

Safe on 17 2019 Annual Report

January 1, 2019 to December 31, 2019



HIGHWAY 17 SAFETY CORRIDOR



METROPOLITAN
TRANSPORTATION
COMMISSION



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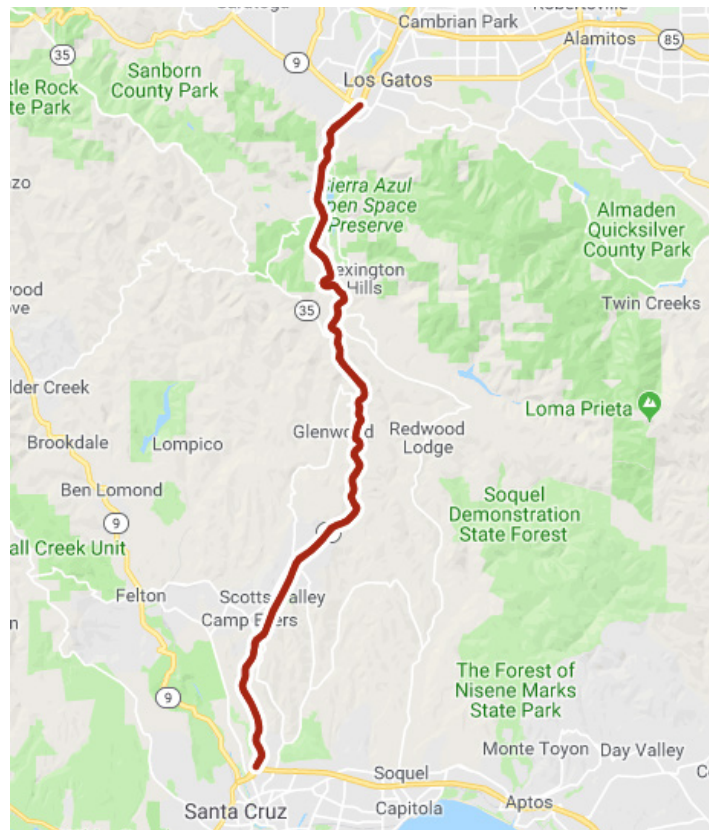
INTRODUCTION

High collision rates on Highway 17 precipitated the formation of the Safe on 17 Task Force in 1999. The task force was convened to identify conditions and behaviors contributing to collisions on the corridor and to recommend and implement solutions. The task force drew from a broad set of disciplines to assemble strategies that would reduce the high collision rate. Strategies included enhanced enforcement, engineering (capital improvements), signing and striping, public education and awareness.

The present goal of the Safe on 17 Program is to maintain the reduced collision rate average achieved during the 36-month period funded by an Office of Traffic Safety (OTS) grant (1999-2002) using a combination of the original recommendations made by the task force. Engineering improvements, enhanced CHP enforcement tactics, public outreach about motorist safety, and a traffic operations system all contribute to improving safety on Highway 17.

The task force collects data to measure the outcome of these efforts, benchmark progress and monitor where additional improvements may be needed. Typically, safety corridor designations expire after a few years. However, the segment of Highway 17 between Highway 1/17 interchange in Santa Cruz County and Highway 9/17 interchange in Santa Clara County (Figure 1) has maintained its safety corridor designation for 20 years.

Figure 1: Highway Safety Corridor



Funding for extra CHP enforcement has been provided by the Santa Cruz County Regional Transportation Commission Service Authority for Freeway Emergencies (RTC SAFE) and the Metropolitan Transportation Commission Service Authority for Freeways and Expressways (MTC SAFE) in the combined amount of \$100,000 per year since 2002. In May 2019, the RTC SAFE approved \$50,000 annually in Measure D funds to augment \$50,000 in annual SAFE funds for additional CHP enforcement on Highway 17 in Santa Cruz County and to cover inflationary cost increases in hourly rates. CHP enforcement hourly rates have increased more than 65% since the RTC started providing SAFE funds in 2002.

Caltrans continued to make capital improvements on Highway 17 throughout 2019. Highway 17 from Scotts Valley to the county line was repaved and high friction surface treatments were applied at various locations, crews constructed a retaining wall near Pasatiempo overcrossing, and storm water

improvements were completed. Caltrans with Santa Clara County Fire Safe Council and CalFire began the shaded relief project to clear dry brush and vegetation along Highway 17 from Los Gatos to Santa Cruz/Santa Clara county line. Caltrans also expedited a project for traffic safety improvements on Highway 17 between Alma Bridge Road and the Santa Cruz/Santa Clara county line. All of these projects were implemented with the intent to improve traffic safety and reduce the number of collisions on Highway 17.

2019 Highway 17 Summary of Facts

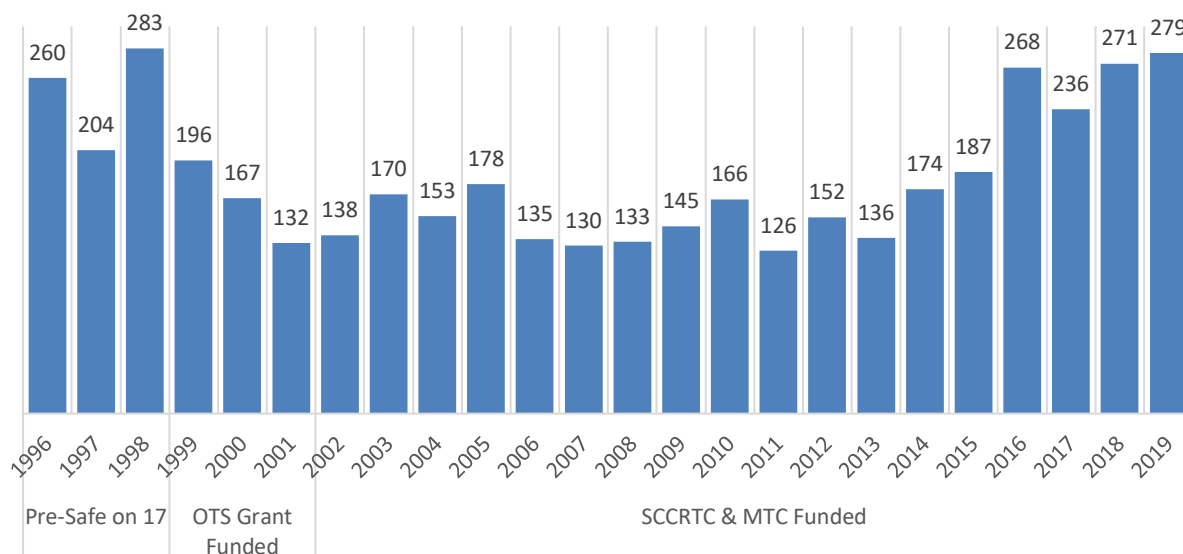
- There were 839 total collisions on Highway 17.
- There were 4 fatal collisions and 275 injury collisions.
- Injury collisions occurred most frequently in January.
- CHP issued 1,284 overtime citations and logged 1,186 overtime hours.
- SCCRTC increased funding for extra CHP enforcement in Santa Cruz County with Measure D funds

COLLISIONS

In 2019, there were 839 collisions reported on Highway 17 between Highway 9 in Los Gatos and Highway 1 in Santa Cruz. There were 4 fatal collisions, 275 injury collisions, and 560 property-damage-only collisions. In Santa Cruz County, 30% of all collisions (130 out of 439 collisions) were injury or fatal collisions. In Santa Clara County, more than 37% of all collisions (149 out of 400) were injury or fatal collisions. Three of the four fatal collisions occurred in Santa Clara County. [Attachment 1](#) lists collision data for Highway 17 for Santa Cruz and Santa Clara County from 1996 – 2019.

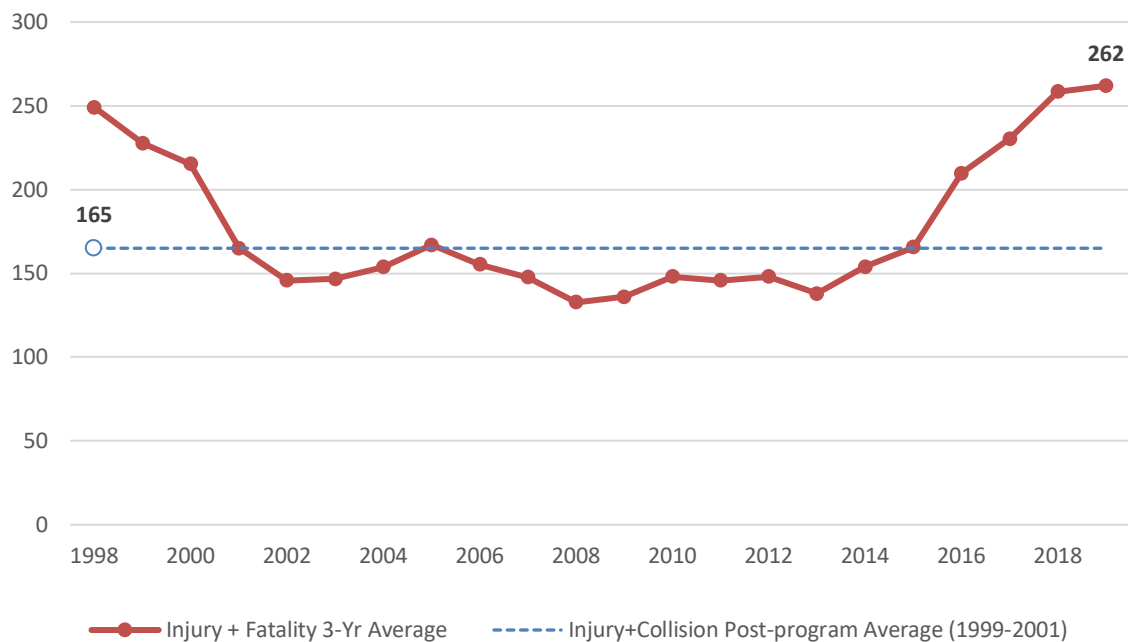
Figure 2 shows the annual injury and fatal collision data between 1996 and 2019. Injury and fatal collisions have increased an average of 12% annually since 2014 and such collisions reached a program high in 2019, with 279 collisions. In contrast, the 3-year average for injury and fatal collisions prior to the Safe on 17 Task Force was 249. Prior to 2016, there was a fairly consistent trend in the number of fatal and injury collisions staying significantly below the pre-program period.

Figure 2: Annual Injury & Fatal Collisions (1996 – 2019)



The Task Force has a goal to maintain the reduced three-year collision rate average achieved during the OTS grant period of 165 injury and fatal collisions. The latest 3-year average (2017-2019) for fatal and injury collisions is 262, which exceeds the Task Force goal by 45%. Figure 3 shows the 3-year injury and fatal collision average between 1998 and 2019 and the substantial increase that takes place from 2014 - 2019.

Figure 3: 3 Year Average Injury + Fatal Collisions (1998 – 2019)



The increase in collisions on Highway 17 over the last five years can be attributed to a combination of factors. Speeding, tailgating and unsafe lane changes (also called primary collision factors) are considered to be the most frequent factors leading to collisions, but distracted driving has significantly impacted road safety. Since the Safe on 17 program began in the late 1990's a number of developments have increased driver distraction.

These include:

- Significantly increased cellular phone usage
- Proliferation of text messaging, over cellular phones
- Availability of smart phones with access to email, social media, and many other functions
- Usage of real-time navigation systems through a variety of devices

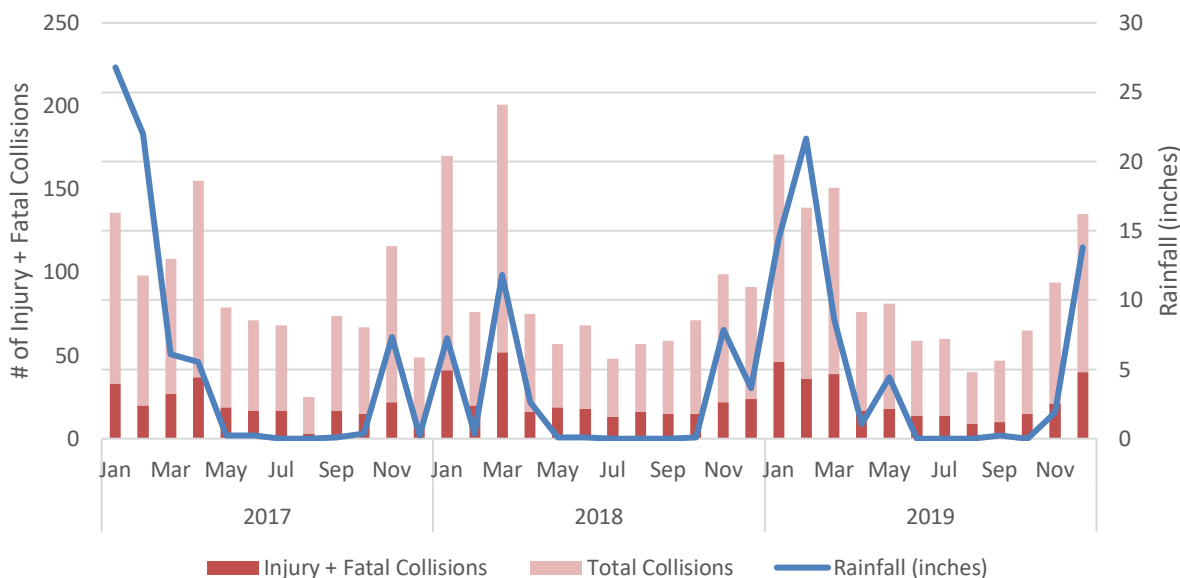
Due to the proven negative impacts of these additional driver distractions, laws have been passed and campaigns have been waged to curtail their effect on collisions, yet many people continue to drive under the influence of these distractions. These additional factors may be some of the reasons for the increased collision rate on Highway 17 in 2019.

