

**State Highway Operation and Protection Program (SHOPP)
Project Outputs**

Project Title	District	PPNO	Output	Approved Quantity	Unit
(Br. # 29-0082R) - full-length replacement of Box Girder- In	10	3698	Major Damage (Emergency Restoration)	1	Location(s)
010 HFST- SB 5 from I-210 to Roxford	7	6127	Safety Improvements	0.4	Annual fatal and serious injury collision(s)
010, 118 at Hayvenhurst Ave off-ramp	7	6128	Safety Improvements	0.14	Annual fatal and serious injury collision(s)
010, LA 138 at 90th St	7	6123	Safety Improvements	1.28	Annual fatal and serious injury collision(s)
010, SB offramp to Calabasas, Signal	7	6129	Safety Improvements	0	Annual fatal and serious injury collision(s)
04-1A905_SF 1_SFUPC CONNECTION	4	1067C	Storm Water Mitigation	9.6	Acre(s) treated/pollutant
04-1Q820_SF 101-Roadway Rehab 3R	4	2025D	Roadway Rehabilitation	14.2	Lane mile(s)
		2904K	Roadway Rehabilitation (3R)	15.4	Lane mile(s)
04-1W710_ALA 680_DRAINAGE INLETS AND GUARDRAILS	4	2909J	Safety Improvements	0.29	Annual fatal and serious injury collision(s)
04-2K950_SF 101_REPLACE MATERIALS LAB	4	1453E	Materials Laboratories	1	Location(s)
04-2Q460_SF 101-BRIDGE RAIL REPLACEMENT AND UPGRADE	4	2026H	Bridge Rail Replacement and Upgrade	843	Linear feet rail
04-2Q600_SF 101-HIGHWAY PLANTING	4	2028C	Roadside Rehabilitation	18	Acre(s)
04-3J300_SF 001 Lighting at MacArthur Tunnel	4	1490A	Signs and Lighting Rehabilitation	380	Lighting fixture(s)
04-3J890_SF VAR_ACCES, PED SIGNALS	4	1489B	Safety Enhancements	4	Collision(s) reduced
04-3K420_SF-35 Signals at Skyline/Great HWY	4	1459E	Safety Improvements	5	Collision(s) reduced
04-4J390_SF 101-MITIGATE WET PAVEMENT	4	1490F	Safety Improvements	261	Collision(s) reduced
04-4J970_SF 101-UPGRADE GATES AND FENCES	4	1493G	Roadside Safety Improvements	80	Location(s)
04-4K110_SF 001 19th AVE. CAPM AND INTERCONNECT SIGNALS	4	0481V	Transportation Management (TMC's & Field Equipment)	4	Field element(s)
04-ALA-84	4	0482N	Protective Betlements	2	Location(s)
04-Alameda-61 Safety Improvements	4	2804F	Safety Improvements	19	Collision(s) reduced
04-ALA-VAR WRONG WAY IMPROVEMENT	4	2921K	Safety Improvements	0.85	Annual fatal and serious injury collision(s)
04-CC-680-PM RO,O/R7.7: CAPM I-680	4	2032P	Pavement Preservation (CAPM)	60	Lane mile(s)
07-1XW104-Ven 126, PM 20.30	7	5834	Major Damage (Permanent Restoration)	1	Location(s)
0724000189, 2XM004, LA-210, Storm Damage (DO)	7	6249	Major Damage (Emergency Restoration)	1	Location(s)
07-2XA804-LA 710 PM 7.87/7.90	7	5890	Major Damage (Emergency Opening)	1	Location(s)
07-2XJ504-LA 105, PM 2.001R/2.003R	7	6097	Major Damage (Emergency Restoration)	2	Location(s)
07-2XJ904-LA 27, PM 3.54/3.60	7	6101	Major Damage (Emergency Restoration)	1	Location(s)
07-2XK704-LA 10, PM 15.6/17.6	7	6141	Major Damage (Emergency Restoration)	10	Location(s)
07-2XM504-Ven Var, PM Var	7	6254	Maintenance Facilities	2	Location(s)
07-2XM604-Ven 101, PM RA.00/T40.4	7	6255	Major Damage (Emergency Restoration)	1	Location(s)
07-2XN804-Ven 150, PM 1.0/5.0	7	6266	Major Damage (Emergency Restoration)	2	Location(s)
07-2XP204-Ven 126 - Debris Removal	7	6285	Major Damage (Emergency Restoration)	2	Location(s)
07-2XQ204-LA 47, PM 2.3/2.3	7	6294	Major Damage (Emergency Restoration)	1	Location(s)
07-2XQ704-LA 1, PM 40.7/54.1, Franklin Fire	7	6299	Major Damage (Emergency Restoration)	21	Location(s)
07-LA-10, (PM 32.5), Bassett High School regional Multi-Benefit stormw	7	6132	Storm Water Mitigation	155	Acre(s) treated/pollutant
07-LA-10, (PM 33.45), Allan J. Martin Park U/G installation - FCO	7	6131	Storm Water Mitigation	88	Acre(s) treated/pollutant
07-LA-10, (PM R9.13), Syd Kronenthal Park BMPs implementation for TMDL	7	6109	Storm Water Mitigation	181	Acre(s) treated/pollutant
0K530 Install Ramp Metering	4	1493N	Transportation Management Systems	41	Field element(s)
10-0X461 Stockton Channel Viaduct Bridge Replacement /Southbound	10	3133A	Bridge Rehabilitation and Replacement	3	Bridge(s)
10-0X462 Stockton Channel Viaduct Bridge Replacement /Northbound	10	3133B	Bridge Rehabilitation and Replacement	2	Bridge(s)
101/135 Bridge Replacement	5	2522	Bridge Major Rehabilitation		Bridge(s)
101/135 Landscape split	5	2522Y	Bridge Rehabilitation and Replacement	0	Bridge(s)
105/405 Tunnels Lighting	7	5507	Signs and Lighting Rehabilitation	878	Lighting fixture(s)
105-replace joint seals	7	5069	Capital Bridge Preventative Maintenance Program	2	Bridge(s)
110 Culverts: San Pedro to 91	7	5631	Drainage System Restoration	11	Culvert(s) (ea)
110/10 Reactive Safety	7	5152	Safety Improvements	404	Collision(s) reduced
11-43097X - ADA & TMS	11	1399	ADA - New Curb Ramps	20	Curb ramp(s)
11-43176X - DO - REMOVE ADL SOIL & REPLACE W/IMPORTED BORROW	11	1495	Major Damage (Permanent Restoration)	1	Location(s)
118 Sepulveda Roadside safety	7	5216	Roadside Safety Improvements	32.7	Location(s)
11-JMP-008-BRIDGE REHABILITATION	11	1336	Bridge Preventative Maintenance	2	Bridge(s)
11-JMP-98 COLD-IN-PLACE RECYCLE	11	1342	Pavement Preservation	11.2	Lane mile(s)
11-SD-67 RHMA OVERLAY W/ SAMI	11	1344	Roadway Rehabilitation (3R)	49.8	Lane mile(s)
11-SD-8 & 125 ROADSIDE SAFETY IMPROVEMENTS	11	1168	Roadside Safety Improvements	15	Location(s)
11-SD-8 & 15 ROADSIDE SAFETY IMPROVEMENTS	11	1166	Roadside Safety Improvements	24	Location(s)
11-SD-8 & 805 ROADSIDE SAFETY IMPROVEMENTS	11	1165	Roadside Safety Improvements	44	Location(s)
11-SD-8 ROADSIDE SAFETY IMPROVEMENTS	11	1167	Roadside Safety Improvements	39	Location(s)
11-SD-94-PM:4.4/7.3 - ROADSIDE WORKER SAFETY	11	1253	Roadside Safety Improvements	26	Location(s)
12- 0N320 Rte 91 Pymt Rehab, Rte55 to Riv CL	12	4609B	Pavement Rehabilitation	90	Lane mile(s)
12-0F970 SR-39 Drainage and ADA	12	3230A	Drainage System Restoration	19	Culvert(s) (ea)
12-0G950 Rte 55 NB Aux lane	12	3483	Non-Capacity Increasing Operational Improvements	1153	Daily Vehicle Hour(s) of Delay (DVHD)
12-0H028 Rt 5 CCTV, fiber opt. upgrade	12	2753B	Transportation Management (TMC's & Field Equipment)	7	Field element(s)
12-0H045 SB 405 Aux Univ. to Sand Cyn. & SR-133	12	4956A	Non-Capacity Increasing Operational Improvements	1003	Daily Vehicle Hour(s) of Delay (DVHD)
12-0H047 SR 241, Capital Preventive Maintenance Project	12	5502	Pavement Preservation (CAPM)	20.4	Lane mile(s)
12-0H150 PCH Laguna Beach Rehabilitate Pavement & ADA upgrades	12	2246	Pavement Preservation (CAPM)	15.6	Lane mile(s)
12-0H151 CAPM combined with ADA EA 0P690	12	2246A	Pavement Rehabilitation	9.5	Lane mile(s)
12-0H153 CAPM Combined with ADA EA 0M820	12	2246B	Pavement Rehabilitation	10.8	Lane mile(s)
12-0J34U Rte 055 Construct additional HOV, GP and Aux Lane	12	3474	Auxiliary lane constructed	4.5	Miles
			HOV/HOT mainline constructed	5.8	Miles
			Mixed flow mainline constructed	7.4	Miles
			Operational Improvements	1153	Daily Vehicle Hour(s) of Delay (DVHD)
12-0K62U Rte. 5 Combine Projects 12-0K672 & 12-0S052 at RTL	12	2789	Auxiliary lane constructed	0.4	Miles
			Mixed flow mainline constructed	9	Miles
			Pavement Preservation (CAPM)	55.7	Lane mile(s)
12-0K91U Rte/ 91 Combine 0K981 & 0R314 for Construction	12	4600B	Bicycle lane mile(s)	0.2	Miles
			Channelization	0.4	Each
			Interchange modification(s)	1	Each
			Intersection/Signal improvement(s)	1	Each
			Local reconstructed bridge(s)/tunnel(s)	86400	\$QFT
			Transportation Management Systems	14	Field element(s)
12-0K93U, Rte 91, Combine Projects 0K983 and 0R312 for Const	12	4553A	Pavement Preservation (CAPM)	13.6	Lane mile(s)
12-0L722 Rt 74 Mitigation Plant Establishment for 0L720	12	4124B	Safety Improvements	0	Collision(s) reduced

