

STATE OF COLORADO

Bill Ritter, Jr., Governor
James B. Martin, Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

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Colorado Department
of Public Health
and Environment

July 1, 2009

The Honorable Buffie McFadyen, Representative
Transportation Legislation Review Committee
Colorado State Capitol
200 East Colfax
Denver, Colorado 80203

Dear Chairwoman McFadyen and Committee Members:

Enclosed is a copy of the fifth annual report to the Transportation Legislation Review Committee on the status of waste tire recycling in Colorado. House Bill 04-1428 requires this report.

Sincerely,

Gary W. Baughman, Director
Hazardous Materials and Waste Management Division

w/Enclosure

STATE OF COLORADO



**Colorado Department
of Public Health
and Environment**

**Fifth Annual Report to the Transportation Legislation
Review Committee
on the
Status of Waste Tire Recycling
In Colorado for Calendar Year 2008**

Submitted to the Transportation Legislation Review Committee
by the Division of Hazardous Materials and Waste Management
Colorado Department of Public Health and Environment
July 1, 2009

DOCUMENT INFORMATION



Title: Fifth Annual Report to the Transportation Legislation Review Committee on the Status of Waste Tire Recycling in Colorado

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Subject: The report describes the status of waste tire recycling activities in the state of Colorado for calendar year 2008.

Statute: Section 25-17-202.7, C.R.S.

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**Annual Report to the Transportation Legislation
Review Committee
on the Status of Waste Tire Recycling
in Colorado for Calendar Year 2008**

This 2008 calendar year annual report on waste tire recycling in Colorado is being transmitted to the Transportation Legislation Review Committee (the Committee) as required by House Bill 04-1428 and section 25-17-202.7, C.R.S. The statute requires the Colorado Department of Public Health and Environment (the Department) to issue a report to the Committee on or before July 1st each year that includes the total number of waste tires recycled in the state. This information is submitted to the department pursuant to the Regulations Pertaining to Solid Waste Sites and Facilities (6 CCR 1007-2, Sections 8.4.1(B) and 10.2.2.).

Executive Summary:

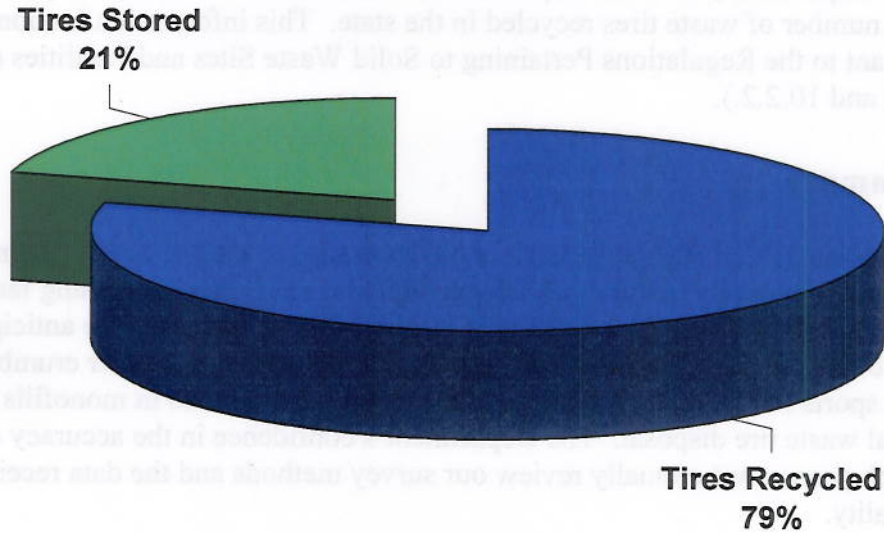
Calendar year 2008 marks the fifth year the division has compiled data related to the number of waste tires collected at end-processing facilities in the state of Colorado. End-processing facilities are facilities that recycle and reuse tires, or place tires in monofills for storage. We anticipate the tires stored in the monofills will be reused at a later date for tire derived fuel; rubber crumb for roadways, playgrounds, and sports fields; or for other uses. Therefore, placing tires in monofills for storage does not constitute final waste tire disposal. The Department's confidence in the accuracy of the reported data increases each year, as we annually review our survey methods and the data received in an attempt to improve its quality.

