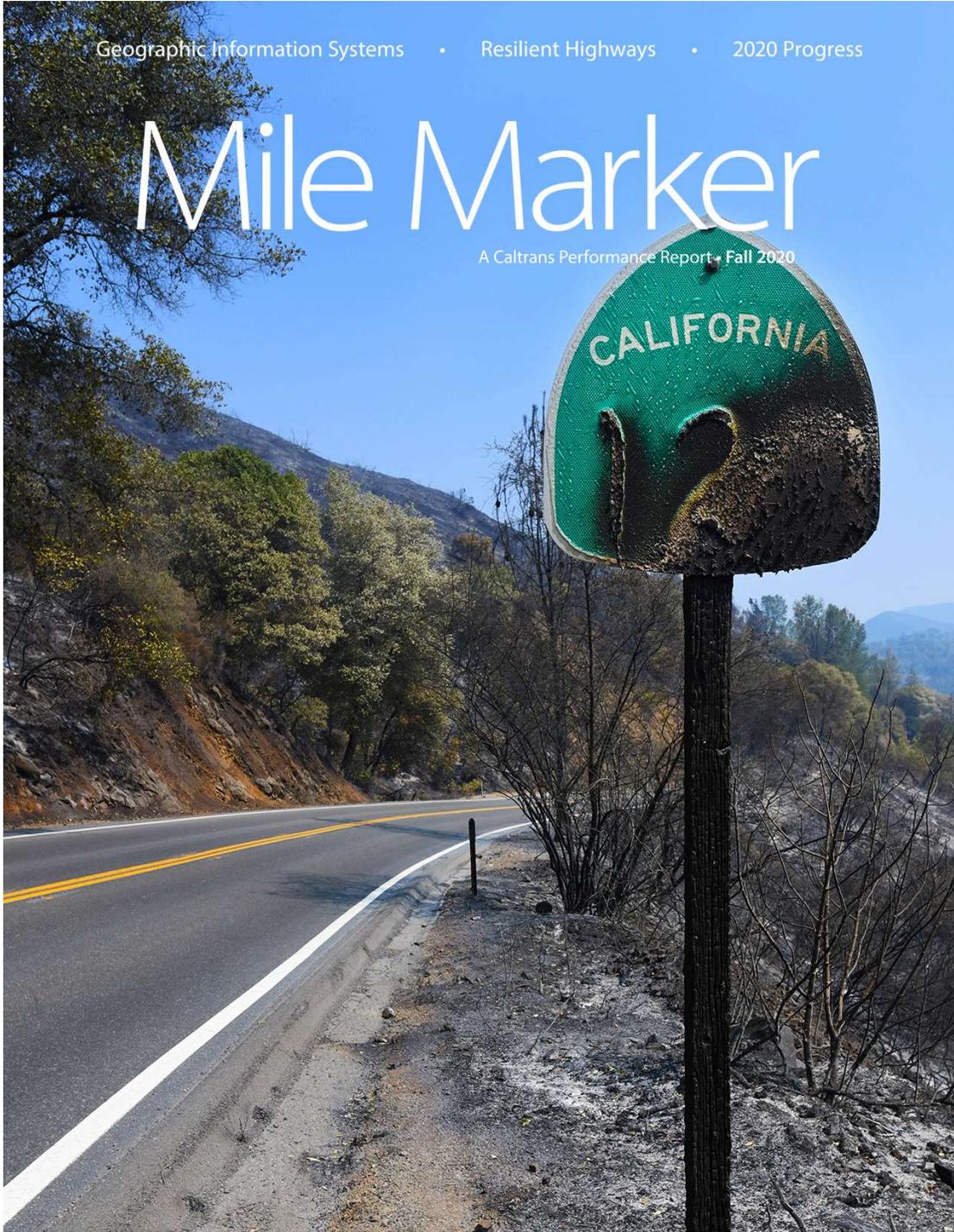


Geographic Information Systems • Resilient Highways • 2020 Progress

# Mile Marker

A Caltrans Performance Report • Fall 2020



[Home](#) [Programs](#) [Public Affairs](#) [Mile Marker](#)[Mile Marker: A Caltrans Performance Report, Fall 2020](#)[Director's Message](#)

## Director's Message



**Toks Omishakin**  
*Caltrans Director*

At Caltrans, the drive to improve the safety of the state travel network never ceases. Whether it's filling a pothole, creating a new bicycle/pedestrian route or delivering a multimillion-dollar highway project, our first priority is ensuring the well-being of those who rely on our transportation system.

Our commitment to safety is shared by a wide and diverse group of state public safety agencies, the federal government, transportation-related industries, and safety advocates. Earlier this year, our consortium finalized a five-year California Strategic Highway Safety Plan to counter the rising trend of traffic-related deaths and serious injuries along all public roadways in California dating back to the 2000s.

Although the statewide safety strategy is a strong one and has been shown to make some progress, Caltrans and its partners acknowledged and agreed that recent events and information called for a bolder direction.

We've collectively decided that four new safety principles — integrate equity, implement a “Safe System” approach, double down on what works, and accelerate advanced technology — will form the backbone of a reinvigorated plan.

At the top of the list is a commitment that equity be integrated into every decision going forward at Caltrans, particularly those involving safety, and that the Department will attempt to remedy previous transportation system decisions that negatively impacted vulnerable communities.

In addition, the safety group approved inclusion of a “Safe System” approach to road design that is more forgiving of mistakes and aims to keep impacts on the human body at tolerable levels, a “doubling down” on the use of safety countermeasures proven to reduce crashes, and a pledge to promote and employ technological advances to enhance transportation safety.

It also was agreed that particular emphasis be placed on “challenge” areas of highway safety that are identified in the safety plan. Caltrans' design, engineering and maintenance expertise will play a large role in helping solve vexing safety problems.

A story in this issue of the Mile Marker gives more details on our [safety plan](#) “pivot.”

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The safety of our employees also is of paramount importance, especially in this time of COVID-19.

When the virus first took hold, we took immediate steps to protect our 20,000-plus employees. We paused non-emergency field operations so that we could develop and support safety precautions. Practically overnight, we mostly emptied our offices and embraced teleworking to the fullest extent possible.

To safeguard those who work so hard to maintain our roads, we hired cleaning companies to disinfect more than 350 Caltrans shop facilities throughout the state, and are strictly enforcing safe sanitation practices to limit the spread of disease.

To further protect employees, we suspended litter removal efforts for much of the spring. That pause also extended to Caltrans' Adopt-A-Highway volunteer program and other litter collection crews. Trash pickup programs resumed in June.

We also took administrative action to help those who had to use our roads during this time of crisis. We issued temporary permits to food truck operators to set up at state safety roadside rest areas, preparing hot meals and other fare for truckers and motorists when most nearby restaurants were forced to close their doors. At the same time, Caltrans temporarily raised the maximum weight limit on trucks carrying essential goods in the state when they were most needed. Those special allowances have now expired now that most supply chains have been restored, and more food options are available for travelers.

Our hats are off, but masks on, for all our employees who have stepped up to the challenge of these times.

Again, please read the complete story on Caltrans' [COVID-19 response](#) in this issue.

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Lastly, I'd like to quickly tell you that we're in the final stages of drafting a new strategic plan to guide Caltrans for the next four years and beyond.

We've spent many hours in robust discussion about what our priorities should be, our goals, and how to achieve the desired results. Accompanying the strategic plan will be a series of performance measures, and targets to be reached at the end of the four-year plan.

As with the safety plan that I spoke of before, the principle of equity has risen to the top as a core value that Caltrans must embody and build toward. We recognize that decisions made in previous times have divided disadvantaged communities or denied those residents a chance to share in the economic fortunes realized by their neighbors. Our strategic plan will set a corrective course, backed up by performance benchmarks to ensure our promises about equity are translating into positive action.

We will unveil the entire strategic plan shortly and circulate it for comment.

- › [Mile Markers](#)
- › [Creating Safer Corridors](#)
- › [Clean-Air Travel Options Expanding](#)
- › [Caltrans, Partners Push More Inclusive Safety Plan](#)
- › [Connecting the \(Data\) Dots](#)
- › [Project Spotlight: Washed-Out Roads Isolate Town, Put Caltrans to the Test](#)
- › [Caltrans Strives for Fairness, Inside and Out](#)
- › [Highway System Gets Good Marks on Report Card](#)
- › [Mileposts](#)
- › [Most Project Timelines, Budgets Met](#)
- › [Garbage a Growing Distraction for Caltrans](#)
- › [COVID-19 Update](#)

## Statewide Campaigns

- › [ADA Access](#)
- › [Adopt-A-Highway](#)
- › [Amber Alert](#)
- › [Be Work Zone Alert](#)
- › [CAL FIRE](#)
- › [Cal OES: Power Outage and Fire Recovery Resources](#)
- › [California Climate Investments](#)
- › [California Connected](#)
- › [California Transportation Plan 2050](#)
- › [Clean California](#)
- › [Energy Upgrade](#)
- › [Go Safely California](#)
- › [HeatReadyCA.com](#)
- › [Move Over Law](#)
- › [REAL ID](#)
- › [Save Our Water](#)
- › [Stormwater Education Campaign](#)
- › [Tenant and Landlord Resources](#)
- › [Unclaimed Property](#)

[Back to Top](#)

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[Home](#) | [Programs](#) | [Public Affairs](#) | [Mile Marker](#)

[Mile Marker: A Caltrans Performance Report, Fall 2020](#)

Mile Markers

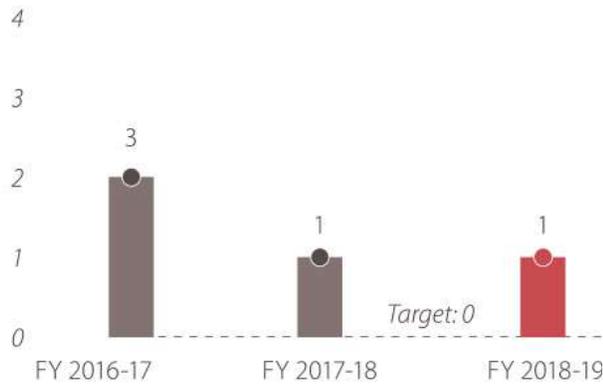
## Mile Markers

### Caltrans Key Strategic Management Plan Performance Measures

#### Goal: Safety and Health

Provide a safe transportation system for workers and users, and promote health through active transportation and reduced pollution in communities.

#### 1. Worker Fatalities in Work



Measures the number of Caltrans employees killed in the line of duty on the state highway on programs that emphasize safety awareness, and several worksite safety enhancer

#### 2. Number of Collisions in Work Involving Caltrans Employee



Measures the number of motor vehicle incidents involving Caltrans employees working in Caltrans vehicles, rental vehicles, or personal vehicles being driven while traveling public, other Caltrans employees or stationary objects such as other Caltrans employees. Caltrans has embarked on programs that emphasize safety training and awareness, and driver safety.

### 3. Employee Work-Related Injuries per 200,000 Hours Worked



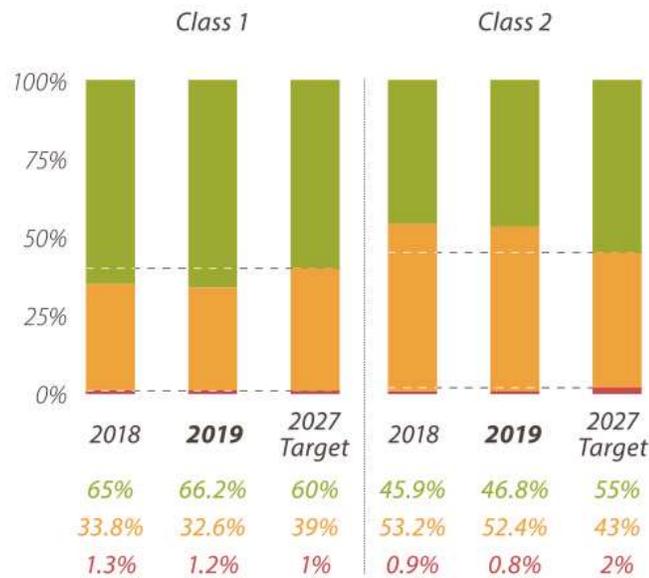
Calculated using the formula (Number of injuries and illnesses X 200,000) / Total Employee hours worked. Factors that would result in lower numbers would be less overall injuries or more total hours worked without an increase in injuries. Caltrans has embarked on programs that emphasize safety training, proper protective equipment use, and safe driving practices.

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#### Goal: Stewardship and Efficiency

Money counts. Responsibly manage California's transportation-related assets.

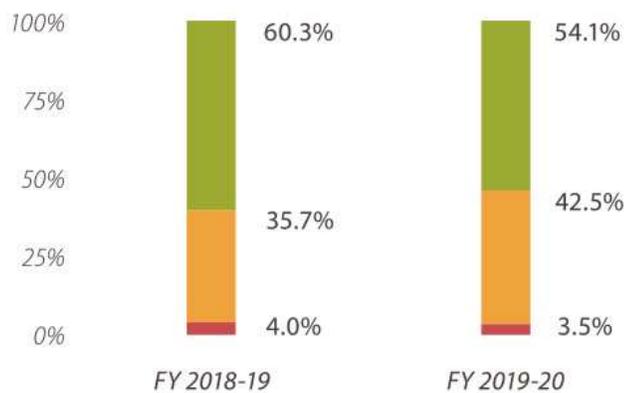
# 1. Pavement Condition Summary (Good)



\*The pavement and bridges condition summaries, and the condition rating system, are based on Caltrans' 2019/20 Performance Benchmark of Caltrans' Strategic Management Plan.

The most recent data shows that Caltrans is trending toward meeting its pavement performance condition is determined on an annual basis. The percentage of State Highway System and Caltrans criteria improved in 2019 when compared with 2018. This trend is projected for SB 1 revenues for road projects, and SHS pavement condition is on track to reach 2027 targets.

# 2. Bridges Condition Summary (Good)



\*The pavement and bridges condition summaries, and the condition rating system, are based on Caltrans' 2019/20 Performance Benchmark of Caltrans' Strategic Management Plan.