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12-0M090_SR-74 ADA	12	4097C	ADA - New Curb Ramps	48	Curb ramp(s)
12-0M82C Rte 001 Upgrade to ADA Standards & CAPM	12	2300	ADA - Pedestrian Infrastructure	83	Curb ramp(s)
12-0M82U Rte 001 Upgrade to ADA Standards & CAPM	12	2279	ADA - Pedestrian Infrastructure	83	Curb ramp(s)
			Pavement Rehabilitation	10.8	Lane mile(s)
12-0M990 PCH/Broadway Culvert Bridge	12	2293	Bridge Rehabilitation	1	Bridge(s)
12-0N060 Rte 133-Widening	12	4793	Safety Improvements	65	Collision(s) reduced
12-0N490 Rte 91 EB-Upgrade Weigh Station	12	4642A	Weight Stations & Weight-In-Motion Facilities	1	Location(s)
12-0N510 Rt 5 Roadside Worker Safety Project	12	2841	Roadside Safety Improvements	36	Location(s)
12-0N520 Rt 405 Roadside Worker Safety Project	12	4999D	Roadside Safety Improvements	20	Location(s)
12-0N530 Rt 55 Roadside Worker Safety Project	12	3535	Roadside Safety Improvements	32	Location(s)
12-0N630 SR-55 at 4th Signal Upgrade	12	3510	Safety Improvements	11	Collision(s) reduced
			Safety Enhancements	63	Collision(s) reduced
12-0N720 Rte. 73 Upgrade Safety Devices	12	4051A	Collision Severity Reduction	114	Collision(s) reduced
12-0N730 Rt 142 335 Program Sediment Issue/control	12	5380A	Storm Water Mitigation	1.7	Acre(s) treated/pollutant
12-0N840 Resurface and Restripe Roadway	12	4096P	Safety Improvements	57	Collision(s) reduced
12-0N850 PCH Modify Signal, Safety lighting	12	2527	Safety Improvements	47	Collision(s) reduced
12-0N860 Modifying the Existing Lane at MacArthur	12	4096R	Safety Improvements	82	Collision(s) reduced
12-0N870 Extend NB merge lane at Canyon Acres.	12	4769	Safety Improvements	34	Collision(s) reduced
			Operational Improvements	271.3	Daily Vehicle Hour(s) of Delay (DVHD)
12-0N920 WB Rte 22 Hastler Off - Upgrade Drainage	12	2948	Drainage System Restoration	12	Culvert(s) (ea)
12-0N930 PCH Clean and Rehab RCB	12	2403A	Drainage System Restoration	14	Culvert(s) (ea)
12-0P010 SR 39/90 Modify signals, add safety, ADA & refresh striping.	12	3167	Safety Improvements	141	Collision(s) reduced
12-0P030 Rte. 74 Super Elevation Correction.	12	4218	Safety Improvements	167	Collision(s) reduced
12-0P031 Rte. SR 74 Landscape and Plant Establishment	12	4218B	Safety Improvements	0	Collision(s) reduced
12-0P090 Rt 5/133 Install Stormwater Control Items	12	2632A	Storm Water Mitigation	1	Acre(s) treated/pollutant
12-0P220 Rte 405 Upgrade Median Barrier to Type 60M	12	4995A	Safety Improvements	8	Collision(s) reduced
12-0P400 I-405 at Culver Modify Signal & Upgrade ADA	12	4984	Safety Improvements	43	Collision(s) reduced
12-0P420 I-5, SR57, & SR 91 ICM123 Project combined with ICM 1, 2, & 3	12	2859B	Transportation Management Systems	204	Field element(s)
12-0P520 Rte 22 & Rte 57 Install Safety Lighting	12	2981	Safety Improvements	36	Collision(s) reduced
12-0P580 Rte 90 CAPM	12	4337	Pavement Rehabilitation	11.7	Lane mile(s)
12-0P590 Resurface 14.9 lane miles	12	2499A	Pavement Rehabilitation	14.9	Lane mile(s)
12-0P660 Rt 1 Stabilize bioswales	12	2322B	Storm Water Mitigation	9	Acre(s) treated/pollutant
12-0P671 Integrated Corridor Mgmt on 3 State Route	12	2859C	Transportation Management Systems	0	Field element(s)
12-0P672 Integrated Corridor Mgmt on 3 State Route	12	2859D	Transportation Management (TMC's & Field Equipment)	468	Field element(s)
12-0P680 Upgrade Traffic Signal	12	2330	Transportation Management (TMC's & Field Equipment)	19	Field element(s)
12-0P68U, Rte 1, Upgrade Traffic Signals,Resurface Lanes,ADA	12	2330A	Pavement Preservation (CAPM)	14.9	Lane mile(s)
			Transportation Management Systems	19	Field element(s)
12-0P690 PCH Laguna Beach Upgrade ADA	12	2255	ADA - New Curb Ramps	53	Curb ramp(s)
12-0P69U Rte 1 Upgrade ADA curb ramps, widen sidewalk	12	2257	ADA - New Curb Ramps	53	Curb ramp(s)
			Pavement Preservation (CAPM)	9.5	Lane mile(s)
12-0P700 Rt 5, Drainage restoration Segunda Deshecha Channel	12	2563	Drainage System Restoration	1	Culvert(s) (ea)
12-0P900 Rte 5 Roadside Worker Safety Project	12	2860N	Roadside Safety Improvements	40	Location(s)
12-0P910 Rte 5 Roadside Worker Safety Project	12	2861E	Roadside Safety Improvements	40	Location(s)
12-0P920 Rt 5 Roadside Worker Safety Project	12	2861Z	Roadside Safety Improvements	40	Location(s)
12-0P930 Rte 5 Roadside Worker Safety Project	12	2862H	Roadside Safety Improvements	80	Location(s)
12-0P94U SR-133 Widening and Drainage Improvement	12	4794	Drainage System Restoration	2	Culvert(s) (ea)
			Safety Improvements	65	Collision(s) reduced
12-0P980 WB Rte 22 Euclid onramp,OGAC,drainage,delineat'n,ADA	12	2930	Safety Improvements	17	Collision(s) reduced
12-0Q040 Rte 91 EB on ramp resurfacing & GR	12	4533A	Safety Improvements	17	Collision(s) reduced
12-0Q130 Install Double Thrie Beam Median Barrier	12	4926F	Safety Improvements	3	Collision(s) reduced
12-0Q270 Slope Stabilizing at Tonner Cyn	12	3846B	Storm Water Mitigation	29.8	Acre(s) treated/pollutant
12-0Q280 PCH Install Outer Separation Barrier	12	2470A	Safety Improvements	2	Collision(s) reduced
12-0Q290 Signal Modification	12	3279	Safety Improvements	25	Collision(s) reduced
12-0Q300 Rt 5 Harbor Bl. Surface treatment	12	2861F	Safety Improvements	38	Collision(s) reduced
12-0Q310 SR 91 overhead sign structure	12	4532A	Safety Improvements	253	Collision(s) reduced
12-0Q320 Rte 22 Safety Lighting	12	2970A	Safety Improvements	120	Collision(s) reduced
12-0Q360 Drainage System Restoration	12	4792	Drainage System Restoration	2	Culvert(s) (ea)
12-0Q390 Bridge Seismic Restoration	12	3450A	Bridge Seismic Restoration	1	Bridge(s)
12-0Q420 Rte 90/Berry St Signals, lighting, pavement delineation	12	4373	Safety Improvements	23	Collision(s) reduced
12-0Q640 SR 39 Signals, safety lighting, crosswalk	12	3182	Safety Improvements	31	Collision(s) reduced
12-0Q650 WB Rte 22 Valley View Off-Ramp Signal, lighting and ADA	12	2873B	Safety Improvements	28	Collision(s) reduced
12-0Q660_SB 55 to SB 405 connector, Replace Slab	12	3458A	Roadway Rehabilitation	0.5	Lane mile(s)
12-0Q690 detection system rehab.	12	1203	Transportation Management (TMC's & Field Equipment)	251	Field element(s)
12-0Q790 SR 57 Apply HFST and refresh striping	12	3792B	Safety Improvements	9	Collision(s) reduced
12-0Q820 I-5 HFST, delineation, loop detectors and safety devices	12	2834A	Safety Improvements	161	Collision(s) reduced
12-0Q830 PCH at Superior & at Beach Upgrade signals & ADA	12	2403B	Safety Improvements	68	Collision(s) reduced
12-0Q840 In Costa Mesa on SB SR-55 Modify End of Freeway Signs	12	3424A	Safety Improvements	40	Collision(s) reduced
12-0Q850 I-5 Polyester concrete on 3 bridges	12	2860P	Safety Improvements	102	Collision(s) reduced
12-0Q930 Bridge Project on Route 5 and 133	12	1204	Bridge Preventative Maintenance	25	Bridge(s)
12-0Q970 Rte 405 [S.] Asset Management	12	5040D	Pavement Preservation (CAPM)	91	Lane mile(s)
12-0Q980 SR 241 SB-1 Bridge, TMS & Roadside	12	3102A	Bridge Rehabilitation and Replacement	2	Bridge(s)
12-0Q990 PCH SB-1 Multi Asset Project	12	2209A	Roadside Safety Improvements	24	Location(s)
12-OR150 55 at Chapman Upgrade Lighting, ADA	12	3542A	Safety Improvements	34	Collision(s) reduced
12-OR170 Laguna Beach Route 1 @ Cress St. Modify Signals & ADA	12	2285	Safety Improvements	16	Collision(s) reduced
12-OR180 Rte 90 New signals, safety lighting, ADA, & striping	12	4325	Safety Improvements	63	Collision(s) reduced
12-OR190 SR 91 Install new guide sign structures.	12	4560	Safety Improvements	45	Collision(s) reduced
12-OR200 Interstate 5 Pavement Rehabilitation Project	12	2530N	Roadway Rehabilitation (2R)	12.8	Lane mile(s)
12-OR290, Rte 22, HFST and Safety Devices Project	12	2916	Safety Improvements	15	Collision(s) reduced
12-OR311 State Route 91 Multi-Asset Project	12	4506F	Pavement Preservation (CAPM)	51.2	Lane mile(s)
12-OR312, Rte 091, Multi-Asset Project	12	4506G	Pavement Preservation (CAPM)	13.6	Lane mile(s)

