

**Draft Five-Year Plan
For The
Waste Tire Recycling Management Program**

(Eleventh Edition Covering Fiscal Years 2021–22 to 2025–26)

Draft Report to the Legislature

November 2, 2020 Workshop

The following document is a draft plan that contains only the proposed activities and budgets for FYs 2021–22 to 2025–26. The full version of the draft plan that contains program status, objectives, performance measures, activities, budgets and appendices will be presented during CalRecycle’s regular monthly meeting to be held in March/April 2021.

Five-Year Plan for the Waste Tire Recycling Management Program

Senate Bill (SB) 876 (Escutia, Statutes of 2000, Chapter 838) was enacted to provide a comprehensive measure to extend and expand California's regulatory program related to the management of waste and used tires. One of the key provisions of this measure requires the Department of Resources Recycling and Recovery (CalRecycle) to adopt and submit to the legislature a Five-Year Plan (Plan) that included proposed budget allocations. In addition, it requires that the Plan be updated every two years. The tenth edition of the Five-Year Plan was adopted in May 2019 and covers Fiscal Years 2019–20 through 2023–24. Staff has begun the process to revise the plan to cover FYs 2021–22 to 2025–26.

The following table is a summary of draft proposed expenditures for the eleventh edition covering FYs 2021–22 to 2025–26. The economic disruptions related to the COVID-19 pandemic have impacted the Waste Tire Recycling Management Fund and Program in 2020–21 and most likely will continue to do so for several years. We recognized the spending authority limit for the Tire Program as outlined in the Governor's Budget is \$39,837,000; however, due to the decline in the tire fund this draft Plan has aligned the expenditures to \$36,800,000 for Fiscal Year 2021–22. Further details about each program area are contained in this draft Plan. We anticipate the next version of this draft Plan will be presented during a CalRecycle monthly meeting to be held in March/April 2021.

Table 1: Total Tire Program Funding for Fiscal Years 20121–22 through 2025–26

Program Areas	FY 2021–22	FY 2022–23	FY 2023–24	FY 2024–25	FY 2025–26	Totals for All Fiscal Years
Enforcement	\$6,650,000	\$6,650,000	\$6,650,000	\$6,650,000	\$6,650,000	\$33,250,000
Hauler Program and Manifest System	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$1,250,000
Cleanup	\$7,250,000	\$7,250,000	\$7,500,000	\$7,500,000	\$7,500,000	\$37,000,000
Research and Market Development	\$10,309,703	\$11,509,703	\$13,096,703	\$13,939,703	\$13,939,703	\$62,795,515
Program Staffing and Administration	\$8,314,000	\$8,314,000	\$8,314,000	\$8,314,000	\$8,314,000	\$41,570,000
Administration	\$2,689,676	\$2,689,676	\$2,689,676	\$2,689,676	\$2,689,676	\$13,448,380
Mandatory Contracts	\$1,336,621	\$1,336,621	\$1,336,621	\$1,336,621	\$1,336,621	\$6,683,105
Totals	\$36,800,000	\$38,000,000	\$39,837,000	\$40,680,000	\$40,680,000	\$195,997,000
Tire Program's Spending Projection	\$36,800,000	\$38,000,000	\$39,837,000	\$40,680,000	\$40,680,000	\$195,997,000
Farm and Ranch Solid Waste Cleanup and Abatement Grant Program's Spending Authority	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000	\$2,000,000

Enforcement and Regulations Relating to the Storage of Waste and Used Tires

Activity Description and Budget

The Waste Tire Enforcement Program implements a two-pronged approach to statewide enforcement using local enforcement entities where available and state resources in other areas. The program provides ongoing assistance to local jurisdictions and oversees the entire enforcement effort. Table 2 provides a list of activities and associated budgets for the “Enforcement and regulations relating to the storage of waste and used tires” element.

Table 2: Budget for Enforcement and Regulations Relating to the Storage of Waste and Used Tires

Program Area	FY 2021–22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Waste Tire Enforcement Support Activities	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000
California Highway Patrol Agreement to Support Enforcement Activities	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Local Government Waste Tire Enforcement Grant Program	\$6,050,000	\$6,050,000	\$6,050,000	\$6,050,000	\$6,050,000
Database System Maintenance and Enhancement	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000
Tire Enforcement Inspector Technical Training	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Totals	\$6,650,000	\$6,650,000	\$6,650,000	\$6,650,000	\$6,650,000

1. Waste Tire Enforcement Support Activities

The activities in this line item support the overall mission of enforcing the laws regarding the hauling, storage, and disposal of waste and used tires in California and along the California-Mexico border region and illegal activities related to export of tires through California ports. Funds will be allocated to the following projects:

- **Surveillance Equipment and Assistance**

CalRecycle will continue an agreement with the California Air Resources Board

(CARB) which supports investigations conducted by CalRecycle tire enforcement staff and local waste tire enforcement grantees. CARB has extensive experience in assisting other agencies in the purchase, maintenance, monitoring, and use of both covert and overt surveillance equipment. CARB's expertise has aided and should continue to aid CalRecycle and local waste tire enforcement grantees' efforts to detect, deter, and prosecute those who illegally haul and dispose of tires or engage in illegal activities related to tire exports through California ports. Additionally, as needed, CARB will help CalRecycle identify, evaluate, and procure more sophisticated surveillance equipment for covert activities to allow for real-time remote monitoring and sensing.