Colorado recycled 4,080,749 tires in 2008, which amounts to 79% of the tires generated that year. This represents a decrease from the 82% recycling rate achieved in 2007, but an overall increase in the number of tires recycled because more waste tires were generated. A portion of this decrease in the recycling rate is likely due to an improvement in our data tracking and evaluation methodology in conjunction with training industry to be more accurate in accounting for their inventories.

Colorado waste tire facilities reported receiving 5,696,249 tires during calendar year 2008. This number includes an estimated 447,415 tires that were not generated in Colorado, but brought in from states to the north and northeast for placement in Colorado's monofills. Conversely, we know of about 268,000 tires that were generated in Colorado, but sent to a recycling facility in Utah. There were approximately 5,158,468 waste tires generated in the state of Colorado during calendar year 2008. The division works with facilities to define the number of waste tires generated in the state, and we will expand this effort over the next year to create an even more accurate accounting and report for calendar year 2009.

Figure 1

**WASTE TIRES GENERATED IN 2008
PERCENTAGE OF TIRES RECYCLED**



A total of 4,080,749 waste tires (or scrap tires) were recycled in Colorado during calendar year 2008. As shown in Figure 1 (above), this represents the recycling of 79% of the waste tires generated during this period. The remaining 21% of waste tires generated were either sent for long-term storage in permitted tire monofills or added to inventory storage at tire recycling facilities awaiting further processing. An additional 355,362 waste tires were recycled during 2008 as compared to 2007. The increase in total waste tires recycled is attributed to the identification of a recycler on the western slope that processes approximately 268,000 tires a year into crumb rubber for engineering applications. Also, an existing waste tire recycler in the Denver area substantially increased waste tire processing for landscaping applications.