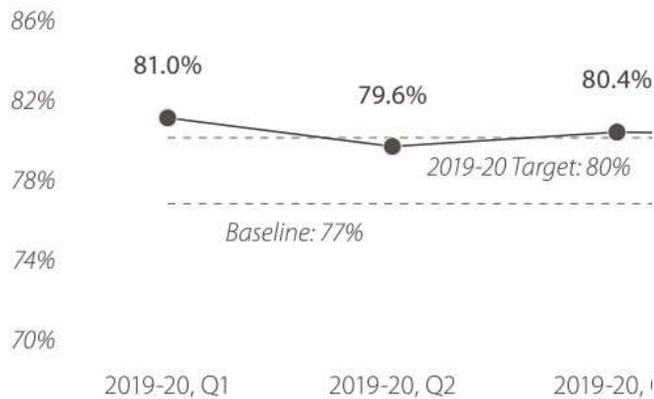
Because of the complex nature of major bridge projects, the time frame for delivery a few years of performance measurements show minimal progress until the increase in funding. Many projects have been expedited, and additional projects were added to the project funding from sources such as SB 1. Caltrans' Bridge Program continues to work closely with bridges identified as being in poor or fair condition are being addressed.

### 3. Percentage of Culverts in Good or



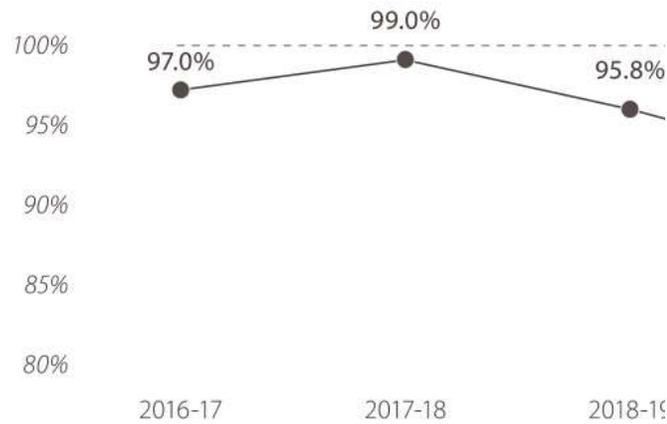
Of the estimated 212,181 culverts statewide, more than 172,200 culverts had been inspected (81 percent). Of the total number of culverts inspected, more than 153,400 are in good or better condition (89 percent total inspected). Maintenance crews are working diligently statewide to complete the repair of culverts by the end of FY 2023. It is expected that with the number of culverts being repaired and inspected in the coming years, Caltrans will successfully meet and maintain the 90 percent goal, a key part of its strategic goal.

### 4. Percentage of Functional Transportation Management System Units



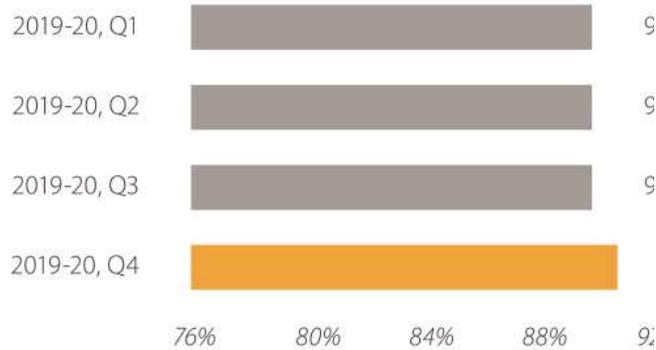
Caltrans has about 20,000 Transportation Management Systems (TMS) on the State Highway System. These electronic units that work together to serve as an important central data collection system for traffic performance, responding to roadway incidents and issues, and providing traveler information. The percentage of functioning TMS units has hit 80 percent in the last two quarters, exceeding a 77 percent baseline. The overall target is to bring Caltrans' TMS to a 90 percent good condition by the end of the expected life cycle by 2027.

## 5. Percentage of Planned Projects Delivered



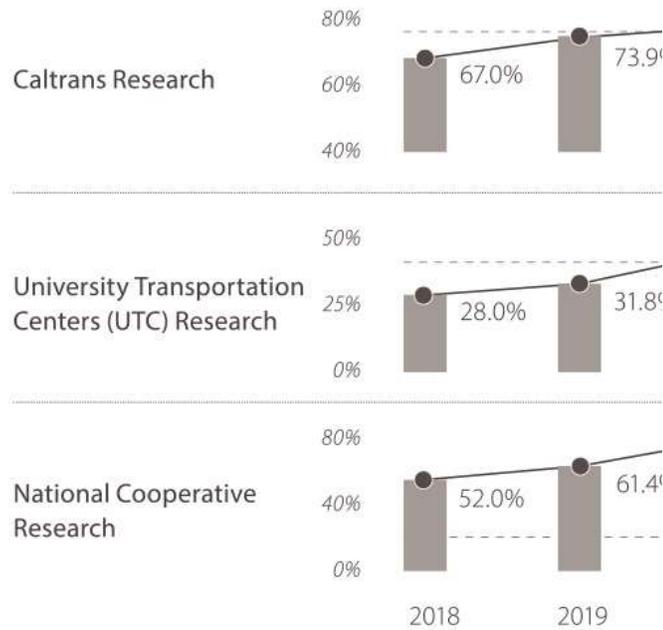
For FY 2019-20, there were several factors that impacted delivery. The COVID-19 pandemic while staff shifted into a telework model. COVID-19 also caused partner agencies to find it impossible to move forward. Also, Caltrans has made a conscious decision to take more number of projects with higher levels of intelligent risks.

## 6. Percentage of Caltrans Light Duty Available For Use



The closing quarter of FY 2019-20 showed a 91 percent fleet availability performance versus the previous quarter. In this quarter, priorities have been on preparing vehicles/equipment for the start of the fiscal year. This includes repairs and preventive maintenance on 1,539 pieces of equipment critical to the fleet. Over the past four quarters, Caltrans fleet has remained at 89 percent to 92 percent available for use.

## 7. Percentage of Research Projects with an Implementable Solution



**Caltrans Research:** Implementable research projects have been improving for the past three years due to an emphasis on partnerships with internal Caltrans customers and its research partners, including internationally recognized centers of excellence with expert researchers dedicated to solving transportation challenges. Focused cooperation has led to continually improved research scopes and more practical solutions over the last three years. **National Cooperative Research:** The National Cooperative Research Program is a national program under the Transportation Research Board. Caltrans successfully engages at the national level on dozens of panels, and pooled fund studies are used to address complex problems and develop innovative solutions.

## 8. Percentage of Single Trip Transportation Permits Approved or Denied Within Two Weeks



Single-trip transportation permits are issued for a single trip from a particular origin to a specific destination. These trips are generally not repeated. The drop in the percentage of single-trip permits approved within two weeks during COVID-19, with the restriction in number of employees who could come to work.

## 9. Percentage of Encroachment Approved or Denied Within 3



Encroachment permits are issued to allow other public agencies or private entities to use the highway right-of-way to perform their work. Caltrans maintained the pace of encroachment permit issuance in 2019 because the work required could be done remotely without the need for employees.

## 10. Number of Lane Miles of State Highway Relinquished (Cumulative)



The goal of relinquishing lanes miles of the State Highway System to local agencies is to allow a local government agency to manage important transportation facilities. The initial goal was 50 miles, which was increased several times as each target was met, ending with a final goal of 200 miles. Caltrans worked with local partners to identify candidate routes and successfully relinquished 155.12 miles in 2019-20.

---

### Goal: System Performance

Utilize leadership, collaboration and strategic partnerships to develop an integrated transportation system that provides reliable and accessible mobility for travelers.

## 1. Accurate Reporting of Traveler (Travel Times, Construction A Incidents and Adverse Wea



This measure tracks the consistency of updates to closures status logged in Caltrans' many data elements that contribute to traveler information, and these are presented and the Commercial Wholesale Web Portal. The LCS manager is working with the unc their information to maintain an accurate report of closure status.

## 2. Percentage of Availability of Travel



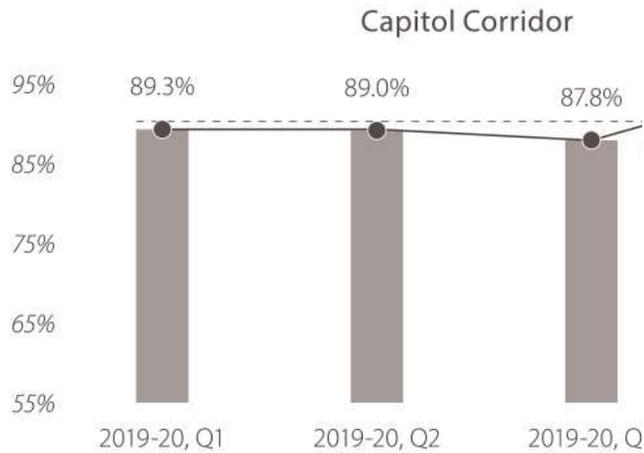
This measure tracks the availability of the latest information on Caltrans' QuickMap.

### 3. Number of Complete Streets on the State Highway System



Caltrans is dedicated to Complete Streets projects that remake selected state highways friendly to pedestrians, cyclists and communities. In fiscal year 2019-20, Caltrans received 2,462 complete street features, a 16 percent increase from FY 2018-19's total and far exceeding a target of 1,613.

### 4. Average All-Stations On-Time Performance for Intercity Rail



## 4b. Average All-Stations On-Time Performance for Intercity Rail

### Pacific Surfliner



## 4c. Average All-Stations On-Time Performance for Intercity Rail

### San Joaquins



(a) Performance improved since the last quarter as a result of the Capitol Corridor Joint Powers Authority making corridor enhancements such as security fencing using minor capital and maintenance funding as well as decreased traffic due to the COVID-19 pandemic.

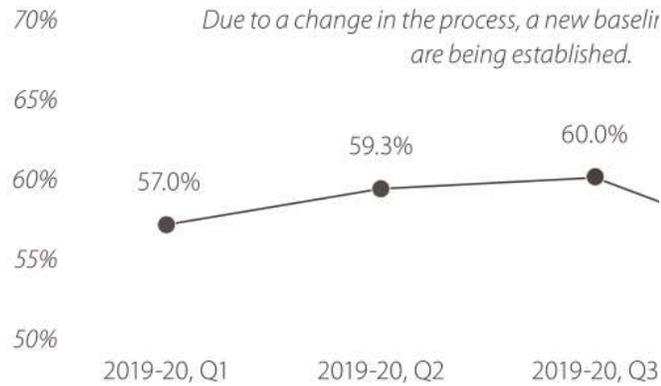
(b) Performance improved since the last quarter as a result of the San Joaquin Joint Powers Authority continuing to work with Amtrak and host railroads to identify and address frequent delay sources, as well as decreased traffic due to the COVID-19 pandemic.

(c) Performance improved since the last quarter as a result of the Los Angeles–San Diego–San Luis Obispo Rail Corridor Agency continuing to work with Amtrak and host railroads to identify and address frequent delay sources, as well as decreased traffic due to the COVID-19 pandemic.

## Goal: Organizational Excellence

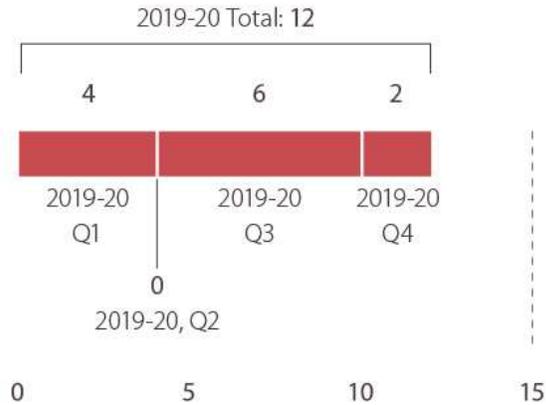
Be a national leader in delivering quality service through excellent employee performance, public communication and accountability.

### 1. Percentage of Customer Service Requests Closed Within 30 Days in the State Highway System Closed With



The percentage of Customer Service Requests that were closed within a 30-day period (January-March) was 60 percent. For the second quarter (April-June) that number dropped to 59.3 percent. Caltrans developed new directives as a result of COVID-19 safety protocols.

### 2. Documented LEAN 6 Sigma Process Improvements



Since 2015, the Lean 6-Sigma Program has performed over 60 process improvement projects. The program is currently participating in the Lean 6-Sigma Belt Certification Program to meet its yearly goal of 15 projects per year. However, due to the pandemic, the program has gone virtual and only nine projects could be performed. The downward trend is due to the adoption of a new framework emphasizing virtual learning and teamwork.

- > [Director's Message](#)
- > Mile Markers
- > [Creating Safer Corridors](#)
- > [Clean-Air Travel Options Expanding](#)

- › [Caltrans, Partners Push More Inclusive Safety Plan](#)
- › [Connecting the \(Data\) Dots](#)
- › [Project Spotlight: Washed-Out Roads Isolate Town, Put Caltrans to the Test](#)
- › [Caltrans Strives for Fairness, Inside and Out](#)
- › [Highway System Gets Good Marks on Report Card](#)
- › [Mileposts](#)
- › [Most Project Timelines, Budgets Met](#)
- › [Garbage a Growing Distraction for Caltrans](#)
- › [COVID-19 Update](#)

## Statewide Campaigns

- › [ADA Access](#)
- › [Adopt-A-Highway](#)
- › [Amber Alert](#)
- › [Be Work Zone Alert](#)
- › [CAL FIRE](#)
- › [Cal OES: Power Outage and Fire Recovery Resources](#)
- › [California Climate Investments](#)
- › [California Connected](#)
- › [California Transportation Plan 2050](#)
- › [Clean California](#)
- › [Energy Upgrade](#)
- › [Go Safely California](#)
- › [HeatReadyCA.com](#)
- › [Move Over Law](#)
- › [REAL ID](#)
- › [Save Our Water](#)
- › [Stormwater Education Campaign](#)
- › [Tenant and Landlord Resources](#)
- › [Unclaimed Property](#)

[Back to Top](#)

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[Home](#) [Programs](#) [Public Affairs](#) [Mile Marker](#)[Mile Marker: A Caltrans Performance Report, Fall 2020](#)[Creating Safer Corridors](#)

## Creating Safer Corridors

Caltrans, Agency Partners Widen Defensive Perimeters  
Against Fire on State Highways



The State Highway System sustained major damage from wildfires early in the 2020 fire in Northern California took out road signs and guard rail sections along State Rou

Caltrans and partner agencies have been moving aggressively to collaborate on projects to clear trees and vegetation from state highway corridors, creating a protective zone for the traveling public, vulnerable communities, and the ecosystem from fire.