External factors may also influence the total number of collisions. Wet weather is considered to increase traffic collisions due to slippery pavement and decreased visibility of the roadway. Increased injury and fatal collisions tend to coincide with wet weather. The total annual rainfall on Highway 17 was 66.12 inches in 2019, with the heaviest rainfall in January, February, and December 2019. Similarly, injury and fatal collisions were highest in January, February, and December 2019. Figure 4 shows the aggregate rainfall near Redwood Estates¹ plotted with the combined injury and fatal collision data for 2017-2019.

¹ Global Historical Climatology Network (GHCN)-Daily database at the Los Gatos weather station.

Annual rainfall was 33.84 inches in 2018 and 68.81 inches in 2017. Average annual rainfall near Redwood Estates is 46.4 inches. In addition, the average annual rainfall over the past four years (2016 through 2019) was 55.8 inches and collisions have increased significantly over that period. For the previous four years (2012 through 2015) average annual rainfall was 30 inches.

Figure 4: Monthly Rainfall and Collisions on Highway 17



Attachment 2 compares rainfall and collisions data by quarter and year from 2011 – 2019. There appears to be a correlation between the amount of rainfall and the number of collisions on Highway 17. The amount of rainfall the past three years has been significantly higher than the amount of rainfall in prior years and likewise the number of collisions has also been significantly higher.

Traffic conditions are also contributing factors to traffic collisions and can be assessed by measuring traffic volumes such as the average annual daily traffic (AADT). Caltrans estimates traffic volumes on Highway 17 at the Santa Cruz/Santa Clara County line at 66,200 daily trips (2018). Traffic volumes on Highway 17 have increased year over year since 2013 and may be a factor in the increased number of collisions on Highway 17. As the economy becomes stronger, more people are driving “over the hill” on Highway 17 to get to jobs in the Bay Area.

California’s basic speed law reminds us that as drivers, we are all responsible to drive in a manner that is reasonable and prudent with regard for weather, visibility, traffic, surface and width of the highway and that does not endanger the safety of people or property (CA Vehicle Code 22350). Part of the messaging provided by the CHP, the RTC, Caltrans and others includes reminding motorists to adjust driving habits during inclement weather.

CHP ENFORCEMENT

Additional CHP enforcement is an essential element of the Safe on 17 Program. CHP officers have an increased presence throughout the Highway 17 Safety Corridor which prevents collision causing behavior in two ways. First, high CHP visibility on Highway 17 serves to encourage safer driving and

deter traffic violations. Second, increasing the number of citations is a mechanism for encouraging motorists to adhere to the rules of the road. The Santa Cruz and San Jose CHP offer a list of overtime opportunities to their officers, which makes-up the extra enforcement on Highway 17.

The number of enforcement hours per month is dependent upon CHP staffing levels, competing overtime opportunities, and training requirements. The CHP enforcement hourly rates have increased more than 65% since the RTC started providing SAFE funds in 2002 and in 2019, the RTC SAFE approved an additional \$50,000 annually in Measure D funds to augment the \$50,000 in annual SAFE funds for extra CHP enforcement and to cover inflationary cost increases in CHP hourly rates.

CHP provided 1,186 hours of extra CHP enforcement on Highway 17 in 2019 (Table 1), using \$130,479 from allocated funds. More than half of overtime hours used were between February – May 2019. [Attachment 3](#) summarizes extra CHP enforcement hours worked by month since 2005.

Table 1: Annual Extra CHP Enforcement Hours Worked & Safe on 17 Funds Used

Year	San Jose CHP		Santa Cruz CHP		Total Extra Enforcement Hours	Total Funds Used	Average Hourly Rate
	Extra Enforcement Hours	Funds Used	Extra Enforcement Hours	Funds Used			
2003	490	\$31,197	850	\$47,913	1,340	\$79,110	\$59.04
2004	610	\$38,129	709	\$45,728	1,319	\$83,857	\$63.58
2005	601	\$39,495	730	\$49,631	1,331	\$89,126	\$66.96
2006	680	\$51,590 ¹	636	\$47,858	1,316	\$99,448	\$75.57
2007	909	\$76,953 ¹	565	\$49,738	1,474	\$126,691	\$85.95
2008	706	\$61,652 ¹	737	\$68,023 ¹	1,443	\$129,675	\$89.86
2009	591	\$47,651	399	\$36,709	990	\$84,360	\$85.21
2010	22	\$1,842	308	\$27,224	330	\$29,066	\$88.08
2011	828	\$65,970 ²	705	\$55,047	1,533	\$121,017	\$78.94
2012	576	\$45,072	681	\$54,045 ³	1,257	\$99,117	\$78.85
2013	340	\$30,849	812	\$70,152 ³	1,152	\$101,001	\$87.67
2014	852	\$72,886 ²	643	\$58,822 ³	1,495	\$131,708	\$88.10
2015	437	\$40,739	399	\$39,400	836	\$80,139	\$95.86
2016	445	\$43,129	635	\$59,163	1,080	\$102,292	\$94.71
2017	640	\$61,574	266	\$26,648	906	\$88,222	\$97.38
2018	289	\$29,905	371	\$39,491	660	\$69,397	\$105.15
2019	545	\$60,952	641	\$69,527	1,186	\$130,479	\$110.01

¹ Between 2006 and 2009, CHP was permitted to carryover funds not spent during the prior years to the current year, thus resulting in more than \$50,000 expended in services in some years. A new contract was initiated in 2009 with CHP and no unspent funds were carried over into the new contract, thus limiting expenditures in 2009 to \$50,000 per year for Santa Cruz and San Jose CHP.

² The RTC provides funds on a fiscal year basis and thus amounts may be higher than \$50,000 when summed on a calendar year as reported here.

³ Santa Cruz CHP was permitted to carryover any unspent funds to future years.

The CHP continuously seeks grant funding opportunities to provide as much additional enforcement as possible. CHP is committed to working to improve safety on this vital link “over the hill” for commuters and visitors alike.

Overtime Citations

During extra CHP enforcement hours on Highway 17, officers focus on preventing behavior that is known to be a primary collision factor (PCF) such as speeding, tailgating or making unsafe lane changes. These focused efforts help achieve the Safe on 17 Program goal of limiting the number of injury and fatal collisions.

In 2019, CHP issued 1,284 citations (Table 2) during 1,186 officer overtime hours. Most citations were issued in March and April when weather and road conditions improved. CHP issues fewer citations during wet weather, instead focusing extra enforcement hours maintaining flow of traffic, responding to multiple traffic collisions, rock/mud slides, and other traffic hazards.

Table 2: 2019 Overtime Citations on Highway 17

	<i>Citation Type</i>			<i>Total</i>	<i>Citations by County</i>	
	PCF	Other	Mechanical		Santa Clara	Santa Cruz
Jan	45	35	21	101	41	60
Feb	14	80	3	97	92	5
Mar	38	132	88	258	220	38
Apr	64	133	48	245	180	65
May	67	68	11	146	83	63
Jun	46	9	1	56	10	46
Jul	38	0	3	41	0	41
Aug	32	0	1	33	0	33
Sep	77	0	10	87	0	87
Oct	6	35	42	83	83	0
Nov	2	23	15	40	40	0
Dec	4	26	67	97	97	0
Total	443	541	310	1,284	846	438

In previous years, CHP provided the total number of citations issued on Highway 17 during regular enforcement hours and citations issued during “Safe on 17” overtime. Due to a recent change in reporting software, CHP was unable to provide regular citation data for the Highway 17 Safety Corridor

for all of 2019. Attachment 4 provides a summary of annual total overtime and regular time citations since 2003, with partial data for 2019.

CHP DATA REPORTING

As required, the Santa Cruz area and San Jose area CHP offices have been providing monthly collision and citation data since the Program's initiation. The data is important for monitoring program effectiveness. Attachment 5 provides collision and citation summary tables from 1998 – 2019 for Santa Cruz and Santa Clara County.

SAFE ON 17 TASK FORCE MEETINGS

The Safe on 17 Task Force is comprised of representatives from the San Jose and Santa Cruz area CHP, Caltrans Districts 4 and 5, MTC SAFE, RTC SAFE, local legislators' offices, local media, trucking industry, local police and fire departments. There were two meetings in 2019 – March 20th hosted by CHP in their San Jose office and September 18th hosted by SCCRTC in Santa Cruz. Meetings notifications and materials were emailed to interested parties at least 3 days prior to meetings and published to the SCCRTC Safe on 17 meetings agenda webpage (<https://sccrtc.org/meetings/tos-safe-on-17/meetings/>). Meetings are open to the public and community members are encouraged to attend.

In 2019, the Task Force discussed the outcomes of the CHP's extra enforcement efforts, provided input on current Caltrans' Highway 17 projects and maintenance activities, and provided input on potential Highway 17 improvements. In addition, the Task Force routinely discusses issues related to the handling of incidents on this unique multi-jurisdictional corridor, opportunities for agency coordination, public education related to motorist safety, and Freeway Service Patrol Program activities.

Like in previous years, Safe on 17 meetings are combined with RTC Traffic Operation Systems Oversight Committee meetings. There is a significant overlap in membership in these committees and subject matter. Traffic operation systems elements such as closed-circuit television cameras and changeable message signs can be tools for enhancing safety on the Highway 17 corridor and require coordination between the separate CHP and Caltrans jurisdictions covering the Highway 17 safety corridor.

PUBLIC INFORMATION

RTC SAFE, MTC SAFE, CHP and Caltrans continued to provide information to the public about driving safely on Highway 17 in 2019. CHP included information about safe driving on Highway 17 at CHP sponsored events, including new driver education programs held at high schools and motorcycle and community events. RTC SAFE and CHP also reminded the public about safe driving on Highway 17 on social media, on the Cruz511.org traveler information website, during regular interviews, and when reporting to the media about Highway 17.

In addition, CHP Santa Cruz hosted a number of "Start Smart" informational workshops for teen drivers, or soon to be drivers and their parents and "Age Well, Drive Smart" information workshops for senior drivers. The public was also reminded to drive safely with reminders posted on changeable message signs (CMS) located along Highway 17 near Los Gatos and at Santa Cruz/Santa Clara county line, such as "Click it or Ticket", "Slippery Roadway Reduce Speed", "Share the Road Look Twice for Motorcyclists"

and “Hands Free It’s the Law” were frequently posted messages. The Santa Clara County Fire Department (SCCFD) revitalized its “Safe on 17” safety campaign with videos about the dangers of distracted driving, tips for driving in inclement weather, secondary accidents, and first responder safety. The videos are available to view online at <https://www.sccfd.org/education-and-preparedness-overview/emergency-preparedness/safe-on-17>. SCCFD distributed “Safe on 17” reflective decals (Figure 5) to all fire apparatus that respond on the Highway 17 corridor and provided decals to other agencies in the Safe on 17 Task Force.

Figure 5: SCCFD produced Safe on 17 reflective decal



In response to the increase in collisions on Highway 17, RTC, CHP and Caltrans increased efforts to inform and educate the public on driving safely on Highway 17. Cruz511 traveler information, changeable message signs and social media are also used to get the message out about the dangers of speeding, distracted driving and other potential driving hazards.

HIGHWAY SAFETY IMPROVEMENTS

Caltrans has a comprehensive process for evaluating and constructing the projects that provide the greatest benefit to the motoring public. In 2019, Caltrans continued to make improvements to Highway 17 to improve safety with the following projects:

Highway 17 Shoulder Widening and Concrete Guardrail

The Highway 17 project north of Scotts Valley (between Sugarloaf and Laurel Rd) to widen the shoulder and install a concrete guardrail began in 2016. Wider shoulders allow motorists to have more room to correct themselves if they veer off the road. Wider shoulders can also provide a place for vehicles to pull off the road in an emergency and increase visibility around a curve. This project was completed in February 2019.

Highway 17 Storm Water Mitigation Project

This project located between the Hwy 1/17 interchange and Sims Road to conduct multiple storm water improvements began in 2017 and major construction was completed in 2019. Erosion control and vegetation establishment continued through May 2019.

Highway 17 Pasatiempo Shoulder Widening

This project located south of Pasatiempo overcrossing to widen the shoulder and install a soil nail wall began in April 2019 and is scheduled for substantial completion by Summer 2020. Construction on the retaining wall began in late October 2019 and was in winter suspension as of May 2020.

Highway 17 Maintenance Pavement Overlay

This project located just north of the Granite Creek Road over-crossing in Scotts Valley to the Santa Cruz/Santa Clara county line to repave the roadway began in April 2019 starting with southbound lanes. Construction is underway and is scheduled to be completed in Spring of 2020.

SR-17 Shaded Fuel Break Project

This project located between Main Street bridge in Los Gatos and Summit Road overpass to reduce fire risk in vulnerable communities began in August 2019. Santa Clara County Fire Safe Council oversees the project with Cal FIRE and Caltrans. Traffic is impacted when shoulder and lane closures are necessary to perform roadside vegetation clearing and tree removal work safely. The project team minimizes traffic impacts whenever possible on local and regional travel and provides weekly updates to residents and highway drivers. Fuel removal continues into 2020 and updates are available on the project website at <https://firesafe17.com>. The SR-17 Shaded Fuel Break Midpoint Project report is provided in Attachment 6.

Highway 17 Wildlife Habitat Crossing

This project located between Laurel Road to just north of Laurel Road to construct a wildlife undercrossing is currently in design and on schedule for construction in 2020.