Figure 2

**ANNUAL COMPARISON
PERCENT OF WASTE TIRES RECYCLED**

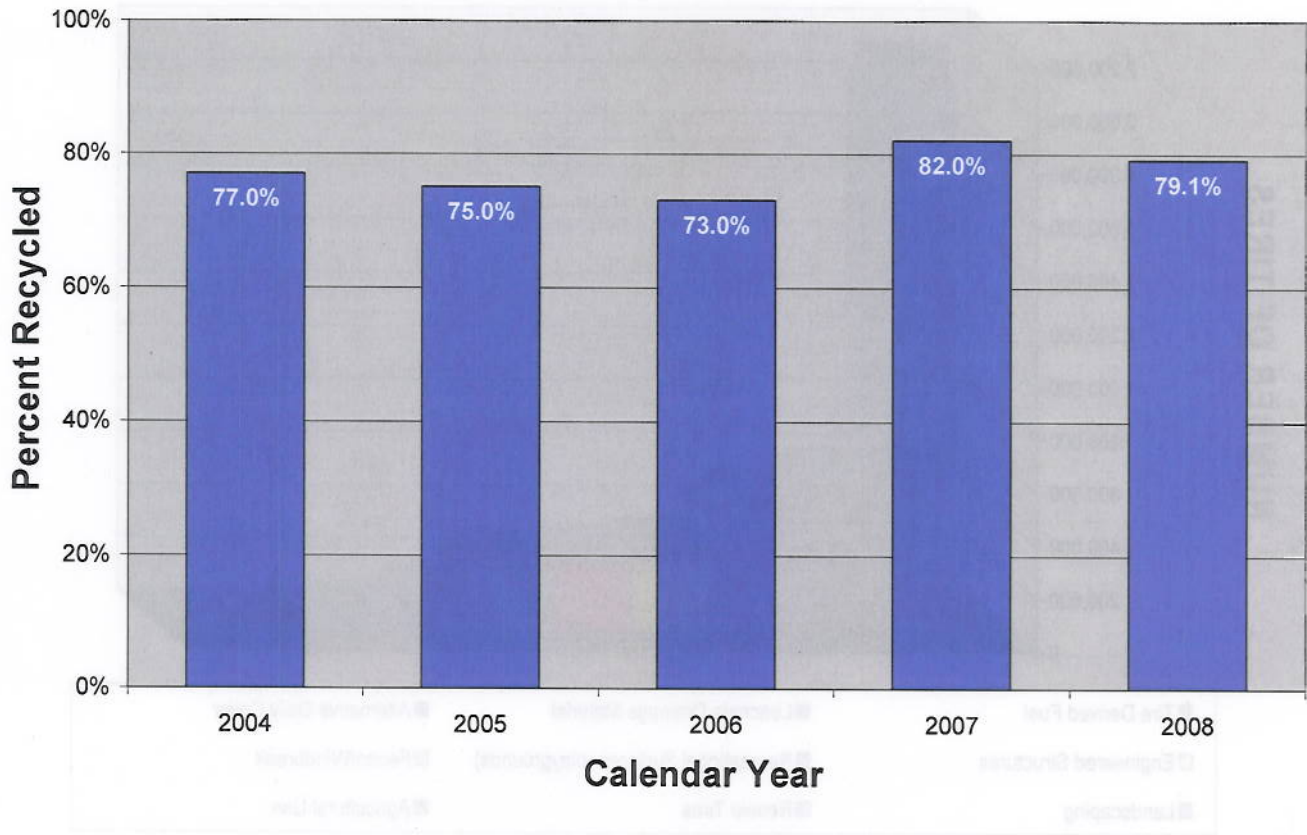


Figure 2 (above), provides an annual comparison of Colorado's waste tire recycling rates for the last five years. The recycling rates remained relatively consistent each year.

Based on the reported number of scrap tires received by waste tire facilities, about 5,158,468 waste tires were generated in Colorado during calendar year 2008. Considering Colorado's population of approximately 4,909,524 people, this estimated number is slightly greater than the accepted nationwide industry standard that predicts a tire generation rate of 1 waste tire/person/year.

The division gathers this information through annual reporting from waste tire collection, recycling and storage facilities. The division continued outreach efforts to educate tire facilities regarding their compliance and reporting responsibilities. Furthermore, the regulated community took significant strides to improve inventory accounting methods and reporting accuracy. Hence, the division believes this submittal is the most accurate waste tire recycling report to date.