Having identified where concentrations of brush and timber have grown near state highways, Caltrans is working with CalFire and the U.S. Forest Service on ways to reduce burnable materials. One such project, “Fire Adapted 50” along US 50 in the Eldorado National Forest, is creating a fire break for communities dependent on the critical corridor for access, and is expected to continue for several more years.

This effort to create “defensible space zones” is part of an overall strategy by Caltrans, state and federal agencies to reduce the chances of smaller fires exploding into mega-blazes, an all-too-frequent occurrence now. When overgrown vegetation and trees are pared back from highways and roads, there’s less available fuel lying in the path of fires, and clearer evacuation routes are opened up for threatened communities.

The task has been made more urgent by Caltrans climate studies that predict hotter temperatures and changing rain patterns in California through this century will result in drier forests and foothills — raising the likelihood of catastrophic fires.

In Caltrans' case, the need to establish defensible space zones along state highways was reinforced last year by a roadway survey showing the vulnerability of the road network to fire.

Using geographic information services (GIS) software, state highways in all 12 Caltrans districts were mapped in one-mile segments. Researchers applied 20 different risk factors, including population, resources and emergency capacity, to determine each highway section's exposure to wildfires.

The results of the four-month study were sobering. More than 2,600 centerline miles of state highway, of the 14,993 centerline miles, are in critical need of a fuels reduction effort, according to the survey's weighted, GIS-generated scores. (Centerline miles are measured by road distance and don't take multiple lanes into account.)

### Statewide Fuel Reduction Needs



District	Total Centerline Miles	Priority Centerline Miles	Percent in this District
1	929	636	68%
2	1,720	772	45%
3	1,477	483	33%
4	1,377	102	7%
5	1,130	66	6%
6	1,770	122	7%
7	1,118	46	4%
8	1,923	37	2%
9	980	109	11%
10	1,294	226	17%
11	998	50	5%
12	276	0	0%
<b>Total</b>	<b>14,993</b>	<b>2648</b>	

## Heavily forested districts most vulnerable

As



As of late September, requests from Caltrans districts to perform emergency repairs on state highway property damaged by fire totaled about \$60 million.

expected, Caltrans districts with the most trees face greater fire threats to roadways. About 68 percent of the state highways in District 1, taking in much of the heavily forested North Coast, were identified as needing fire fuels clearing, the survey found — 621 of its 929 centerline miles.

Adjoining District 2, with headquarters in Redding, had the second highest percentage of state highways exposed to vulnerable acreage at 45 percent.

In Marysville-based District 3, which takes in the central-north Sierra Nevada range and foothills, one-third of the land adjoining state highways was declared in priority need of fuels clearing, about 487 centerline miles or 30,000 acres.

On the other end of the risk list, none of 276 surveyed acres along state-maintained routes in Caltrans District 12, encompassing the Orange County area, were found to be in critical need of fuels reduction.

That highly urbanized district is the exception, though. Statewide, the survey determined that almost 167,000 acres along highway corridors pose a fire threat to the traveling public, communities and the environment if left uncleared. The cost of reducing fuel sources along every vulnerable highway section was estimated at more than \$400 million.

### Enlarging protection zones against fires

Defensible space zones carve out an additional layer of protection beyond highway rights of way that adjoin all state highway properties and vary in width. The space devoted to defensible space zones depends on factors that include amount and condition of the vegetation in the watershed, proximity to developed areas, topography, or weather.

This higher protection strategy was used as part of a fuels reduction program launched last year by CalFire and the Forest Service, aims to clear or thin 90,000 acres statewide.

Three state highway corridors were among the 35 projects chosen for the fuel reductions, based on information from Caltrans' risk analysis. Crews selectively thinned 30 miles of heavily-forested sections of State Route 44



(District 2), performed prescribed burns on 11 miles of

Caltrans plans to continue contracting and working with its partners to clear out combustible vegetation and trees from roadsides along the state highway network.

combustible brush on SR 41 (District 6), and removed 6.5 miles of dense undergrowth and trees surrounding [SR 17](#) (District 4), all heavily traveled routes.

Caltrans district offices coordinated road closures and restrictions on those selected highways, and CalFire provided the funding through the state Cap-and-Trade greenhouse gas reduction programs.

Caltrans also is working toward a “Good Neighbor Master Agreement” with the Forest Service to cooperate on fire fuel-reduction programs along state routes on Forest Service land in California. Federal funding would be available through the recently approved

[Agreement for Shared Stewardship of California’s Forest and Rangelands](#)

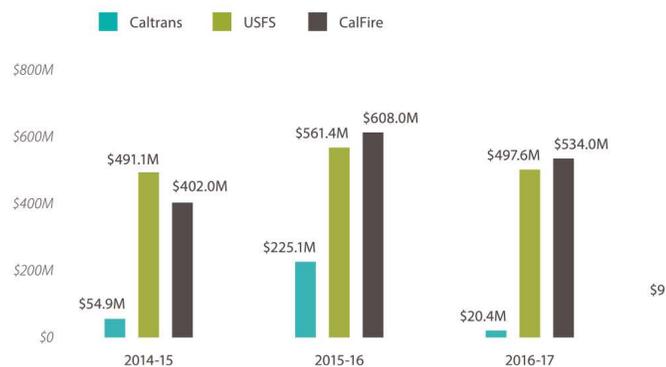
that includes a commitment by the federal government to match California’s goal of reducing wildfire risks on 500,000 acres of forest land per year.

## Huge fires burn through budgets

In addition to being personal and ecological disasters, fire maelstroms have become incredibly expensive to fight. Caltrans has spent more than \$524 million of its emergency funds in the last five years, through 2019, on wildfire and drought responses.

That amount is part of the \$5.9 billion spent overall from 2014 through 2019, counting the contributions of CalFire and Forest Service.

Emergency Fund (Combined) 2014-2019



Active fire years take a big bite out of emergency repair budgets for California public s be among the most expensive.

More clearance projects using a defensible space strategy are being scheduled. Caltrans also plans to take out more dead and stressed trees at risk of falling onto state highways.

A tree removal program that Caltrans has participated in since 2015 was the forerunner of the more comprehensive protection effort. The Department had been part of the multi-agency Tree Mortality Task Force formed to confront the massive die-off of trees due to prolonged drought and the infestation of bark beetles. As of May 2019, Caltrans and its contractors have removed almost 180,000 dead or dying trees that posed a public threat to travel along state highways. Those fallen trees still served a beneficial public purpose (see story below).

To this point, Caltrans has spent \$153 million on the tree removal effort.

The tree mortality group was later folded into the [California Forest Management Task Force](#) overseen by the Governor's Office. The task force is in the process of choosing priority evacuation routes in the state where defensible space zones could be established.

## Fallen Trees Feed State Power Need

Caltrans has been selectively removing hazardous trees and fire fuels from its right-of-way since 2016. The Forest Management Program seeks to increase safety along state highways, taking out dead or dying trees that pose a danger of falling, and clearing burnable material from roadsides.

The program also supports Caltrans' sustainability goals by hauling off many dead trees of little or no harvest value for energy production. Here are some program accomplishments and statistics through 2019:

- 63 percent of all felled trees taken to biomass power plants in a "chips-to-watts" process.
- 114,600 low-value, dead trees used, amounting to 80 million board-feet of timber.
- 218,332 megawatts of energy produced from 218,332 dry tons of wood, enough to power 31,190 homes in California for a year.\*
- 81 percent of trees were removed from mountainous routes, and 19 percent from urban corridors.
- 43 of California's 58 counties are experiencing tree mortality due to drought and beetle infestations along 87 different highways.

*\*Average California home uses seven megawatts of energy per year*

**Source:** Lisa Worthington, Caltrans Senior Landscape Architect, Division of Maintenance.

- > [Director's Message](#)
- > [Mile Markers](#)
- > Creating Safer Corridors
- > [Clean-Air Travel Options Expanding](#)
- > [Caltrans, Partners Push More Inclusive Safety Plan](#)
- > [Connecting the \(Data\) Dots](#)
- > [Project Spotlight: Washed-Out Roads Isolate Town, Put Caltrans to the Test](#)
- > [Caltrans Strives for Fairness, Inside and Out](#)

- › [Highway System Gets Good Marks on Report Card](#)
- › [Mileposts](#)
- › [Most Project Timelines, Budgets Met](#)
- › [Garbage a Growing Distraction for Caltrans](#)
- › [COVID-19 Update](#)

## Statewide Campaigns

- › [ADA Access](#)
- › [Adopt-A-Highway](#)
- › [Amber Alert](#)
- › [Be Work Zone Alert](#)
- › [CAL FIRE](#)
- › [Clean California](#)
- › [Energy Upgrade](#)
- › [Go Safely California](#)
- › [HeatReadyCA.com](#)
- › [Move Over Law](#)
- › [Cal OES: Power Outage and Fire Recovery Resources](#)
- › [California Climate Investments](#)
- › [California Connected](#)
- › [California Transportation Plan 2050](#)
- › [REAL ID](#)
- › [Save Our Water](#)
- › [Stormwater Education Campaign](#)
- › [Tenant and Landlord Resources](#)
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[Back to Top](#)

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[Home](#) [Programs](#) [Public Affairs](#) [Mile Marker](#)[Mile Marker: A Caltrans Performance Report, Fall 2020](#)[Clean-Air Travel Options Expanding](#)

## Clean-Air Travel Options Expanding

### Most Planned Rail, Transit Projects Will Help Underserved Communities



State funding has contributed to Sonoma-Marín Area Rail Transit improvements.

A robust slate of public transportation projects to give Californians improved alternatives to driving in their vehicles, as well as delivering cleaner air, was approved with funding from two programs administered by Caltrans.

The California State Transportation Agency (CalSTA) recently awarded \$500 million to 17 projects around the state through the [Transit and Intercity Rail Capital Program](#), known as TIRCP. The funds are part of a \$5.8 billion effort to help modernize California's intercity, commuter and urban rail service, and bus and ferry systems through fiscal year 2024-25.

In a separate action, Caltrans announced in July that it approved \$146 million in [Low Carbon Transit Operation Program](#) (LCTOP) funds for 166 transit and light-rail projects in California.

The two programs share similar goals, and have a common funding source: proceeds from California's "Cap-and-Trade" Greenhouse Gas Reduction Fund that raises money through the auction of carbon tax credits. The aim of TIRCP and LCTOP is to increase transit ridership, reduce greenhouse gas emissions and prioritize disadvantaged communities.

TIRCP was created by legislation in 2014 to fund



A Fresno County Rural Transit Agency van powers up at a solar-powered charging station.

transformative capital projects that reduce greenhouse gases, expand transit ridership through better service, improve safety, and integrate rail and transit services. The program is intended to improve public transit, draw drivers out of their vehicles, reduce harmful emissions, and contribute to TIRCP's overall strategy of reducing highway congestion and the overall amount of vehicle miles traveled in California.

In addition, TIRCP receives funds through the Road Repair and Accountability Act of 2017 (SB 1), projected to generate about \$1.4 billion through 2027.



A Sonoma-Marina Area Rail Transit (SMART) train is greeted at the downtown Novato station.

Like TIRCP, LCTOP was established in 2014 and invests in providing cleaner, better, and more accessible transit

opportunities in the state. The LCTOP was created to provide operating and capital assistance for transit agencies to reduce greenhouse gases and improve mobility, with a priority on serving disadvantaged communities. Approved projects in LCTOP support new or expanded bus or rail services, expand intermodal transit facilities, and may include equipment acquisition, fueling, maintenance and other costs to operate those services or facilities.

Caltrans works closely with the California Air Resources Board and State Controller's Office on LCTOP goals and to ensure that the statutory requirements of the program are met in terms of project eligibility, greenhouse gases reduction, disadvantaged community benefit, and other requirements of the law.

Both TIRCP and LCTOP are required by law to award transportation projects that benefit populations defined as disadvantaged or low-income in [Assembly Bill 1550](#) . All 17 TIRCP projects and nearly all LCTOP projects will provide benefits to disadvantaged communities.

Here are some of the rail and transit projects that will be funded under each program:

## TIRCP

Of the 17 projects selected for funding through the 2024-25 fiscal year, nine will be in Southern California, five in Northern California, and three in Central California. It's estimated that the projects together will prevent more than five million metric tons of greenhouse gases from spewing into the air.

### Southern California:

The largest award went to the

[Metrolink Antelope Valley Line Capital and Service Improvements](#) project.

CalSTA awarded \$107 million in TIRCP funding to the \$220 million project to expand and improve commuter train service between Los Angeles and the Lancaster-Palmdale area, where one-third of the residents are considered disadvantaged. Four infrastructure projects will increase the frequency of service and a zero-emissions train pilot is planned. The completion date is 2027.

### Northern California:

The



The Bay Area Rapid Transit system (BART) accommodates riders who want to bring their bicycles.

[Transbay Corridor Core Capacity Program](#) was awarded \$107 million in TIRCP funding, the most of the five approved NorCal projects. Combined with a previous award in 2018, TIRCP is slated to contribute a total of \$425.7 million to the Bay Area Rapid Transit (BART) expansion project, scheduled to be completed by 2031. The TIRCP awards are contingent upon a federal funding agreement.

The BART project would add 34 new cars to its fleet, for a total of 306, allowing more frequent service and increasing passenger capacity, particularly between the East Bay and San Francisco. Almost one-third of BART stations are in areas defined as disadvantaged.

### Central California:

Sacramento Regional Transit (SacRT) will receive \$23.6 million to continue its nearly \$600 million [modernization and expansion program](#). Combined with a 2018 TIRCP grant and SB 1 revenues, the total allocated to SacRT for its work will be \$64.4 million. The Sacramento transit agency is adding 28 new low-floor light rail cars to its fleet, expected to increase ridership, and improve station access by 2024. Of SacRT's 52 light-rail stations, 41 are in disadvantaged areas.

See a complete list of [TIRCP allocations](#) and project descriptions.



The city of Shafter's Dial-A-Ride system, which receives state funds, serves riders in Kern County.