Highway 17 Traffic Safety Improvements

In March 2019, Caltrans announced an expedited traffic safety project on Highway 17 from Santa Cruz County line to Alma College Road in Los Gatos with construction to begin in January 2021 and anticipated to be completed by October 2021 (Attachment 7). Improvements include vegetation control, pavement restoration in both directions, speed feedback signs, curve ahead warning signs with flashing beacons in both directions, an electronic message sign in the northbound direction, enhanced striping and right edge line rumble strips, safety lighting, overhead warning signs with flashing beacons, guardrail systems and channelizers, or flexible retroreflective devices to discourage drivers from crossing road lines.

In addition to the projects described above, Caltrans has spent tens of millions of dollars on a variety of safety improving projects over the years of the Safe on 17 Task Force, including installing a median barrier at Laurel Curve and guardrails at Santa's Village Road, constructing a retaining wall at the Summit, upgrading draining systems and resurfacing pavement throughout the corridor, and widening the highway shoulder at various locations. Attachment 8 summarizes the latest Highway 17 project developments in Santa Cruz County.

CONCLUSION

There were 4 fatal and 275 injury collisions on Highway 17 during 2019. The 2017-2019 annual average for injury and fatal collisions is 262, which does not meet the goal of maintaining the reduced injury and fatal collisions (165) experienced during the initial Office of Traffic Safety grant period (1999-2002). A

number of factors likely contributed towards the increase in the number of collisions in 2019 including higher than normal rainfall, distracted driving, and increased traffic volumes. Doubling the amount of funding for extra CHP enforcement by the RTC using Measure D funds will significantly increase the number of extra CHP enforcement hours to help reduce collisions towards the program goal. RTC will work with MTC SAFE to also increase the funding for extra CHP enforcement on the Santa Clara County side. RTC staff will also work with the Safe on 17 Task Force to focus efforts around wet weather and distracted driving.

Caltrans continues to implement safety improvements aimed at reducing wet weather and run-off-road collisions through high friction surface treatments, guardrail upgrades and shoulder widening projects. Through public education, primarily CHP Start Smart events, and Caltrans signs (both static and changeable message signs), motorists are informed to “Take it Slow” on Highway 17. Extra CHP enforcement also provides a powerful disincentive to motorists to stop behaviors that cause collisions such as speeding, tailgating and unsafe lane changes. The Safe on 17 Task Force members continue to work collaboratively to identify and address factors that will have the greatest influence on reducing the number of collisions.

ATTACHMENTS

- Attachment 1: Summary of Annual Highway 17 Collision Data
- Attachment 2: Quarterly and Annual Rainfall and Collisions on Highway 17
- Attachment 3: Summary of Extra CHP Enforcement Hours
- Attachment 4: Summary of Annual Highway 17 Citation Data
- Attachment 5: CHP Collision and Citation Summary Tables for Highway 17
- Attachment 6: SR-17 Shaded Fuel Relief Mid-Point Project Report
- Attachment 7: Highway 17 Expedited Traffic Safety Project announcement
- Attachment 8: Caltrans Project Updates for Santa Cruz County (June 2020)

SOURCES

- CA Vehicle Code 22350, Basic Speed Law.
https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=VEH§ionNum=22350
- California Highway Patrol. 2020. SWITRS. Provided by San Jose and Santa Cruz CHP.
- Caltrans. 2018. Traffic Counts. <http://traffic-counts.dot.ca.gov/>
- National Oceanic and Atmospheric Administration (NOAA), Global Historical Climatology Network (GHCN) – Daily Precipitation. <https://www.ncdc.noaa.gov/cdo-web/datasets/GHCND/stations/GHCND:US1CASC0040/detail>

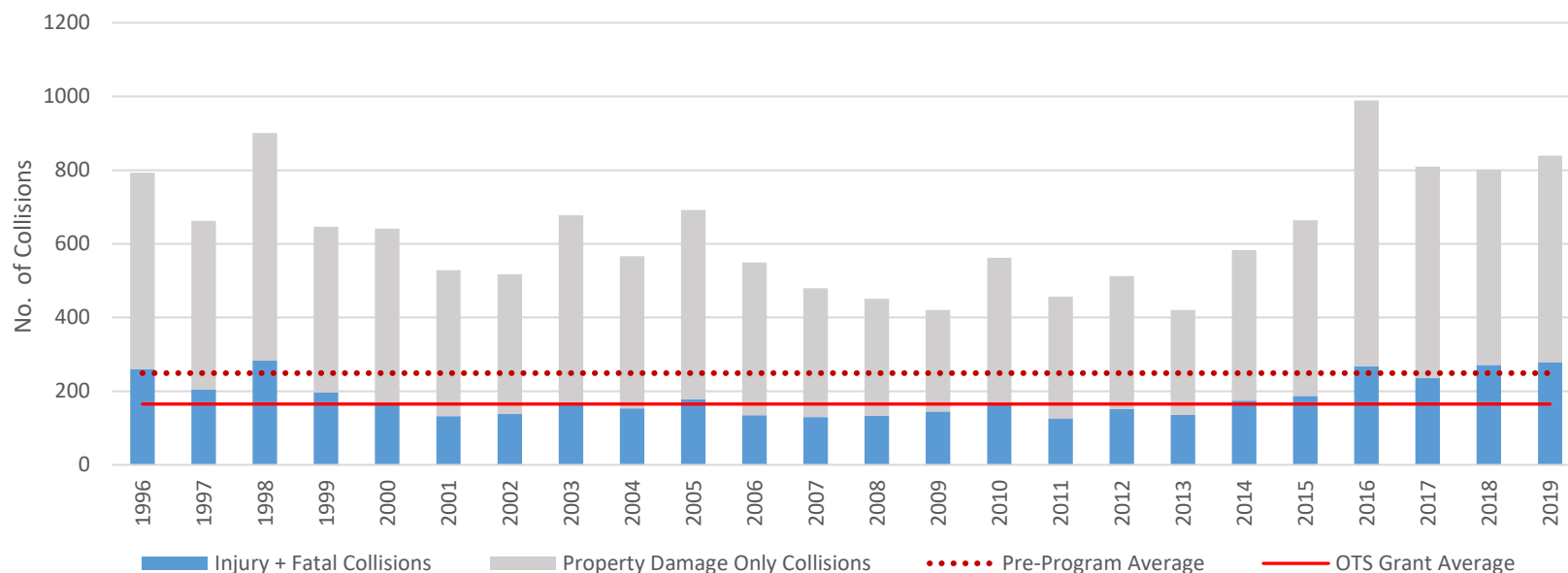
Highway 17 Collision Data 1996-2018

	Pre-Safe on 17						OTS Grant Funded						SCCRTC & MTC Funded													
Year	1996		1997		1998		1999		2000		2001		2002		2003		2004		2005		2006		2007		2008	
San Jose/Santa Cruz	SJ	SC	SJ	SC	SJ	SC	SJ	SC	SJ	SC	SJ	SC	SJ	SC	SJ	SC	SJ	SC	SJ	SC	SJ	SC	SJ	SC	SJ	SC
PDO*	257	276	196	262	306	312	234	216	240	234	175	221	145	234	165	342	148	265	155	359	135	279	119	230	121	197
Injury	123	128	88	115	129	149	101	91	74	92	48	80	45	91	53	113	67	82	52	123	49	84	44	85	58	74
Fatal	5	4	0	1	0	5	0	4	1	0	2	2	0	2	0	4	3	1	0	3	1	1	0	1	1	0
Total	385	408	284	378	435	466	335	311	315	326	225	303	190	327	218	459	218	348	207	485	185	364	163	316	180	271
Total Collisions	793		662		901		646		641		528		517		677		566		692		549		479		451	
Hwy 17 Injury and Fatal Collisions	260		204		283		196		167		132		138		170		153		178		135		130		133	

*PDO=Property
Damage Only

NOTE: Annual Average Injury and Fatal Collision prior to SAFE on 17 Program = 249; 3-Year Average Injury and Fatal Collision during OTS Grant period = 165

Total Collision Data on Highway 17



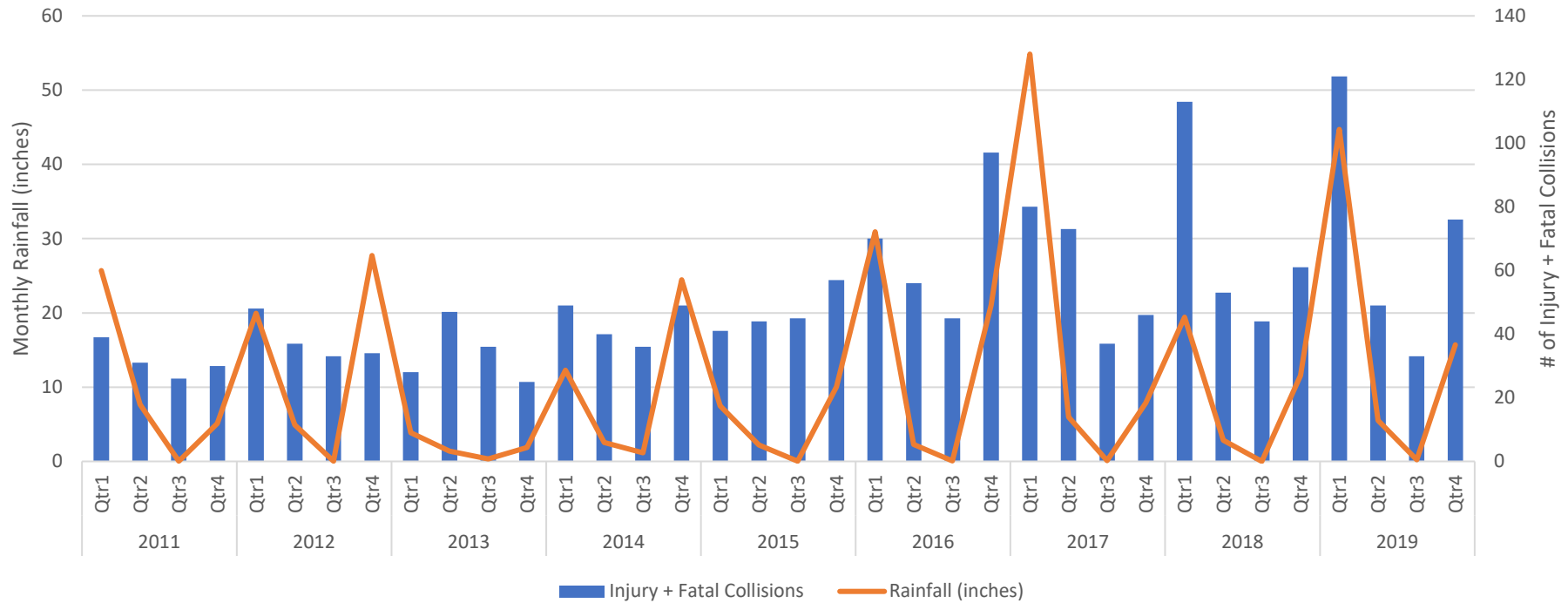
Highway 17 Collision Data 1996-2018

SCCRTC & MTC Funded																						
Year	2009		2010		2011		2012		2013		2014		2015		2016		2017		2018		2019	
San Jose/Santa Cruz	SJ	SC	SJ	SC	SJ	SC	SJ	SC	SJ	SC	SJ	SC	SJ	SC	SJ	SC	SJ	SC	SJ	SC	SJ	SC
PDO*	123	152	144	252	149	182	135	225	133	151	178	231	237	240	259	462	267	307	252	278	251	309
Injury	36	107	61	103	42	84	42	108	65	69	62	109	94	93	121	145	105	130	126	143	146	129
Fatal	0	2	1	1	0	0	1	1	1	1	2	1	0	0	2	0	1	0	1	1	3	1
<i>Total</i>	<i>159</i>	<i>261</i>	<i>206</i>	<i>356</i>	<i>191</i>	<i>266</i>	<i>178</i>	<i>334</i>	<i>199</i>	<i>221</i>	<i>242</i>	<i>341</i>	<i>331</i>	<i>333</i>	<i>382</i>	<i>607</i>	<i>373</i>	<i>437</i>	<i>379</i>	<i>422</i>	<i>400</i>	<i>439</i>
Total Collisions	420		562		457		512		420		583		664		989		810		801		839	
Hwy 17 Injury and Fatal Collisions	145		166		126		152		136		174		187		268		236		271		279	

*PDO=Property
Damage Only

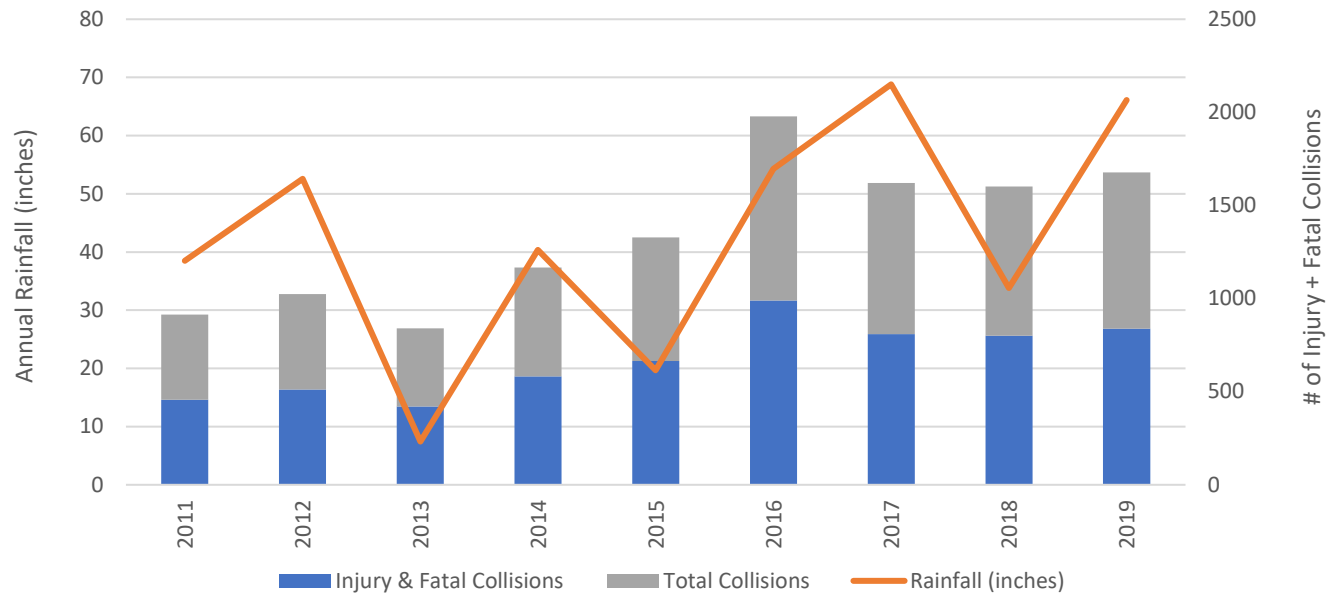
Quarterly Rainfall and Collisions on Highway 17