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12-OR313, Rte 091, Multi-Asset Project	12	4506H	Pavement Preservation (CAPM)	17.3	Lane mile(s)
12-OR314, Rte 091, Multi-Asset Project	12	4506I	Transportation Management Systems	14	Field element(s)
12-OR315, Rte 091, Multi-Asset Project	12	4506J	Transportation Management Systems	78	Field element(s)
12-OR320 Rte 55 Multi-Asset Project	12	3402B	Pavement Preservation (CAPM)	68.2	Lane mile(s)
12-OR330, Rte 405 Multi-Objective Asset Management Project	12	5040B	Pavement Preservation (CAPM)	59.8	Lane mile(s)
12-OR340 RT 73 bridge decks and rehab approach slabs	12	4080	Bridge Rehabilitation	10	Bridge(s)
12-OR360 SR 39 Class II pavement and drainage upgrades	12	3237	Pavement Preservation (CAPM)	55.7	Lane mile(s)
12-OR370, Rte 57, Multi-Asset Project, Bridge Health anchor.	12	3636B	Bridge Rehabilitation and Replacement	10	Bridge(s)
12-OR400 SR 39 Relinquishment	12	3202A	Relinquishments	1.3	Centerline mile(s)
12-OR410 PCH at Newport Beach CAPM w ADA & FO	12	2374	Pavement Preservation (CAPM)	18.8	Lane mile(s)
12-OR470 Rt 5 Safety Lighting Project at Redhill	12	2823	Safety Improvements	16	Collision(s) reduced
12-OR500 Rt 55 at Hospital Rd. Safety Lighting & Signals	12	3407A	Safety Improvements	14	Collision(s) reduced
12-OR510 I-5 Safety Project - Cold plane, place RHMA & HSFT	12	2860U	Safety Improvements	35	Collision(s) reduced
12-OR560 VAR Connector Rehab project.	12	3959	Pavement Preservation (CAPM)	19.4	Lane mile(s)
12-OR570 RT 405 Multi-Asset Project	12	5094C	Pavement Preservation (CAPM)	79.8	Lane mile(s)
12-OR57U Rte. 405 Reh pvmt, Indscprng-install WIM-add stations	12	5095B	Pavement Preservation (CAPM)	139.6	Lane mile(s)
12-OR670 SR 55 Add Safety Lighting, Barrier & Striping	12	2591	Safety Improvements	605	Collision(s) reduced
12-OR680, I-605, Install Safety Lighting	12	5242A	Safety Improvements	62	Collision(s) reduced
12-OR730 Rte 91 Overhead sign structure with high reflective panel.	12	4507C	Safety Improvements	230	Collision(s) reduced
12-OR740 Rte 39 Signal modification, Ped. Lighting, and Traffic Census	12	3207	Safety Improvements	31	Collision(s) reduced
12-OR750, Rte 5, Safety Traffic Control Device Modification	12	2860F	Safety Improvements	71	Collision(s) reduced
12-OR920 Rt 90 Safety Improvements SB 57 Off Ramp & at Kraemer	12	4364	Safety Improvements	54	Collision(s) reduced
12-OR970 I-5 Multi Asset Project	12	2531H	Pavement Preservation (CAPM)	21.7	Lane mile(s)
12-OR990 SR-74 Multi Asset Project	12	4097D	Pavement Preservation (CAPM)	23	Lane mile(s)
12-OS051, Rte 5, Multi Asset from I-405 to Yale Ave. OC	12	2590A	Pavement Preservation (CAPM)	51.2	Lane mile(s)
12-OS052, Rte5, Multi Asset Project from Yale Ave OC to SR55	12	2590B	Pavement Preservation (CAPM)	55.7	Lane mile(s)
12-OS060 Rte 133, Multi Asset Project	12	4836	Bridge Rehabilitation and Replacement	2	Bridge(s)
12-OS080 Rte 22, Maintenance Facility & TMS	12	2982	Transportation Management Systems	11	Field element(s)
12-OS100 Rte 5, Safety Project	12	2786	Safety Improvements	10	Collision(s) reduced
12-OS110 Rte.22 Safety Lighting Project	12	2869B	Safety Improvements	515	Collision(s) reduced
12-OS140 Rte.1 Bike Lane- Class II Bike Way Facility	12	2385A	Safety Improvements	222	Collision(s) reduced
12-OS150 Rte. 241 Jump Out Ramp	12	5505B	Major Damage (Permanent Restoration)	26	Location(s)
12-OS170 Rte. 5 Safety Project. median barrier & safety light. upgrade	12	2564B	Safety Improvements	110	Collision(s) reduced
12-OS190 WB Rte. 22 Safety Improvement	12	2977	Safety Improvements	156	Collision(s) reduced
12-OS240, Rte 91, Repair Bridge Girder	12	4570B	Major Damage (Emergency Opening)	1	Location(s)
12-OS250 Profile grind and raise depressed areas of asphalt pavement.	12	5495B	Major Damage (Emergency Opening)	2	Location(s)
12-OS280 I-5 Safety Project at SR -74 SB off ramp.	12	2627	Safety Improvements	47	Collision(s) reduced
12-OS310 Rte. 5 Safety Project	12	2819	Safety Improvements	11	Collision(s) reduced
12-OS320, Rte 5, Orangethorpe Overcrossing/Overhead Bridge	12	2862N	Major Damage (Emergency Opening)	1	Location(s)
12-OS330 Rte.57 Add lighting & replace pavement delineation	12	3747B	Safety Improvements	656	Collision(s) reduced
12-OS350, Rte VAR, PSPS Retro-reflective Traffic Signal Head	12	1205	Major Damage (Emergency Opening)	47	Location(s)
12-OS380, Rte 5, RT 74 to RT 405 Multi-Asset Project	12	2676A	Pavement Preservation (CAPM)	136.4	Lane mile(s)
12-OS390 Rte. 5 Apply HFST at NB off-ramp to Magnolia St.	12	2862G	Safety Improvements	14	Collision(s) reduced
12-OS500, Rte 5, Multi Asset Project 55 to LA County	12	2834B	Roadway Rehabilitation (3R)	150.9	Lane mile(s)
12-OS520 Rte. 22 Apply HFST at WB La Veta Ave On-Ramp	12	2962	Safety Improvements	0.35	Annual fatal and serious injury collision(s)
12-OS530, Rte 57, SB Rte 57 to WB Rte 91 Connector Lane Drop	12	3795	Safety Improvements	0.4	Annual fatal and serious injury collision(s)
12-OS680, Rte 241, District 12 Silverado Fire Restoration	12	5490B	Major Damage (Emergency Opening)	2	Location(s)
12-OS690 Rte.5 Pavement Delineation Modifications	12	2860V	Safety Improvements	10	Collision(s) reduced
12-OS700, Rte 22, Apply HFST GG/Haster	12	2947	Safety Improvements	0.18	Annual fatal and serious injury collision(s)
12-OS710 Rte 5 Orangethorpe Bridge Repairs	12	2862O	Major Damage (Emergency Opening)	1	Location(s)
12-OS750 Rte 1 Doheny Park CS Gap Closure	12	2208A	ADA - New Curb Ramps	8	Curb ramp(s)
12-OS840, NB I-5 On-ramp at Anaheim Blvd Intersect	12	2860Z	Safety Improvements	0.03	Annual fatal and serious injury collision(s)
12-OT020, Rte 22, Construct weaving juncture near Valley View Off	12	2870A	Safety Improvements	0.14	Annual fatal and serious injury collision(s)
12-OT070, Rte 57, Placentia Unsheltered Encampment ERDO	12	3801	Major Damage (Emergency Opening)	1	Location(s)
12-OT120 Deck spall repairs and polyester concrete overlay	12	3759A	Bridge Preventative Maintenance	1	Bridge(s)
12-OT160, Rte 39, Modify Traffic Signals	12	3172A	Safety Improvements	0.15	Annual fatal and serious injury collision(s)
12-OT240 Rte 133/241.Silverado Landscape Permanent Restoration	12	5495C	Major Damage (Permanent Restoration)	2	Location(s)
12-OT270, Rte 241, Multi Asset Project	12	5490C	Pavement Preservation (CAPM)	58.3	Lane mile(s)
12-OT280 Rte.1-5 Multi Asset Maintenance Facility	12	2613	Maintenance Facilities	1	Location(s)
12-OT290 Rte. 39 Sinkhole Repair & Culvert Pipe Replacement	12	3105	Major Damage (Emergency Opening)	1	Location(s)
12-OT730, Rte 241/133, Silverado Fire Remaining Features	12	5498	Major Damage (Permanent Restoration)	16	Location(s)
12-OT740 Rte. 73 Oso Creek Channel Slope Embankment Repairs	12	4060	Major Damage (Emergency Restoration)	1	Location(s)
12-OT840 Rte.405 MacArthur Blvd. Median Concrete Barrier Hit	12	5005	Major Damage (Emergency Opening)	1	Location(s)
12-OT850 Rte. I-5 Bridge Repairs	12	2862P	Major Damage (Emergency Opening)	3	Location(s)
12-OT950, Rte 5, I-5 HOV Operational Improvements	12	2750	Operational Improvements	400	Daily Vehicle Hour(s) of Delay (DVHD)
12-OU160 Rte.1 PCH Slope Embankment Repair	12	2320A	Major Damage (Emergency Opening)	1	Location(s)
12-OU390 Rte 57, NB SR-57 Median Concrete Barrier Rail Repairs	12	3790	Major Damage (Emergency Opening)	1	Location(s)
12-OU410, Rte 091/241 MSE Wall Repairs	12	4662A	Major Damage (Emergency Opening)	1	Location(s)
12-OU420 Rte. 91 Brookhurst Avenue Off-Ramp Sinkhole & Damage	12	4518A	Major Damage (Emergency Opening)	1	Location(s)
12-OU570, Rte 074, Cable Netting-Emergency Director's Order	12	4133	Major Damage (Emergency Restoration)	1	Location(s)
12-OV200 Rte. Var. Security Measures at Maintenance Stations	12	1207	Maintenance Facilities	6	Location(s)

**State Highway Operation and Protection Program (SHOPP)
Project Outputs**

Project Title	District	PPNO	Output	Approved Quantity	Unit
12-0V440 Rte 241 Slope Failure	12	5504	Major Damage (Emergency Restoration)	1	Location(s)
12-0V550 Rte. 5 Bake Parkway Off-Ramp Hinge Replacement	12	2744C	Major Damage (Emergency Restoration)	1	Location(s)
12-0V840 R1 39 Beach Blvd Sinkhole, Culvert Pipe Replacement	12	3116	Major Damage (Emergency Restoration)	1	Location(s)
127 PAVEMENT	9	2670	Pavement Rehabilitation	42	Lane mile(s)
129 Paving, Sign Panels, Lighting, TMS Improvement	5	2775	Pavement Preservation (CAPM)	6.8	Lane mile(s)
129/152 Storm Damage	5	3160	Major Damage (Emergency Opening)	1	Location(s)
129/Lakeview Intersection Improvement	5	2625	Safety Improvements	46	Collision(s) reduced
134 / 710 Seismic Retrofit	7	4591	Bridge Seismic Restoration	2	Bridge(s)
139 Susanville Paving	2	3718	Pavement Preservation (CAPM)	20.5	Lane mile(s)
13th Street Pump Replacement	5	3155	Major Damage (Emergency Restoration)	1	Location(s)
1-40 CAPM	8	3018R	Pavement Preservation (CAPM)	54.9	Lane mile(s)
144, 192 slipout, sinkhole, and slides	5	3206	Major Damage (Emergency Restoration)	12	Location(s)
15/395 Connector	8	3016Q	Major Damage (Emergency Opening)	1	Location(s)
152 Intersection Control	10	3417	Safety Improvements	10	Collision(s) reduced
154/Baseline-Edison Roundabout	5	2674	Operational Improvements	10	Daily Vehicle Hour(s) of Delay (DVHD)
158 JUNE LAKE SLOPE FAILURE DDO	9	5063	Major Damage (Emergency Restoration)	1	Location(s)
162 Road Widening	3	2635	Safety Improvements	50	Collision(s) reduced
168 Safety Improvements	9	2617	Safety Enhancements	10	Collision(s) reduced
170 HFST Installation	7	5572	Safety Improvements	67	Collision(s) reduced
170 TMS Upgrade + Safety	7	5401	Transportation Management Systems	16	Field element(s)
178 INYOKERN PAVEMENT	9	4205	Pavement Preservation (CAPM)	31	Lane mile(s)
190/Rockford Road Roundabout	6	7033	Safety Improvements	0.22	Annual fatal and serious injury collision(s)
1XW004-LA 10 PM R8.94/R9.39	7	5833	Major Damage (Permanent Restoration)	8	Location(s)
1XW704-LA 1/103 PM 1.59/8.29	7	5840	Major Damage (Emergency Opening)	1	Location(s)
200/299 SEPARATION	1	2430	Trans Permit Requirements for Bridges	1	Bridge(s)
2018 SHOPP TMS Service Contract Project	4	1464M	Transportation Management (TMC's & Field Equipment)	800	Field element(s)
2023 HURRICANE HILARY TROPICAL STORM DAMAGE	8	3023A	Major Damage (Emergency Restoration)	2	Location(s)
		3023C	Major Damage (Emergency Restoration)	1	Location(s)
2023 HURRICANE HILARY TROPICAL STORM DAMAGE	8	3022L	Major Damage (Emergency Restoration)	1	Location(s)
		3022M	Major Damage (Emergency Restoration)	1	Location(s)
2023 Snow Tree Damage	3	4454	Major Damage (Emergency Opening)	16	Location(s)
203 PAVEMENT	9	2712	Roadway Rehabilitation (2R)	26.5	Lane mile(s)
210 Irrigation	7	5080	Roadside Rehabilitation	29.4	Acre(s)
210 Misc	7	5386	Bridge Seismic Restoration	1	Bridge(s)
210 SGR Hinge and Diaphragm Repairs	7	5026	Bridge Major Rehabilitation	1	Bridge(s)
210 SW SOURCE CONTROL	7	4705	Storm Water Mitigation	13.3	Acre(s) treated/pollutant
210 TMS Upgrade in San Dimas	7	5400	Transportation Management Systems	12	Field element(s)
210/57 Safety Signs & Lighting Upgrades	7	5697	Signs and Lighting Rehabilitation	89	Lighting fixture(s)
217 San Jose Crk Bridge Mitigation Planting & Monitoring	5	2386Y	Bridge Rehabilitation and Replacement	0	Bridge(s)
21st Ave UC	3	6923B	Bridge Rehabilitation	1	Bridge(s)
263 Klamath River Bridge	2	3424	Bridge Rehabilitation	1	Bridge(s)
27 1/Mulholland	7	4652	Roadside Safety Improvements	12	Location(s)
29750 & 29530	7	4617	Safety Enhancements	45	Collision(s) reduced
2nd Ave UC Deck Repair	3	6933	Major Damage (Emergency Opening)	1	Location(s)
2XA304 - LA 10 - PM 18.33 ELA Hub	7	5885	Major Damage (Emergency Restoration)	1	Location(s)
2XA504, LA-91 PM R11.56	7	5887	Major Damage (Emergency Restoration)	1	Location(s)
2XC304-LA 23, PM 1.1/1.2	7	6000	Major Damage (Emergency Restoration)	1	Location(s)
2XC604-LA 33, PM 12.9/19.0	7	6003	Major Damage (Emergency Restoration)	1	Location(s)
2XC704 - Ven 126 PM 26.48 Hopper Creek	7	6004	Major Damage (Emergency Restoration)	1	Location(s)
2XE004 - LA 1 PM 40.07/40.55 Ratner Beach	7	6007	Major Damage (Emergency Restoration)	1	Location(s)
2XE104 - Ven 126 PM 9.77-24.61	7	6008	Major Damage (Emergency Restoration)	7	Location(s)
2XE404 - Ven 150 PM 0/20	7	6011	Major Damage (Emergency Restoration)	15	Location(s)
2XE504 - Ven 150 PM 20/32.2	7	6012	Major Damage (Emergency Restoration)	15	Location(s)
2XE604-LA PM 0 Ven 23 PM 3.3	7	6013	Major Damage (Emergency Restoration)	6	Location(s)
2XE704 - Ven 23 PM 17.77/24.16	7	6014	Major Damage (Emergency Restoration)	10	Location(s)
2XF004-LA 405, PM 16.56/19.74, Abutment	7	6056	Major Damage (Emergency Restoration)	7	Location(s)
2XF504 - Ven 33 PM 5.67/11.21 Clean-up	7	6061	Major Damage (Emergency Restoration)	14	Location(s)
2XF604 - Ven 33 PM 23.75-27.50 Clean-up	7	6062	Major Damage (Emergency Restoration)	13	Location(s)
2XF704 - Ven 33 PM 27.50/57.2	7	6063	Major Damage (Emergency Restoration)	35	Location(s)
2XG304-LA 27, PM 0.18/10.62 Washout	7	6069	Major Damage (Emergency Restoration)	10	Location(s)
2XG604-LA 405, PM 36.35 Skirball	7	6072	Major Damage (Emergency Restoration)	1	Location(s)
2XG704-Ven 118, PM 4.5/4.75 Washout	7	6073	Major Damage (Emergency Restoration)	2	Location(s)
2XG804-LA 1, PM 35.23/44.12	7	6074	Major Damage (Emergency Restoration)	12	Location(s)
2XG904-LA 1, PM 44.16/58.50	7	6075	Major Damage (Emergency Restoration)	9	Location(s)
2XH404-LA 1, PM 4.3 & 10.1, Sinkhole	7	6086	Major Damage (Emergency Restoration)	2	Location(s)
2XH704-LA 105, PM R2.28/R2.28 - Tunnel Repair	7	6089	Major Damage (Emergency Restoration)	1	Location(s)
2XH804-LA 10 PM R2.25-R5.20, Washout	7	6090	Major Damage (Emergency Restoration)	4	Location(s)
2XJ004-LA 5, PM 16.05/17.30, Wire Theft	7	6092	Major Damage (Emergency Restoration)	4	Location(s)
2XJ104-LA 110, PM 21.45/25.72, Wire Theft	7	6093	Major Damage (Emergency Restoration)	4	Location(s)
2XJ204-LA 101/110, PM 1.03/1.80 & 23.52/23.92, Wire Theft	7	6094	Major Damage (Emergency Restoration)	2	Location(s)
2XJ304-LA 405/10, PM 29.19/30.03 & R5.05/R5.91, Wire Theft	7	6095	Major Damage (Emergency Restoration)	2	Location(s)
2XJ404-Ven 34, PM 8.91/8.91	7	6096	Major Damage (Emergency Restoration)	1	Location(s)
2XJ704-LA 110, PM 2.70/3.21	7	6099	Major Damage (Emergency Restoration)	2	Location(s)
2XK004-LA/Ven 23, PM 0.0/3.3R	7	6134	Major Damage (Emergency Restoration)	16	Location(s)
2XK204-Ven 101, PM 30.00/30.17	7	6136	Major Damage (Emergency Restoration)	1	Location(s)
2XK404 LA - 2 Taylor Yard Overhead (DO)	7	6138	Major Damage (Emergency Restoration)	1	Location(s)
2XK504-LA 101, PM 1.40/1.45	7	6139	Major Damage (Emergency Restoration)	4	Location(s)
2XL004-LA 10, PM 17/17.6	7	6144	Major Damage (Emergency Restoration)	1	Location(s)
2XL104-LA 10, PM 17/17.6	7	6145	Major Damage (Emergency Restoration)	1	Location(s)
2XL304-LA 10 & 5, PM 14.5/17.4 & 35.83/35.98	7	6147	Major Damage (Emergency Restoration)	6	Location(s)
2XL704-Ven 101, PM 41.65/42.07	7	6151	Major Damage (Emergency Restoration)	4	Location(s)
2XL904-LA 103/1, PM 1.59/8.29	7	6153	Major Damage (Emergency Restoration)	1	Location(s)
2XM104-LA - 57, Human-made (DO)	7	6250	Major Damage (Emergency Restoration)	1	Location(s)
2XM204-Ven 1, PM 1.4/7.3	7	6251	Major Damage (Emergency Restoration)	3	Location(s)
2XM304, LA - Var, Human Made (DO)	7	6252	Maintenance Facilities	4	Location(s)
2XM404, LA - Var, Human Made (DO)	7	6253	Maintenance Facilities	4	Location(s)
2XM804-LA 405, PM 36.3/37.1	7	6257	Major Damage (Emergency Restoration)	3	Location(s)
2XM904-LA 1, PM 50.44/50.77	7	6258	Major Damage (Emergency Restoration)	1	Location(s)
2XN104-Ven 150, PM 20/32.2	7	6259	Major Damage (Emergency Restoration)	12	Location(s)
2XN204-Ven 101, PM 32.4R/32.8R	7	6260	Major Damage (Emergency Restoration)	1	Location(s)
2XN304-LA 10, PM 50.37/50.55	7	6261	Major Damage (Emergency Restoration)	3	Location(s)
2XN604-Ven 150, PM 6.1/6.3	7	6264	Major Damage (Emergency Restoration)	1	Location(s)
2XN704-Ven 118, PM 22.3/32.51	7	6265	Major Damage (Emergency Restoration)	2	Location(s)
2XN904-LA 27, PM 0/5	7	6267	Major Damage (Emergency Restoration)	4	Location(s)