- **Investigation Database Subscriptions**

CalRecycle purchases access to advanced government investigation databases for the purposes of properly locating and serving responsible parties with notices when environmental violations have been observed and need to be brought into compliance or further enforced upon.

- **Waste Tire Conversion Calculation Re-evaluation**

CalRecycle will procure contractor support, and/or execute an interagency agreement, to evaluate any changes in the average industry standard tire size and weight and to develop and implement any revised passenger tire equivalent conversion factors and volumetric estimation calculation methods that are used by inspectors in the field to estimate the number of waste tires in tire piles.

- **Evaluation of Enhanced Manifest Tracking Opportunities**

CalRecycle will examine the current status of technologies available to offer enhanced opportunities to track, monitor, and regulate the usage of manifests to manage the movement of used and waste tires that can be deployed statewide and made equitably accessible to all stakeholders.

- **Waste Tire Enforcement Training, Development, and Outreach**

CalRecycle will continue to provide training and conduct regular meetings, workshops, and webinars to train and maintain a high level of competence among all local government waste tire inspectors working in the TEA grant program in support of ongoing compliance verification, violation detection, and enforcement case development. CalRecycle will also provide ongoing training for waste tire haulers, CHP officers, local sheriff's deputies, police officers, and other state law enforcement personnel to make them aware of California's waste tire laws and regulations and the role they can play in helping detect violations and provide additional enforcement support, particularly in the border region.

This effort will focus on providing ongoing education and training to waste tire haulers as part of their annual registration renewal activities. The overall effort is focused on using the Internet to communicate with our partners and stakeholders in the regulated community and providing needed education and training. The latter is part of CalRecycle’s efforts to achieve greater waste tire enforcement compliance through expanded education and outreach. This will enable CalRecycle to focus limited enforcement resources on more serious and repeat offenders.

Activity Funding

FYs 2021–22 through 2025–26\$200,000 per fiscal year

2. California Highway Patrol (CHP) Agreement to Support Enforcement Activities

CHP will continue its support of CalRecycle’s field efforts in the areas of ground and aerial surveillance, covert and overt investigations, inspector security, training for state and local law enforcement officers, and roadside checkpoints to assist CalRecycle as well as local waste tire enforcement personnel in their efforts to detect and deter waste tire facility and hauling violations. If CHP is unable to continue this work after the current contract expires in December 2021 due to budget or priority issues, CalRecycle will pursue a similar agreement with other law enforcement agencies. This effort also includes surveillance and enforcement support focused on illegal activities related to tire exports through California ports and in the California-Mexico border region.

Activity Funding

FYs 2021–22 through 2025–26\$ 100,000 per fiscal year

3. Local Government Waste Tire Enforcement Grant Program

This long-running [grant program](#) enhances California’s waste tire enforcement infrastructure by providing noncompetitive grants to cities and counties that perform local waste tire inspection and enforcement activities. This program augments CalRecycle’s enforcement efforts in overseeing the proper management and flow of waste tires throughout the state. Eligible entities are reimbursed for costs to identify waste tire sites, conduct waste tire facility inspections, investigate illegal tire disposal activities, conduct small tire pile cleanup (35 tires or less), review waste tire hauler documents, and issue notices of violation. This program also helps ensure that tire dealers, waste tire processors, auto dismantlers, retreaders, tire haulers, and other waste tire entities comply with all applicable laws, storage standards, and manifest requirements. This program will allow waste tire grantees to be reimbursed for time

that grantees spend training or coordinating with a Local Conservation Corps to clean up waste tire piles and illegally dumped waste tires.

The program helps ensure consistent statewide inspection and enforcement coverage in a cost-effective and efficient manner. As a result of the program, local governments have an expanded role in the enforcement of these waste tire entities and are able to apply their unique local knowledge, thereby ensuring the proper management of California’s annual production of over 51 million waste tires and improving the overall protection of public health, safety, and the environment.

Activity Funding

FYs 2021–22 through 2025–26\$6,050,000 per fiscal year

4. Database System Maintenance and Enhancement

The Waste Tire Management System (WTMS) tracks tire enforcement and manifest program activities. The system was developed per the requirements defined in the approved feasibility study report. The system tracks waste tire generators, registered waste tire haulers, permitted and unpermitted end-use facilities, manifest forms, inspection records, and enforcement actions.