Figure 3

2008 RECYCLED WASTE TIRE END USE MARKETS

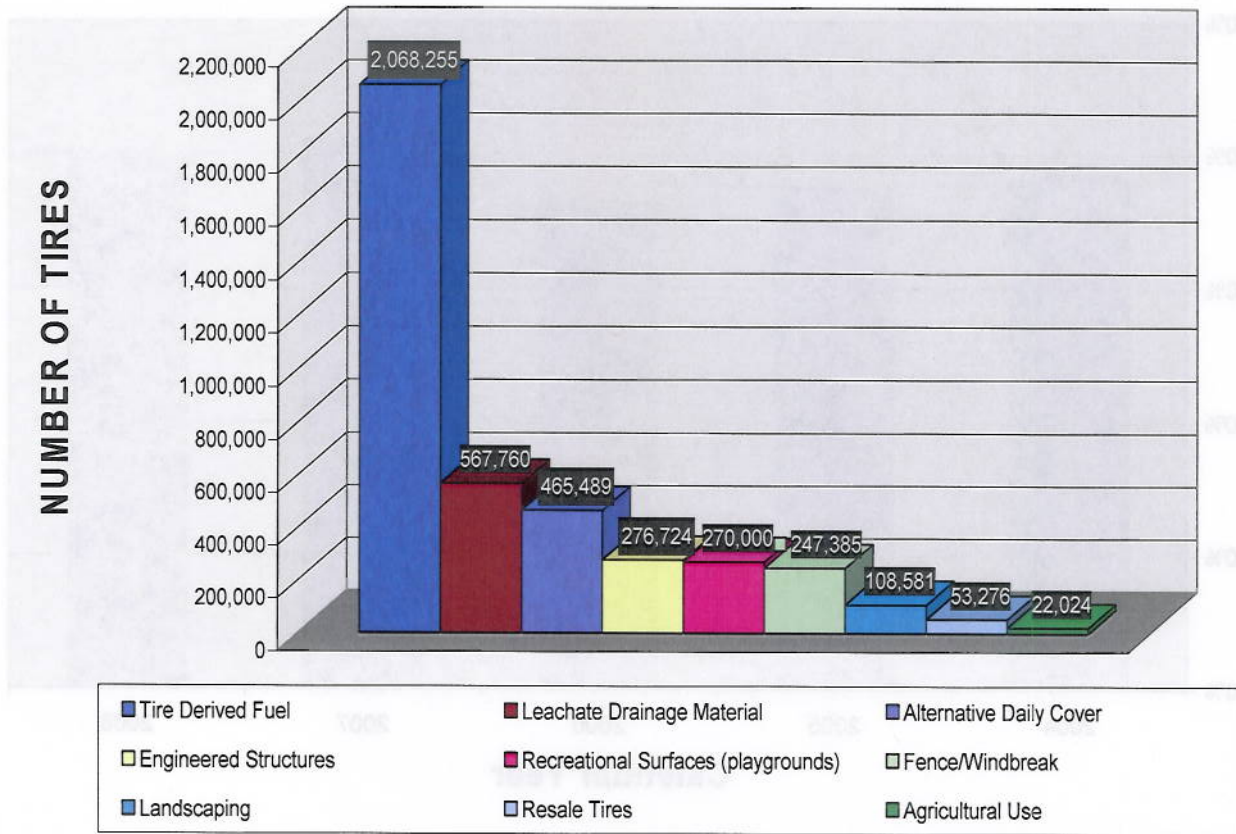


Figure 3 (above) captures the end-use markets for waste tires recycled during calendar year 2008. Of the nine end-use markets identified, the top five end-use markets included burning waste tires as tire derived fuel, the use of tire shreds as the leachate drainage layer in private and government-owned sanitary landfills, the use of tire shreds as alternative daily cover at sanitary landfills, the use of tires in engineered structures, and the use of tire shreds in recreational surfaces.