State Highway Operation and Protection Program (SHOPP)
Project Outputs

Project Title	District	PPNO	Output	Approved Quantity	Unit
2XP804-LA 10, PM R7.8/R9.3	7	6291	Major Damage (Emergency Restoration)	2	Location(s)
2XR20-LA 1, PM42.2/42.4, Catchment Wall	7	6303	Major Damage (Emergency Restoration)	1	Location(s)
2XR304 - LA 27 PM 0/11 Cleaning	7	6304	Major Damage (Emergency Restoration)	11	Location(s)
2XR504 - LA 1, PM 46.3/49.4, Repair fire damaged asses on LA 1	7	6364	Major Damage (Emergency Restoration)	4	Location(s)
2XR604 - Traffic Control for Palisades Fire	7	6365	Major Damage (Emergency Restoration)	1	Location(s)
2XR704 - Traffic Control for Palisades	7	6366	Major Damage (Emergency Restoration)	1	Location(s)
2XS104-LA 1, PM 39.89/40.04, Restore Retaining Getty Villa Wall	7	6369	Major Damage (Emergency Restoration)	1	Location(s)
2XS204-LA 1, PM 37/46, K-rail with Dedicated Lanes	7	6370	Major Damage (Emergency Restoration)	1	Location(s)
2XS30 - LA PM 36/41 Palisades Fire South	7	6371	Major Damage (Emergency Restoration)	14	Location(s)
2XS40-LA 1, PM 41/45.6, Repair fire damaged state assets	7	6372	Major Damage (Emergency Restoration)	13	Location(s)
2XS704 - LA 105, Tunnel 4 Repair	7	6375	Major Damage (Emergency Restoration)	1	Location(s)
2XT10-VEN 101, PM 2.298, VEN 101 Soundwall	7	6378	Major Damage (Emergency Restoration)	1	Location(s)
2XT304 - LA 1 - Sea Wall	7	6380	Major Damage (Emergency Restoration)	3	Location(s)
2XT904 - LA 47, Finger Joint	7	6414	Major Damage (Emergency Restoration)	1	Location(s)
3 Bridges Mitigation HUM-36	1	2363M	Bridge Rail Replacement and Upgrade	0	Annual fatal and serious injury collision(s)
37/121 Junction Roundabout	4	2023H	Non-Capacity Increasing Operational Improvements	577	Daily Vehicle Hour(s) of Delay (DVHD)
3E602_SF 101_Lombard St. CAPM	4	0480T	Pavement Rehabilitation	8.4	Lane mile(s)
4 BRIDGES DECK PRESERVATION	1	2429	Capital Bridge Preventative Maintenance Program	4	Bridge(s)
4 LOC HFST & MGS	1	7024	Safety Improvements	30	Collision(s) reduced
405 2R, Westwood to Van Nuys	7	5382	Roadway Rehabilitation (2R)	91.6	Lane mile(s)
405 ATM/ITS near LAX (CMGC)	7	5410	Transportation Management Systems	78	Field element(s)
405 Roadside Safety 110-105	7	5227	Roadside Safety Improvements	99.4	Location(s)
405 SB Weight Station	7	4724	Weight Stations & Weight-In-Motion Facilities	1	Location(s)
405 SW Source Control	7	4978	Storm Water Mitigation	17.3	Acre(s) treated/pollutant
405/605 Bridge Scour Mitigation (CMGC)	7	4984	Bridge Scour	3	Bridge(s)
46 W Slipouts	5	3248	Major Damage (Emergency Restoration)	2	Location(s)
4th Street Safety	1	2393	Safety Improvements	503	Collision(s) reduced
4th Street Safety and CAPM	1	2527	Pavement Rehabilitation	4.6	Lane mile(s)
			Safety Improvements	503	Collision(s) reduced
52 PAVEMENT REHAB	11	1176	Pavement Rehabilitation	26.3	Lane mile(s)
53 2419 LA River Deck Rehab	7	5916	Bridge Rehabilitation and Replacement	1	Bridge(s)
57 2R Lane Replacement	7	4718	Roadway Rehabilitation (2R)	44.5	Lane mile(s)
57 Sunset Xing Worker Safety	7	5023	Roadside Safety Improvements	4	Location(s)
5th Street Combine	1	2578	ADA - New Curb Ramps	31	Curb ramp(s)
			Safety Improvements	413	Collision(s) reduced
5th STREET SAFETY	1	2481	Safety Improvements	413	Collision(s) reduced
605 roadside safety	7	5229	Roadside Safety Improvements	36	Location(s)
605/Live Oak Ramps	7	4963	Safety Improvements	203	Collision(s) reduced
710 Florence Interchange Improvement (Long-term)	7	5938	SHOPP - Complete Streets	3642	Bicycle and pedestrian infrastructure (linear feet)
710 Roadside Safety in LB	7	5404	Roadside Safety Improvements	0.74	Annual fatal and serious injury collision(s)
710 Source Control in Monterey Park	7	4717	Storm Water Mitigation	46.4	Acre(s) treated/pollutant
7-LA/VEN-Various PMs Changeable Message Signs(CMS) Replacement Project	7	5413	Transportation Management (TMC's & Field Equipment)	0	Field element(s)
7-LA/VEN-Various PMs East - Changeable Message Signs(CMS) Replacement	7	6031	Transportation Management Systems	72	Field element(s)
7-LA/VEN-Various PMs North - Changeable Message Signs(CMS) Replacement	7	6029	Transportation Management Systems	71	Field element(s)
7-LA/VEN-Various PMs South - Changeable Message Signs(CMS) Replacement	7	6030	Transportation Management Systems	84	Field element(s)
805 - PAVEMENT REHAB	11	1175	Pavement Rehabilitation	14.4	Lane mile(s)
805 S ASSET MGMT EXTENDED PLANT ESTABLISHMENT	11	1617	Roadway Rehabilitation (2R)	0	Lane mile(s)
82 ADA Burlingame	4	0730D	ADA - Pedestrian Infrastructure	82	Curb ramp(s)
82 CAPM & ADA	4	2926X	ADA - New Curb Ramps	2	Curb ramp(s)
			Pavement Preservation (CAPM)	46.1	Lane mile(s)
91, 110, and 710 Seismic Retrofit	7	4704	Bridge Formula Program	4	Bridge(s)
91/710 Deck Polyester	7	5919	Bridge Preventative Maintenance	1	Bridge(s)
96 Culverts	2	3314	Drainage System Restoration	28	Culvert(s) (ea)
99 & 205 Surface treatment	10	3480	Safety Improvements	121	Collision(s) reduced
A13 at Route 36 Safety	2	3759	Safety Improvements	12	Collision(s) reduced
AB1282 Merced I-5 Pavement Anchor Project.	10	3535	Pavement Preservation (CAPM)	128.1	Lane mile(s)
Abalobadiah Creek Safety	1	4639	Safety Improvements	16	Collision(s) reduced
Abbot Mine Curve Improvement	1	3217	Safety Improvements	0.31	Annual fatal and serious injury collision(s)
Acc Br Deck - 14 & 126	7	5920	Capital Bridge Preventative Maintenance Program	2	Bridge(s)
Acc Br Deck - 2, 5 & 110	7	5921	Bridge Preventative Maintenance	3	Bridge(s)
Acc Br Deck - 210	7	5922	Bridge Preventative Maintenance	1	Bridge(s)
Accessible Pedestrian Signal at various locations	4	1487Q	Safety Enhancements	18	Collision(s) reduced
Acid Flat Rockfall Protection	3	4293	Roadway Protective Betterments	1	Location(s)
Acid Flats	3	4306	Bridge Rehabilitation and Replacement	2	Bridge(s)
ADA CURB RAMP IMPROVEMENTS	11	1386	ADA - New Curb Ramps	21	Curb ramp(s)
ADA Curb Ramps	4	0091P	ADA - Pedestrian Infrastructure	30	Curb ramp(s)
ADA curb ramps upgrade	7	5233	ADA - New Curb Ramps	23	Curb ramp(s)
ADA Pedestrian Infrastructure	4	2028G	ADA - New Curb Ramps	6	Curb ramp(s)
ADA RAMPS AND SIDEWALKS /I-805	11	1248	ADA - New Curb Ramps	42	Curb ramp(s)
Adeline St UC and Lakeshore Park UC Br Overlay	4	0417A	Bridge Rehabilitation and Replacement	2	Bridge(s)
Adin Maintenance Facility-DES Brokered Project	2	3600	L&B Maintenance Facilities	1	Location(s)
Advance Mitigation Credit Purchase	2	3627	Roadside Enhancement (Mitigation Site Relinquishments)	6	Location(s)
ALA & CC Concrete Barrier & MGS	4	1495E	Safety Enhancements	5	Collision(s) reduced
ALA 123 ADA	4	0434K	ADA - New Curb Ramps	0	Curb ramp(s)
Ala 13 Seismic Retrofit	4	2910E	Bridge Seismic Restoration	2	Bridge(s)
Ala 13/CC 24 Enhance Lighting	4	1418C	Safety Improvements	65	Collision(s) reduced
ALA 185 CAPM	4	1494C	Pavement Preservation (CAPM)	18.4	Lane mile(s)
ALA 185 curb ramps	4	0434J	ADA - New Curb Ramps	11	Curb ramp(s)
Ala 80 Median Barrier & Lighting	4	1488S	Safety Improvements	185	Collision(s) reduced
Ala 880 Roadway Rehabilitation Project	4	0044Q	Roadway Rehabilitation	3.9	Lane mile(s)
ALA 92 CAPM	4	2031T	Pavement Preservation (CAPM)	26.2	Lane mile(s)
ALA CC Curve Warning Signs	4	1496A	Collision Severity Reduction	4	Collision(s) reduced
ALA CC Rect Flash Beacons	4	1492F	Collision Severity Reduction	12	Collision(s) reduced
ALA DRAINAGE RESTORATION	4	1498A	Drainage System Restoration	3	Pump plant(s) (ea)
ALA Install 241 APSS	4	1487P	Safety Enhancements	23	Collision(s) reduced
ALA Vehicle Speed Feedback Signs	4	1464A	Safety Improvements	13	Collision(s) reduced
ALA-238-CAPM	4	2913N	Pavement Preservation (CAPM)	13	Lane mile(s)
ALA-61 CAPM	4	1452J	Pavement Preservation (CAPM)	5.6	Lane mile(s)