Attachment 2



Source: Global Historical Climatology Network (GHCN)-Daily via National Oceanic and Atmospheric Administration
<https://www.ncdc.noaa.gov/cdo-web/datasets/GHCND/stations/GHCND:US1CASC0040/detail>

Annual Rainfall and Collisions on Highway 17



Source: *Global Historical Climatology Network (GHCN)-Daily via National Oceanic and Atmospheric Administration*
<https://www.ncdc.noaa.gov/cdo-web/datasets/GHCND/stations/GHCND:US1CASC0040/detail>

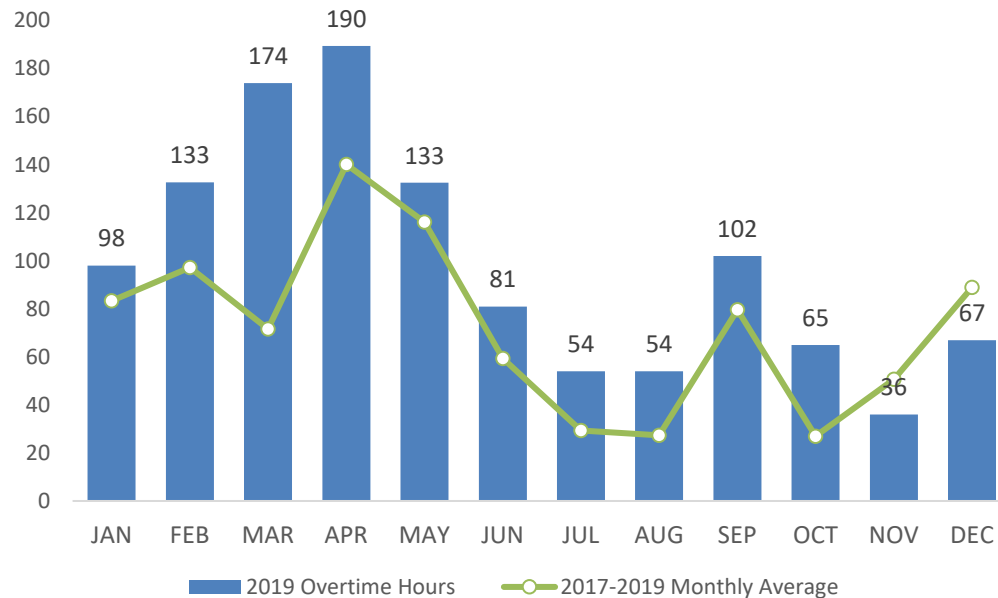
Total California Highway Patrol Extra Enforcement Hours Worked

Attachment 3

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	AVG 17-19
JAN	30	43	6	84	31	32		84	49	48	38	134	50	102	98	83
FEB	28	47	98	48	0	24		115	92	72	47	42	82	77	133	97
MAR	48	34	115	83	0	28	170	102	105	148	80	36	0	41	174	72
APR	82	55	42	20	36	28	320	107	186	148	81	121	145	86	190	140
MAY	82	24	159	3	66	43	267	128	172	100	151	188	165	51	133	116
JUN	101	207	167	50	28	66	112	198	140	419	49	70	69	28	81	59
JUL	124	97	108	90	52	33	109	0	87	32	62	95	34	0	54	29
AUG	164	60	112	142	151	51	139	6	109	113	64	64	28	0	54	27
SEP	175	68	69	42	238	26	137	135	97	160	86	60	101	36	102	80
OCT	108	415	30	55	90		89	130	42	81	58	66	16	0	65	27
NOV	140	187	298	206	248		100	124	75	102	72	112	80	36	36	51
DEC	250	79	272	621	51		86	129	0	80	48	93	137	63	67	89
TOTAL	1,331	1,315	1,474	1,443	989	330	1,528	1,257	1,152	1,503	836	1,080	907	520	1,186	871

 Moratorium on extra enforcement by Governor due to state budget crisis.

CHP Extra Enforcement Hours Worked by Month
2019 vs Monthly Average



ANNUAL HIGHWAY 17 CITATION DATA

Attachment 4

Year	2003		2004		2005		2006		2007		2008	
San Jose/Santa Cruz	SJ	SC	SJ	SC	SJ	SC	SJ	SC	SJ	SC	SJ	SC
Regular Time PCF	2,766	3,666	2,809	5,994	2,995	5,766	2,884	4,627	2,871	3,772	2,169	3,420
Regular Time Other	1,415	2,525	1,186	2,659	942	1,964	727	2,048	307	1,466	406	798
Regular Time Mechanical	56	286	92	180	49	676	85	298	44	405	69	421
Regular Time Total	4,237	6,477	4,087	8,833	3,986	8,406	3,696	6,973	3,222	5,643	2,644	4,639
OT PCF	1,517	345	706	359	769	448	770	448	1,360	378	1,181	507
OT Other	149	220	133	376	192	128	35	201	61	103	53	48
OT Mechanical	20	8	11	31	17	61	66	7	122	34	100	58
OT Total	1,686	573	850	766	978	637	871	656	1,543	515	1,334	613
Regular Time PCF Total		6,432		8,803		8,761		7,511		6,643		5,589
OT PCF Total		1,862		1,065		1,217		1,218		1,738		1,688
PCF Total		8,294		9,868		9,978		8,729		8,381		7,277
Regular Time Total		10,714		12,920		12,392		10,669		8,865		7,283
OT Total		2,259		1,616		1,615		1,527		2,058		1,947
Citation Total		12,973		14,536		14,007		12,196		10,923		9,230

Year	2009		2010		2011		2012		2013		2014	
San Jose/Santa Cruz	SJ	SC	SJ	SC	SJ	SC	SJ	SC	SJ	SC	SJ	SC
Regular Time PCF	2,282	4,298	1,706	4,304	1,182	5,372	2,218	4,350	2,416	4,289	1,910	3,444
Regular Time Other	502	917	362	760	192	649	240	835	173	505	223	350
Regular Time Mechanical	82	165	54	394	175	206	437	202	364	455	343	443
Regular Time Total	2,866	5,380	2,122	5,458	1,549	6,227	2,895	5,387	2,953	5,249	2,476	4,237
OT PCF	837	171	50	221	672	452	640	577	387	802	1,273	583
OT Other	21	24	0	40	94	52	136	78	83	40	122	46
OT Mechanical	202	4	0	6	148	14	210	19	133	88	246	74
OT Total	1,060	199	50	267	914	518	986	674	603	930	1,641	703
Regular Time PCF Total		6,580		6,010		6,554		6,568		6,705		5,354
OT PCF Total		1,008		271		1,124		1,217		1,189		1,856
PCF Total		7,588		6,281		7,678		7,785		7,894		7,210
Regular Time Total		8,246		7,580		7,776		8,282		8,202		6,713
OT Total		1,259		317		1,432		1,660		1,533		2,344
Citation Total		9,505		7,897		9,208		9,942		9,735		9,057

Year	2015		2016		2017		2018		2019*	
San Jose/Santa Cruz	SJ	SC	SJ	SC	SJ	SC	SJ	SC	<u>SJ</u>	<u>SC</u>
Regular Time PCF	1,193	3,085	1,607	2,149	1,959	1,920	457	2,959	N/A	1,998
Regular Time Other	123	293	240	468	292	219	87	1,082	N/A	278
Regular Time Mechanical	293	400	361	313	242	215	113	249	N/A	28
Regular Time Total	1,609	3,778	2,208	2,930	2,493	2,354	657	4,290	N/A	2,304
OT PCF	697	450	595	425	614	185	87	338	29	404
OT Other	26	21	36	36	59	28	181	34	539	2
OT Mechanical	139	19	123	40	125	15	78	105	278	32
OT Total	862	490	754	501	798	228	346	477	846	438
Regular Time PCF Total		4,278		3,756		3,879		3,416		1,998
OT PCF Total		1,147		1,020		799		425		433
PCF Total		5,425		4,776		4,678		3,841		2,431
Regular Time Total		5,387		5,138		4,847		4,947		2,304
OT Total		1,352		1,255		1,026		823		1,284
Citation Total		6,739		6,393		5,873		5,770		3,588

* Regular time citation data incomplete for 2019.

PCF = Primary Collision Factor

OT = Overtime

Santa Cruz CHP Collision Summary for SR-17

Attachment 5

		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
JANUARY	PDO	40	28	17	14	18	26	21	32	34	19	22	16
	INJURY	27	10	8	5	9	12	6	6	10	9	6	9
	FATAL	1	1	0	0	0	1	0	0	0	0	0	1
	TOTAL	68	39	25	19	27	39	27	38	44	28	28	26
FEBRUARY	PDO	36	19	43	14	17	35	41	45	25	28	31	16
	INJURY	6	9	9	5	4	9	16	17	4	10	9	15
	FATAL	0	1	0	0	0	0	1	0	0	0	0	0
	TOTAL	42	29	52	19	21	44	58	62	29	38	40	31
MARCH	PDO	21	25	26	22	29	23	11	38	35	18	17	13
	INJURY	11	12	6	5	11	9	7	16	14	2	6	13
	FATAL	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	32	37	32	27	40	32	18	54	49	20	23	26
APRIL	PDO	39	27	13	24	22	59	16	45	41	22	20	18
	INJURY	14	8	9	5	7	16	4	11	11	7	10	12
	FATAL	1	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	54	35	22	29	29	75	20	56	52	29	30	30
MAY	PDO	43	13	25	19	13	24	15	39	16	24	10	12
	INJURY	25	9	15	13	7	11	5	13	8	9	5	16
	FATAL	1	1	0	1	0	0	0	0	1	0	0	0
	TOTAL	69	23	40	33	20	35	20	52	25	33	15	28
JUNE	PDO	23	12	15	14	11	23	6	24	13	15	10	13
	INJURY	11	5	3	2	6	4	2	3	6	1	6	6
	FATAL	1	0	0	1	0	1	0	0	0	0	0	0
	TOTAL	35	17	18	17	17	28	8	27	19	16	16	19
JULY	PDO	19	8	15	14	20	18	14	9	16	18	14	10
	INJURY	5	7	7	8	5	4	5	5	4	4	6	6
	FATAL	0	1	0	0	0	1	0	1	0	1	0	0
	TOTAL	24	16	22	22	25	23	19	15	20	23	20	16
AUGUST	PDO	14	11	22	10	5	17	20	6	16	11	15	8
	INJURY	10	2	7	7	4	7	7	4	5	4	4	1
	FATAL	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	24	13	29	17	9	24	27	10	21	15	19	9
SEPTEMBER	PDO	24	16	20	16	12	12	13	4	13	9	5	8
	INJURY	13	4	8	4	8	1	6	6	4	3	9	7
	FATAL	1	0	0	0	1	0	0	0	0	0	0	0
	TOTAL	38	20	28	20	21	13	19	10	17	12	14	15
OCTOBER	PDO	17	15	13	20	16	17	44	27	13	21	13	9
	INJURY	4	11	8	2	5	9	6	12	3	9	3	5
	FATAL	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	21	26	21	22	21	26	50	39	16	30	16	14
NOVEMBER	PDO	31	29	16	26	23	28	21	47	36	11	19	13
	INJURY	10	10	8	13	10	9	8	13	12	8	5	7
	FATAL	0	0	0	0	1	1	0	0	0	0	0	0
	TOTAL	41	39	24	39	34	38	29	60	48	19	24	20
DECEMBER	PDO	5	13	9	28	48	60	43	43	21	34	21	16
	INJURY	13	4	4	11	15	22	10	17	3	19	5	10
	FATAL	0	0	0	0	0	0	0	2	0	0	0	1
	TOTAL	18	17	13	39	63	82	53	62	24	53	26	27
TOTAL PDO:		312	216	234	221	234	342	265	359	279	230	197	152
TOTAL INJURY:		149	91	92	80	91	113	82	123	84	85	74	107
TOTAL FATALITIES:		5	4	0	2	2	4	1	3	1	1	0	2
TOTAL COLLISIONS:		466	311	326	303	327	459	348	485	364	316	271	261