The system was initially released in July 2003 and has recently required the development of an upgraded user interface to operate with current technology and department standardized coding platforms and on more devices. Areas of ongoing maintenance and enhancement include:

- Standard reports to track facility inspections, waste tire storage permits, grantee referrals, and notices of violation to ensure performance measures are achieved;
- Ongoing enhancements to compliance reports that assist grantees with inspection prioritization and planning;
- Ongoing maintenance that includes revising inspection forms and making now mandatory electronic inspection reporting efficient and cross-platform supported; and
- Continued, periodic upgrades to the system are anticipated as the program continues to grow and change to meet the needs of our internal and external stakeholders and CalEPA reporting requirements.

Activity Funding

FYs 2021–22 through 2025–26\$200,000 per fiscal year

5. Tire Enforcement Inspector Technical Training

These funds are used to supplement the tire portion of CalRecycle’s annual technical training series for local waste tire enforcement agencies and CalRecycle tire enforcement staff. Training provides inspectors and managers with up-to-date information on CalRecycle’s waste tire management policies, programs, and grants, as well as a venue to network and discuss other items of interest regarding the management of waste tires and emerging challenges or threats. Other outreach activities may also be held during the year. This annual training event offers concurrent technical sessions, and field tours provide an opportunity to network with other local enforcement agencies, tire enforcement agencies, CalRecycle staff, and industry representatives.

Activity Funding

FYs 2021–22 through 2025–26\$100,000 per fiscal year

Waste and Used Tire Hauler and Manifest Program

Activity Description and Budget

The hauler and manifest program budget line item is shown in Table 3. The costs associated with this budget include the following:

1. Printing, mailing, and, return postage for the Comprehensive Trip Log (CTL) waste tire manifest forms that are provided free of charge to California's approximately 1,400 registered waste tire haulers, and post office handling;
2. Printing registration application materials, and registered waste tire hauler decals and certificates and Tire Program identification number certificates;
3. Contractor support to scan and conduct data entry of the returned CTL forms;
4. Training and educational materials; and
5. Augmenting CalRecycle's Information Technology Services Branch annual budget for manifest and hauler registration-related upkeep and maintenance of the WTMS database.

Table 3: Budget for the Waste and Used Tire Hauler Program and Manifest System

Program Area	FY 2021–22	FY 2022–23	FY 2023–24	FY 2024–25	FY 2025–26
Hauler Program and Manifest System	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000
Totals	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000

Hauler Program and Manifest System

Budgeted funds cover the cost of registration and manifesting documents issued to California's 30,000 plus waste tire entities. Overall costs for the manifest program have been reduced over time with the implementation of program efficiencies and as process advancement becomes available. Funds also will be allocated to the following projects:

Waste Tire Hauler Portal

CalRecycle will continue development and expansion of its online waste tire hauler portal. CalRecycle designed the WTMS database hauler portal to enable California's approximately 1,400 waste tire haulers to complete most activities associated with applying for and annually renewing their waste tire hauler registrations, as well as managing their business' hauler information.

Waste Tire Hauler Training Workshops

CalRecycle will continue conducting free, bilingual training workshops throughout California, with a special emphasis on the California-Mexico Border region, to augment annual hauler registration renewal outreach and educational efforts and to inform and educate waste tire haulers of their roles and responsibilities under California's waste tire compliance system.

Activity Funding

FYs 2021–22 through 2025–26.....\$250,000 per fiscal year

Cleanup, Abatement, or Other Remedial Actions Related to Tire Stockpiles Throughout the State

Activity Description and Budget

The cleanup program will continue to clean up illegal tire piles with CalRecycle-managed contractors and grants. The Local Conservation Corps will continue to assist local governments with cleanup and collection activities. Also, CalRecycle will continue an emergency reserve account, which cannot exceed \$1,000,000, as directed by SB 876. Table 7 provides a list of activities and associated budgets for the element titled “Cleanup, Abatement, or Other Remedial Actions Related to Tire Stockpiles throughout the State.”

Table 7: Budget for Cleanup, Abatement, and Remedial Action

Program Area	FY 2021–22	FY 2022–23	FY 2023–24	FY 2024–25	FY 2025–26
Short-Term Remediation Projects	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000
Local Conservation Corps Grant Program	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000
Local Government Waste Tire Cleanup Grant Program	\$0	\$1,250,000	\$0	\$1,500,000	\$0
Local Government Waste Tire Amnesty Grant Program	\$1,250,000	\$0	\$1,500,000	\$0	\$1,500,000
Emergency Reserve Account	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000
Farm and Ranch Solid Waste Cleanup and Abatement Grant Program*	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000
Totals	\$7,250,000	\$7,250,000	\$7,500,000	\$7,500,000	\$7,500,000

* Funds transferred to Farm and Ranch Solid Waste Cleanup and Abatement Grant program.