**State Highway Operation and Protection Program (SHOPP)
Project Outputs**

Project Title	District	PPNO	Output	Approved Quantity	Unit
Ala-680 Ramp Metering (Phase 2B)	4	1463D	Transportation Management (TMC's & Field Equipment)	44	Field element(s)
Ala-880 CAPM, Fremont OC to High UC	4	0483W	Pavement Rehabilitation	107	Lane mile(s)
ALA-880 Roadside Paving	4	1452N	Roadside Safety Improvements	16	Location(s)
ALA-880 WIM	4	1482G	Weight Stations & Weight-In-Motion Facilities	2	Location(s)
ALAMEDA BMPs	4	2020H	Storm Water Mitigation	36.7	Acre(s) treated/pollutant
		2020R	Storm Water Mitigation	147.9	Acre(s) treated/pollutant
ALAMEDA CREEK BRIDGE MITIGATION	4	1084B	Bridge Rehabilitation and Replacement	0	Bridge(s)
Alamo Pintado Ped Bridge	5	2391	Bridge Rehabilitation and Replacement	1	Bridge(s)
Alamo Pintado Pedestrian Bridge Bio Monitoring	5	2391X	Bridge Rehabilitation and Replacement	0	Bridge(s)
Alamo Pintado Replacement Bridge	5	3013	Bridge Scour	1	Bridge(s)
Albion River Bridge	1	4490	Bridge Rehabilitation and Replacement	1	Bridge(s)
Alder Creek Slide	3	3327	Major Damage (Permanent Restoration)	1	Location(s)
Aleman Circle UC Deck Replacement	4	0587D	Bridge Rehabilitation and Replacement	1	Bridge(s)
Alexandria Park LADWP FCO	7	5739	Storm Water Mitigation	171.3	Acre(s) treated/pollutant
Alisal Fire Restoration	5	3066	Major Damage (Emergency Restoration)	11	Location(s)
Almanor West Rehab	2	3700	Roadway Rehabilitation (3R)	25.8	Lane mile(s)
ALP/AMA/TUO CULVERT REHAB	10	3138	Drainage System Restoration	49	Culvert(s) (ea)
Alpine 4 Biological Monitoring	10	3138A	Drainage System Restoration	0	Culvert(s) (ea)
		3142A	Drainage System Restoration	0	Culvert(s) (ea)
Alpine County SR 88 Culverts	10	3483	Major Damage (Emergency Opening)	1	Location(s)
ALPINE CULVERT REHAB	10	3142	Drainage System Restoration	38	Culvert(s) (ea)
Alta CAPM	3	5140	Pavement Preservation (CAPM)	8.9	Lane mile(s)
Altamont Rehab Mitigation	4	8315X	Pavement Preservation	0	Lane mile(s)
Alternative Delivery Method (CMGC) Ferguson Rock Avalanche Shed	10	3636	Major Damage (Permanent Restoration)	1	Location(s)
Alternative Delivery Method (CMGC) Ferguson Rock Shed	10	0280	Major Damage (Permanent Restoration)	1	Location(s)
Alternative Delivery Method (CMGC) Ferguson Slide Talus Removal	10	0280B	Major Damage (Permanent Restoration)	0	Location(s)
Altos 015 Shoulder Widening	1	2379	Collision Severity Reduction	14	Collision(s) reduced
Alturas CAPM	2	3758	Pavement Preservation (CAPM)	33.8	Lane mile(s)
AMA/MER/SJ/MPA/SCL/SBT TMS ELEMENT UPGRADES	10	3147	Transportation Management (TMC's & Field Equipment)	26	Field element(s)
Amador County Roadway Slip Out	10	3457	Major Damage (Emergency Opening)	1	Location(s)
Amador County SR 16	10	3481	Major Damage (Emergency Restoration)	48	Location(s)
AMADOR SR 88 ROADWAY IMPROVEMENTS	10	0167	Pavement Preservation (CAPM)	19.7	Lane mile(s)
American Canyon Roundabout	3	4785	Safety Improvements	82	Collision(s) reduced
American River Bridge Rehabilitation	3	6402	Bridge Rehabilitation and Replacement	2	Bridge(s)
Anaheim Street Overhead Bridge Rail Upgrade	7	5355	Bridge Rail Replacement and Upgrade	5150	Linear feet rail
Anderson Creek Slip	1	8510	Major Damage (Emergency Opening)	3	Location(s)
Angeles Crest Hwy Drainage	7	5397	Drainage System Restoration	11	Culvert(s) (ea)
Angeles Hwy Stormwater	7	5973	Storm Water Mitigation	83.9	Acre(s) treated/pollutant
Annie & Mary Trail (Segment 3) FCO Funds	1	4856	SHOPP - Complete Streets	1850	Bicycle and pedestrian infrastructure (linear feet)
ANTELOPE TRUCK SCALES	3	6712	Weight Stations & Weight-In-Motion Facilities	2	Location(s)
Antlers Bridge Joint Seal DO	2	3941	Major Damage (Emergency Restoration)	1	Location(s)
Anzar Road Culvert Lining 2025	5	3251	Drainage System Restoration		Drainage system(s)
			Major Damage (Emergency Restoration)	1	Location(s)
Anzar Road Sinkhole	5	3227	Major Damage (Emergency Restoration)	2	Location(s)
APS & Countdown Timers	4	1487M	Safety Enhancements	6	Collision(s) reduced
		1487N	Collision Severity Reduction	10	Collision(s) reduced
APS signal upgrade	4	1493H	Collision Severity Reduction	5	Collision(s) reduced
ARCATA 101 Merge Improvements	1	2424	Operational Improvements	36	Daily Vehicle Hour(s) of Delay (DVHD)
Arcata Accel/Decel Mitigation	1	2418M	Non-Capacity Increasing Operational Improvements	0	Daily Vehicle Hour(s) of Delay (DVHD)
Arcata Acceleration/Deceleration Lanes	1	2418	Non-Capacity Increasing Operational Improvements	98.2	Daily Vehicle Hour(s) of Delay (DVHD)
Arcata to Blue Lake CAPM	1	2493	Pavement Preservation (CAPM)	20.6	Lane mile(s)
Arena Blvd Grassland Fire	3	5875	Major Damage (Emergency Opening)	1	Location(s)
Argyle-Franklin (UC) (53-0680) & Big Tujunga Wash (53-2249)	7	5616	Bridge Rehabilitation and Replacement	3	Bridge(s)
Arroyo De La Laguna Mitigation project	4	2921X	Bridge Scour	0	Bridge(s)
Arroyo Paredon Landscape Mitigation Planting	5	0335	Bridge Scour	0	Bridge(s)
Arroyo Seco Pkwy Drainage	7	5795	Drainage System Restoration	16	Culvert(s) (ea)
Arundo and Restoration as mitigation for Project EA 3230U in Ventura	7	6272	Bridge Rail Replacement and Upgrade	0	Annual fatal and serious injury collision(s)
Arvin CAPM	6	6984	Pavement Preservation (CAPM)	4.5	Lane mile(s)
Arvin SR 223/184 Roundabout	6	6758	Operational Improvements	122.1	Daily Vehicle Hour(s) of Delay (DVHD)
Ashlan/Shaw Aux Lane	6	6879	Operational Improvements	163	Daily Vehicle Hour(s) of Delay (DVHD)
Aspen Fales Shoulders	9	2600	Safety Enhancements	50	Collision(s) reduced
ASPEN WALKER	9	2661	Safety Enhancements	78	Collision(s) reduced
Asphalt Pavement Minor Rehab (CAPM)	4	2910H	Pavement Preservation (CAPM)	25.5	Lane mile(s)
Asphalt Pavement Roadway Rehabilitation	4	2915L	Roadway Rehabilitation (3R)	20.5	Lane mile(s)
Atascadero Slab Replacement Perm. Rest.	5	3040	Major Damage (Permanent Restoration)	8	Location(s)
Atascadero Slab Replacements	5	3023	Major Damage (Emergency Opening)	1	Location(s)
Atlantic On-ramp Widening	3	5113	Non-Capacity Increasing Operational Improvements	563	Daily Vehicle Hour(s) of Delay (DVHD)
ATMS and PCDC Upgrade Project	4	1499J	SHOPP - Misc	1	Location(s)
ATMS Upgrade	7	5407	Transportation Management (TMC's & Field Equipment)	0	Field element(s)
August Complex Fire ELB	2	3813	Major Damage (Emergency Opening)	1	Location(s)
August Fire Slide DO	2	3818	Major Damage (Emergency Opening)	1	Location(s)
Automated Gates & Fence Installation - DO	10	3658	Maintenance Facilities	4	Location(s)
AVC REPAIR & INSTALL	3	8571	Transportation Management (TMC's & Field Equipment)	51	Field element(s)
Avenue Culvert Rehab	1	2270	Drainage System Restoration	7	Culvert(s) (ea)
Avenue Culvert Rehab Revegetation	1	2524	Drainage System Restoration	0	Culvert(s) (ea)
Azalea Deck and Rail Rehab	2	3631	Bridge Rehabilitation	1	Bridge(s)
Bachelor Creek Bridge	1	3107	Bridge Rehabilitation	1	Bridge(s)
Bachelor Creek Bridge Mitigation	1	3107M	Bridge Rehabilitation and Replacement	0	Bridge(s)
Bakersfield 99 Irrigation Upgrade	6	6735	Highway Planting Restoration	12.4	Acre(s)
Bakersfield 99 Rehab I(North)	6	6661	Roadway Rehabilitation	34.4	Lane mile(s)
Bakersfield 99 Rehab II (South)	6	6958	Roadway Rehabilitation (3R)	15.1	Lane mile(s)
Bakersfield 99 Rehab Replacement Planting	6	6661A	Roadway Rehabilitation (3R)	0	Lane mile(s)
Bakersfield SR 58 & 204 ADA Improvements	6	8011	ADA - New Curb Ramps	81	Curb ramp(s)
BARRIER SEPARATION	4	1490P	Safety Improvements	5	Collision(s) reduced
Barlie CAPM	2	3828	Pavement Preservation (CAPM)	41.9	Lane mile(s)
Bayshore Viaduct Structure Painting	4	1483S	Bridge Rehabilitation and Replacement	1	Bridge(s)