Santa Cruz CHP Collision Summary for SR-17

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
JANUARY	PDO	24	11	11	11	9	10	56	46	49	44
	INJURY	13	9	10	3	3	4	14	20	22	21
	FATAL	1	0	0	0	1	0	0	0	0	0
	TOTAL	38	20	21	14	13	14	70	66	71	65
FEBRUARY	PDO	20	15	23	8	32	36	17	23	17	46
	INJURY	4	7	10	5	14	7	5	11	11	21
	FATAL	0	0	0	0	0	0	0	0	1	1
	TOTAL	24	22	33	13	46	43	22	34	29	68
MARCH	PDO	26	26	30	16	20	17	55	25	56	41
	INJURY	7	14	20	6	13	8	22	11	30	18
	FATAL	0	0	1	0	0	0	0	0	0	0
	TOTAL	33	40	51	22	33	25	77	36	86	59
APRIL	PDO	28	18	15	13	19	18	31	48	20	25
	INJURY	6	4	9	10	8	7	9	16	7	11
	FATAL	0	0	0	0	0	0	0	0	0	0
	TOTAL	34	22	24	23	27	25	40	64	27	36
MAY	PDO	26	18	11	11	16	23	29	16	12	26
	INJURY	8	7	6	8	9	7	10	10	11	5
	FATAL	0	0	0	0	0	0	0	0	0	0
	TOTAL	34	25	17	19	25	30	39	26	23	31
JUNE	PDO	11	9	14	11	11	14	18	20	10	22
	INJURY	4	9	10	9	6	4	10	13	10	10
	FATAL	0	0	0	1	0	0	0	0	0	0
	TOTAL	15	18	24	21	17	18	28	33	20	32
JULY	PDO	11	19	24	9	12	15	15	22	11	19
	INJURY	9	5	9	10	9	7	8	9	9	9
	FATAL	0	0	0	0	0	0	0	0	0	0
	TOTAL	20	24	33	19	21	22	23	31	20	28
AUGUST	PDO	11	11	9	8	12	14	28	13	13	13
	INJURY	5	2	4	4	5	4	7	3	8	3
	FATAL	0	0	0	0	0	0	0	0	0	0
	TOTAL	16	13	13	12	17	18	35	16	21	16
SEPTEMBER	PDO	11	7	14	14	22	14	24	22	11	15
	INJURY	7	7	4	5	9	11	8	11	9	4
	FATAL	0	0	0	0	0	0	0	0	0	0
	TOTAL	18	14	18	19	31	25	32	33	20	19
OCTOBER	PDO	12	25	15	17	19	15	89	26	21	19
	INJURY	13	8	10	4	14	7	20	9	8	9
	FATAL	0	0	0	0	0	0	0	0	0	0
	TOTAL	25	33	25	21	33	22	109	35	29	28
NOVEMBER	PDO	27	16	29	20	39	15	48	30	36	20
	INJURY	11	6	8	3	10	6	13	12	8	9
	FATAL	0	0	0	0	0	0	0	0	0	0
	TOTAL	38	22	37	23	49	21	61	42	44	29
DECEMBER	PDO	45	7	30	13	20	49	52	16	22	19
	INJURY	16	6	8	2	9	21	19	5	10	9
	FATAL	0	0	0	0	0	0	0	0	0	0
	TOTAL	61	13	38	15	29	70	71	21	32	28
TOTAL PDO:		252	182	225	151	231	240	462	307	278	309
TOTAL INJURY:		103	84	108	69	109	93	145	130	143	129
TOTAL FATALITIES:		1	0	1	1	1	0	0	0	1	1
TOTAL COLLISIONS:		356	266	334	221	341	333	607	437	422	439

San Jose Area CHP Collision Summary for SR-17

		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
JANUARY	PDO	53	25	24	13	9	12	18	11	19	11	8	5
	INJURY	17	15	8	2	2	5	8	3	2	6	5	4
	FATAL	0	0	0	0	0	0	1	0	0	0	0	0
	TOTAL	70	40	32	15	11	17	27	14	21	17	13	9
FEBRUARY	PDO	31	23	32	7	11	8	11	10	7	14	14	12
	INJURY	6	14	10	2	5	2	7	5	4	6	6	6
	FATAL	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	37	37	42	9	16	10	18	15	11	20	20	18
MARCH	PDO	29	18	20	20	5	17	10	19	13	11	5	14
	INJURY	18	9	7	5	5	5	9	3	3	3	3	2
	FATAL	0	0	1	0	0	0	0	0	0	0	0	0
	TOTAL	47	27	28	25	10	22	19	22	16	14	8	16
APRIL	PDO	24	15	23	12	16	16	9	11	15	5	8	10
	INJURY	11	7	3	3	4	7	5	4	7	7	3	5
	FATAL	0	0	0	0	0	0	0	0	1	0	1	0
	TOTAL	35	22	26	15	20	23	14	15	23	12	12	15
MAY	PDO	40	16	27	16	9	5	13	13	10	5	5	16
	INJURY	14	3	10	5	3	2	6	6	7	0	7	5
	FATAL	0	0	0	0	0	0	1	0	0	0	0	0
	TOTAL	54	19	37	21	12	7	20	19	17	5	12	21
JUNE	PDO	19	16	17	12	17	10	6	9	13	9	3	13
	INJURY	13	7	4	3	4	3	4	3	2	3	4	2
	FATAL	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	32	23	21	15	21	13	10	12	15	12	7	15
JULY	PDO	10	16	18	12	15	13	17	15	10	9	8	7
	INJURY	10	7	5	4	4	4	6	1	5	3	6	2
	FATAL	0	0	0	1	0	0	0	0	0	0	0	0
	TOTAL	20	23	23	17	19	17	23	16	15	12	14	9
AUGUST	PDO	19	23	14	13	15	12	9	13	9	13	10	9
	INJURY	4	7	5	7	3	6	4	2	1	2	7	2
	FATAL	0	0	0	1	0	0	1	0	0	0	0	0
	TOTAL	23	30	19	21	18	18	14	15	10	15	17	11
SEPTEMBER	PDO	21	12	20	21	3	11	10	6	5	8	10	7
	INJURY	6	6	10	4	4	5	4	3	0	1	2	0
	FATAL	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	27	18	30	25	7	16	14	9	5	9	12	7
OCTOBER	PDO	12	27	14	18	12	19	17	21	13	14	10	8
	INJURY	11	4	2	7	2	2	5	8	5	6	3	3
	FATAL	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	23	31	16	25	14	21	22	29	18	20	13	11
NOVEMBER	PDO	38	31	16	16	10	22	12	11	11	7	20	11
	INJURY	12	15	4	1	4	6	3	8	6	3	9	1
	FATAL	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	50	46	20	17	14	28	15	19	17	10	29	12
DECEMBER	PDO	10	12	15	15	23	20	16	16	10	13	20	11
	INJURY	7	7	6	5	5	6	6	6	7	4	3	4
	FATAL	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	17	19	21	20	28	26	22	22	17	17	23	15
TOTAL PDO:		306	234	240	175	145	165	148	155	135	119	121	123
TOTAL INJURY:		129	101	74	48	45	53	67	52	49	44	58	36
TOTAL FATALITIES:		0	0	1	2	0	0	3	0	1	0	1	0
TOTAL COLLISIONS:		435	335	315	225	190	218	218	207	185	163	180	159

San Jose Area CHP Collision Summary for SR-17

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
JANUARY	PDO	9	17	6	8	14	15	18	24	39	35
	INJURY	4	3	3	0	3	4	7	13	19	24
	FATAL	0	0	0	0	1	0	0	0	0	1
	TOTAL	13	20	9	8	18	19	25	37	58	60
FEBRUARY	PDO	6	11	8	15	16	10	13	35	19	21
	INJURY	5	2	3	6	7	9	7	9	8	13
	FATAL	0	0	0	0	0	0	0	0	0	1
	TOTAL	11	13	11	21	23	19	20	44	27	35
MARCH	PDO	11	17	12	14	12	22	45	29	41	32
	INJURY	5	4	1	8	7	9	14	16	22	21
	FATAL	0	0	0	0	0	0	1	0	0	0
	TOTAL	16	21	13	22	19	31	60	45	63	53
APRIL	PDO	9	10	16	10	14	26	24	33	23	17
	INJURY	6	3	5	9	8	7	9	21	9	6
	FATAL	0	0	1	0	0	0	1	0	0	0
	TOTAL	15	13	22	19	22	33	34	54	32	23
MAY	PDO	11	10	11	2	14	25	16	25	7	19
	INJURY	4	4	2	5	5	10	10	9	8	12
	FATAL	0	0	0	0	0	0	0	0	0	1
	TOTAL	15	14	13	7	19	35	26	34	15	32
JUNE	PDO	15	16	20	12	8	19	18	17	22	9
	INJURY	3	4	4	5	4	9	7	4	8	4
	FATAL	0	0	0	0	0	0	0	0	0	0
	TOTAL	18	20	24	17	12	28	25	21	30	13
JULY	PDO	16	14	5	12	14	15	16	12	11	13
	INJURY	7	5	8	6	6	10	11	8	4	5
	FATAL	1	0	0	0	1	0	0	0	0	0
	TOTAL	24	19	13	18	21	25	27	20	15	18
AUGUST	PDO	8	14	10	15	11	18	13	6	12	9
	INJURY	8	6	4	6	3	5	6	0	8	6
	FATAL	0	0	0	0	0	0	0	0	0	0
	TOTAL	16	20	14	21	14	23	19	6	20	15
SEPTEMBER	PDO	10	9	13	18	17	20	15	18	18	12
	INJURY	4	1	4	5	3	8	5	6	6	6
	FATAL	0	0	0	0	0	0	0	0	0	0
	TOTAL	14	10	17	23	20	28	20	24	24	18
OCTOBER	PDO	30	14	12	6	26	25	29	11	20	16
	INJURY	2	5	3	5	4	6	18	5	7	6
	FATAL	0	0	0	0	0	0	0	1	0	0
	TOTAL	32	19	15	11	30	31	47	17	27	22
NOVEMBER	PDO	12	9	12	14	17	18	27	42	19	32
	INJURY	6	4	4	7	7	9	6	10	13	12
	FATAL	0	0	0	0	0	0	0	0	1	0
	TOTAL	18	13	16	21	24	27	33	52	33	44
DECEMBER	PDO	7	8	10	7	15	24	25	15	21	36
	INJURY	7	1	1	3	5	8	21	4	14	31
	FATAL	0	0	0	1	0	0	0	0	0	0
	TOTAL	14	9	11	11	20	32	46	19	35	67
TOTAL PDO:		144	149	135	133	178	237	259	267	252	251
TOTAL INJURY:		61	42	42	65	62	94	121	105	126	146
TOTAL FATALITIES:		1	0	1	1	2	0	2	1	1	3
TOTAL COLLISIONS:		206	191	178	199	242	331	382	373	379	400

Santa Cruz Area CHP SR-17 Citation Summary

Regular Citations

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
JANUARY	PCF	287	396	401	368	413	354	201	89	112	259
	Other	68	84	68	69	43	26	15	12	12	128
	Mechanical	16	30	21	17	73	44	41	15	37	-
	TOTAL	371	510	490	454	529	424	257	116	161	387
FEBRUARY	PCF	303	420	478	309	325	253	286	78	92	414
	Other	65	70	68	63	22	18	68	5	4	150
	Mechanical	10	19	19	23	38	51	37	5	9	-
	TOTAL	378	509	565	395	385	322	391	88	105	564
MARCH	PCF	322	351	422	354	273	341	286	60	113	225
	Other	44	42	86	111	29	33	46	13	19	0
	Mechanical	21	29	11	20	40	38	27	7	19	10
	TOTAL	387	422	519	485	342	412	359	80	151	235
APRIL	PCF	324	431	283	365	346	290	278	100	187	184
	Other	86	49	88	29	22	22	72	10	57	0
	Mechanical	36	23	15	16	36	30	20	10	36	4
	TOTAL	446	503	386	410	404	375	370	120	280	188
MAY	PCF	429	505	455	444	375	310	296	280	199	247
	Other	46	82	77	27	22	32	54	20	22	0
	Mechanical	69	14	25	45	22	33	34	12	23	4
	TOTAL	544	601	557	516	419	375	384	312	244	251
JUNE	PCF	523	391	291	339	303	154	152	102	302	248
	Other	42	68	58	29	33	21	54	20	49	0
	Mechanical	68	3	13	65	24	55	46	20	66	2
	TOTAL	633	462	362	433	360	230	252	142	417	250
JULY	PCF	446	378	288	331	220	245	159	232	191	242
	Other	38	67	69	35	21	31	62	46	13	0
	Mechanical	82	4	8	74	34	50	33	44	29	4
	TOTAL	566	449	365	440	275	326	254	322	233	246
AUGUST	PCF	498	585	317	477	317	289	106	135	117	179
	Other	84	35	78	32	56	27	41	54	40	0
	Mechanical	24	18	25	34	55	23	21	24	30	4
	TOTAL	606	638	420	543	428	339	168	213	187	183
SEPTEMBER	PCF	389	472	334	338	240	284	99	147	370	
	Other	95	37	58	31	43	31	7	10	163	
	Mechanical	32	18	19	31	45	36	19	12	-	
	TOTAL	516	527	411	400	328	351	125	169	533	0
OCTOBER	PCF	307	540	457	381	224	229	88	82	400	
	Other	47	47	57	24	31	33	9	3	350	
	Mechanical	10	14	15	41	32	36	10	16	-	
	TOTAL	364	601	529	446	287	298	107	101	750	0
NOVEMBER	PCF	267	449	327	319	238	199	123	295	396	
	Other	80	25	53	31	24	6	16	9	180	
	Mechanical	15	18	17	47	28	2	16	20	-	
	TOTAL	362	492	397	397	290	207	155	324	576	0
DECEMBER	PCF	209	454	297	264	170	137	75	320	480	
	Other	65	43	75	24	4	13	24	17	173	
	Mechanical	11	16	14	42	16	2	9	30	-	
	TOTAL	285	513	386	330	190	152	108	367	653	0
ANNUAL TOTALS:		5,458	6,227	5,387	5,249	4,237	3,811	2,930	2,354	4,290	2,304