1. Short-Term Remediation Projects

Public Resources Code (PRC) Section 42846 allows CalRecycle to perform any cleanup, abatement, or remedial work required to prevent substantial pollution, nuisance, or injury to public health and safety at waste tire sites where the responsible parties have failed to take appropriate action. CalRecycle funds short-

term remediation of illegal waste tire sites with CalRecycle-managed contracts, which may be used to stabilize piles until removal, remove all waste tires, and remediate the site after the tires have been removed.

Activity Funding

FYs 2021–22 through 2025–26.....\$300,000 per fiscal year

2. Local Conservation Corps Grant Program

The purpose of the [grant program](#) is to implement beverage container recycling and litter abatement programs, recycling activities related to the collection and recovery of used oil and electronic waste, and the cleanup and abatement of waste tires. Eligible applicants are Local Conservation Corps (LCCs) that are designated by a county to perform litter abatement, recycling, and related activities, and are certified by the California Conservation Corps as having operated for a minimum of two years and as meeting all other criteria of PRC section 14507.5. This program expends funding from the California Beverage Container Recycling Fund, Electronic Waste Recovery and Recycling Account, California Tire Recycling Management Fund, and California Used Oil Recycling Fund. Eligible activities may include cleanup events, education and outreach, event labor and staff resources in partnership with local jurisdictions, collection and hauling services (if permitted), and other projects allowed under PRC sections 17001(b)(3) and 42872. The LCCs currently assist local governments with waste tire cleanup and collection activities. CalRecycle also works with the LCCs to support the availability of these services in areas of the state, including border region, not traditionally serviced by the LCCs.

Activity Funding

FYs 2021–22 through 2025–26.....\$5,000,000 per fiscal year

3. Local Government Waste Tire Cleanup Grant Program

This [grant program](#) is designed to pay for the cost of cleanup of illegally dumped waste tires. Funds are available for the collection, removal, transportation, recycling, and disposal of California waste tires from tire piles and areas where illegal dumping has occurred. Funds are limited to the removal of waste tires along public rights-of-way and on private property with either: (a) less than 500 tires on site, or (b) 500 to 4,999 tires if the property owner signs an affidavit stating that they did not bring the tires on site or allow others to bring the tires on site. Local governments including cities, counties, special districts, other political subdivisions and jurisdictions joined together by formal agreements, as well as qualifying Indian tribes, are eligible for funding. Cities or counties may submit a regional application with authorization from other cities and counties participating in the regional application. Priority will be given

to applicants with existing tire piles that are 1) a serious threat to public health, safety and the environment, 2) located within a disadvantaged community or 3) located in a border region. CalRecycle will conduct outreach in the border region, in collaboration with CalEPA’s Border Affairs Office, to increase awareness of this grant program. Applicants that demonstrate coordination with a Local Conservation Corps will have the next priority. Eligible costs for this coordination will be described in the procedures and requirements section of the grant agreement.

Activity Funding

FY 2022–23	\$1,250,000
FY 2024–25.....	\$1,500,000

Local Government Waste Tire Amnesty Grant Program

This [grant program](#) is designed to help divert waste tires from landfill disposal and prevent illegal tire dumping. Funds pay for waste tire collection events that are held in convenient locations for the public to bring in their used tires at no charge. An amnesty event can also consist of a coupon program that allows citizens to bring in their tires on specified days. Amnesty events are not intended for the disposal of waste tires from waste tire generating businesses (PRC §42954(7)). Local governments—including cities, counties, special districts, other political subdivisions and jurisdictions joined together by formal agreements, as well as qualifying Indian tribes—are eligible for funding. Cities or counties may submit a regional application with authorization from other cities and counties participating in the regional application. Priority will be given to applicants who hold tire amnesty collection events within a disadvantaged community or border region. CalRecycle will conduct outreach in the border region, in collaboration with CalEPA’s Border Affairs Office, to increase awareness of this grant program. Applicants that demonstrate coordination with a Local Conservation Corps will have the next priority. Eligible costs for this coordination will be described in the procedures and requirements section of the grant agreement.

Activity Funding

FY 2021–22.....	\$1,250,000
FYs 2023–24 and 2025–26.....	\$1,500,000 per fiscal year

5. Emergency Reserve Account

SB 876 requires CalRecycle to create and maintain an emergency reserve account, which shall not exceed \$1,000,000. Funding for FYs 2021–22 through 2025–26 is being proposed at \$300,000. These funds will be used to respond to emergencies involving waste tires (e.g., tire fires). This emergency reserve account is subject to change depending on the need to fund cleanups for any emergencies that arise.

While CalRecycle is required to maintain funds in this account with expenditure authority for emergency purposes, more than \$1,000,000 may be expended on a yearly basis. If allocated funds are not expended, funds may be carried forward to the fund balance in the following fiscal year.