**State Highway Operation and Protection Program (SHOPP)
Project Outputs**

Project Title	District	PPNO	Output	Approved Quantity	Unit
Beckworth CAPM		2 3713	Pavement Preservation (CAPM)	23.6	Lane mile(s)
Beckworth Fire		2 3854	Major Damage (Emergency Opening)	17	Location(s)
Ben Lomond Sinkholes		5 3172	Major Damage (Emergency Restoration)	2	Location(s)
Benbow CAPM		1 2551	Pavement Preservation (CAPM)	21.8	Lane mile(s)
BENTON PAVEMENT		9 2720	Pavement Preservation (CAPM)	19.2	Lane mile(s)
Berenda CAPM		6 6789	Pavement Rehabilitation	18	Lane mile(s)
Bicyclist & Pedestrian Improvements		3 6942	Safety Improvements	0.19	Annual fatal and serious injury collision(s)
Bieber to Adin Pavement		2 3467	Roadway Rehabilitation	16.6	Lane mile(s)
Big Creek Tieback Wall		5 2853	Major Damage (Permanent Restoration)	1	Location(s)
Big French Creek PR		2 3728	Major Damage (Permanent Restoration)	0	Location(s)
BIG PAVE SEGMENT 2		4 1482F	Roadway Rehabilitation (2R)	43.2	Lane mile(s)
Big Sur CAPM		5 2534	Pavement Rehabilitation	69.9	Lane mile(s)
Big Sur Central Storm Damage		5 3145	Major Damage (Emergency Restoration)	25	Location(s)
Big Sur North Storm Damage		5 3146	Major Damage (Emergency Restoration)	11	Location(s)
Big Sur RSP Repair		5 3174	Major Damage (Emergency Restoration)	2	Location(s)
Big Sur South Storm Damage		5 3144	Major Damage (Emergency Restoration)	30	Location(s)
BIG SYCAMORE		7 5614	Bridge Rehabilitation and Replacement	1	Bridge(s)
Big Sycamore Creek		7 5181	Major Damage (Permanent Restoration)	1	Location(s)
Bike & Ped Improvements		3 6257C	Safety Improvements	9	Collision(s) reduced
Bike ADA Safety Improvements		3 6934	Safety Improvements	7	Collision(s) reduced
BIOLOGICAL MONITORING FOR 42650		11 1478	SHOPP - Sustainability and Miscellaneous	0	Location(s)
BISHOP PAVEMENT		9 2653	Roadway Rehabilitation (2R)	13.6	Lane mile(s)
BISHOP PAVEMENT MITIGATION AND MONITORING		9 2735	Roadway Rehabilitation (2R)	0	Lane mile(s)
Black Butte OH Br replacement		2 3509	Bridge Rehabilitation	1	Bridge(s)
Blackwell's Comer CAPM		6 6978	Pavement Preservation (CAPM)	37.8	Lane mile(s)
Blackwell's Comer Landscape Mitigation and Biological Monitoring		6 8097	Pavement Preservation (CAPM)	0	Lane mile(s)
Blank		4 2480B	Roadway Rehabilitation (3R)	0	Lane mile(s)
		10 3430	Major Damage (Emergency Restoration)	1	Location(s)
		3504	Major Damage (Emergency Restoration)	1	Location(s)
		3508	Major Damage (Emergency Restoration)	1	Location(s)
		3523	Major Damage (Emergency Restoration)	1	Location(s)
		3536	Major Damage (Emergency Restoration)	11	Location(s)
		3537	Major Damage (Emergency Restoration)	8	Location(s)
		3542	Major Damage (Emergency Restoration)	5	Location(s)
		3543	Major Damage (Emergency Restoration)	8	Location(s)
		3544	Major Damage (Emergency Restoration)	1	Location(s)
		3545	Major Damage (Emergency Restoration)	2	Location(s)
		3554	Major Damage (Emergency Restoration)	6	Location(s)
		3555	Major Damage (Emergency Restoration)	6	Location(s)
		3556	Major Damage (Emergency Restoration)	6	Location(s)
		3559	Major Damage (Emergency Restoration)	1	Location(s)
		3562	Major Damage (Emergency Restoration)	1	Location(s)
		3573	Major Damage (Emergency Restoration)	1	Location(s)
		3574	Major Damage (Emergency Restoration)	1	Location(s)
		3575	Major Damage (Emergency Restoration)	1	Location(s)
		3576	Major Damage (Emergency Restoration)	1	Location(s)
		3577	Major Damage (Emergency Restoration)	1	Location(s)
		3578	Major Damage (Emergency Restoration)	4	Location(s)
		3580	Major Damage (Emergency Restoration)	2	Location(s)
		3581	Major Damage (Emergency Restoration)	4	Location(s)
		3582	Major Damage (Emergency Restoration)	3	Location(s)
		3583	Major Damage (Emergency Restoration)	11	Location(s)
		3584	Major Damage (Emergency Restoration)	67	Location(s)
		3585	Major Damage (Emergency Restoration)	36	Location(s)
		3586	Major Damage (Emergency Restoration)	232	Location(s)
		3588	Major Damage (Emergency Restoration)	3	Location(s)
		3589	Major Damage (Emergency Restoration)	1	Location(s)
		3590	Major Damage (Emergency Restoration)	4	Location(s)
		3591	Major Damage (Emergency Restoration)	2	Location(s)
		3592	Major Damage (Emergency Restoration)	1	Location(s)
		3594	Major Damage (Emergency Restoration)	4	Location(s)
		3595	Major Damage (Emergency Restoration)	1	Location(s)
		3600	Major Damage (Emergency Restoration)	1	Location(s)
		3605	Major Damage (Emergency Restoration)	2	Location(s)
		3606	Major Damage (Emergency Restoration)	52	Location(s)
		3619	Major Damage (Emergency Restoration)	1	Location(s)
		3623	Major Damage (Emergency Restoration)	2	Location(s)
		3627	Major Damage (Emergency Restoration)	1	Location(s)
		3634	Major Damage (Emergency Restoration)	3	Location(s)
		3649	Major Damage (Emergency Restoration)	1	Location(s)
		3664	Major Damage (Emergency Restoration)	1	Location(s)
		3675	Major Damage (Emergency Restoration)	1	Location(s)
		3709	Major Damage (Permanent Restoration)	1	Location(s)
		11 1407	Major Damage (Emergency Restoration)	1	Location(s)
		1494	Major Damage (Emergency Restoration)	1	Location(s)
		1502	Major Damage (Emergency Restoration)	1	Location(s)
		1505	Major Damage (Emergency Restoration)	1	Location(s)
		1514	Major Damage (Emergency Restoration)	7	Location(s)
Blue Canyon Pavement Rehabilitation		3 5131	Roadway Rehabilitation (2R)	13.6	Lane mile(s)
Blue Lake Landslide Repair		1 2535	Major Damage (Permanent Restoration)	2	Location(s)
Blue Lake Sink		1 2531	Major Damage (Emergency Opening)	1	Location(s)
BLUE LAKES SAFETY		1 3123	Safety Improvements	36	Collision(s) reduced
Bluetooth Detection System		7 5188	Transportation Management Systems	76	Field element(s)
BLUFF CREEK WALL		1 2489	Major Damage (Permanent Restoration)	1	Location(s)
BOONVILLE CAPM		1 4744	Pavement Preservation (CAPM)	23.6	Lane mile(s)
Bottle Rock Safety		1 3129	Safety Improvements	0.29	Annual fatal and serious injury collision(s)
Box Beam Overhead Signs		5 2634	Signs and Lighting Rehabilitation	33	Lighting fixture(s)
Br Rehab+Scour		4 0480N	Capital Bridge Preventative Maintenance Program	3	Bridge(s)
Bradley - San Ardo CAPM		5 2916	Pavement Preservation (CAPM)	44.1	Lane mile(s)
Bradley CAPM		5 2904	Bridge Rehabilitation and Replacement	2	Bridge(s)
Bridal Veil Slipout		3 3330	Major Damage (Permanent Restoration)	1	Location(s)
BRIDGE CLEANUP		1 2517	Major Damage (Emergency Opening)	8	Location(s)
Bridge Deck Preservation		3 2442	Bridge Preventative Maintenance	1	Bridge(s)
BRIDGE DECK PROGRAM		4 0222F	Bridge Preventative Maintenance	6	Bridge(s)
		0781P	Bridge Preventative Maintenance	5	Bridge(s)