This year's LCTOP funding process took place during the COVID-19 pandemic, and some projects were revised to fit emerging health and

safety priorities. For example, some agencies expanded dial-a-ride and fare-free services to increase access and protection for their riders and operators.

Of the 166 funded projects:

- **55 will offer free or reduced fares to encourage lifelong transit users, including young riders, seniors and veterans:**
  - City of Los Angeles: \$1.37 million for the second operating year of free fares on Los Angeles Department of Transportation Downtown Area Short Hop services for students attending Los Angeles Unified School District and Los Angeles Community College.
  - San Joaquin and Stanislaus counties: \$1.79 million for nine project to expand free or reduced fares.
  - Monterey-Salinas Transit: \$846,826 for six projects to allow free weekend fares in Salinas, summer youth passes, and free fares for college students.
  - North Coast transit agencies including the city of Arcata, Humboldt Transit Authority, and Lake Transit Authority: \$339,997 for three projects offering free fares to populations that include low-income residents, youths and college students.
  
- **37 to provide new and expanded transit service for better access to jobs and educational sites, and expand transit options on nights and weekends:**
  - Sacramento Regional Transit: \$3.38 million for four projects that include core bus routes and enhancing light rail from the Sunrise station to Folsom.
  - Fresno Department of Transportation: \$832,746 for changes to five bus routes and the creation of a new route.
  - Kings County Area Public Transit Agency: \$118,000 to increase bus frequencies on eight weekday routes.
  - Ventura County Transportation Commission: \$550,000 for continuation of the new Cross County Transit Service connecting communities in eastern and western Ventura County serving low-income populations.
  
- **26 involve zero-emission vehicles:**
  - San Diego Metropolitan Transit System and North County Transit District: \$8.42 million for continued projects to purchase zero-emission buses.
  - City of Arvin: \$41,362 to complete its fourth year of roll-over funding to replace diesel buses with zero-emission versions and install charging stations.

- Livermore Amador Valley Transit Authority: \$471,778 to purchase four zero-emission buses and provide necessary improvements to replace diesel-electric hybrid buses at the end of their lifespan.
- **14 authorize more passenger amenities at transit stops/stations to increase transit ridership:**
  - Siskiyou County: \$84,191 for upgrades to 50 bus stops to add schedule holders and perform Americans with Disabilities Act (ADA) concrete work.
  - Mountain Area Regional Transit Authority: \$102,167 to improve bus stops in the Big Bear-Lake Arrowhead region by including ADA-compliant access, better weather protection, and seating accommodations for disabled and senior riders.
  - Plumas County Transportation Commission: \$38,973 to construct solar-illuminated bus stop shelters.

See complete list of [LCTOP allocations and project descriptions](#) .

**Source:** *Caltrans Division of Rail and Mass Transportation.*

- › [Director's Message](#)
- › [Mile Markers](#)
- › [Creating Safer Corridors](#)
- › Clean-Air Travel Options Expanding
- › [Caltrans, Partners Push More Inclusive Safety Plan](#)
- › [Connecting the \(Data\) Dots](#)
- › [Project Spotlight: Washed-Out Roads Isolate Town, Put Caltrans to the Test](#)
- › [Caltrans Strives for Fairness, Inside and Out](#)
- › [Highway System Gets Good Marks on Report Card](#)
- › [Mileposts](#)
- › [Most Project Timelines, Budgets Met](#)
- › [Garbage a Growing Distraction for Caltrans](#)
- › [COVID-19 Update](#)

## Statewide Campaigns

- › [ADA Access](#)
- › [Adopt-A-Highway](#)
- › [Amber Alert](#)
- › [Be Work Zone Alert](#)
- › [CAL FIRE](#)
- › [Cal OES: Power Outage and Fire Recovery Resources](#)
- › [California Climate Investments](#)
- › [California Connected](#)
- › [California Transportation Plan 2050](#)

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- ▶ [Energy Upgrade](#)
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- ▶ [HeatReadyCA.com](#)
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- ▶ [Save Our Water](#)
- ▶ [Stormwater Education Campaign](#)
- ▶ [Tenant and Landlord Resources](#)
- ▶ [Unclaimed Property](#)

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Caltrans, Partners Push More Inclusive Safety Plan

## Caltrans, Partners Push More Inclusive Safety Plan

### New Principles Affirm State's Commitment to Equity, Holistic Solutions

Caltrans  
and its



In San Francisco and other regions, a traffic signal timing feature known as a leading pedestrian interval is being used to hold back traffic and allow people to enter crosswalks and make their presence known to turning drivers. *Photo courtesy of San Francisco Municipal Transportation Agency*

transportation safety partners are going the extra mile to strengthen California's guiding plan on how to improve safety for travelers and communities.

Convinced that a broader strategy was needed to reduce fatalities and serious injuries on state and local roadways, the multi-agency group that developed the [California Strategic Highway Safety Plan](#) (SHSP) agreed on a new set of guiding principles for inclusion in the 2020-24 SHSP to further improve safety.

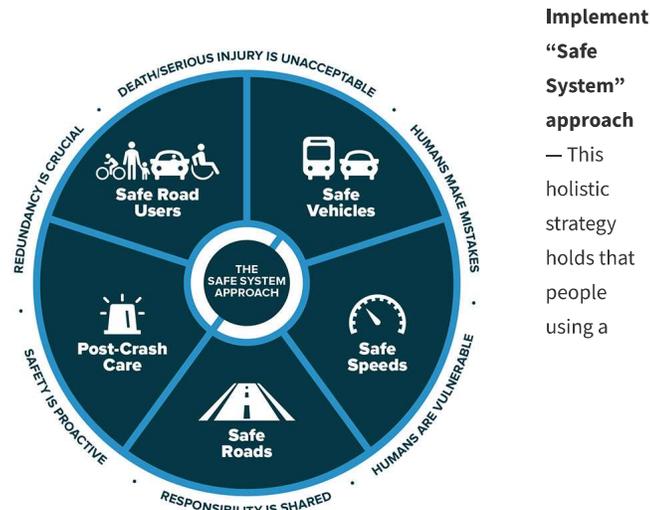
The SHSP was released earlier this year by the consortium of agencies under the California State Transportation Agency (CalSTA), which includes Caltrans, and federal transportation representatives and stakeholders. The plan is

typically updated every five years, and this year's version was seen as a critically important joint effort to combat the sharp rise in deaths and serious injuries that have occurred along California roadways since 2000.

Meeting over the summer, state transportation leaders decided that bringing down the number of deaths and serious injuries on public roadways required a bolder and more focused approach than outlined in the recently adopted SHSP. The group agreed to incorporate the following guiding principles into the plan, to make the SHSP more reflective of new thought and safety strategies:

**Integrate equity** — Caltrans is seeking to address institutional and systemic racial bias from previous transportation decisions that split communities or restricted choices for vulnerable populations.

To remedy injustices, Caltrans proposes to integrate equity when implementing strategies, proposed actions, and future development criteria and evaluation; expand data sets to evaluate for inherent biases; increase participation from persons or agencies that represent traditionally underserved populations; ensure outreach activities include or target those populations; and develop a robust working definition of equity for the SHSP.



**Implement “Safe System” approach** — This holistic strategy holds that people using a

The Safe System approach emphasizes a collective responsibility to safety.

transportation system will make mistakes, and roads should be planned and built to be forgiving of errors in judgment. [Safe System](#) calls for shared responsibility to minimize or eliminate deaths and serious injuries on the roadway by making safer vehicles, reducing speeds, designing safer roads, and improving post-crash care and analysis.

Caltrans has embraced the zero deaths and serious injuries goal embodied with the Safe System approach.

**Double down on what works** — Caltrans should continue to focus on implementing proven safety countermeasures that address collision “hotspots” as well as make broader, systemic improvements to parts of the transportation system. Some of the specific countermeasures that Caltrans will make a concerted effort to widely implement are published in the Federal Highway Administration’s [Proven Safety Countermeasures](#) .

Caltrans manages the [Highway Safety Improvement Program](#) (HSIP), which dispenses federal funds for infrastructure projects in California that employ these countermeasures with a record of reducing fatalities and serious injuries on public roads. In fiscal year 2018-19, a total of \$639.6 million was committed to fund 221 state and local safety projects, \$182 million provided by federal HSIP.

**Accelerate advanced technology** — As it always has, Caltrans encourages and adopts technological innovations that promote roadway safety. To expand that process, the Department plans new partnerships with technology providers, safety/health groups, manufacturers and government partners to identify and prioritize safety applications and opportunities, evaluate safety benefits, and increase consumer interest and education.

## Next Steps

The SHSP Executive Leadership Committee that met in July also decided to retain a list of safety “challenge areas” from the 2014-2019 SHSP. These 16 areas were based on factors that contribute to collisions that cause fatalities and serious injuries.

The Committee agreed to prioritize six of those challenge areas: impaired driving, aggressive driving/speed management, lane departures, intersections, and pedestrians/bicyclists. Because of its roadway operations and maintenance expertise and engineering acumen, Caltrans is expected to take the lead on addressing several of these safety priorities.

The SHSP Executive Leadership Committee has been meeting bi-monthly and is scheduled to convene again in March 2021 to implement the new principles and ensure that the SHSP and the corresponding implementation plan integrate the new guiding principles and help improve safety throughout California.

**Sources:** *Caltrans Division of Safety Programs; 2020–2024 Strategic Highway Safety Plan.*

- [Director's Message](#)
- [Mile Markers](#)
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- [Caltrans Strives for Fairness, Inside and Out](#)
- [Highway System Gets Good Marks on Report Card](#)
- [Mileposts](#)
- [Most Project Timelines, Budgets Met](#)
- [Garbage a Growing Distraction for Caltrans](#)
- [COVID-19 Update](#)

## Statewide Campaigns

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- ▶ [Amber Alert](#)
- ▶ [Be Work Zone Alert](#)
- ▶ [CAL FIRE](#)
- ▶ [Clean California](#)
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- ▶ [California Climate Investments](#)
- ▶ [California Connected](#)
- ▶ [California Transportation Plan 2050](#)
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- ▶ [Save Our Water](#)
- ▶ [Stormwater Education Campaign](#)
- ▶ [Tenant and Landlord Resources](#)
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Connecting the (Data) Dots

## Connecting the (Data) Dots



### Caltrans and the State Have Built a Tower of Information. GIS Makes It Accessible.

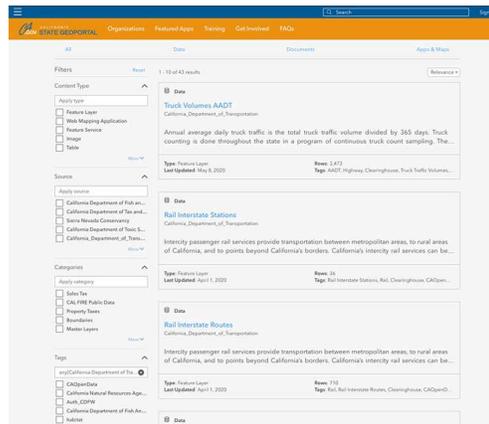
With help and contributions from Caltrans, the state of California has created a vast data storehouse detailing its services, facilities and geographic information available at the click of a mouse to the public.

The [California State Geoportal](#) debuted last December. The site uses the latest [Geographic Information Systems](#) (GIS) technology to gather millions of points of data generated by state government and organize it into map-based or 3D visual representations.



The California State Geoportal website offers an easy-to-use format for finding information posted by state departments such as Caltrans and other agencies, rendered in map-based or 3D visual representations.

Visitors to the site can get big picture views of location-based information grouped by category, or drill down to find more granular detail about state services or operations. There are 12 general data categories presented on the site, including



water,  
health,  
energy,

On the Caltrans section of the state geoportal site, users can choose from 42 different datasets of location-based travel information that features layered maps of the particular attributes chosen.

environment, education, emergency, and transportation, with data supplied by state departments or agencies overseeing those functions.

Caltrans, through its

[Division of Research, Innovation and System Information](#) (DRISI), posts 42 datasets about the State Highway System that each contain layered map levels of information. Site visitors can choose overlays embedded with the particular data points of information they are seeking about the highway system, its location and its functions.

For example, a family that plans to travel along U.S. 395 through the state can call up the dataset showing the number of rest stops along the route (five), listed on a graphic table, and a map displaying the services of each (vending, dog walk, RV facilities, etc.). Or, since the route travels the dramatic east side of the Sierra Nevada, they can find out how many vista points there are (10), and exact locations.

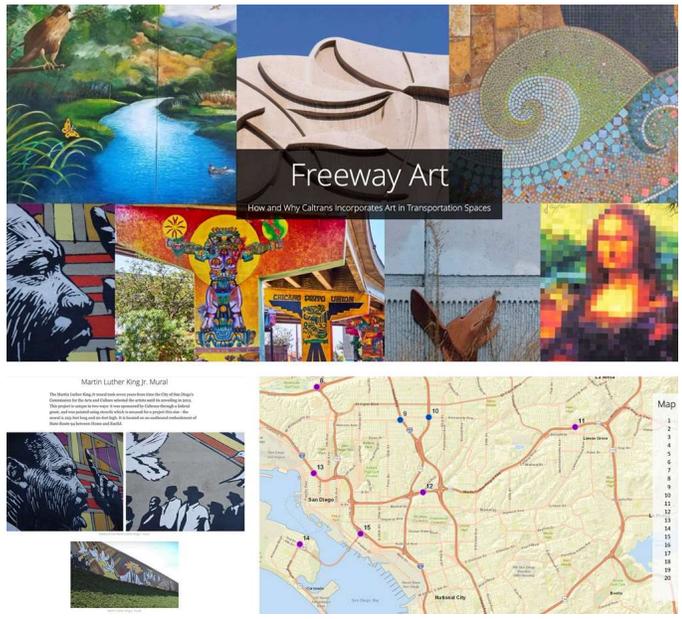
The Caltrans-supplied transportation component of the state geoportal doesn't just serve vacationers. Emergency responders can get quick access to datasets giving specifics about Caltrans and local bridges, public airports, heliports or Caltrans' postmile system to pinpoint locations of incidents on the highway system. Trucking firms whose business depends on knowing state highway restrictions and conditions can pull up information on allowable weight loads for specific routes, locations of freight intermodal points for transfers, or the status of inspection facilities.