Activity Funding

FYs 2021–22 through 2025–26\$300,000 per fiscal year

6. Farm and Ranch Solid Waste Cleanup and Abatement Grant Program

The purpose of this [grant program](#) is to provide funding for the cleanup of illegal solid waste sites on farm or ranch property. A site may be eligible for funding if the parcels are zoned for agricultural use, unauthorized solid waste disposal has occurred, and the sites are in need of cleanup in order to abate a nuisance, a public health and safety threat, or a threat to the environment. Tire piles can attract more dumping, so cleaning up these sites will help deter future illegal dumping of tires. SB 876 requires that transferred tire funds be allocated to pay the costs of cleanup, abatement, or other remedial action related to the illegal disposal of whole waste tires on farm or ranch properties. Other non-tire cleanup costs are paid for using other program funding sources.

Activity Funding

FYs 2021–22 through 2025–26\$400,000 per fiscal year

Research Directed at Promoting and Developing Alternatives to the Landfill Disposal of Tires and Market Development and New Technology Activities for Waste and Used Tires

Activity Description and Budget

CalRecycle is proposing to continue funding tire-derived aggregate (TDA) and rubberized asphalt concrete (RAC) research and technical support; funding support of Caltrans specifications development; research on retreads; and feedstock conversion assistance and material testing. This will continue CalRecycle's focus on RAC, TDA, and other tire-derived products (TDPs) that use the largest number of tires. Since a large number of tires can be diverted through RAC, TDA, and molded product applications, funding to expand this use is a priority. Table 9 provides the budget for this element.

Table 9: Budget for Research and Market Development Activities

Program Area	FY 2021–22	FY 2022–23	FY 2023–24	FY 2024–25	FY 2025–26
Tire-Derived Aggregate Civil Engineering Technical Support and Research; Technology Center and Laboratory Testing Services	\$600,000	\$950,000	\$600,000	\$950,000	\$600,000
Rubberized Asphalt Concrete Technical Support and Research	\$300,000	\$500,000	\$300,000	\$500,000	\$300,000
Caltrans Interagency Research	\$200,000	\$350,000	\$350,000	\$350,000	\$350,000
Waste Tire Technologies Research and Development	\$100,000	\$250,000	\$250,000	\$250,000	\$250,000
Feedstock Conversion Assistance and Material Testing	\$500,000	\$500,000	\$0	\$500,000	\$500,000
Tire-Derived Aggregate Grant Program	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000
Rubberized Pavement Grant Program	\$3,549,703	\$4,209,703	\$5,446,703	\$6,189,703	\$5,739,703
Tire-Derived Products Grant Program	\$750,000	\$0	\$1,000,000	\$0	\$1,000,000
Tire Incentive Program	\$3,250,000	\$3,600,000	\$4,000,000	\$4,000,000	\$4,000,000
Tire Outreach and Market Analysis	\$210,000	\$300,000	\$300,000	\$350,000	\$350,000
Tire Events	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Totals	\$10,309,703	\$11,509,703	\$13,096,703	\$13,939,703	\$13,939,703

1. Tire-Derived Aggregate (TDA) Civil Engineering Technical Support; Research; and Technology Center and Laboratory Testing Services

CalRecycle will continue to provide technical support to address issues associated with the use of TDA in civil engineering projects, research to investigate new TDA applications, and laboratory testing services to assure compliance with TDA specifications. As shown in the activity descriptions below, funding for these efforts will vary between \$600,000 and \$950,000 per fiscal year. This is done to

accommodate the award cycles for the contracts needed to support CalRecycle’s Technical Support Contracts.

- **TDA Civil Engineering Technical Support**

CalRecycle’s technical support efforts will promote the use of TDA through technical assistance and targeted outreach to industry, associations, and other potential TDA users. CalRecycle also directs its technical assistance contractor to develop technology transfer materials that showcase the performance and cost benefits of using TDA. The technical assistance contractor will present these materials and serve as a CalRecycle liaison at various key stakeholder group workshops and conferences.

- **TDA Research**

Under this activity, CalRecycle will continue to investigate new civil engineering uses for TDA, including partnering with state, local, and private-sector engineers to conduct research and to train and educate them on the use of TDA in their projects. For TDA related research projects, CalRecycle may implement project-specific contracts. These projects could include, but are not limited to, erosion control, earthquake damping, vibration mitigation, retaining and sound walls, storm water runoff and drainage control, exothermic reactions in TDA fill, and septic tank leach field applications. A recent example was a project done in partnership with Santa Barbara County in 2019 to demonstrate the feasibility of using TDA in a mechanically stabilized earth application. The project rehabilitated a failing section of road on a steep hillside.