Santa Cruz Area CHP SR-17 Citation Summary

Overtime Citations

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
JANUARY	PCF	32	0	49	6	56	0	51	0	31	43
	Other	5	0	6	0	5	0	2	0	4	1
	Mechanical	0	0	0	0	12	0	3	0	8	16
	TOTAL	37	0	55	6	73	0	56	0	43	60
FEBRUARY	PCF	24	0	43	52	55	74	62	0	2	4
	Other	5	0	7	2	1	2	10	0	0	1
	Mechanical	0	0	1	5	2	3	2	0	0	0
	TOTAL	29	0	51	59	58	79	74	0	2	5
MARCH	PCF	16	14	46	57	50	51	44	0	42	38
	Other	3	0	4	4	4	2	5	0	3	0
	Mechanical	1	0	5	11	11	2	3	0	13	0
	TOTAL	20	14	55	72	65	54	52	0	58	38
APRIL	PCF	38	56	40	112	61	75	70	17	30	64
	Other	3	6	7	1	4	2	2	1	7	0
	Mechanical	0	0	0	2	10	6	2	2	12	1
	TOTAL	41	62	47	115	75	83	74	20	49	65
MAY	PCF	24	64	84	112	50	32	34	43	36	62
	Other	12	4	9	8	1	3	0	1	2	0
	Mechanical	2	0	5	16	2	3	2	4	8	1
	TOTAL	38	68	98	136	53	38	36	48	46	63
JUNE	PCF	31	36	47	85	51	0	26	24	122	46
	Other	6	8	5	6	5	0	2	3	10	0
	Mechanical	2	0	1	14	7	0	4	2	35	0
	TOTAL	39	44	53	105	63	0	32	29	167	46
JULY	PCF	27	49	0	64	38	75	62	0	0	38
	Other	2	8	0	4	4	5	3	0	0	0
	Mechanical	1	0	0	24	10	2	14	0	0	3
	TOTAL	30	57	0	92	52	82	79	0	0	41
AUGUST	PCF	15	51	7	107	61	30	26	24	0	32
	Other	3	5	4	4	8	1	1	7	0	0
	Mechanical	0	2	0	6	7	0	1	2	0	1
	TOTAL	18	58	11	117	76	31	28	33	0	33
SEPTEMBER	PCF	14	46	74	83	47	55	14	0	31	77
	Other	1	5	14	0	4	3	3	0	3	0
	Mechanical	0	1	5	1	6	0	0	0	10	10
	TOTAL	15	52	93	84	57	58	17	0	44	87
OCTOBER	PCF	0	44	87	63	30	58	13	0	0	0
	Other	0	11	10	4	4	3	2	0	0	0
	Mechanical	0	2	2	2	2	3	2	0	0	0
	TOTAL	0	57	99	69	36	64	17	0	0	0
NOVEMBER	PCF	0	49	63	61	59	0	14	30	15	0
	Other	0	4	3	7	5	0	6	7	2	0
	Mechanical	0	5	0	7	5	0	5	4	11	0
	TOTAL	0	58	66	75	69	0	20	41	28	0
DECEMBER	PCF	0	43	37	0	25	0	9	47	29	0
	Other	0	1	9	0	1	0	0	9	3	0
	Mechanical	0	4	0	0	0	0	2	1	8	0
	TOTAL	0	48	46	0	26	0	11	57	40	0
ANNUAL TOTALS:		267	518	674	930	703	489	496	228	477	438

San Jose Area CHP SR-17 Citation Summary

Regular Citations

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
JANUARY	PCF	126	96	150	279	158	69	58	109		
	Other	20	32	40	25	14	21	12	55		
	Mechanical	2	3	13	13	42	34	10	41		
	TOTAL	148	131	203	317	214	124	80	205	0	0
FEBRUARY	PCF	109	94	211	284	59	138	80	84		
	Other	23	7	14	7	13	12	6	9		
	Mechanical	4	2	26	48	20	33	32	12		
	TOTAL	136	103	251	339	92	183	118	105	0	0
MARCH	PCF	114	101	154	276	220	137	103	218	97	
	Other	6	15	19	13	32	11	10	59	8	
	Mechanical	1	10	38	42	30	19	26	38	13	
	TOTAL	121	126	211	331	282	167	139	315	118	0
APRIL	PCF	110	199	114	223	240	114	122	376	141	
	Other	28	9	20	11	30	14	16	39	21	
	Mechanical	2	42	49	43	26	25	20	42	27	
	TOTAL	140	250	183	277	296	153	158	457	189	0
MAY	PCF	242	154	165	324	201	152	91	587	134	
	Other	30	36	32	13	16	14	12	60	34	
	Mechanical	6	33	32	35	42	28	25	43	24	
	TOTAL	278	223	229	372	259	194	128	690	192	0
JUNE	PCF	267	91	267	197	233	114	70	483	75	
	Other	42	12	40	23	15	8	15	50	12	
	Mechanical	6	11	57	58	29	38	30	34	25	
	TOTAL	315	114	364	278	277	160	115	567	112	0
JULY	PCF	174	87	135	155	73	48	85	102	10	
	Other	46	18	14	10	21	6	20	20	12	
	Mechanical	6	7	16	25	34	25	32	32	24	
	TOTAL	226	112	165	190	128	79	137	154	46	0
AUGUST	PCF	124	76	178	154	200	57	145			
	Other	32	21	9	10	21	9	23			
	Mechanical	8	18	21	18	31	26	41			
	TOTAL	164	115	208	182	252	92	209	0	0	0
SEPTEMBER	PCF	125	37	194	193	146	115	226			
	Other	42	13	14	11	13	5	34			
	Mechanical	7	21	35	18	30	20	33			
	TOTAL	174	71	243	222	189	140	293	0	0	0
OCTOBER	PCF	115	101	175	98	167	70	159			
	Other	27	17	17	24	23	8	28			
	Mechanical	7	11	55	18	28	10	39			
	TOTAL	149	129	247	140	218	88	226	0	0	0
NOVEMBER	PCF	79	56	277	116	116	93	320			
	Other	17	2	16	20	17	10	34			
	Mechanical	1	5	34	26	20	25	38			
	TOTAL	97	63	327	162	153	128	392	0	0	0
DECEMBER	PCF	121	90	198	117	97	86	148			
	Other	49	10	5	6	8	5	30			
	Mechanical	4	12	61	20	11	10	35			
	TOTAL	174	112	264	143	116	101	213	0	0	0
ANNUAL TOTALS:		2,122	1,549	2,895	2,953	2,476	1,609	2,208	2,493	657	-

San Jose Area CHP SR-17 Citation Summary

Overtime Citations

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
JANUARY	PCF	0	0	33	1	0	46	20	20	39	2
	Other	0	0	7	49	0	1	2	2	3	34
	Mechanical	0	0	21	19	0	8	11	5	14	5
	TOTAL	0	0	61	69	0	55	33	27	56	41
FEBRUARY	PCF	0	0	43	75	0	62	55	0	37	10
	Other	0	0	16	3	0	1	1	0	7	79
	Mechanical	0	0	20	17	0	19	20	0	23	3
	TOTAL	0	0	79	95	0	82	76	0	67	92
MARCH	PCF	0	85	38	58	159	60	70	0	0	0
	Other	0	20	7	1	4	1	2	0	36	132
	Mechanical	0	14	13	13	21	5	28	0	6	88
	TOTAL	0	119	58	72	184	66	100	0	42	220
APRIL	PCF	0	185	59	82	102	62	94	88	4	0
	Other	0	31	7	11	14	4	3	18	33	133
	Mechanical	0	11	25	30	14	9	13	10	12	47
	TOTAL	0	227	91	123	130	75	110	116	49	180
MAY	PCF	0	119	89	93	74	71	40	131	0	5
	Other	0	1	17	13	6	5	1	8	23	68
	Mechanical	0	21	14	21	16	18	8	13	6	10
	TOTAL	0	141	120	127	96	94	49	152	29	83
JUNE	PCF	50	33	177	78	691	107	32	38	0	0
	Other	0	0	19	6	78	6	2	6	18	9
	Mechanical	0	5	47	33	145	30	15	10	10	1
	TOTAL	50	38	243	117	914	143	49	54	28	10
JULY	PCF	0	39	0	0	0	43	0	0	0	0
	Other	0	3	0	0	0	2	0	0	0	0
	Mechanical	0	12	0	0	0	7	0	0	0	0
	TOTAL	0	54	0	0	0	52	0	0	0	0
AUGUST	PCF	0	42	0	0	74	30	56	48	0	0
	Other	0	4	0	0	4	1	3	7	0	0
	Mechanical	0	8	0	0	13	10	10	12	0	0
	TOTAL	0	54	0	0	91	41	69	67	0	0
SEPTEMBER	PCF	0	68	49	0	47	82	56	82	0	0
	Other	0	12	4	0	10	0	6	9	0	0
	Mechanical	0	19	36	0	13	10	5	13	0	0
	TOTAL	0	99	89	0	70	92	67	104	0	0
OCTOBER	PCF	0	49	45	0	49	61	68	57	0	6
	Other	0	2	48	0	2	3	5	4	0	35
	Mechanical	0	15	2	0	9	2	4	21	0	42
	TOTAL	0	66	95	0	60	66	77	82	0	83
NOVEMBER	PCF	0	45	45	0	34	53	46	105	0	2
	Other	0	11	5	0	1	0	6	3	0	23
	Mechanical	0	16	13	0	11	10	5	27	0	15
	TOTAL	0	72	63	0	46	63	57	135	0	40
DECEMBER	PCF	0	7	62	0	43	20	58	45	7	4
	Other	0	10	6	0	3	2	5	2	61	26
	Mechanical	0	27	19	0	4	11	4	14	7	67
	TOTAL	0	44	87	0	50	33	67	61	75	97
ANNUAL TOTALS:		50	914	986	603	1,641	862	754	798	346	846

State Route 17 Shaded Fuel Break Midpoint Project Report January 2020

NORTHBOUND SIDE IS COMPLETE!

*Los Gatos Creek Trail below
Highway 17 at Main Street,
Town of Los Gatos*



After



Before

*Highway 17 at Jesse Way in
Redwood Estates*



Before



After



INSIDE

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FIRESAFE17.COM

- Follow the project
- Sign up for weekly updates
- Contact the team



MEET THE SR17 COMMAND TEAM

CALFIRE-Santa Clara Unit

Jake Hess, Agency Administrator
Ed Orre, Unified Incident Commander
Mike Mathiesen, Operations Section Chief
Tophir Byrd, Planning Section Chief

Caltrans-District 4

Nick Saleh, Agency Administrator
Joon Kang, Unified Incident Commander
Victor Gauthier, Public Information Officer



Santa Clara County FireSafe Council

Dede Smullen, Agency Administrator
Patty Ciesla, Unified Incident Commander
Jim Young, Deputy Operations Chief
Brad Hartzell, Liaison Officer
Doug McKelvey, Safety Officer
Carla Ruigh, Logistics Section Chief
Gretchen Hayes, Finance Section Chief
Eugenia Rendler, Public Information Officer

This epic project increases the safety of thousands of commuters, protects residential property and community infrastructure, improves watershed and forest health, and mitigates wildfire risk in the Santa Cruz Mountains.

HOW DID WE GET HERE? THE ENVIRONMENTAL FACTORS

- ◆ A century of unrestricted vegetation growth and fire suppression
- ◆ Drought and disease stricken fuels
- ◆ Catastrophic mega fires with fatalities throughout California
- ◆ 66,000 cars per day on a critical evacuation corridor
- ◆ Frequent roadside fires



Charred trees from an escaped car fire

HOW DID WE GET HERE? THE EMERGENCY PROCLAMATION

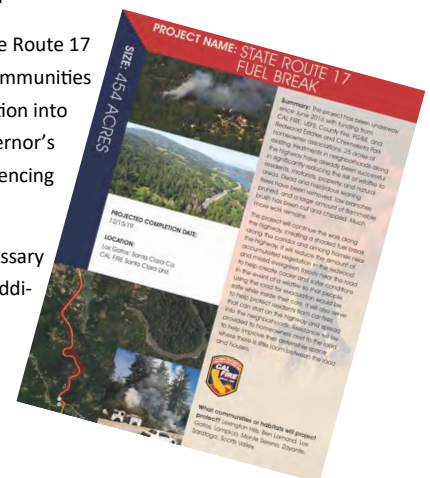
Governor Brown's Executive Order B-52-18 was issued on May 10th, 2018. This order requires the Natural Resources Agency to double the rate of forest treatments within 5 years to > 500,000 acres. CAL FIRE to provide educational programs and outreach on forest restoration, fuels reduction project development, and permitting.

Governor Newsom's Executive Order N-05-19 was issued on January 8th 2019. This order directs CAL FIRE to identify medium term and long term projects that will have the greatest impact to help prevent destructive deadly wildfires.

On March 22, 2019, Governor Newsom proclaimed a State of Emergency involving forest conditions near vulnerable communities. The proclamation enables the Secretary for the California Environmental Protection Agency or Natural Resources Agency to suspend State environmental statutes, rules, regulations, and requirements to the extent necessary to complete priority fuel management projects started in 2019. In considering whether to suspend any requirements, the Secretaries must determine that the proposed activities are eligible to be conducted under this suspension and will take protection of the environment into account while ensuring timely implementation.

The California Natural Resources Agency determined that State Route 17 Shaded Fuel Break is urgently needed to protect vulnerable communities and because CAL FIRE has incorporated environmental protection into project design, this project is therefore eligible under the Governor's Proclamation for a suspension of CEQA per Division 13 (commencing with section 21000) of the Public Resources Code.