Commuters visiting the state site can view where traffic bottlenecks are, average daily traffic counts, locations of park-and-ride locations, or, tiring of the daily drive, look up train and bus facilities.

Caltrans continually refreshes and verifies its existing information on the state geoportal, and is working on new categories of collected transportation data to introduce. The Department also collects and posts GIS-based data on its [website](#) that's readily available to the public, featuring 57 map datasets separated into highway, railroad, airport and boundary categories.

## Caltrans Embraced GIS Use Early

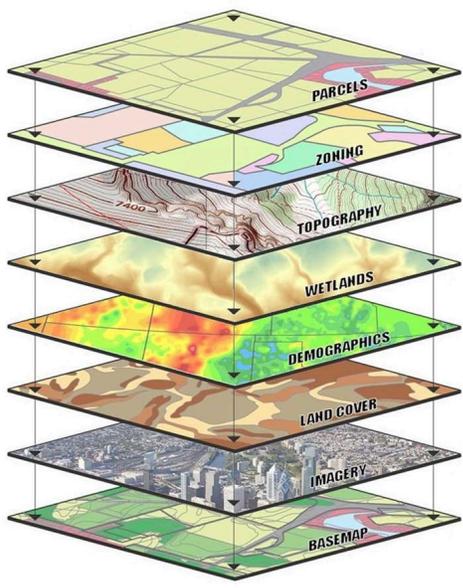
The state geoportal is the leading edge of the data revolution that Caltrans and other state agencies have been rolling out for public viewing and reference.



A pioneering software program, StoryMap, takes GIS in a new direction. Here, Caltrans visual presentation featuring freeway art in the region.

As steward of the State Highway System, Caltrans was one of the early users of geospatial technology, which refers to the acquisition, manipulation, and storage of geographic information. GIS is one form of geospatial technology, the computer rendering of location-based data into digital map layers that can be viewed, organized, analyzed and integrated through geographic software programs.

The use of GIS at Caltrans began in the early 1990s, when the



Caltrans planners use GIS to sandwich layers of information about a particular project to analyze its impacts.

Department first began collaborating with GIS pioneer and industry leader [Esri](#) (Environmental Systems Research Institute), based in Redlands. With leaps forward in technology — more powerful computers, internet capability, and sophisticated geographic software programs — GIS became an indispensable tool that allowed Caltrans planners and engineers to plot project details in a digital realm.

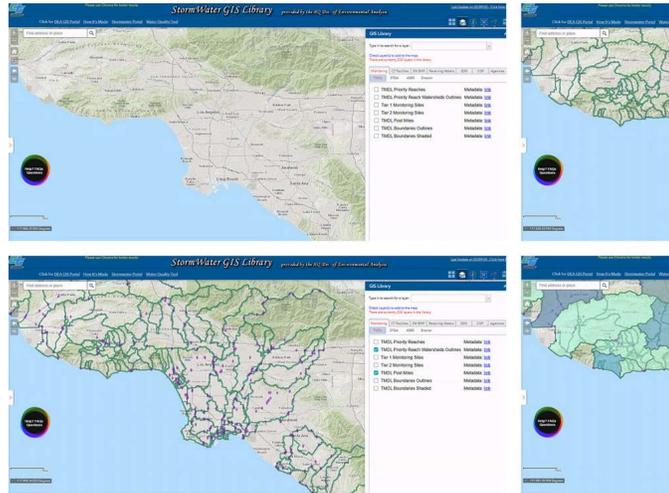
Not only could data be visualized through GIS mapping, but layered in a “sandwich” fashion, enabling project managers to evaluate information and spot patterns, relationships and potential problems that may have previously gone undetected.

Today, almost every division involved in highway system maintenance, project planning and delivery, traffic operations, and asset inventory and management relies on GIS technology. Each of Caltrans’ 12 regional districts has a GIS coordinator, and most maintain separate branches that serve as local data repositories and supply expertise for offices that use GIS mapping. Caltrans sets GIS policies and manages statewide data operations from its Sacramento headquarters.

## Opening Up Data Access

GIS usage has been an integral part of Caltrans operations for years, but much of the data generated was kept internally and not easily shared.

But the ability to present complex sets of geographic data via two-dimensional and 3-D Web-based interfaces has opened up new ways to communicate with the public about state government, and Caltrans, operations.



Caltrans divisions compile GIS mapping catalogs, in this case watershed maps of the

The state geoportal, with Caltrans’ contributions, is one example of this transparency. But Caltrans and CalSTA websites offer other road-related information conveyed through GIS mapping. Some examples:

**QuickMap** — Perhaps the best known, and used, GIS-enabled service on Caltrans’ website is [QuickMap](#), which displays real-time traffic information to help travelers make smart decisions before they take to the road. QuickMap uses a Google Maps application infused with information supplied by Caltrans, Waze and other sources. QuickMap averages 104,000 visitors a month – more than double the number in 2018 -- and the mobile application has been downloaded more than 397,000 times to Android and iOS devices.

**SB 1** — Several Caltrans districts offer updates on projects within their boundaries that receive funding from the Road Repair and Accountability Act of 2017, known as SB 1. CalSTA hosts the [Rebuilding California](#) site that features a layered GIS map of SB 1 projects around the state allowing visitors to view selected locations, stages and type of work, among other details.

**StoryMap** — Caltrans districts are beginning to utilize this new GIS-based form of storytelling that merges layered maps, photos and text into themed presentations. Using Esri's ArcGIS software program, Caltrans GIS specialists in District 11 (San Diego area) and Bishop-based District 9 created web pages that tell vivid stories about transportation attributes in their region. D11 assembled a [pictorial StoryMap](#) display to describe how local artists transformed nondescript highway underpasses, walls and ramp sides into vibrant expressions of art around the San Diego area. The east side of the Sierra Nevada serves as the stunning backdrop for a D9 StoryMap guide to the district's best bicycling routes, from the Mojave Desert to Yosemite National Park.

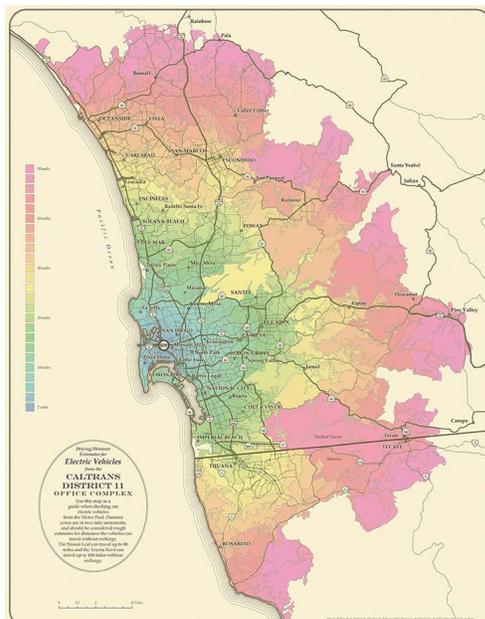


Oakland-based District 4 created a GIS-enabled map showing the network of bicycle Bay Area region.

**District outreach** — District 4, representing the nine-county San Francisco Bay Area, and D11 in Southern California spotlight transportation options or services on their public-facing webpages. The San Diego district site shows the locations and features of park-and-ride and bicycle facilities, a driving distance estimator, culverts and the Freeway Art StoryMap, among other services. In Northern California, Oakland-based D4 produced a GIS-enabled map of bike routes and facilities that's part of its [area bicycle plan](#), as well as a self-help online version of their public map counter that provides various right of way-related maps grouped by decade.

**Outreach to partners**

— All 12 Caltrans districts have been active in sharing GIS-enabled data of the regional



District 11 staff blended an old-time map look with modern GIS attributes to show the projected range and limits of electric vehicles traveling from the downtown office.

transportation network with transportation partners. For example, District 5, representing the Central Coast area, has built a catalogue of GIS data detailing its active transportation (mostly bike, pedestrian and scooter) projects and facilities that partners can use and reference. The information also serves to point out gaps in the region's non-motorized travel network.

GIS also played a role in Caltrans' disaster response following the deadly 2018 Camp Fire in Paradise. Surveyors from Marysville-based District 3, whose territory includes the Paradise-Chico area, used GIS mapping to count the number of trees killed within highway right of way, and estimate the amount of hydroseeding needed to rejuvenate burned areas.

Caltrans' GIS staff also have produced maps that were singled out for national recognition. GIS-enabled maps created in D11 and D3 have been chosen for inclusion in the prestigious Esri annual map book that features the year's most innovative or creative work in digital geographic mapping, and serve as a resource for other map designers around the world.

## Caltrans' Data-Driven Future

The data visualization field has grown by leaps and bounds in recent years, transforming the way people consume and use information in their lives. Caltrans is committed to using GIS as a way to increase public knowledge about the operations and condition of the state travel network, and sharing data with its transportation partners to make the system safer and more reliable through this century and beyond.

**Sources:** *April Nitsos, Chief; Chad Baker, Geospatial Data Officer; Walter Yu, Enterprise Data Manager, Caltrans Office of Data Services and Technology, Division of Research, Innovation and System Information; California State Geoportal.*

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- > [Mile Markers](#)
- > [Creating Safer Corridors](#)
- > [Clean-Air Travel Options Expanding](#)
- > [Caltrans, Partners Push More Inclusive Safety Plan](#)
- > [Connecting the \(Data\) Dots](#)
- > [Project Spotlight: Washed-Out Roads Isolate Town, Put Caltrans to the Test](#)
- > [Caltrans Strives for Fairness, Inside and Out](#)
- > [Highway System Gets Good Marks on Report Card](#)
- > [Mileposts](#)
- > [Most Project Timelines, Budgets Met](#)
- > [Garbage a Growing Distraction for Caltrans](#)

## Statewide Campaigns

- ▶ [ADA Access](#)
- ▶ [Adopt-A-Highway](#)
- ▶ [Amber Alert](#)
- ▶ [Be Work Zone Alert](#)
- ▶ [CAL FIRE](#)
- ▶ [Clean California](#)
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- ▶ [Move Over Law](#)
- ▶ [Cal OES: Power Outage and Fire Recovery Resources](#)
- ▶ [California Climate Investments](#)
- ▶ [California Connected](#)
- ▶ [California Transportation Plan 2050](#)
- ▶ [REAL ID](#)
- ▶ [Save Our Water](#)
- ▶ [Stormwater Education Campaign](#)
- ▶ [Tenant and Landlord Resources](#)
- ▶ [Unclaimed Property](#)

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Project Spotlight: Washed-Out Roads Isolate Town, Put Caltrans to the Test

## Washed-Out Roads Isolate Town, Put Caltrans to the Test

On Valentine's Day 2019, Storm Damage to State Routes 74 and 243 Dealt Big Blow to Idyllwild



Caltrans and its contractor worked for much of 2019 to repair dozens of culverts and by strong storms on Feb. 19 of that year. Wildfires during the previous autumn helped especially problematic. Rain and even snow continued for weeks after the Valentine's

Residents of the town of Idyllwild, located in the San Jacinto Mountains southwest of Palm Springs, will long remember Valentine's Day 2019. Not for the cards or flowers, but the winter deluge that washed out parts of State Routes 74 and 243, isolating the mountain resort and cutting off its economic lifeblood: tourists.

On Feb. 14, 2019, the two roadways sustained significant storm damage, rendering them unsafe for public use. It was initially determined that more than 25 locations on SR 243 needed replacement or repair, including two locations that sustained complete road loss. SR 74 had 40 locations that required reconstructive work at that time.

Two sections of SR 243 were totally washed away by water and debris gushing down the mountainside. A [dramatic video](#) of the destructive torrent was shown numerous times on media reports.

Idyllwild, at about 5,400-foot elevation in Riverside County, suddenly was cut off from its two main approach routes. Travelers who had been able to drive 23 miles from Hemet to Idyllwild on SR 74 were forced to detour 58

miles on State Route 371 to the south. What had been a 25-mile drive from Banning to Idyllwild on SR 243 became an 81-mile slog via Palm Desert and the

### Project Spotlight



undamaged portion of SR 74.

Caltrans regional District 8 quickly mobilized to begin repairs and restore the vital lifelines. On Feb. 15, 2019, the day after the initial damage, Caltrans authorized an \$8 million Director's Order (an emergency declaration to immediately hire help and allot money) to perform repairs on both routes, contracting with Ames Construction. The damage list was long, and included failed culverts, washouts caused by cascading rocks and debris, sinkholes, slope instability resulting in rockfall, mud and debris flows, and compromised pavement.

Subsequently, weeks of continuous storm activity — rainstorms along SR 74 and snowfall along higher-elevation stretches of SR 243 — prompted pauses in the work and caused further damage, and even washed out some initial repairs. The repair timetable, along with its price tag, grew accordingly. Two other director orders were issued to make long-term repairs to the damaged highways to protect against future storm damage and road loss.

By April 2019, repair crews were working 24-hour shifts. Debris and potential hazards were removed from the slopes along SR 74 to rebuild embankments and improve motorists' lines of sight. On SR 243, Caltrans and Ames found uses for some 160,000 to 170,000 cubic yards of materials (e.g., dirt, broken concrete) generated from the slope repairs on SR 74, boosting efficiency and lowering costs.

One of the reasons that Caltrans went with a single contractor to fix the two roadways was to achieve the "seamless operation" of being able to transfer those materials from SR 74 to SR 243.

To facilitate repairs to SR 243, Caltrans and the contractor had to first tame the flow of water over, under and even through the roadway. A number of diversions were employed, including the laying of linoleum in "V" ditch formations to aid in the flow of water and debris, and a technique that field workers refer to colloquially as a "burrito drain."

Burrito drains are pipes strapped with pea gravel and geofabric that are buried underground. They collect and flush away water from the sodden ground, creating a drier surface that that trucks can roll over.

By early June 2019, Caltrans revised the damage assessment upward, listing 129 damaged locations (rather than the original 40) on SR 74 and 37 (up from 25) sites on SR 243. Nineteen locations had been repaired on SR 74 and six on SR 243, and the contractor's workers had clocked 44,000 hours.

Meanwhile, the residents of Idyllwild and other nearby mountain communities grew anxious for the work to be completed and the two roads to reopen. Long bus trips to and from school in Hemet using the detour routes were making parents and children weary. Caltrans hosted multiple town hall meetings to give updates and address concerns, sharing drone videos and pictures of the work. Most residents were appreciative, although a few expressed dismay at what they thought was the slow pace of repairs.