- **TDA Technology Center and Laboratory Testing Services**

CalRecycle will continue its partnership with a contractor who has knowledge and experience with the TDA and RAC material specifications in California. Through the TDA Technology Center, the contractor will provide statewide technical assistance to local governments through direct consultation and presentations at local and regional workshops related to material specifications for both TDA and RAC. CalRecycle may request that the contractor participate in environmental studies that relate to TDA and RAC. To assure compliance with material specifications, the contractor will also provide validation-testing services in support of CalRecycle RAC and TDA projects. The contractor will also continue to provide curriculum development support to California universities to educate the next generation of engineers on the benefits of using TDA.

Activity Funding

FYs 2021–22, 2023–24 and 2025–26..... \$600,000 per fiscal year

FYs 2022–23 and 2024–25 \$950,000 per fiscal year

2. Rubberized Asphalt Concrete (RAC) Technical Support and Research

The success of CalRecycle’s RAC programs has been largely due to the technical support that has been provided through CalRecycle’s RAC technical assistance contract and research efforts conducted by its university partners. CalRecycle is proposing to continue to provide technical support and research to address issues associated with roadway projects, including rubber hot-mix, rubber chip seal, rubber cape seals, and other emerging paving applications that have been determined by CalRecycle to have benefits derived from the use of scrap tire rubber. As shown in the descriptions below, funding for these efforts is proposed to vary from \$300,000 to \$500,000 per fiscal year. This will accommodate the award cycles for the contracts needed to support CalRecycle’s Technical Support Contracts.

• RAC Technical Support

The technical assistance contractor will assist CalRecycle with marketing and promoting the use of RAC through the development and distribution of technology transfer materials and presentation of these materials at key stakeholder workshops and conferences. The contractor provides technical assistance and training to RAC grantees to ensure that their projects are successful. To date, the contractor has conducted training sessions for over 300 local government entities.

Through this program, the contractor will assist on agency projects and may provide design assistance, specification review, bidding and procurement, construction management, quality assurance, and quality control, as necessary.

• RAC Research

Under this activity, CalRecycle will continue to conduct research of rubber paving applications in support of efforts to promote its use. Listed below are several RAC research proposals that CalRecycle is currently considering:

- Performance Model development for rubberized paving applications (e.g., cape seals, slurry seals),
- Rubberized Chip Seal Design Specifications,
- Research in determining the rubber content in rubberized binders, and
- Accelerated Pavement Testing of RHMA-G and RHMA-O Mixes Containing Recycled Asphalt Pavement

Activity Funding

FYs 2021–22, 2023–24 and 2025–26.....\$300,000 per fiscal year

FYs 2022–23 and 2024–25 \$500,000 per fiscal year

3. Caltrans Interagency Research

Caltrans is the largest user of RAC in the State. Additionally, Caltrans specifications are often used by local entities when designing road construction projects. Caltrans is a proponent of using RAC due to its performance superiority over conventional asphalt and has identified research topics that address potential issues that may hinder RAC use. In the past, CalRecycle partnered with Caltrans via interagency agreements to assist in collaborative RAC research. Continued funding will assist in the increased use of RAC by Caltrans and entities that use Caltrans specifications. CalRecycle may also address some of the research proposals via contract(s) with UC Davis Pavement Research Center (UCPRC) or California State University, Chico.

Activity Funding

FY 2021–22.....\$200,000

FYs 2022–23 through 2025–26..... \$350,000 per fiscal year

4. Waste Tire Technologies Research and Development

CalRecycle will continue to investigate TDPs and technologies that utilize waste tires to study and determine whether they are viable in the current tire market and if there are health and safety impacts that could adversely affect their use. Some of these applications may include identification of end-of-life options for various TDPs, including: turf applications and playgrounds; assessing the feasibility of using crumb rubber in molded, extruded, and other products; assessing market challenges and potential solutions for retread tires; assessing market opportunities for various TDPs; and research into innovative and emerging technologies such as devulcanization. Research may also be performed regarding changes in the composition of materials used to manufacture tires, the potential impacts of those changes on manufacturing TDPs and the impacts of those manufacturing changes on the service life of the tire (e.g., rolling resistance, durability, microplastics generated by tire wear particles). CalRecycle may also develop methodologies to quantify the greenhouse gas emissions associated with TDPs. To conduct this research, CalRecycle may partner with industry, universities, and other state agencies.

Activity Funding

FY 2021–22.....\$100,000

FYs 2022–23 through 2025–26..... \$250,000 per fiscal year

5. Feedstock Conversion Assistance and Material Testing

This activity proposes to provide manufacturers necessary technical assistance and other services to support feedstock conversion (using recycled crumb rubber rather than virgin rubber and other materials). The contract may also provide marketing and material testing support for the Tire Incentive Program.

Activities may include, but are not limited to:

- Identifying prospective manufacturers and products suitable for feedstock conversion,
- Developing marketing information and conducting marketing outreach to prospective manufacturers,
- Securing interested manufacturers to participate in feedstock conversion activities,
- Developing individual manufacturer activity plans and associated budgets for feedstock conversion, and
- Qualifying processors to provide crumb rubber.

