estimates for each market segment that are as accurate as possible, and they generally believe the accuracy is well within plus or minus 10 percent.

The methodology used in previous California waste tire market reports covering 2007 to 2013 is very similar to that used in this report. These reports are available online at: <http://www.calrecycle.ca.gov/Publications/PublicationsByCategory.aspx?CategoryID=25>. Some changes are occasionally made to refine the methodology or clarify presentation of results, and these are generally documented in an appendix. In this report covering 2015, the used tire estimation methodology described above was modified, and the "Synthetic Turf and Athletic Fields" category was renamed as "Turf Infill" to better describe the use of crumb rubber in that market segment.

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<sup>17</sup> According to the Rubber Manufacturers Association, on average light duty tires such as scrap passenger tires weigh 22.5 pounds, commercial tires such as scrap truck and bus tires weigh 120 pounds, and the average of all light duty and commercial scrap tires (excluding off-the-road tires) is 32.8 pounds. Source: "2013 U.S. Scrap Tire Management Summary." Rubber Manufacturers Association, November 2014, page 4. <https://rma.org/publications/scrap-tire-publications/market-reports>