The repair work to State Routes 74 and 243, which cost \$20 million in addition to \$10 State Route 243, included the creation of culverts and drains, repairing and replacement slopes above and below the mountain roadways. By the spring of this year, both road

By the end of August 2019, Caltrans opened SR 74 to escorts, although SR 243 remained closed. By this time, \$20 million had been spent and 30 culverts (17 of them under SR 74, 13 under SR 243) had been replaced.

On Nov. 1, 2019, Caltrans announced that SR 243 would open between Interstate 10 and Idyllwild. That roadway had been repaved during the emergency closure with a \$10 million that was previously allocated before the storm damages occurred. Isolated flagging was anticipated for the next six to nine months to complete all the remaining work, which included restriping and dead tree removal.

The new year arrived with SR 74 subjected to partial closures with pilot vehicle traffic control, due to construction of new culverts. Pilot vehicles took vehicles up and down SR 74 between Mountain Home Center and Hemet during the work hours, with up to 30-minute traffic holds.

Both routes are now fully open with the final emergency project expected to be complete by the end of November. Pilot vehicles are still be used to complete the final repairs.

All told, the 2018-19 year took its toll on District 8 highways. There were three Director's Orders totaling \$66.5 million issued to repair the damage from the Cranston Fire that burned through the mountain communities in summer 2018, the Feb. 14, 2019, deluge, and the destructive series of storms that followed.

**Source:** *Amgad Benjamin, resident engineer for the SR 74 and SR 243 emergency repairs project; Caltrans District 8 Office of Public Affairs.*

- › [Director's Message](#)
- › [Mile Markers](#)
- › [Creating Safer Corridors](#)
- › [Clean-Air Travel Options Expanding](#)
- › [Caltrans, Partners Push More Inclusive Safety Plan](#)
- › [Connecting the \(Data\) Dots](#)
- › [Project Spotlight: Washed-Out Roads Isolate Town, Put Caltrans to the Test](#)
- › [Caltrans Strives for Fairness, Inside and Out](#)
- › [Highway System Gets Good Marks on Report Card](#)
- › [Mileposts](#)
- › [Most Project Timelines, Budgets Met](#)
- › [Garbage a Growing Distraction for Caltrans](#)
- › [COVID-19 Update](#)

## Statewide Campaigns

- › [ADA Access](#)
- › [Adopt-A-Highway](#)
- › [Amber Alert](#)
- › [Be Work Zone Alert](#)
- › [CAL FIRE](#)
- › [Cal OES: Power Outage and Fire Recovery Resources](#)
- › [California Climate Investments](#)
- › [California Connected](#)
- › [California Transportation Plan 2050](#)
- › [Clean California](#)
- › [Energy Upgrade](#)
- › [Go Safely California](#)
- › [HeatReadyCA.com](#)
- › [Move Over Law](#)
- › [REAL ID](#)
- › [Save Our Water](#)
- › [Stormwater Education Campaign](#)
- › [Tenant and Landlord Resources](#)
- › [Unclaimed Property](#)

[Back to Top](#)

[Accessibility](#)

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[Home](#) [Programs](#) [Public Affairs](#) [Mile Marker](#)[Mile Marker: A Caltrans Performance Report, Fall 2020](#)

Caltrans Strives for Fairness, Inside and Out

## Caltrans Strives for Fairness, Inside and Out

Race and Equity Plan Directs Department to Help Burdened Communities, Create Diverse Workplace



Illustration courtesy of the Robert Wood Johnson Foundation.

Caltrans is striving to make things right for California communities that historically have been underserved or even split apart by the state transportation system. Caltrans is also looking inward to build a more diverse and inclusive workforce culture.

A two-year Race and Equity Action Plan was approved last year by the Caltrans executive board.

The action plan was delivered at the end of Caltrans' second year of involvement in the [Government Alliance on Racial Equity](#) (GARE) Capitol Cohort, and was drafted by the Caltrans Alliance on Racial Equity Solutions team.

The GARE Capitol Cohort was created in 2018 and comprises 15 state agencies. In addition to Caltrans, other entities include California's Corrections and Rehabilitation, Public Health and Social Services departments, as well as the California Air Resources Board and the state's Coastal Commission and Environmental Protection Agency.

During the Cohort's first year, representatives from Caltrans and other agencies learned about structural and institutional racism, and government's historical role in creating some of the disparities seen today. They were taught methods for normalizing discussions about race, so that the topic — which for some can be sensitive — can be addressed in a positive way. Ideally, such discussions will lead to creating policies and new operations standards that achieve true equity.

Each agency in the Cohort was tasked with creating a racial equity plan.

Caltrans' approved action plan for 2020-2021 focuses on three areas: communication, pilot projects, and policy.

Two external pilot projects are outlined in the plan: a prioritizing of placing lower-emission equipment in California communities most burdened by pollution, and a "mapping" of customer service requests that show where Caltrans resources are being allocated as a result of a complaint-based system.

Internally, the Department will strive to place diversity/inclusion statements on job advertisements and compare Caltrans district, division, and management demographics with the demographics of the regions that they serve.

## Caltrans Divisions Promote Equity Through Outreach

Caltrans' Division of Civil Rights also is working toward establishing greater equity when it comes to the hiring of contractors for transportation projects and during the procurement process. Learn more about the division's Disabled Veteran Business Enterprise (DVBE), Disadvantaged Business Enterprises (DBE), and Limited English Proficiency (LEP) programs on the [Caltrans Civil Rights webpages](#) .

Caltrans' Division of Environmental Analysis also takes on equity issues. For example, its [Environmental Justice webpages](#) explain how the Department seeks to avoid, minimize, or mitigate adverse health and environmental effects on minority and low-income populations through the project planning and contract process.

In terms of internal communication, the Caltrans Alliance on Racial Equity Solutions team looks to raise awareness among Caltrans employees about race and equity issues by recommending relevant books and other resources and making them easily available, giving presentations to Caltrans managers and staff in all 12 regional districts, and through informal "lunch and learn" sessions in the spirit of Ted Talks.

Caltrans Director Toks Omishakin in September launched a series of video discussions about equity issues within the department. The ongoing series includes virtual sit-down sessions with division chiefs and district directors; all conversations are available for viewing on the department's YouTube channel.

Externally, the team plans to create or join interagency equity committees, and conduct listening sessions with community-based organizations to help establish community priorities for Caltrans.

In the long run, organizers hope, equity will be a given and no longer be singled out in any discussions. [The Race and Equity Action Plan \(PDF\)](#) can be viewed on the Division of Planning and Modal Programs website and questions are welcome at [RaceAndEquityProgram@dot.ca.gov](mailto:RaceAndEquityProgram@dot.ca.gov) .

**Sources:** *Caltrans Office of Race and Equity; Rhiannah Gordon, Racial Equity Program Manager*

- › [Director's Message](#)
- › [Mile Markers](#)
- › [Creating Safer Corridors](#)
- › [Clean-Air Travel Options Expanding](#)
- › [Caltrans, Partners Push More Inclusive Safety Plan](#)
- › [Connecting the \(Data\) Dots](#)
- › [Project Spotlight: Washed-Out Roads Isolate Town, Put Caltrans to the Test](#)
- › [Caltrans Strives for Fairness, Inside and Out](#)
- › [Highway System Gets Good Marks on Report Card](#)
- › [Mileposts](#)
- › [Most Project Timelines, Budgets Met](#)
- › [Garbage a Growing Distraction for Caltrans](#)
- › [COVID-19 Update](#)

## Statewide Campaigns

- › [ADA Access](#)
- › [Adopt-A-Highway](#)
- › [Amber Alert](#)
- › [Be Work Zone Alert](#)
- › [CAL FIRE](#)
- › [Clean California](#)
- › [Energy Upgrade](#)
- › [Go Safely California](#)
- › [HeatReadyCA.com](#)
- › [Move Over Law](#)
- › [Cal OES: Power Outage and Fire Recovery Resources](#)
- › [California Climate Investments](#)
- › [California Connected](#)
- › [California Transportation Plan 2050](#)
- › [REAL ID](#)
- › [Save Our Water](#)
- › [Stormwater Education Campaign](#)
- › [Tenant and Landlord Resources](#)
- › [Unclaimed Property](#)

[Back to Top](#)

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## Highway System Gets Good Marks on Report Card

### Caltrans' Annual Inspections Show Bridge and Striping Improvements, Among Other Positives



The Hunter Hill Safety Rest Area just north of Vallejo off Interstate 80 has recently been included in the department's annual Level of Service inspections.

From March through August, Caltrans' Division of Maintenance performs a thorough inspection of the State Highway System (SHS). The test results from 2019 show that key components of the SHS are getting healthier.

Under the Level of Service (LOS) program, Caltrans inspection teams drive and sometimes walk along random one-mile segments of the SHS. In most of the Department's 12 regional districts, approximately 20 percent of the total centerline miles of state highway are evaluated. The highest LOS score that any segment can receive, for any of the 35 evaluated criteria, is 100.

The purpose of the program is to help Caltrans' Maintenance division establish its priorities for the fiscal year — where and how best to allocate available resources. The division's 2016 Strategic Management Plan (SMP) identifies 10 high-priority "maintenance activities" on those mile-long segments that each receive an LOS score and determine where best to focus repair efforts. The management plan sets statewide LOS score goals of 70 to 90 for each activity. Those goals are to be achieved by 2021.

The top 10 priority activities listed in the report are pavement, bridge maintenance, guardrail repair, striping maintenance, sign maintenance, traffic signals maintenance, roadway lighting maintenance, tree/brush encroachment prevention, litter/debris removal and graffiti removal.

Revenues generated by the Road Repair and Accountability Act of 2017, or Senate Bill 1 (SB 1), has allowed the Maintenance division to tackle problems or deficiencies that have been cited in previous LOS reports.

### 2019 Level of Service Scores

Category	2018	2019	Category
 <b>Bridges</b>	35	↑ 49	 <b>Overall</b>
 <b>Guardrail</b>	58	↑ 63	 <b>Traffic Signs</b>
 <b>Striping</b>	79	↑ 84	 <b>Roadway Lighting</b>
 <b>Traffic Signals</b>	71	↑ 77	 <b>Graffiti</b>
 <b>Tree/Bush Encroachment</b>	69	↑ 72	 <b>Litter and Debris</b>

Of nine high-priority categories identified in Maintenance division's strategic plan, five attained higher LOS scores in 2019 than the previous year. The condition of bridges statewide improved the most, jumping 14 points to an overall score of 49. Other areas showing improvements were guardrails (63, five points higher than 2018's score), striping (84, up four points); traffic signals (77, six points higher); and tree/brush encroachment, (72, up three points).

Overall pavement condition earned a 94 LOS score in 2019. To measure pavement, Caltrans uses a specialized van outfitted with laser-scanning technology that more precisely finds and maps road flaws than the previous visual inspection process. The Automated Pavement Condition Survey analyzes 100 percent of State Highway System lanes each year, and offers a far more complete, and accurate, look at pavement conditions around the state.

The 2019 pavement rating exceeded the performance target set of 90 (based on a score of 100) by SB 1, based on the amount of pavement cracking, spalls (deteriorated sections of concrete) and potholes along roadway segments.

Traffic signs overall rated a 91 LOS score, the same as 2018. That exceeds the SMP goal of 90 by the year 2021. The signs in four of the districts — 1 (based in Eureka), 2 (Redding), 5 (San Luis Obispo) and 11 (San Diego) — were rated at 98 or 99.

The LOS score for roadway lighting, 99, also was the same as it was in 2018. That nearly perfect result far exceeds the 2021 SMP goal of 70.

The LOS score for graffiti, 89, also was unchanged from the previous year.

## Litter, Debris Issues Remain a Challenge

Meanwhile, the litter/debris category continues to be a problem. The 2019 statewide LOS score was 71, seven points lower than in 2018. It was the only high-priority activity that scored lower on the LOS survey than it did the year before.

Caltrans' LOS inspection teams evaluated about 20 percent of all state highways in every district other than District 12. There, 40 percent of roadways were evaluated due to the Orange County district's relatively small highway inventory.

Other parts of the SHS that fall outside the top 10 categories also were scrutinized. The teams also inspected all rest areas (81 statewide), vista points (113) and park-and-ride (239) sites. In every district, inspection teams evaluated landscaping alongside dozens of the one-mile roadway segments — 448 landscape segments statewide.

Ten to 20 percent of the segments evaluated by LOS teams were subsequently, and randomly, re-inspected by three quality assurance teams assigned to the southern, central and northern parts of the state. Those follow-up teams consisted of two retired Caltrans managers on special assignment. If there was a significant difference between the original and follow-up scores, the involved teams met and worked out the discrepancies.

Armed with the fresh roadway-health data collected by the LOS program, the Maintenance division used a software program to prioritize spending for the upcoming 2020-2021 fiscal year. The Budget Allocation Tool breaks down Maintenance spending not by 12 Caltrans regional districts, but by 29 “budget zones” determined by “like” challenges such as average daily traffic levels and climate so appropriate comparisons can be made. For example, budget zone “LoMt-1” takes in all of District 1 (North Coast), with relatively light traffic counts in a low-mountain climate. Districts 4 (San Francisco Bay Area) and 7 (Los Angeles area), meanwhile, are each divided into four budget zones according to climactic and traffic conditions.