Additionally, the contract may provide for working with manufacturers and securing appropriate technical expertise to execute individual manufacturer activity plans for feedstock conversion and providing technical assistance and follow-up to ensure production and sale of the tire-derived products.

Marketing and material testing support for the Tire Incentive Program may include, but is not limited to:

- On-site sampling and laboratory testing of crumb rubber to ensure appropriate mesh size and particle distribution,
- Identifying contaminants, and
- Performing appropriate quality assurance and control checks.

Activity Funding

FY 2021–22, 2022–23, 2024–25 and 2025–26.....\$500,000 per fiscal year

6. Tire-Derived Aggregate Grant Program

This [program](#) provides funding for civil engineering projects utilizing TDA to:

- Local governments, special districts, joint powers authorities;
- State agencies (including offices, departments, bureaus, and boards);
- California-based private, for-profit entities
- Non-profit organizations; and
- Qualifying California Indian tribes.

To be eligible for the grants, projects must use TDA in one of a variety of approved civil engineering applications.

Activity Funding

FYs 2021–22 through 2025–26..... \$750,000 per fiscal year

7. Rubberized Pavement Grant Program

This [program](#) will continue to be offered to cities, counties and qualifying California Indian tribes that fund public works projects located in California. The program is designed to help create long-term sustainable markets by focusing on first-time and limited-experience users of rubberized paving. This may include grants and incentives to further the purposes of the program. Funding for this program is reduced due to additional spending authority expiring after FY 2018–19.

Activity Funding

FY 2021–22.....	\$3,549,703
FY 2022–23.....	\$4,209,703
FY 2023–24.....	\$5,446,703
FY 2024–25.....	\$6,189,703
FY 2025–26.....	\$5,739,703

8. Tire-Derived Product Grant Program

This [program](#) and its predecessors have increased demand for TDPs, especially with local governments and school districts. It has also encouraged the appropriate substitution of recycled rubber for virgin rubber (also known as feedstock conversion). Typical TDPs include:

- Storm water mitigation measures
- Landscaping and playground loose-fill mulch;
- Playground tiles; and
- Crumb rubber infill for all-weather sports surfacing, rubberized sidewalks and tree wells, floor and agricultural mats, and sports tracks.

Activity Funding

FYs 2021–22.....	\$750,000
FYs, 2023–24 and 2025–26.....	\$1,000,000 per fiscal year

9. Tire Incentive Program

This successful and competitive [incentive grant program](#) is targeted at expanding demand for higher value-added products using crumb rubber from California-generated waste tires. Incentives may include, but are not limited to: new and

existing tire-derived products, end-of-life material, feedstock conversion, and use of fine (≤ 50) mesh material.

Examples of possible eligible products include, but are not limited to:

- Flooring underlayment,
- Rubberized flooring,
- Conveyor belts,
- Calendered or compounded rubber,
- Agricultural harvesting devices,
- Landscaping and garden products,
- Building products,
- Traffic devices,
- Spacers,
- Fencing,
- Asphalt products (that are not eligible under other CalRecycle programs), and
- Paintings and coatings,

Asphalt products must contain a minimum of 5 percent crumb rubber in the binder or flux.

Activity Funding

FY 2021–22	\$3,250,000
FY 2022–23	\$3,600,000
FYs 2023–24 through 2025–26.....	\$4,000,000 per fiscal year

10. Tire Outreach and Market Analysis

This program intends to document market trends and conduct focused technical outreach to public and private procurement entities to increase demand and expand the use of waste tire-derived material in a variety of applications including higher value-added products. CalRecycle staff and an independent contractors will provide:

- An annual in-depth survey and analysis of the waste tire and TDP markets in California and the associated *California Waste Tire Market Report*. This effort consists of a market analysis study to assess the market for California waste tires and influencing factors in the market, including providing information on the waste tire diversion rate, market trends, supply and demand balance and capacity, and other relevant market analyses. The analysis will culminate with the annual publication of the *California Waste Tire Market Report*.
- Focused technical outreach and education targeted at stakeholders such as federal, state, and local governments; school districts; and private entities that

are in a position to procure tire-derived products and have the authority to specify them in future projects. The goal of this effort is to increase demand for TDPs, foster the application of new technologies, and expand the use of waste tire-derived material into a variety of applications, including higher value-added products. This includes monitoring and measuring the outcome of these efforts; developing case studies; conducting meetings, trainings, and webinars to targeted stakeholders (including two CalRecycle tire conferences); and maintaining and updating outreach and education materials.

- Help identifying end-of-life best management practices and markets for synthetic turf, infill, playground fill, and other TDPs.
- Research and testing to address identified gaps in TDP product data and specifications that pose a barrier to TDP market expansion.
- Promotion and partial funding for a TDP design competition at the collegiate level. Competitors will help identify potential products, applications, and ventures that the existing industry may wish to pursue. The competition will also boost interest in TDP from emerging professionals in the design community.