This suspension may be revised or further conditioned as necessary to protect public health and the environment. Suspension of additional regulatory requirements may be considered as project implementation proceeds. This suspension does not alter any requirements imposed by state and federal law.



GETTING THE WORK DONE

FIELD STAFF

Eddie Sanchez
Bruce Baker
Shirley Bondi
Meagan Beaver
Andrew Clark
JR Call
Caroline Slivkoff
Bill Finch
David Wills
Jason Cavanaugh
Chris Reinoldson
Kara Capaldo
Sean O'Brien
Elizabeth Geisler
Sheldon Leiker
Sarah Brewer
Emily Scricca
Scott Stephenson
Tyler Young



Evaluating dead trees for removal

FIELD CONTRACTORS

Dudek
Granite Construction
San Jose Conservation
Corps + Charter School
Firestorm Wildland Fire
Suppression
ArborWorks
Huerta's Tree Service
Travis Tree Professionals
Bay Area Tree Specialists
Bartlett Tree Experts
Kilroy Pest Control
Superior Hydroseeding
Vision Recycling
Santa Clara County Fire
Engine Crews
CAL FIRE Engine Crews

PROJECT COMPLEXITIES

- ◆ Registered professional forester identifies hazard trees for removal.
- ◆ Biologists and archeologists on site for surveys and monitoring.
- ◆ Brush and tree cutting on steep slopes by ground crews and climbers.
- ◆ Hazard tree removal by licensed contractors.
- ◆ Vegetation must be hand-carried, cabled, or hoisted to roadway.
- ◆ Rain and wet soil affects progress and requires erosion control.
- ◆ Workers and motorists must be protected by lane closures.
- ◆ Planning for public and worker safety as conditions evolve.



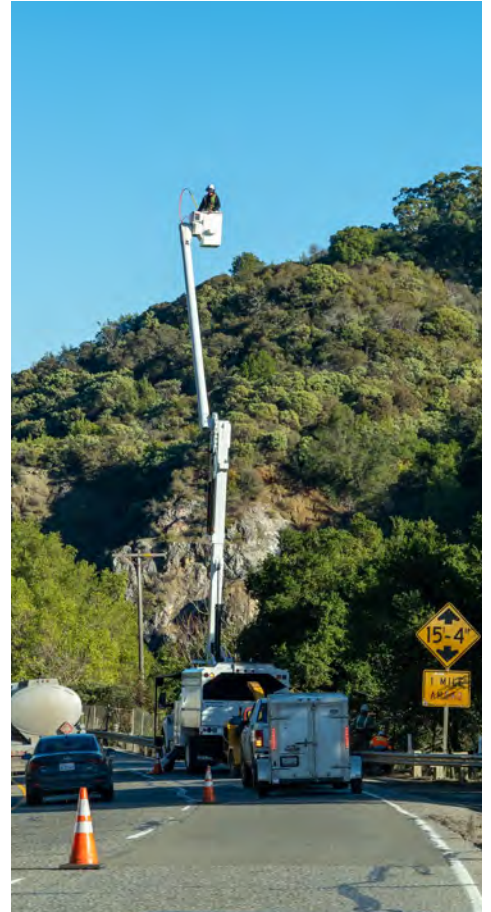
NORTHBOUND RESULTS BY THE NUMBERS

The project spans from the Santa Clara/Santa Cruz County boundary to Main Street in the Town of Los Gatos, a portion of Old Santa Cruz Highway, communities of Redwood Estates and Chemeketa Park, public and private roads connecting to Highway 17.



Map of project area

- ◆ 6.5 miles of state highway
- ◆ 232 treated acres of 494 project area in 2019
- ◆ 1.1 miles of trail
- ◆ >750 tons of carbon biomass shipped
- ◆ >30 yards of trash removed
- ◆ \$3.7 million spent
- ◆ 100 work days
- ◆ ~80 personnel daily average
- ◆ 2 grapple trucks
- ◆ 4 trucks & chippers
- ◆ 5 brush crews
- ◆ 4 tree crews
- ◆ 22 media releases
- ◆ 15 wasp nests
- ◆ 75 pounds of wildflower seed
- ◆ 405 hazard trees removed



Northbound roadside tree work



Biomass processing and staging for transport

MOVING FORWARD TO SOUTHBOUND WORK

HOW CAN LOCAL EMPLOYERS CONTRIBUTE

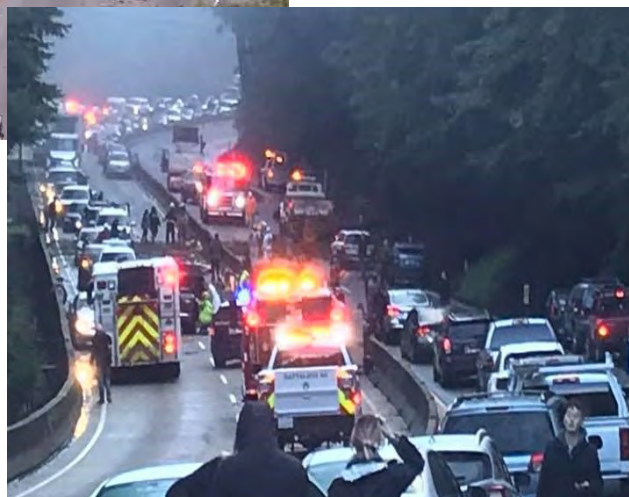
- ◆ Provide flexible work plans for staff during the project to help reduce commute traffic during lane closures.
- ◆ Distribute public information and updates through business channels.
- ◆ Support FireSafe Councils and land managers in future maintenance efforts.



Car fire within SR-17 project area

What property owners can do

- ◆ Allow roadside work upon your property.
- ◆ Create and maintain required defensible space around your structures.
- ◆ Remove dead trees and shrubs, trim or remove roadside grasses.
- ◆ Harden your home against ember intrusion.
- ◆ Prepare your evacuation plan and go bag.
- ◆ Partner with your neighbors on private road maintenance.
- ◆ Support your community's work to obtain FirewiseUSA recognition. This excellent community program provides a framework for neighbors to work together to collectively reduce their risks from wildfire.



Fatalities have occurred on SR-17 when unstable trees fall on the roadway.

FIRST RESPONDER AND PUBLIC SAFETY

One of the most dangerous stretches of highway in California, SR-17 sees frequent crashes and road hazards related to the mountainous terrain.

The hazardous fuel reduction in the shaded fuel break means car fires are less likely to ignite a forest fire, and if a wildfire does occur, flames will be smaller, less intense and progress more slowly.

For first responders dispatched to incidents on SR-17, less intense fires are safer to manage and quicker to subdue.

This means more time to respond and safer conditions for everyone in the event of a roadside fire, including vulnerable motorists in the forest environment.

Coupled with brush removal, leaning or damaged hazardous trees are removed to enhance year-round protection of the public on the roadway.

SR17 SHADED FUEL BREAK GIVES MOMENTUM TO REGIONAL WILDFIRE READINESS



Before treatment

The visibility and urgency generated by this shaded fuel break project has energized other local area projects. These projects include community efforts partnering with the Santa Clara County FireSafe Council, CALFIRE, and other local agencies.

The FireSafe Council has helped five new *Firewise USA* sites gain recognition. Private road associations on streets connecting to SR-17 are planning escape route fuels treatment and evacuation workshops. Two additional temporary refuge areas are in development through neighborhood partnerships. Dead oaks and decadent flammable eucalyptus trees have been removed from a neighborhood business district.

Some projects that have been on the drawing board now have stakeholders bringing them forward for completion and providing matching funds to expand the impact of the work. This includes work to improve and maintain the SR-35 evacuation corridor along the summit.

The Highway 17 corridor and adjacent communities are rolling back decades of deferred maintenance and becoming a safer place to live, work and drive.

“Continuing the SR17 Shaded Fuel Break momentum is critical”



After treatment and erosion control

FUTURE MAINTENANCE OF THE SHADED FUEL BREAK—WHAT WILL IT TAKE?

- ◆ Identify funding for future maintenance.
- ◆ Maintenance cost will be lower than initial treatment.
- ◆ Commitment to ongoing maintenance.
- ◆ Landowner should monitor for future maintenance needs.
- ◆ Focus on invasive species control and reduce control seed bank.
- ◆ Continue agency and private land owner collaboration.
- ◆ Various treatment methods can be tested for maintenance including prescribed fire, grazing, mechanical or manual treatments, and selective use of herbicides.
- ◆ Acceptance of periodic traffic disruptions.



FOLLOW THE PROJECT

To follow the project, find the press kit and sign up to receive email updates, please go to [Firesafe17.com](https://firesafe17.com)

MIDPOINT STAKEHOLDER MEETING Q&A

What is the best way to get project updates?

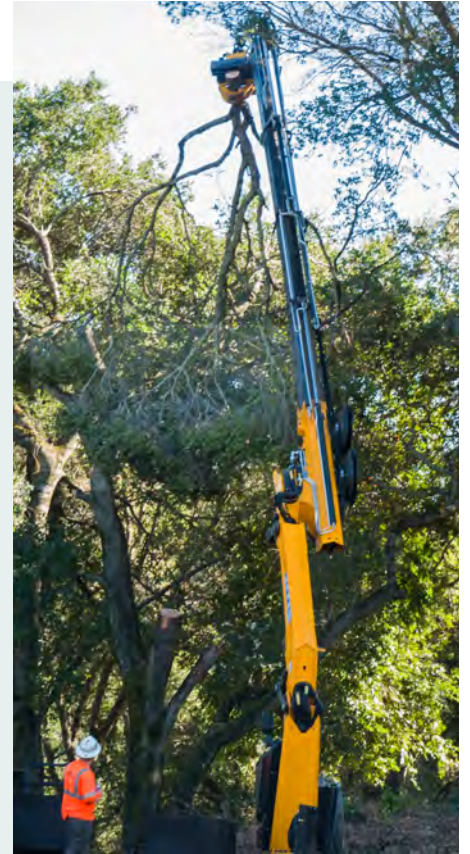
- Go to firesafe17.com, sign up for the email.
- Our goal is a 2-week advance notice regarding lane closures; however this can change due to weather conditions.
- Download Caltrans' [QuickMap](#) app; all lane closures visible in real time.

Is there a way to coordinate with CHP/Caltrans to keep large trucks off smaller/private roads?

- Changeable Message Signs can help inform drivers.
- We will evaluate our traffic control plan to accommodate other roads and highways being used as alternate routes.

Shouldn't we leave biomass on the forest floor?

- We are leaving decaying material that is already on the ground and decomposing on the forest floor as this provides good habitat.
- Chipping creates hazardous dust and debris in the roadway, and cannot deposit chips far enough from the road for fire prevention.
- We are leaving a healthy tree canopy while removing dead and diseased trees to improve forest health.
- We are leaving duff and herbaceous plants.



60ft telescopic grapple saw safely topping a leaning tree



Hazard tree hanging over the Los Gatos Creek Trail



Biologist relocates giant salamander to a safer spot



Santa Clara County FireSafe Council
14380 Saratoga Ave
Saratoga, CA 95070



The State Route 17 Shaded Fuel Break project is a collaboration between these public and private entities and is part of California Climate Investments, a statewide initiative that puts billions of Cap-and-Trade dollars to work reducing greenhouse gas emissions, strengthening the economy, and improving public health and the environment.



SR17 SHADED FUEL BREAK PROJECT BENEFITS

- ◆ Will reduce roadside ignitions from vehicular sources.
- ◆ Intended to reduce intensity and growth rate of wildfires, so that firefighters can safely and quickly control them.
- ◆ Helps protect critical infrastructure: State Route 17, power transmission and distribution lines, San Jose Water's treatment plant at Lexington Reservoir, Chemeketa Park's water intake and storage, CAL FIRE's Alma Fire Station/Helitak Base, County Fire's Redwood Station.
- ◆ Protects important natural landscapes, open space preserves and watersheds containing valuable wildlife habitat and recreation.
- ◆ Abatement of hazardous trees at risk of falling onto the highway.
- ◆ Improved visibility for motorists and wildlife.

Wood chips for electricity

Much of the biomass removed from the project area is a renewal energy fuel for co-generation facilities. These facilities support healthier forests by offsetting the cost of performing fuels reduction projects and other forestry-cleanup operations. This use of biomass as fuel helps California meet mandated green house gas (GHG) reductions. One benefit of using low value wood waste for fuel is an average net reduction of over 3.5 million tons of biogenic GHG emissions per year. An additional 3.0 million tons of avoided GHG emissions per year results from the biomass industry's displacement of fossil fueled generation by the electric utilities.



Co-generation plant consumes woody biomass to make electricity

EVI

DEPARTMENT OF TRANSPORTATION

111 GRAND AVENUE
P.O. BOX 23660
OAKLAND, CA 94623-0660
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Making Conservation
a California Way of Life.

March 7, 2019

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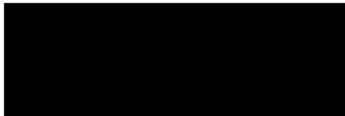
Thank you for your recent electronic mail to Caltrans Director Laurie Berman in which you expressed concerns regarding traffic safety along a segment of State Route (SR) 17 just north of the Summit Road overcrossing near Santa Cruz County line. In your letter, you suggested significant improvements for SR 17, including roadway widening, new shoulders, and corrections in alignment and super-elevation for improved safety, as well as vegetation control to improve sight-line.