**State Highway Operation and Protection Program (SHOPP)
Project Outputs**

Project Title	District	PPNO	Output	Approved Quantity	Unit
		1482S	Capital Bridge Preventative Maintenance Program	4	Bridge(s)
		1493P	Bridge Preventative Maintenance	15	Bridge(s)
		8195B	Bridge Preventative Maintenance	1	Bridge(s)
Bridge Girder Repair	10	3674	Major Damage (Emergency Restoration)	3	Location(s)
Bridge Health - Broadway-Richmond Blvd UC	4	2804N	Bridge Rehabilitation and Replacement	1	Bridge(s)
BRIDGE HEALTH PROJECT	4	2916K	Bridge Rehabilitation and Replacement	3	Bridge(s)
Bridge Hit	7	6413	Major Damage (Emergency Restoration)	1	Location(s)
Bridge Hit (Crib Wall)	7	6001	Major Damage (Emergency Restoration)	1	Location(s)
Bridge Hits	7	6381	Major Damage (Emergency Restoration)	1	Location(s)
Bridge Joints Repair	7	6376	Major Damage (Emergency Restoration)	1	Location(s)
Bridge Maintenance	5	3078	Bridge Preventative Maintenance	6	Bridge(s)
Bridge Paint	7	4729	Capital Bridge Preventative Maintenance Program	1	Bridge(s)
		4853	Capital Bridge Preventative Maintenance Program	1	Bridge(s)
Bridge Painting	7	5070	Capital Bridge Preventative Maintenance Program	1	Bridge(s)
BRIDGE PRESERVATION 2 BRIDGE LOCATIONS 238 and 580	4	0448E	Capital Bridge Preventative Maintenance Program	3	Bridge(s)
BRIDGE PRESERVATION RT 5/54/94/125/163	11	1221	Capital Bridge Preventative Maintenance Program	34	Bridge(s)
Bridge Rail	7	4601	Bridge Rail Replacement/Upgrade	724	Linear feet rail
Bridge rail repair Br #46 0187	6	8157	Major Damage (Emergency Restoration)	1	Location(s)
					Location(s)
Bridge rail repair Br #50 0209	6	8170	Major Damage (Emergency Restoration)	1	Location(s)
Bridge Rail Replacement	4	1462K	Bridge Rail Replacement/Upgrade	328	Linear feet
		1485K	Bridge Rail Replacement and Upgrade	3385	Linear feet rail
		1494E	Bridge Rail Replacement and Upgrade	835	Linear feet rail
Bridge Rail Replacement - 3 bridges	1	2363	Bridge Rail Replacement and Upgrade	1026	Linear feet rail
Bridge Rail Replacement at Rocky Creek Bridge	5	3104	Bridge Rail Replacement and Upgrade	0.01	Annual fatal and serious injury collision(s)
BRIDGE RAIL SCL 82	4	2021B	Bridge Rail Replacement and Upgrade	784	Linear feet rail
Bridge Rail Upgrade	7	5003	Bridge Rail Replacement and Upgrade	3320	Linear feet rail
		5568	Bridge Preventative Maintenance	1	Bridge(s)
			Bridge Rail Replacement and Upgrade	724	Linear feet rail
		6406	Bridge Rail Replacement and Upgrade	0.04	Annual fatal and serious injury collision(s)
Bridge Rail Upgrade (OS)	7	5002	Bridge Rail Replacement and Upgrade	1565	Linear feet rail
Bridge Railings Replacement	4	1450C	Bridge Rail Replacement and Upgrade	2398	Linear feet rail
Bridge Rehab	4	1494K	Bridge Rehabilitation	1	Bridge(s)
BRIDGE REHABILITATION	4	2020C	Bridge Rehabilitation and Replacement	1	Bridge(s)
		2020M	Bridge Seismic Restoration	3	Bridge(s)
		2021K	Bridge Rehabilitation and Replacement	2	Bridge(s)
		7 4967	Trans Permit Requirements for Bridges	2	Bridge(s)
Bridge Rehabilitation and Preventative Maintenance	4	2912B	Bridge Rehabilitation and Replacement	1	Bridge(s)
Bridge Rehabilitation, Seismic Retrofit	4	2914C	Bridge Rehabilitation and Replacement	1	Bridge(s)
Bridge Repair and Cleanup	1	4773	Major Damage (Emergency Restoration)	4	Location(s)
Bridge Replacement	10	3255	Bridge Rehabilitation and Replacement	1	Bridge(s)
Bridge replacement for West Union Creek Br No 35 0044	4	2916P	Bridge Seismic Restoration	1	Bridge(s)
Bridge replacement San Rafael harbor creek	4	0350H	Bridge Rehabilitation	1	Bridge(s)
BRIDGE SCOUR	8	3011Q	Bridge Scour	4	Bridge(s)
BRIDGE SCOUR MITIGATION	4	2020B	Bridge Scour	1	Bridge(s)
Bridge Structure Painting	7	5008	Capital Bridge Preventative Maintenance Program	1	Bridge(s)
Bridge Widening	6	6521	Bridge Rail Replacement/Upgrade	1149	Linear feet
BRIDGEPORT REHAB	9	2648	Roadway Rehabilitation (3R)	9.1	Lane mile(s)
Bridgeville Grade Slips	1	2528	Major Damage (Emergency Opening)	1	Location(s)
BRIDGEVILLE WALL	1	2488	Major Damage (Permanent Restoration)	1	Location(s)
Brighter 273 Safety	2	3930	Safety Improvements	3.25	Annual fatal and serious injury collision(s)
Broadway ADA	1	2346	ADA - Pedestrian Infrastructure	31	Curb ramp(s)
Broadway Complete Streets	1	2544	SHOPP - Complete Streets	16919	Bicycle and pedestrian infrastructure (linear feet)
Broadway CS - Shared Path	1	2569	SHOPP - Complete Streets	2225	Bicycle and pedestrian infrastructure (linear feet)
Browns Valley Rehab	3	9579	Roadway Rehabilitation (3R)	9.9	Lane mile(s)
BRUNS DRIVE POC	4	2020L	Bridge Seismic Restoration	0	Bridge(s)
Buck Mountain Combine	1	2452	Drainage System Restoration		Culvert(s) (ea)
			Roadway Rehabilitation		Lane mile(s)
			Storm Water Mitigation		Acre(s) treated/pollutant
Buckhorn New Disposal Sites PR	2	3761	Major Damage (Permanent Restoration)	1	Location(s)
BUCKMAN SPRINGS SRRA WATER SYSTEMS	11	1085	Roadside Safety Improvements	1	Location(s)
Buena Vista Sink Hole	5	3259	Major Damage (Emergency Opening)	1	Location(s)
			Major Damage (Emergency Restoration)	1	Location(s)
Bunny Avenue and North Broadway Ped Improvements	5	2745	Safety Improvements	5	Collision(s) reduced
Burney CAPM	2	3618	Pavement Preservation (CAPM)	21.3	Lane mile(s)
Burney Falls Pavement	2	3737	Pavement Preservation (CAPM)	21.3	Lane mile(s)
Burnt Junction Drapery	2	3592	Roadway Protective Betterments	2	Bridge(s)
Burnt Ranch CAPM	2	3752	Pavement Preservation (CAPM)	13.2	Lane mile(s)
Burnt Ranch Curtains	2	3579	Roadway Protective Betterments	1	Bridge(s)
Burnt Ranch Rockfall DO	2	3822	Major Damage (Emergency Opening)	1	Location(s)
Buro Creek Fish Passage	7	5986	Drainage System Restoration	1	Culvert(s) (ea)
Buses and Infrastructure, 100 ZEBs, Project#2 (Tier II)	7	5738	Major Damage (Emergency Opening)	1	Location(s)
			Rail car(s) / transit vehicle(s)	100	Each
BUT 162 Sinkhole	3	2639	Major Damage (Emergency Opening)	1	Location(s)
BUT 162 Ward Blvd Culvert	3	2642	Major Damage (Emergency Opening)	1	Location(s)
BUT 191 Widening	3	2707	Major Damage (Permanent Restoration)	1	Location(s)
BUT 32 Intersection Improvements	3	2114	Safety Improvements	27	Collision(s) reduced
BUT 32 Pedestrian Improvements	3	2119	Safety Improvements	9	Collision(s) reduced
BUT 32 Snow Damage	3	2124	Major Damage (Emergency Opening)		Location(s)
BUT 70 Garden Drive OC Bridge Hit Repairs	3	2302	Major Damage (Emergency Opening)	1	Location(s)
BUT 70 Garden Drive OC Hit	3	2310	Major Damage (Emergency Restoration)	1	Location(s)
BUT 70 Slip Out	3	2308	Major Damage (Emergency Restoration)	1	Location(s)
BUT 70 Slip Outs	3	2312	Major Damage (Emergency Restoration)	8	Location(s)
BUT 70 Viaduct	3	2311	Major Damage (Emergency Restoration)	1	Location(s)
But 99 Bridge Rail Replacement	3	2433	Bridge Rail Replacement/Upgrade	1028	Linear feet rail
BUT 99 East 20th St OC (12-0169) Bridge Hit	3	2453	Major Damage (Emergency Opening)		Location(s)
BUT 99 Sinkhole	3	2445	Major Damage (Emergency Opening)	1	Location(s)
But 99 Traffic Signal @ Liberty Ln	3	2298	Major Damage (Emergency Opening)	1	Location(s)
BUT Campfire Debris Removal Pavement Damage Restoration	3	2304	Major Damage (Permanent Restoration)	6	Location(s)
BUT/PLU 70 Corridor Slides	2	3876	Major Damage (Emergency Restoration)	4	Location(s)

**State Highway Operation and Protection Program (SHOPP)
Project Outputs**

Project Title	District	PPNO	Output	Approved Quantity	Unit
BUT/YUB 70 Seg 3 Combined	3	2305	Operational improvement(s)	1	Each
			Passing lane mile(s) constructed	6	Miles
			Safety Improvements	35	Collision(s) reduced
BUT-32 Chico Rehab	3	2115	Pavement Preservation (CAPM)	18.6	Lane mile(s)
BUT-32 Soldier Pile Wall	3	2117	Major Damage (Permanent Restoration)	1	Location(s)
BUT-70 Camp Fire Culverts	3	2301	Major Damage (Permanent Restoration)	1	Location(s)
Butler Taff Safety	2	3919	Safety Improvements	0.12	Annual fatal and serious injury collision(s)
Butte & Ash Creek Bridge Replacement	2	3484	Bridge Rehabilitation	2	Bridge(s)
Butte 70 CAPM	3	2300	Pavement Preservation (CAPM)	25.7	Lane mile(s)
Butte 70 Drainage	2	3588	Drainage System Restoration	20	Culvert(s) (ea)
Butte 70 Girders Repair	3	2306	Major Damage (Emergency Opening)	1	Location(s)
Butte 99 Road Rehab in Gridley	3	2435	Pavement Preservation (CAPM)	6.8	Lane mile(s)
			Roadway lane mile(s) - new	6.7	Miles
Butte 99 Keefer Slough	3	2441	Major Damage (Permanent Restoration)	1	Location(s)
Butte City Bridge Replacement	3	2633	Bridge Seismic Restoration	1	Bridge(s)
Butte County Rehabilitation	3	2115A	Pavement Preservation (CAPM)	18.6	Lane mile(s)
			Safety Improvements	14	Collision(s) reduced
Butte Neal Road Pavement	3	2439	Major Damage (Emergency Opening)	1	Location(s)
Butte Safety - (Segment 3 SHOPP)	3	2296	Safety Improvements		Collision(s) reduced
Butterfly Lane PUC ADA	5	2468	ADA - New Curb Ramps	2	Curb ramp(s)
Butterfly Two Wolf Creek Rock Fence	2	3639	Roadside Safety Improvements	6	Location(s)
Buttonwillow Median Barrier	6	7052	Safety Improvements	24	Collision(s) reduced
Cache Creek Bridge Replacement	6	6674	Bridge Rehabilitation	2	Bridge(s)
CACHE CREEK PAVEMENT	9	2717	Pavement Preservation (CAPM)	30.4	Lane mile(s)
Cache Creek Rehab	3	8671	Roadway Rehabilitation (3R)	10.8	Lane mile(s)
CAJON SB WEIGH STA & TRUCK SAFETY CHECK AREA	8	3006U	Commercial Vehicle Enforcement Facilities & Weigh-In-Motion Scales	1	Location(s)
CAL SR 4 two way left turn lane	10	3245	Non-Capacity Increasing Operational Improvements	41.4	Daily Vehicle Hour(s) of Delay (DVHD)
CAL 26 SLOPE STABILIZATION	10	3132	SHOPP - PROTECT Program	3	Location(s)
CAL 4 Culvert Replacement	10	3409	Drainage System Restoration	22	Culvert(s) (ea)
CAL 49 Mobility Improvement	10	3434	Operational Improvements	204	Daily Vehicle Hour(s) of Delay (DVHD)
CAL County Bridges Rehab	10	3288	Bridge Formula Program	1	Bridge(s)
CAL SR4 CAPM	10	3495	Pavement Preservation (CAPM)	20.5	Lane mile(s)
Calaveras County Storm Damage	10	3449	Major Damage (Emergency Opening)	1	Location(s)
Calaveras River Bridge (Br. # 29 0095) - Damaged Girder - DO	10	3685	Major Damage (Emergency Restoration)	1	Location(s)
Calaveras River Bridge (Br. # 29 0095) - Damaged Girder/DO	10	3680	Major Damage (Emergency Restoration)	1	Location(s)
Caldecott Tunnel Bores 1,2, & 3 Rehab	4	0480B	Bridge Rehabilitation and Replacement	3	Bridge(s)
Caldor Fire 1 SR50	3	3347	Major Damage (Emergency Restoration)	21	Location(s)
Caldor Fire 2 SR50	3	3348	Major Damage (Emergency Opening)	9	Location(s)
Caldwell Bridgeway	2	3522	Bridge Scour	1	Bridge(s)
			Roadway Rehabilitation	18.7	Lane mile(s)
Calif Aqueduct Bridge Rehab	6	6726	Bridge Rehabilitation and Replacement	1	Bridge(s)
California Cycle Track FCO	2	3887	SHOPP - Complete Streets	792	Bicycle and pedestrian infrastructure (linear feet)
CALIFORNIA TIGER SALAMANDER MITIGATION BANK	6	6750	Roadside Protection and Restoration	5	Location(s)
Calpella 2 Bridge Replacements	1	4587	Bridge Rehabilitation and Replacement	2	Bridge(s)
Calpella Cable Median Barrier	1	4751	Safety Improvements	30	Collision(s) reduced
Cameron Park Safety	3	3316	Safety Improvements	16	Collision(s) reduced
Camino Safety Project	3	3290	Safety Improvements	117	Collision(s) reduced
Camino Safety Project Combined	3	3290A	Drainage System Restoration	4	Culvert(s) (ea)
			Safety Improvements	117	Collision(s) reduced
CAMP 20 SAFETY PROJECT	1	4613	Safety Improvements	24	Collision(s) reduced
Camp Fire Debris Removal & Pavement Repair	3	2706	Major Damage (Emergency Opening)	1	Location(s)
Camp Fire Emergency	3	2297	Major Damage (Emergency Opening)	5	Location(s)
Camp Fire Mission Tasks	3	2299	Major Damage (Emergency Opening)	1	Location(s)
Camp Nelson Slide Repair	6	6979	Major Damage (Emergency Opening)	1	Location(s)
Camp Roberts SRRA Infrastructure Upgrade	5	2633	Roadside Safety Improvements	2	Location(s)
Camptonville Slide Repair	3	9483	Major Damage (Permanent Restoration)	1	Location(s)
Capay	3	8663A	Safety Enhancements	2	Collision(s) reduced
Capell Cr Mitigation & Plant Establishment	4	0830C	Bridge Rehabilitation and Replacement	0	Bridge(s)
Capell Creek Bridge Replacement	4	0830B	Bridge Rehabilitation	1	Bridge(s)
CAPITAL PREVENTATIVE MAINTENANCE	4	2027F	Pavement Preservation (CAPM)	61.9	Lane mile(s)
CAPLES LAKE REHABILITATION	10	3433	Maintenance Facilities	1	Location(s)
CAPM	4	1498F	Pavement Rehabilitation	46.1	Lane mile(s)
		2035D	Pavement Preservation (CAPM)	54.2	Lane mile(s)
		2919V	Pavement Preservation (CAPM)	17	Lane mile(s)
CAPM - SM 101 South Segment	4	2024S	Pavement Preservation (CAPM)	59.4	Lane mile(s)
CAPM / ADA / Complete Streets	7	5515	Pavement Preservation (CAPM)	21.5	Lane mile(s)
CAPM 12	4	0488K	Pavement Rehabilitation	8.7	Lane mile(s)
CAPM 152	4	2920K	Pavement Preservation (CAPM)	52.1	Lane mile(s)
CAPM ALA-84-6.9/10.8	4	1454C	Pavement Rehabilitation	12	Lane mile(s)
CAPM ALA-880-0.0/12.0	4	1454G	Pavement Preservation (CAPM)	90.1	Lane mile(s)
CAPM and ADA ramps	4	1490Q	Pavement Rehabilitation	3.4	Lane mile(s)
CAPM CC-242	4	2032F	Pavement Preservation (CAPM)	12.3	Lane mile(s)
CAPM East of Buck Meadows	10	0335	Pavement Rehabilitation	41.1	Lane mile(s)
CAPM MULTI ASSET PAVEMENT REHABILITATION	4	2024D	Pavement Preservation (CAPM)	92.1	Lane mile(s)
CAPM Nap-Sol 12	4	2912A	Pavement Preservation (CAPM)	47	Lane mile(s)
CAPM ON SR 82	4	2026F	Pavement Preservation (CAPM)	25.9	Lane mile(s)
CAPM SF-280	4	2022B	Pavement Preservation (CAPM)	35	Lane mile(s)
CAPM SR 29	4	2804G	Pavement Preservation (CAPM)	25.1	Lane mile(s)
CAPM SR-84	4	1497A	Pavement Preservation (CAPM)	16.5	Lane mile(s)
CAPM-116	4	2911G	Pavement Preservation (CAPM)	15	Lane mile(s)
Carlotta Curve Improvement	1	2415	Safety Improvements	20	Collision(s) reduced
CARLOTTA SHOULDER WIDEN	1	2525	Safety Improvements	0.46	Annual fatal and serious injury collision(s)
Carlotta Shoulder Widen Mitigation	1	2525M	Safety Improvements	0	Annual fatal and serious injury collision(s)
Carpinteria Creek Culvert Fire	5	3083	Major Damage (Emergency Opening)	1	Location(s)
Carpinteria to Santa Barbara Widening - 4A Carpinteria Mitigation Ptg	5	7101L	Roadway Rehabilitation (3R)	0	Lane mile(s)
Carpinteria to Santa Barbara Widening - 4C Summerland Mitigation Plant	5	7103L	HOV/HOT lane-mile(s) constructed	0	Miles
			Modified/Improved interchange(s)	0	Each
			Modified/Reconstructed bridge(s)	0	Each
			Roadway Rehabilitation (3R)	0	Lane mile(s)
			Sound wall mile(s) constructed	0	Miles
Carpinteria to Santa Barbara Widening - Segment 4A Combined	5	7101P	HOV/HOT lane-mile(s) constructed	5.8	Miles