Activity Funding

FY 2021–22.....	\$210,000
FYs 2022–23 and 2023–24.....	\$300,000 per fiscal year
FYs 2024–25 and 2025–26.....	\$350,000 per fiscal year

11. Tire Events

CalRecycle will continue to hold tire workshops, forums, and trainings, as it has in past years. These tire business and product events will provide attendees with up-to-date information about waste tire management programs. They provide a venue to discuss all aspects of waste tire management, including hauling, manifests, cleanup, proper disposal, recycling technologies, and research and market development activities. These events also offer a venue for staff and stakeholders to meet and focus on issues of common concern. These events maybe held virtually in 2020 and 2021. Wherever possible, events will be conducted in conjunction with related events organized by organizations such as the League of California Cities, California Public Works Association, and California State Association of Counties. In addition, CalRecycle staff combined the tire and used oil/household hazardous waste annual conference and the Recycling Market Development Zone conferences and training workshops into one combined three-year contract to provide efficiencies of scale and

other benefits. All events will be coordinated with CalRecycle’s Office of Public Affairs.

Activity Funding

FYs 2021–22 through 2025–24.....\$100,000 per fiscal year

CalRecycle's Mexico/California Border Waste Tire Activities and Support

Used tires continue to flow into Mexico through border entries, and a portion end up as waste tires that are illegally disposed along the California-Mexico border. Waste tires that end up along the border oftentimes are dumped illegally at various sites or used for structural purposes in or near Tijuana, Baja California, Mexico. Illegally dumped waste tires can cause environmental problems in the California-Mexico border region, including in the Tijuana River estuary. Sources of waste tires include new tires sold in Baja California, and used tires imported as commodities into Baja California from California, Arizona, and other states which are discarded after use.

Collaboration with multiple stakeholders in order to understand the flow of used and waste tires in the border region is critical to the identification and prioritization of border projects that may be effective in alleviating long-term environmental problems associated with waste tires. Accordingly, CalRecycle contracted with San Diego State University Research Foundation to research the flow of tires in the border region and identify potential projects to protect the environment. Several workshops were conducted under the contract to discuss these issues. In April 2017, a workshop was held in Sacramento to discuss the challenges of waste tire disposal in Mexico. In August 2017, a workshop was held in San Diego to discuss solutions for waste tire disposal in Mexico. In November 2017, a third workshop was held in Tijuana, Baja California where representatives from Mexico, California Environmental Protection Agency, and CalRecycle discussed waste tire regulations, compliance with the program, and the possible usage of rubberized asphalt concrete and tire derived aggregate to reduce illegal disposal by creating markets for waste tires.

As Mexican federal and Baja California state governments continue to work on the establishment of an overall statutory framework for tire management, CalRecycle will continue to provide technical assistance and facilitate knowledge transfer to the governments as they work to institutionalize and finance a waste tire recycling program.

Administrative Costs

Program Staffing

Tire-related activities are performed by a total of 69.035 positions within CalRecycle. The cost of staffing is approximately \$8.3 million. Breakdown of positions are as follows:

Division or Office	Positions
Audits Office	1.3
Administration, Finance & Information Technology Services Division	0.5
Legal Affairs Office	3
Legislative & External Affairs Office	0.7
Materials Management and Local Assistance Division	24.055
Public Affairs Office	0.4
Waste Permitting, Compliance and Mitigation Division	39.08
Total Tire Positions within CalRecycle	69.035

Activity Funding

FYs 2021–22 through 2025–26.....\$8,314,000 per fiscal year*

*Staffing costs are estimates only, due to the unpredictability of costs for personnel services.

Administration

Administration refers to the accounting of central management costs, such as those pertaining to executive management, accounting, human resources, grants, business services, employee health and safety, small-office support, and statewide pro rata assessments. Pro rata is the sharing of central service costs (as mentioned in the State Administrative Manual, Section 8753) that generally serve all of CalRecycle (i.e., indirect or overhead costs) by funds other than the General Fund. Administration funding represents the distribution of these “indirect costs” to direct CalRecycle program activities that include the tire program.

Activity Funding

FYs 2021–22 through 2025–26..... \$2,689,676 per fiscal year*

*Administrative costs are estimates only, due to the unpredictability of costs for personnel services.

Mandatory Contracts

Mandatory contracts include allocations for the following:

- Attorney General’s Office,

- California Department of Tax and Fee Administration,
- Department of Finance,
- Foundation for California Community Colleges,
- California Conservation Corps, and
- The Governor's Office of Planning and Research.

Activity Funding

FYs 2021–22 through 2025–26..... \$1,336,621 per fiscal year*

**Estimate of costs for mandatory contracts.*