**Source:** *Manuel Morales, Caltrans LOS Statewide Coordinator, Division of Maintenance.*

- [Director's Message](#)
- [Mile Markers](#)
- [Creating Safer Corridors](#)
- [Clean-Air Travel Options Expanding](#)
- [Caltrans, Partners Push More Inclusive Safety Plan](#)
- [Connecting the \(Data\) Dots](#)
- [Project Spotlight: Washed-Out Roads Isolate Town, Put Caltrans to the Test](#)
- [Caltrans Strives for Fairness, Inside and Out](#)
- Highway System Gets Good Marks on Report Card
- [Mileposts](#)
- [Most Project Timelines, Budgets Met](#)
- [Garbage a Growing Distraction for Caltrans](#)

## Statewide Campaigns

- ▶ [ADA Access](#)
- ▶ [Adopt-A-Highway](#)
- ▶ [Amber Alert](#)
- ▶ [Be Work Zone Alert](#)
- ▶ [CAL FIRE](#)
- ▶ [Clean California](#)
- ▶ [Energy Upgrade](#)
- ▶ [Go Safely California](#)
- ▶ [HeatReadyCA.com](#)
- ▶ [Move Over Law](#)
- ▶ [Cal OES: Power Outage and Fire Recovery Resources](#)
- ▶ [California Climate Investments](#)
- ▶ [California Connected](#)
- ▶ [California Transportation Plan 2050](#)
- ▶ [REAL ID](#)
- ▶ [Save Our Water](#)
- ▶ [Stormwater Education Campaign](#)
- ▶ [Tenant and Landlord Resources](#)
- ▶ [Unclaimed Property](#)

[Back to Top](#)

[Accessibility](#)

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## Mileposts



*The Mileposts section provides a summary of transportation issues affecting Caltrans*

### Reports Forecast Climate Change Impact on Highway System



Caltrans has completed the last of its

[Climate Change Vulnerability Assessments](#) for its 12 regional

districts. The reports released over the last two years are designed to provide the Department with a comprehensive database to evaluate, mitigate and adapt to the impact of increasing extreme weather events upon the state transportation system.

The final two reports cover Caltrans' coastal districts 1 (based in Eureka) and 5 (Salinas south to Santa



Increasing rainfall in some areas of California that causes flooding will impact the State Highway System, Caltrans climate studies predict.

Barbara). The climate effects examined include rising average temperatures, higher sea levels, storm surge, and precipitation. These in turn increase the incidence of flooding, drought, wildfires, coastal erosion and mudslides.

The completed assessments cover all 58 counties in the state, taking in 16 distinct climate zones. Caltrans is now integrating the findings into its planning process statewide.

Understanding these impacts helps Caltrans assess physical climate risk to the transportation system and work towards adapting highway infrastructure to be more resilient in harsher conditions.

The reports project that by the end of this century, if weather trends continue:

- Sea levels may rise as much as 5.5 feet along the California coast — affecting 130 miles of state highway by accelerating soil erosion and cliff retreat.
- Increased severity and frequency of wildfires could threaten more than 7,000 miles of state highway.
- High temperatures on the Central Coast and in the northwest part of the state could rise by 6 to 12 degrees, increasing drought and wildfire potential.

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## Ramp Deflectors Deter Wrong-Way Drivers, Study Finds

**MILE 2** A pilot program aimed at preventing rare but often deadly collisions involving wrong-way drivers found that one measure was so successful that it's been immediately implemented on state highways. Reflective markers are being installed on hundreds of miles of exit ramps to alert errant drivers they are entering the roadway in the wrong direction.



The This wrong-way warning sign is one of the new-generation devices used by Caltrans to reduce the chance of deadly mistakes made by drivers.

installation of two-way reflectors was one of the prevention measures tested in the [wrong-way](#) sponsored by Caltrans and the

[UC Davis Advanced Highway Maintenance and Construction Technology Research Center](#)

. In San Diego, the number of wrong way drivers decreased by 44 percent after the reflectors were installed.

During the pilot program, Caltrans installed and tested different ways to deter wrong-way drivers along exit ramps in Sacramento and San Diego, including:

- Two-way reflective pavement markers that show white or yellow to right way drivers, and red to wrong-way drivers;
- “Wrong Way” signs at the off-ramp;
- “Do Not Enter” signs equipped with LED lights flashing 24 hours a day; and
- Active monitoring systems that use radar to detect wrong way drivers. These systems activate a secondary set of LED signs when a wrong way driver enters the ramp and sends real-time alerts and photos to Caltrans and the California Highway Patrol.

Caltrans is installing reflective pavement markers on exit ramps as it performs maintenance or repaving.

The flashing LED signs showed promise at preventing wrong-way collisions, and Caltrans will continue to monitor their impact to determine whether to expand use at exit ramps across the state.

The pilot was developed following 10 wrong-way driver-related collisions on Sacramento and San Diego area freeways in the first six months of 2015.

Wrong-way collisions on divided highways in California are rare, accounting for about 1 percent of all crashes on the state highway system. But when they occur, they are often deadly. On average, 37 people are killed in wrong-way collisions each year on state highways.

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## Projects Clear Obstacles for Fish Migration at Highway Crossings



Caltrans continues to make progress improving access to habitat for threatened salmon and steelhead trout in waterways that cross the State Highway System. In its [fish passage report](#) on remediation efforts for those species, Caltrans said it removed or eased barriers at five fish passage locations in 2018, opening up an estimated 31 miles of salmon and steelhead habitat.

Caltrans is currently developing projects to remediate 27 active fish passage barriers, which are expected to improve access to an estimated 166 miles of salmon and steelhead habitat, the report said. Multi-agency committees that work with Caltrans on the issue have identified 68 salmon and steelhead barrier locations for priority remediation, with an estimated 374 miles of high-quality salmon and steelhead habitat lying beyond the existing barrier.

In 2018, Caltrans completed 167 assessments at road/stream crossings for fish passage. Of those 167 assessments, 14 were identified as new barriers, 85 were determined to be non-barriers and 68 locations are potential barriers, which need additional surveys.

Since the enactment of Senate Bill 857 in 2005, Caltrans has remediated a total of 47 locations where fish access was limited. Those measures are currently functioning as designed. The 47 locations have improved access to estimated 792 miles of salmon and steelhead habitat. This includes 10 full (permanent) remediations, which allow access to an estimated 197 miles of habitat and 37 partial/hydraulic remediation locations, which have opened up an estimated 595 miles of habitat.

During the past five years, Caltrans has improved coordination with the California Department of Fish and Wildlife, National Marine Fisheries Service, and other remediation partners to further fish passage barrier remediations in the state.

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## Caltrans Report Reviews Business Logo Signs on Highways



The state law that allows business logo signs along state routes in sparsely populated areas of California should be left intact, Caltrans is recommending. Caltrans submitted a [status report](#) on the business logo program to the Legislature earlier this year.



Highway signs that advertise businesses near exits should be allowed to remain, but not expand, Caltrans says.

Originally established in 1978, the program was initially limited to rural areas located along Interstate 5. It was intended to aid motorists in identifying the relatively few and far between services. Since then, the law has been modified to include all highways in the state, but with a 10,000 person population cap on the towns where businesses can participate. The only exceptions are the cities of Truckee along Interstate 80, and Lincoln on State Route 65 where each area's population grew past the 10,000-person limit.

Caltrans currently has 38 locations across the state where businesses pay to post their logos on freeway signs. These participating locations account for 236 individual business logos. The proceeds go into a highway safety fund.

Caltrans installs and maintains many more general services signs on state routes.

Because of the concern over visual sign congestion and driver distraction along state highways, Caltrans concluded, the program should not be allowed to expand. The Department has issued a moratorium on the removal of business logos pending a review of the policy with stakeholders.

- › [Director's Message](#)
- › [Mile Markers](#)
- › [Creating Safer Corridors](#)
- › [Clean-Air Travel Options Expanding](#)
- › [Caltrans, Partners Push More Inclusive Safety Plan](#)
- › [Connecting the \(Data\) Dots](#)
- › [Project Spotlight: Washed-Out Roads Isolate Town, Put Caltrans to the Test](#)
- › [Caltrans Strives for Fairness, Inside and Out](#)
- › [Highway System Gets Good Marks on Report Card](#)
- › [Mileposts](#)
- › [Most Project Timelines, Budgets Met](#)
- › [Garbage a Growing Distraction for Caltrans](#)
- › [COVID-19 Update](#)

## Statewide Campaigns

- › [ADA Access](#)
- › [Adopt-A-Highway](#)
- › [Amber Alert](#)
- › [Be Work Zone Alert](#)
- › [CAL FIRE](#)
- › [Clean California](#)
- › [Energy Upgrade](#)
- › [Go Safely California](#)
- › [HeatReadyCA.com](#)
- › [Move Over Law](#)
- › [Cal OES: Power Outage and Fire Recovery Resources](#)
- › [California Climate Investments](#)
- › [California Connected](#)
- › [California Transportation Plan 2050](#)
- › [REAL ID](#)
- › [Save Our Water](#)
- › [Stormwater Education Campaign](#)
- › [Tenant and Landlord Resources](#)
- › [Unclaimed Property](#)

[Back to Top](#)

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## Most Project Timelines, Budgets Met

### Highway Improvement Program Achieves 24 of 25 Delivery Milestones in 2018-19



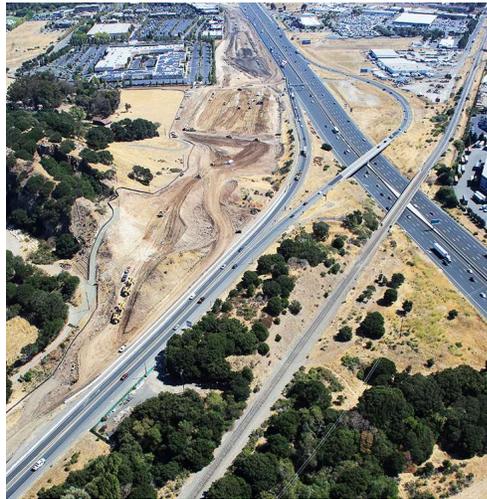
A new State Route 49 bridge was completed over the south fork of the American River

During the 2018-19 fiscal year, Caltrans chalked up a 96 percent on-time performance rate delivering state highway projects that receive funding from the [State Transportation Improvement Program](#) (STIP). All but one of 25 schedule milestones were met for the projects defined as costing more than \$1 million apiece and for which Caltrans is responsible for all development work.

Caltrans, through its Project Delivery division, completed construction on 23 STIP projects on the State Highway System in 2018-19, with total costs approximately \$34 million (3 percent) over the original allocation. All overruns were authorized through the change control process approved by the California Transportation Commission (CTC).

The STIP funds state highway, local road, non-motorized transportation, transit, and intercity rail improvements. The 2020 STIP makes available nearly \$2.6 billion over five years for local and state transportation projects. Caltrans' Division of Local Assistance works with regional planning agencies on applications for STIP transportation funding in those areas, and issues a separate report on project activities.

Caltrans  
awarded



An aerial view shows a new connector road built to link Interstate 80 in Fairfield to State Route 12. The project also reconstructed the I-80/Green Valley Road interchange.

construction contracts for six STIP projects on the State Highway System in 2018-19 valued at \$725 million. To get those projects developed, designed and delivered to construction, Caltrans spent \$100 million in staff time and expenses. This means that the support dollars needed to deliver those projects was 13.8 percent compared with the capital dollars required for construction. By statute, Caltrans is limited to a ratio of 20 percent or less when comparing the support dollars to deliver projects with the capital dollars required to build them.

An annual status report on the schedule and costs of Caltrans' capacity-enhancing State Highway System projects must be presented to the governor and Legislature by Nov. 15. The completed [2018-19 report](#) is available online.

During the previous fiscal year, in 2017-18, Caltrans met all eight of its schedule milestones, the actual costs of projects completed were less (by \$224 million, or 14 percent) than originally allocated by the CTC, and projects awarded construction achieved the 20-percent support-to-capital ratio goal.

Cost of State Transportation Improvement Program Project Development for Last Three Fiscal Years

Fiscal Year	Total Support (in thousands)	Total Capital (in thousands)	FY Support to Capital
2016-17	\$75,527	\$308,232	24.5%
2017-18	\$40,044	\$240,290	16.7%
2018-19	\$99,801	\$725,295	13.8%
Total	\$215,372	\$1,273,817	16.9%

The lone milestone that Caltrans did not meet in 2018-19 was the target date of June 17, 2019, for advertising

for construction a project in Tuolumne County on State Route 108. The reason given was the inability to secure a utility agreement for relocation of an electrical vault.

Under STIP guidelines, Caltrans is committed toward meeting six categories of schedule milestones for a project: commencement of the environmental process; commencement of the circulation of the draft environmental

documents; final approval of the environmental documents; commencement of work on the plans, specifications and estimates; project ready to advertise for construction; and project advertised for construction.

The average support-to-capital ratio for Caltrans' STIP projects delivered over the last three fiscal years is 16.9 percent.

Project delivery reports on other programs, such as State Highway Operation and Protection Program known as [SHOPP](#), the Department's main source of highway repair and rehabilitation funds, are provided to the California Transportation Commission and the Legislature.

**Source:** *Fiscal Year 2018-19 Project Delivery Report for the State Transportation Improvement Program.*

- › [Director's Message](#)
- › [Mile Markers](#)
- › [Creating Safer Corridors](#)
- › [Clean-Air Travel Options Expanding](#)
- › [Caltrans, Partners Push More Inclusive Safety Plan](#)
- › [Connecting the \(Data\) Dots](#)
- › [Project Spotlight: Washed-Out Roads Isolate Town, Put Caltrans to the Test](#)
- › [Caltrans Strives for Fairness, Inside and Out](#)
- › [Highway System Gets Good Marks on Report Card](#)
- › [Mileposts](#)
- › Most Project Timelines, Budgets Met
- › [Garbage a Growing Distraction for Caltrans](#)
- › [COVID-19 Update](#)

## Statewide Campaigns

- › [ADA Access](#)
- › [Adopt-A-Highway](#)
- › [Amber Alert](#)
- › [Be Work Zone Alert](#)
- › [CAL FIRE](#)
- › [Cal OES: Power Outage and Fire Recovery Resources](#)
- › [California Climate Investments](#)
- › [California Connected](#)
- › [California Transportation Plan 2050](#)
- › [Clean California](#)
- › [REAL ID](#)
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▶ [Tenant and Landlord Resources](#)

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[Back to Top](#)

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[Home](#) [Programs](#) [Public Affairs](#) [Mile Marker](#)[Mile Marker: A Caltrans Performance Report, Fall 2020](#)[Garbage a Growing Distraction for Caltrans](#)

## Garbage a Growing Distraction for Caltrans

Workers Spent 368,000 Hours Collecting 1.3 Million Bags' Worth in 2018-19



Caltrans is responsible for removing trash from along state roadways, a mammoth a Department tens of millions of dollars annually. Full-time Caltrans landscaping crews do this dirty work; veterans, parolees and Adopt-A-Highway volunteers also pitch in.

Don't Trash California — a plea that the public has seen and heard as part of a concerted anti-litter campaign for many years.

That message still hasn't gotten through to some, judging by the amount of roadside trash that Caltrans picks up.