I am pleased to inform you that Caltrans is currently developing a project to provide several measures to enhance traffic safety on a 3.3-mile segment of SR 17 from Santa Cruz County line to Alma College Road, including the particular curve you pointed out. The project will provide the following improvements:

- Pavement restoration in both directions including high friction surface treatment to improve traction on wet pavement.
- Dynamic Speed Feedback signs to increase motorists' awareness of speed limits and their approach speeds
- Curve Ahead warning signs with flashing beacons in both directions to increase motorists' awareness of the highway alignment.
- An electronic variable message sign in the northbound direction just before the Summit Road overcrossing. This sign will be used to alert northbound traffic of traffic conditions ahead when needed.
- Enhanced striping and right edgeline rumble strip in both directions for the first 2.8 miles, including the subject curve.
- Safety lighting, overhead warning signs with flashing beacons, guardrail system, and channelizing devices, at various locations within the project limits.

This safety improvement project has been expedited to begin construction in January 2021 and anticipated to be completed by October 2021. It is expected that the project will significantly enhance traffic safety on this segment of SR 17. To improve sight distance at the subject curve, we will also have our Maintenance crews perform vegetation control, as needed.

As you are probably aware, this segment of SR 17 runs through a rolling mountainous terrain with dense woods; accordingly, it was constructed with the current alignment that minimized



environmental impacts. To widen or realign the roadway to meet current design standards and respective appropriate desired lanes, shoulders, super-elevation would require extensive earthwork, elaborate retaining walls, and right-of-way acquisition, all of which would have significant environmental and community impacts. With current strict environmental regulations and community interests, it is unlikely for such a project to be considered at this time even if fiscally feasible. Notwithstanding, we will share your input and concerns with other transportation stakeholders to be considered as part of future opportunities and undertakings.

Thank you for your insight and interest in enhancing traffic safety and operations on Bay Area State highways. If you wish further information, please contact Mr. Sean Nozzari, Deputy District Director, Division of Traffic Operations at 510-286-6345 or via email at sean.nozzari@dot.ca.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'Tony Tavares', written over a light blue horizontal line.

TONY TAVARES
District Director

c: Commissioner Warren Stanley, California Highway Patrol
Chief Ernie Sanchez, California Highway Patrol Golden Gate Division
Ms. Carolyn Gonot, Valley Transportation Authority
Mr. Guy Preston, Santa Cruz County Regional Transportation Commission

Enclosure



State Route 17 Gets Boost from SB 1 Funds; Will Make Roads Safer for Santa Cruz Mountain Communities

Commuters will soon see several major revitalization projects to State Route 17 (SR-17). With the passage of SB 1 legislation, authored by Sen. Beall in 2017, funds are now available for road safety and improvement projects along the critical SR-17 that connects communities in high-risk fire areas to San Jose. This is in addition to other community safety programs that will also receive SB 1 funds.

Beginning as soon as this fall, Caltrans will begin various projects in the SR-17 corridor from Hwy 280 in San Jose all the way through to Santa Cruz County. This will include a major traffic safety enhancement project, a pavement rehabilitation project, multiple wildlife crossings as well as massive vegetation controls in conjunction with CalFire & the California Highway Patrol (CHP).

“Road safety is one reason why I fought for SB 1. We need to reduce vehicle accidents along this particular stretch of highway,” said Sen. Beall. “Ensuring our roads are in top condition for fire and rescue crews at all times should be a top priority,” continued Beall.

Specifics on these safety projects funded largely through SB-1 are as follows:

- Caltrans has programmed a pavement rehabilitation project on SR 85 from Habard Road in Los Gatos to Interstate 280. The projects capitol cost is \$30 million and expected to begin construction in June 2020.
- An Expedited Traffic safety enhancement project on SR 17- from Santa Cruz County line to Alma College Road, to begin Jan 2021-end Oct 2021, will improve sight distances and have maintenance crews improve vegetation control where needed:
 - Pavement restoration in both directions include high friction surface treatment to improve traction on wet pavement
 - Dynamic speed feedback signs to increase motorists’ awareness of speed limit
 - Curve ahead warnings signs with flashing beacons in both directions to increase motorists awareness of the highway alignment
 - An electronic variable message sign in the northbound direction just before the Summit Road overcrossing. Alert northbound traffic on conditions ahead
 - Enhanced striping and right edge line ruble strips in both directions to the 2.8miles including the Moody Curve
 - Safety lighting, overhead warning signs with flashing beacons, guardrail systems, and channelizing devices at various locations within the project limits.

Website: [Senator Beall's Website](#)

Email: [Questions?](#)

Senator Beall's District Office



PROJECT UPDATE – SANTA CRUZ COUNTY

PREPARED FOR THE JUNE 4, 2020 SANTA CRUZ COUNTY REGIONAL TRANSPORTATION COMMISSION MEETING

Attachment 8

PROJECTS UNDER CONSTRUCTION									
	Project	Location Post Mile (PM)	Description	Construction Timeline	Construction Cost	Funding Source	Project Manager (Resident Engineer)	Contractor	Comments
1.	Santa Cruz 1 CAPM and Bridge Rails (1C85U)	In and near Santa Cruz from North Aptos up to Jct. Route 9 PM (10.2 to 17.5)	Pavement Rehabilitation, ADA Curb Ramps, Guardrail/Barrier rail/Bridge	June 2, 2019 – Fall 2020	\$22 million	SHOPP	Luis Duazo (GG)	Granite Construction Company Watsonville, CA	Work has started on repairing failed pavement (grinding) in preparation for paving. Works also continues on bridge rails.
2.	Highway 9 Spring Creek Road Soldier Pile Wall (1K140)	Near Boulder Creek at Spring Creek Road (PM 15)	Construct Soldier pile wall restore roadway and facilities, place water pollution control BMPs, erosion control	Summer 2019—Spring 2020	\$2.8 million	SHOPP	Doug Hessing (BR)	Gordon N. Ball, Inc. Alamo, CA	Construction completed in March 2020.
3.	Highway 17 Pasatiempo Shoulder Widening (1C670)	South of Pasatiempo overcrossing (PM 0.2/0.5)	Shoulder widening and soil nail wall	Spring 2019-Summer 2020	\$5.7 million	SHOPP	Luis Duazo (BR)	Graniterock Company Watsonville, CA	Retaining wall construction has begun and project is scheduled to be substantially complete by Summer 2020; Project is currently in winter suspension.
4.	Highway 17 North Route 17 CAPM (1F760)	Scotts Valley from just north of the Granite Creek Road overcrossing to SCL (PM 6.0/12.5)	Maintenance pavement overlay	Summer 2020	\$19 million	SHOPP SB-1	Doug Hessing (JW)	Granite Construction Company, Watsonville, CA	Construction is underway and is scheduled to be completed in Summer of 2020.
5.	Pedestrian Signal Upgrades (1G160)	Various Locations: Highways 1, 9, 17, 129, and 152	Install Accessible Pedestrian Signal (APS)	March 2020 – Summer 2020	\$ 1.8 million	SHOPP	Mike Lew (FK)	Crosstown Electrical & Data, Inc	Construction is underway and is scheduled to be completed in Summer 2020.



PROJECT UPDATE – SANTA CRUZ COUNTY

PREPARED FOR THE JUNE 4, 2020 SANTA CRUZ COUNTY REGIONAL TRANSPORTATION COMMISSION MEETING

PROJECTS IN DEVELOPMENT									
	Project	Location Post Mile (PM)	Description	Construction Timeline	Estimated Construction Cost	Funding Source	Project Manager	Phase	Comments
6.	Highway 1 Soquel Creek Scour Protection (1H480)	In Capitola at Soquel Creek Bridge (PM 13.3)	Bridge preventative maintenance – Place scour protection	Winter 2022	\$2.2 million	SHOPP	Luis Duazo	PS&E	PA&ED was achieved 4/14/2020. Project to move into PS&E (Design Phase).
7.	TMS Detection Repair (1H990)	Various locations throughout District 5 along SRs 1, 17, 68, 156, 101 (PM Various)	Replace failed TMS Detection	Summer 2020	\$451,000	SHOPP SB-1	Brandy Rider	PS&E/RW	Project is in Design.
8.	Highway 1/ Highway 17 Ramp Safety Improvements (1H060)	From the fishhook to Pasatiempo overcrossing (PM 16.7)	Construct ramp safety improvements	May 2020	\$5.8 million	SHOPP	Luis Duazo	PS&E/RW	PS&E and R/W phase to be completed in June.
9.	Highway 1 Davenport Culvert Replacement (0J200)	Near Davenport and south of Waddell Creek Bridge (PM 31.9/35.7)	Replace culverts	Fall 2021	\$3.6 million	SHOPP SB-1	Doug Hessing	PA&ED	The project is in the design, right of way, and permitting phase.
10.	SCr 9 South Drainage and Erosion Control Improvements (1F920)	From SR 1 and 9 to slightly north of Glen Arbor Road (PM 0.0/8.5)	Upgrade drainage systems and stabilize slopes	Fall 2020	\$2 million	SHOPP	Doug Hessing	PS&E/RW	Project is in Design.



PROJECT UPDATE – SANTA CRUZ COUNTY

PREPARED FOR THE JUNE 4, 2020 SANTA CRUZ COUNTY REGIONAL TRANSPORTATION COMMISSION MEETING

PROJECTS IN DEVELOPMENT (Cont'd.)									
	Project	Location Post Mile (PM)	Description	Construction Timeline	Estimated Construction Cost	Funding Source	Project Manager	Phase	Comments
11.	Highway 9 PM 1.0 and 4.0 Viaduct (1K120)	Near SCr north of Vernon Street (PM 1/1)	Construct side- hill viaduct restore roadway and facilities, place Water Pollution Control BMPs, erosion control	Fall 2022	\$9.9 million	SHOPP	Doug Hessing	PA&ED	Project is in preliminary Design and Environmental phase.
12.	SCr 9 Upper Drainage and Erosion Control Improvements (1G950)	In Boulder Creek from Holiday Lane to just south of Ben Lomond to the SR 236/9 Junction (PM 8.5/25.5)	Upgrade drainage and erosion control	Spring 2023	\$5.4 million	SHOPP	Doug Hessing	PA&ED	
13.	Highway 9 San Lorenzo River Bridge and Kings Creek Bridge Replacement (1H470)	Near Boulder Creek, at San Lorenzo River Bridge and at Kings Creek Bridge (PM 13.6/15.5)	Replace bridges	Summer 2022	\$12 million	SHOPP SB-1	Doug Hessing	PA&ED	Project is in preliminary Design and Environmental phase.
14.	Highway 9 Hairpin Tieback (1K130)	Near Boulder Creek about 1.1 miles south of the SR 236/9 Junction (PM 19.97)	Soldier Pile Tieback Retaining Wall	Spring 2021	\$2.6 million	SHOPP	Doug Hessing	PA&ED	Storm Damage Repair



PROJECT UPDATE – SANTA CRUZ COUNTY

PREPARED FOR THE JUNE 4, 2020 SANTA CRUZ COUNTY REGIONAL TRANSPORTATION COMMISSION MEETING

PROJECTS IN DEVELOPMENT (Cont'd.)									
	Project	Location Post Mile (PM)	Description	Construction Timeline	Estimated Construction Cost	Funding Source	Project Manager	Phase	Comments
15.	Highway 17 Wildlife Habitat Crossing (1G260)	From Laurel Road to just north of Laurel Road (PM 9.442-9.692)	Construct wildlife undercrossing	Summer 2021	\$6.22 million	SHOPP	Aaron Henkel	PS&E/RW	Project is in design and on schedule.
16.	Highway 129/ Lakeview Road Intersection Improvements (1G990)	Near Watsonville, at Lakeview Road (PM 1.4)	Construct roundabout and improve street lighting	2020	\$4.5 million	SHOPP	Luis Duazo	PS&E/RW	
17.	Highway 152 Corralitos Creek ADA (05- 1F620)	Near Watsonville, East of Beverly Drive to Holohan / College Road (PM1.9 to R2.0)	Construct Accessible Pathway	Spring 2022	\$3.4 million	SHOPP	Mike Lew	PA&ED	Project is currently at 80% complete for the PA&ED stage.
18.	Crosswalks and Pedestrian Safety Enhancements (1G760)	Various Locations: Highways 1, 9, 129, and 152 (Note: Project also includes six locations in Monterey County, on Routes 68 and 183)	Electrical/Sign s/ Flashing Beacons/ Markings/ Pavements	Summer 2020	\$1,000,000	Minor	Mike Lew	PS&E	Contract was awarded to Alfaro Communications Construction and will begin in Summer 2020.



PROJECT UPDATE – SANTA CRUZ COUNTY

PREPARED FOR THE JUNE 4, 2020 SANTA CRUZ COUNTY REGIONAL TRANSPORTATION COMMISSION MEETING

PROJECTS IN DEVELOPMENT (Cont'd.)									
	Project	Location Post Mile (PM)	Description	Construction Timeline	Estimated Construction Cost	Funding Source	Project Manager	Phase	Comments
19.	Highway 236 Heart Hill Wall (1M450)	Near Boulder Creek (PM 5.4)	Install engineered fill and restore roadway	2022/2023	\$1.8 million	SHOPP	Doug Hessing	PID	Project is in the initiation phase.

ACRONYMS USED IN THIS REPORT:

ADA	Americans with Disabilities Act
CEQA	California Environmental Quality Act
CMAQ	Congestion Mitigation Air Quality
CMIA	Corridor Mobility Improvement Account
CTC	California Transportation Commission
ED	Environmental Document
EIR	Environmental Impact Report
PA&ED	Project Approval and Environmental Document
PM	Post Mile
PS&E	Plans, Specifications, and Estimates
RW	Right of Way
SB1	Senate Bill 1, the Road Repair and Accountability Act of 2017
SCL	Santa Clara County Line
SHOPP	State Highway Operation and Protection Program
SR	State Route
STIP	State Transportation Improvement Program
TMS	Traffic Management System