Figure 4

2008 WASTE TIRE INVENTORY

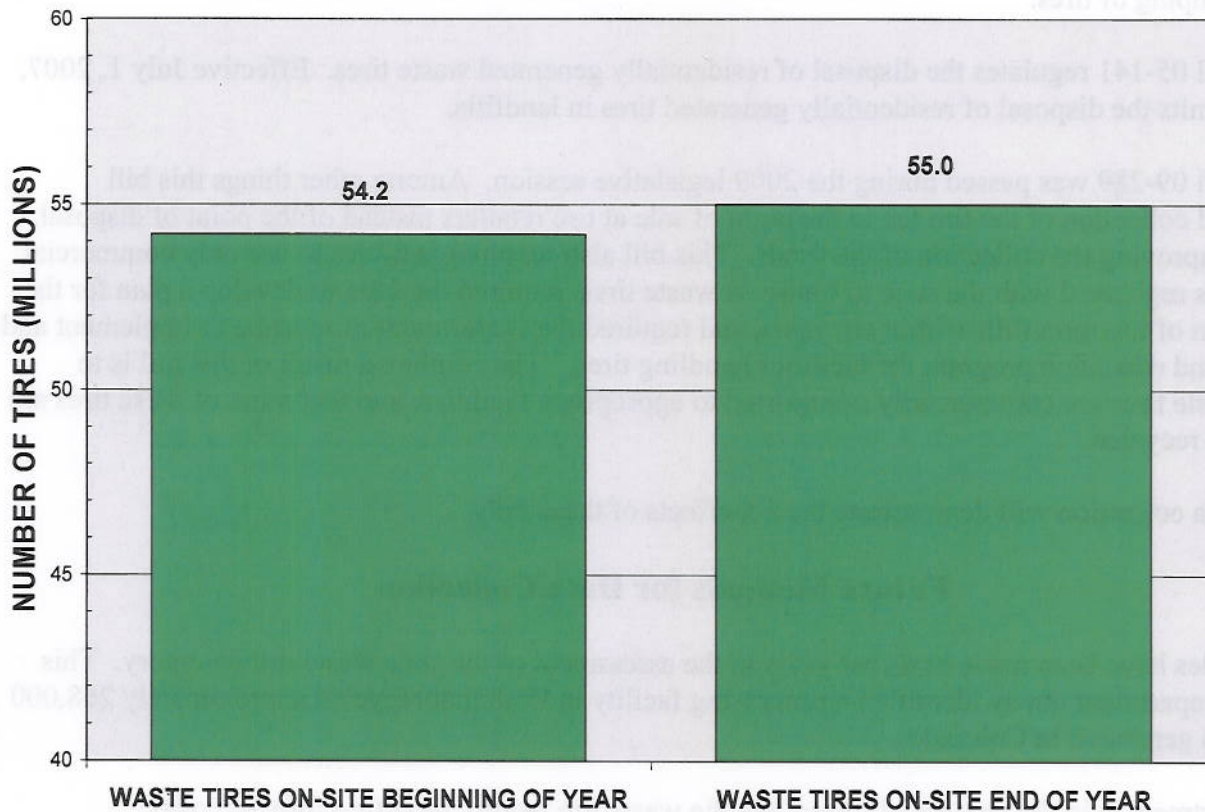


Figure 4 (above) reflects the number of waste tires in storage at designated tire facilities statewide at the end of calendar year 2008. The on-site waste tire inventory increased by 783,000 tires during the year. Some tire handling facilities in the state increased their storage inventories while awaiting further processing and development of end-use markets. Other tire facilities decreased their storage inventory by shipping tires offsite for reuse. The number of tires going into final end-use markets increased from 3,725,387 in 2007 to 4,080,749 in 2008, representing a 9.5% increase in the number of tires going to final end use markets over 2007. This increase represents a continuing trend of more waste tires going to end use markets in Colorado. There was an increase of 13.7% in 2007, and an increase of 1% in 2006 of waste tires entering end use markets.

In 2006, nearly 1,500,000 tires entered the Colorado's waste tire inventory. We observed a decline during 2007 to 830,000 waste tires entering waste tire inventory, and another decline to 783,000 tires entering waste tire inventory in 2008.

2005-2009 Tire Legislation

Two bills were passed during the 2005 legislative session that directly affected the management of waste tires in Colorado. The Waste Motor Vehicle Tire Hauler Act (HB 05-1126) requires the registration of commercial transporters of waste motor vehicle tires. The intent of this legislation is to ensure transportation and delivery of waste tires to proper storage and recycling facilities and to minimize the illegal dumping of tires.

Senate Bill 05-141 regulates the disposal of residentially generated waste tires. Effective July 1, 2007, this bill limits the disposal of residentially generated tires in landfills.

Senate Bill 09-289 was passed during the 2009 legislative session. Among other things this bill reallocated collection of the tire fee to the point of sale at tire retailers instead of the point of disposal, thereby improving the collection of the funds. This bill also required facilities to use only commercial tire haulers registered with the state to transport waste tires, required the state to develop a plan for the elimination of tire monofills within ten years, and required the Department of revenue to implement and outreach and education program for facilities handling tires. The combined result of this bill is to ensure waste tires are commercially transported to appropriate facilities, and that more of these tires are ultimately recycled.

Future data collection will demonstrate the net effects of these bills.

Future Methods for Data Collection

Great strides have been made in recent years in the assessment of the state waste tire inventory. This year the Department newly identified a processing facility in Utah that recycled approximately 268,000 waste tires generated in Colorado.

The Department is in the process of improving the waste tire facility reporting form to collect information related to the source of waste tires. One specific problem encountered this year was the influx of tires from out-of-state sources. We believe our waste tire facilities provide a safe disposal option for surrounding states where illegal tire piles are created due to lack of waste tire collection facilities. However, the reports provided to us by these facilities result in data that creates a seemingly inflated waste tire generation rate for our state. Our combined efforts of facility outreach and refining our reporting forms gives us confidence that each year we will improve the accuracy of waste tire generation within the state.

In the spirit of outreach and data clarification, the Department plans to create a multi-state workgroup to gain an understanding of the flow of waste tires in the region. The workgroup will include state officials responsible for collecting data concerning waste tires. Policies in surrounding states play a role in waste tire disposal in Colorado, and we hope to begin to model the flow of tires across state boundaries. In addition, we plan to coordinate the efforts of this Department, the Department of Local Affairs, and the Department of Revenue to develop an integrated, internally consistent approach to ensure the safe management and increased recycling of tires in Colorado.