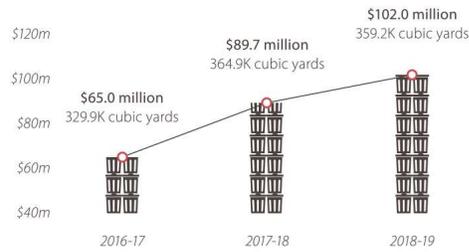
Keeping the State Highway System litter free is a costly and time-consuming endeavor. During fiscal year (FY) 2018-2019, Caltrans workers alone collected more than 186,000 cubic yards of litter on and along state highway areas.

How much is 186,000 cubic yards? Enough that if stacked one yard high and one yard wide, the line of garbage would extend for approximately 105 miles — from, for example, Santa Ana to Tijuana, or Roseville to San Francisco. It is the approximate equivalent of 1,302,000 bags of trash.

Volume is not the only way to measure how litter weighs down Caltrans. There are substantial expenses involved, too.

In the previous fiscal year that ended June 30, 2019, Caltrans spent more than \$102 million on litter and debris collection, a figure that does not include the ballooning costs affiliated with cleaning up the unsheltered encampments. (Those totals are still being compiled.) Expenditures included

## Caltrans' Financial Toll of Litter Removal



transportation to and from waste-pickup sites, materials (such as gloves, bags and retrieval tools) and time. In FY 2018-19, Caltrans workers logged about 368,000 hours collecting and disposing of roadside garbage.

How much is 368,000 hours? It is the equivalent to 192 people whose sole job is to scoop up and bag litter for 40 hours a week, 48 weeks a year. In that scenario, almost 1 percent of the Department's 20,000-plus workforce would be full-time trash collectors.

## Time taken away from other road maintenance



Caltrans' full-time landscape workers

If you bagged all the garbage that Caltrans crews collected last fiscal year and put them side by side, the line would extend for 105 miles.

increasingly have devoted a large amount of on-the-clock time to litter removal. That means they have less time to perform important duties such as irrigation operations and vegetation control along roadways and on median strips.

Litter's total financial toll on Caltrans has risen steadily, from \$65 million in 2016-2017 (when more than 329,930 cubic yards of garbage were collected) to \$89.7 million in 2017-2018 (364,917 cubic yards) to more than \$102 million in 2018-2019 (359,154 cubic yards). That represents a 21.9 percent cost increase over those three years.

Why is it that although less trash was collected in 2018-2019 than during the fiscal year before, related expenses rose \$12.3 million? There are several explanations, including that the cost per cubic yard of encampment litter cleanups is greater than regular litter pickup due to the extra costs associated to requiring hazardous material removal contracts and support from other agencies. Also, there are extra expenses involved when there are emergency orders executed to handle encampments.

Caltrans also oversees two trash pickup programs not staffed by employees. Volunteers with the [Adopt-A-Highway Program](#) , and those who work with the Special People Program (SPP) bagged 172,537 cubic yards of trash in 2018-19, and more than 160,000 cubic yards in each of the two previous fiscal years. More than 120,000 Californians have cleaned and enhanced over 15,000 shoulder-miles of roadside since the inception of the Adopt-A-Highway Program in 1989.

The SPP focuses on at-risk parolees and veterans and provides training and life skills to reintegrate these persons back into society, while Caltrans receives the benefit of their help keeping roadsides clean. This program has grown from eight crews (eight persons per crew) from 2009 to 2016, to 55 crews in 2018-2019. In turn, costs have also increased from \$6.7 million to \$27.2 million during that same time.

Those two programs' costs are part of the \$102 million-plus that Caltrans spent on litter removal in the last fiscal year.



Where does all the trash come from? Not just from motorists tossing things out of windows. Trucks' unsecured loads are a big source, too.

## Garbage flows, floats downstream

Not only is litter unsightly, but much of it eventually winds up in waterways used for household consumption and recreation. Rain and wind can carry trash and tainted materials such as cigarette butts from roadways into storm drain systems, which then flows to streams, rivers and lakes — and eventually to bays and the ocean.

The sources of all the trash are many. Yes, garbage is thoughtlessly tossed out of car windows or dumped in vacated spots. However, most of the litter comes from loads that are improperly tarped or tied down.

The California Highway Patrol is responsible for enforcing anti-littering laws along the State Highway System and can issue violation citations that start at \$250, depending on the location.

Caltrans is committed to reduce pollution in the communities it serves, one of the key goals of its 2015-2020 Strategic Management Plan. As the Department finalizes its next strategic plan, it continues to look for innovative ways to make California's roadways tidier and less burdensome on Caltrans' finite resources.

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## Caltrans Tackles Trash Capture with Renewed Strategies

Throughout the state, trash generated on land is carried during rainy periods to waterways such as rivers, lakes, and oceans. Caltrans is conducting statewide trash reduction efforts to meet the requirements of the Caltrans stormwater permit issued by the State Water Resources Control Board. The public traveling on the State Highway System have an important role to preserve California's valuable water resources by doing their part not to litter.

Timely implementation of trash control measures is a priority for Caltrans in all high trash-generating land uses near the state highway system — high-density residential, commercial and industrial areas, as well as rest areas and park-and-ride zones.

Caltrans has undertaken critical steps to reduce trash throughout the state. They include:

### Innovative Trash Capture Devices



Caltrans has worked diligently to install trash capture devices, seeing through the process that includes product

This Gross Solids Removal Device captures debris carried by water, which then flows back into the drainage system. The solid matter is then collected for disposal.

development and effectiveness monitoring. Engineers now deploy additional trash control tools when working on construction projects, utilizing new treatment opportunities and modifying existing drainage features.

One example is an end-of-pipe full trash capture net designed to remove trash from stormwater runoff flowing in a drainage system. These devices are easily installed in Caltrans' right of way and are highly effective at collecting trash that enters the drainage system and is carried into the net. The nets are replaced once a year, and collected trash is disposed of appropriately.



Promising new trash-capture devices that can be retrofitted to existing

Trash capture nets attached to the end of drain pipes are an inexpensive and highly effective way to contain garbage.

infrastructure are being developed, providing additional low-cost tools that meet full trash capture compliance.

The Gross Solids Removal Device is another example of an approved treatment practice that has been certified by the state water board as meeting full trash capture requirements. Stormwater runoff enters a pipe or cage where waste solids (or trash) are captured. The screened water then runs out of the pipe or cage into a shallow concrete vault and is routed back into the drainage system.

#### Public Education

In 2000, Caltrans conducted a successful public education campaign, “Don’t Trash California,” to reduce the rate of littering within the state. The Department later expanded the program and initiated a statewide, multimedia bilingual campaign to educate the public on the importance of keeping pollutants out of the storm drain system. The “Protect Every Drop” program emphasized the importance of activities and behaviors that can reduce pollutants in stormwater runoff. A new stormwater education campaign that will continue the research, public education, and advertising efforts is being developed.

On another front, Caltrans regional districts across the state hosted another successful litter day event in June to educate the public about the importance of keeping roads clean. Littering is not only illegal, but pollutes California’s waterways and puts Caltrans maintenance crews at risk when having to work alongside the freeway to remove trash.

#### Agency Partnerships

Agencies such as Caltrans, California Highway Patrol, local municipalities, and state and regional boards have committed resources toward trash prevention by sharing ideas for solutions leading to improved trash source control. Caltrans continues to work with CHP to explore ways to reduce trash along the freeway system through increased and more effective enforcement of existing littering laws. Last year, CHP officers issued more than 3,100 citations for littering, and roughly one-third of those violations involved someone throwing out a lit cigarette.

Caltrans partners with local municipalities by providing funding for local projects that can treat large areas. These coordinated efforts remove harmful pollutants and trash from stormwater with the goal of restoring water quality in vulnerable areas.

**Sources:** *Kenneth H. Johansson, Acting Stormwater Coordinator, Division of Environmental Analysis; Kenneth Murray, Senior Landscape Architect; Jason Probst, Staff Services Manager I; and Andrew Morse, Statewide Litter Abatement Coordinator, Caltrans Division of Maintenance.*

- › [Director's Message](#)
- › [Mile Markers](#)
- › [Creating Safer Corridors](#)
- › [Clean-Air Travel Options Expanding](#)
- › [Caltrans, Partners Push More Inclusive Safety Plan](#)
- › [Connecting the \(Data\) Dots](#)
- › [Project Spotlight: Washed-Out Roads Isolate Town, Put Caltrans to the Test](#)
- › [Caltrans Strives for Fairness, Inside and Out](#)
- › [Highway System Gets Good Marks on Report Card](#)
- › [Mileposts](#)
- › [Most Project Timelines, Budgets Met](#)
- › Garbage a Growing Distraction for Caltrans
- › [COVID-19 Update](#)

## Statewide Campaigns

- › [ADA Access](#)
- › [Adopt-A-Highway](#)
- › [Amber Alert](#)
- › [Be Work Zone Alert](#)
- › [CAL FIRE](#)
- › [Cal OES: Power Outage and Fire Recovery Resources](#)
- › [California Climate Investments](#)
- › [California Connected](#)
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- ▶ [Stormwater Education Campaign](#)
- ▶ [Tenant and Landlord Resources](#)
- ▶ [Unclaimed Property](#)

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## As Pandemic Persists, Caltrans Adapts

With Safety at the Forefront, New Procedures Help Get Work Done



Maintenance worker Shaun Mason wipes down frequently-touched surfaces on a Cali

Caltrans has continued to adapt its highway and administrative operations in response to the COVID-19 pandemic.

Due to the stay-at-home directive and related slowdowns in commuting and traveling, mid-April weekday traffic on state highways in California averaged 40 percent lower than the same period a year before. Caltrans' **Project Delivery division** took advantage of that drop to move up the start date of major projects, and adjusted and extended construction work windows to complete more work in less time. In cases where contractors changed from night work to daytime shifts, work windows grew as much as four hours each day.

Among the biggest projects launched earlier was the bridge replacement of U.S. Highway 101 at San Francisco's Alemany Circle. Scheduled to start in July and take 18 days, the work instead began in late April and was completed in nine days. Not only did the accelerated work ease the negative impact on commuters, it lessened the amount of time nearby residents were subjected to construction noise.

Similarly, the North Coast Corridor project on Interstate 5 in Encinitas in San Diego County moved up two 55-hour weekend closures, which minimized impact to travelers.

The Interstate 5 carpool lane project in Los Angeles benefited from the expansion of work windows. Rather than sticking with Plan A — 30 closures of four hours each for six weeks to demolish the Burbank Boulevard overcrossing — the bridge was taken down over one weekend in late April.

As of late August, Caltrans had contractors working on 804 active construction projects around the state with a value of \$10.4 billion.

Traffic volume has rebounded considerably from April levels, when Caltrans was able to tackle the Alemany and Burbank projects so efficiently. Traffic in August was measured by Caltrans to be about 15 percent lower than the same period the year before.

As coronavirus restrictions continue, the Department's **Division of Maintenance** has focused on keeping its staff safe while they do their jobs.

Caltrans signed 13 contracts — one in every regional district plus a second one in sprawling District 8 (Riverside and San Bernardino counties) — worth a total of \$2.3 million to disinfect 312 maintenance stations, 16 warehouses and 27 equipment shop facilities.

To  
further  
protect



Caltrans resumed roadside trash collection operations in June after a suspension of those programs to protect workers.

employees, the Maintenance division suspended litter-removal efforts for much of the spring. That pause also extended to Caltrans' Adopt-A-Highway volunteer program and other trash collection groups.

Caltrans signaled it was resuming litter operations when it conducted a Litter Day Media Event on June 1 in Sacramento.

Maintenance personnel were able to complete an annual task, the Level of Service (LOS) evaluations on key state highway system components, by the end of July due to reduced congestion. In a normal year, LOS evaluations are conducted from March through August.

The division's warehouse is keeping Caltrans workers supplied with cloth face coverings, N-95 masks, hand sanitizer, nitrile gloves and disinfectants.

Meanwhile, the **Division of Equipment** pilot-tested handheld foggers and sprayers that use a low-toxicity chemical to kill germs. Those approved devices are now used to disinfect equipment used in Maintenance division operations.

Caltrans' **Division of Rail and Mass Transportation** (DRMT) is administering \$95 million from the recent federal stimulus package to go to rural transit operators throughout California.

Funds from the \$2.2 billion Coronavirus Aid, Relief, and Economic Security Act have provided about three times the level of funding that is distributed through the rural transit program in an average year. The stimulus money was desperately needed by those operators because of the loss of almost all other revenue sources since mid-March. Buses, light-rail and public transit services have seen drastic reductions in ridership, but had to maintain service levels since many still rely on public transportation for work or personal travel.

In partnership with the Federal Transit Administration (FTA), DRMT is working to allow smaller public-transit operators to use their vehicles and drivers to perform duties outside of the normal transit operations, such as delivering meals to homebound persons. DRMT also has teamed with the FTA to distribute face masks to the small and rural transit operators with 40 or fewer employees.

In the spring, Caltrans' **Division of Traffic Operations** introduced an emergency program to allow food truck operators to set up business in roadside rest areas, providing travelers the opportunity to buy hot meals. However, the program ended in August after food-truck operators said that business was not that profitable anymore. During the last week of this temporary program, there were 13 active permits issued to eight food truck operators to serve 11 rest areas.

Caltrans took another step to respond to the pandemic in April when it raised highway weight limits from 80,000 to 88,000 pounds for trucks carrying essential goods such as medical supplies and food. There were 103 permits issued before the program ended in July.

The Department continues to aid people experiencing homelessness by setting up portable toilets and handwashing stations.

**Sources:** *Caltrans Divisions of Project Delivery, Maintenance, Rail and Mass Transportation; Traffic Operations.*

- [Director's Message](#)
- [Mile Markers](#)
- [Creating Safer Corridors](#)
- [Clean-Air Travel Options Expanding](#)
- [Caltrans, Partners Push More Inclusive Safety Plan](#)
- [Connecting the \(Data\) Dots](#)
- [Project Spotlight: Washed-Out Roads Isolate Town, Put Caltrans to the Test](#)
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- [Highway System Gets Good Marks on Report Card](#)
- [Mileposts](#)

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- › [Garbage a Growing Distraction for Caltrans](#)
- › [COVID-19 Update](#)

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