**State Highway Operation and Protection Program (SHOPP)
Project Outputs**

Project Title	District	PPNO	Output	Approved Quantity	Unit
			Modified/Improved interchange(s)	0	Each
			Modified/Reconstructed bridge(s)	4	Each
			Roadway Rehabilitation (3R)	7.9	Lane mile(s)
			Sound wall mile(s) constructed	1.47	Miles
Carpinteria to Santa Barbara Widening Project - Segment 4C Combined		5 7101S	HOV/HOT lane-mile(s) constructed	3.4	Miles
			Modified/Improved interchange(s)	1	Each
			Modified/Reconstructed bridge(s)	1	Each
			Roadway Rehabilitation (3R)	6.6	Lane mile(s)
			Sound wall mile(s) constructed	0.4	Miles
CARR Fire Reconstruction	2	3739	Major Damage (Emergency Opening)	1	Location(s)
Carson IMS	10	3436	Transportation Management Systems	21	Field element(s)
Cascade SHOPP	2	3790	Collision Severity Reduction	0.26	Annual fatal and serious injury collision(s)
Castaic Weigh Station	7	5071	Commercial Vehicle Enforcement Facilities & Weigh-In-Motion Scales	1	Location(s)
Castro Cyn Bridge Rail Upgrade	5	2656	Bridge Rail Replacement and Upgrade	0.01	Annual fatal and serious injury collision(s)
Castroville Improvement Project	5	2678	SHOPP - Sustainability and Miscellaneous	1	Location(s)
Cave Fire Restoration	5	3020	Major Damage (Emergency Opening)	1	Location(s)
Cayucos CAPM	5	2587	Pavement Rehabilitation	25.6	Lane mile(s)
CC 24 Polyester Overlay	4	2909R	Bridge Rehabilitation and Replacement	1	Bridge(s)
CC 242 Pavement Rehab	4	0269H	Pavement Rehabilitation	5.1	Lane mile(s)
CC-04 SAFETY LIGHTING & HFST	4	1454F	Safety Improvements	68	Collision(s) reduced
CC-4 CAPM	4	1462R	Pavement Preservation (CAPM)	80.7	Lane mile(s)
CC-4 CAPM HILLCREST OC TO BYRON HWY	4	2033N	Pavement Preservation (CAPM)	42.4	Lane mile(s)
CC-4 Install and extend MVP	4	1492H	Roadside Safety Improvements	15	Location(s)
CC-4 Replace OH Box Beam Sign Structures	4	2914N	Signs and Lighting Rehabilitation	14	Sign(s)
CC680 CAPM	4	2804D	Pavement Preservation (CAPM)	43.5	Lane mile(s)
CC-80 Roadway Rehab 2R	4	1487E	Roadway Rehabilitation (2R)	26	Lane mile(s)
CCTV Camera Upgrades/Replacements	7	5412B	Transportation Management Systems	68	Field element(s)
		5412C	Transportation Management Systems	82	Field element(s)
CCTV Replacement D7 wide	7	5412	Transportation Management (IMC's & Field Equipment)	0	Field element(s)
CCTV Technology Replacement	4	1457C	Transportation Management Systems	138	Field element(s)
		2028B	Transportation Management Systems	309	Field element(s)
Cedar Grove Slope Repair	6	6974	Major Damage (Emergency Opening)	1	Location(s)
Cedarville ADA and CAPM	2	3766	Pavement Preservation (CAPM)	2.2	Lane mile(s)
CENTENNIAL FLOOD DAMAGE DO	9	2733	Major Damage (Emergency Restoration)	1	Location(s)
Central Viaduct Structure Painting	4	1483T	Bridge Rehabilitation and Replacement	1	Bridge(s)
Chadd and Mowry Creeks Fish Passage	1	4954	SHOPP - Sustainability and Miscellaneous	2	Location(s)
Champlin Slough	2	3642	Bridge Scour	1	Bridge(s)
Chester Causeway Rehab	2	3722	Pavement Preservation (CAPM)	31.5	Lane mile(s)
Chico ADA Infrastructure	3	2112	ADA - New Curb Ramps	122	Curb ramp(s)
Chico Green Bike Lane Loc 1	3	6257A	Safety Improvements	5	Collision(s) reduced
Chico ITS	3	2437	Transportation Management (Fiber Optic Cable)	5.6	Mill(s) of cable
Chilcoot 2R	2	3599	Pavement Preservation	18	Lane mile(s)
child mitigation SHOPP	1	3124M	Safety Improvements	0	Collision(s) reduced
Chowchilla 2R Rehab	6	6732	Pavement Preservation	26	Lane mile(s)
Chowchilla CAPM	6	7095	Pavement Preservation (CAPM)	6.5	Lane mile(s)
Chowchilla River CVEF	10	3493	Commercial Vehicle Enforcement Facilities & Weigh-In-Motion Scales	1	Location(s)
City of East Palo Alto FCO	4	2925D	Storm Water Mitigation	13.4	Acre(s) treated/pollutant
City of Pacifica FCO	4	2924T	Storm Water Mitigation	31.4	Acre(s) treated/pollutant
City of Pasadena FCO	7	6454	Storm Water Mitigation	176.1	Acre(s) treated/pollutant
City of San Jose FCO	4	2924V	Storm Water Mitigation	203.1	Acre(s) treated/pollutant
CLAIREMONT BRIDGE REHAB	11	1381	Bridge Rehabilitation and Replacement	1	Bridge(s)
Clark OC Bridge Hit	5	3171	Major Damage (Emergency Restoration)	1	Location(s)
Claus Road Intersection Control	10	3490	Safety Improvements	11	Collision(s) reduced
Clean up Roadside project	4	1486A	Collision Severity Reduction	8	Collision(s) reduced
Clearlake Oaks Charging Station	1	3112	SHOPP - Misc	1	Location(s)
CLEMENTS CAPM	10	0165	Pavement Rehabilitation	20	Lane mile(s)
Clovis Avenue to Temperance Median Barrier	6	7038	Safety Improvements	24	Collision(s) reduced
CMGC-SB AUX LANE	11	1136	Non-Capacity Increasing Operational Improvements	1271	Daily Vehicle Hour(s) of Delay (DVHD)
Coalinga SR 33 2R Rehab	6	6927	Roadway Rehabilitation (2R)	6.4	Lane mile(s)
Coalinga SRRA Water & Wastewater Upgrade	6	6736	Roadside Safety Improvements	2	Location(s)
Coastlands II retaining wall	5	3075	Major Damage (Permanent Restoration)	1	Location(s)
Coastlands Wall	5	3018	Major Damage (Permanent Restoration)	1	Location(s)
Coastlands Wall 2	5	3043	Major Damage (Emergency Opening)	1	Location(s)
COL 20 Shoulder Washouts	3	2953	Major Damage (Emergency Opening)	2	Location(s)
COL 5 Flooding/Channel Clearing	3	2777	Major Damage (Emergency Opening)	3	Location(s)
COL 5 Pavement Storm Damage	3	2797	Major Damage (Emergency Restoration)	5	Location(s)
Cold Plane and AC Overlay	7	5022	Pavement Preservation (CAPM)	7.4	Lane mile(s)
Cold Plane	7	4697	Pavement Rehabilitation	24.6	Lane mile(s)
Cold Spring Bridge Maintenance Inspection Access	5	2392	Bridge Major Rehabilitation	1	Bridge(s)
Colfax Culvert Rehabilitation	3	5079	Drainage System Restoration	37	Culvert(s) (ea)
Collier Tunnel Electrical Upgrade	1	1115	Signs and Lighting Rehabilitation	238	Lighting fixture(s)
Collier Tunnel Safety Repairs	1	1132	Major Damage (Emergency Opening)	1	Location(s)
Colorado Fire Restoration	5	3082	Major Damage (Emergency Opening)	2	Location(s)
Colusa Rehab	3	2950	Roadway Rehabilitation	4	Lane mile(s)
Colusa Shoulder Widening & CRZ	3	2951	Safety Enhancements	14	Collision(s) reduced
COMBINE EA (1J640 AND 1J650)	8	3023G	Roadway Rehabilitation (2R)	50.3	Lane mile(s)
COMBINED EA (1M400 AND 1L070)	8	3014V	Drainage System Restoration	22	Culvert(s) (ea)
COMBINED TMS	1	7029	Transportation Management (IMC's & Field Equipment)	24	Field element(s)
Comm. System Upgrade	7	5408	Transportation Management Systems	112	Field element(s)
Commings Permanent Restoration	1	4705	Major Damage (Permanent Restoration)	1	Location(s)
COMPLETE STREETS FOR IMP 86, 111 AND 115	11	1472	SHOPP - Complete Streets	47238	Bicycle and pedestrian infrastructure (linear feet)
Construct BMP for Storm Water Mitigation	7	5009	Storm Water Mitigation	42	Acre(s) treated/pollutant
CONSTRUCT CURB RAMPS	11	1127	ADA - New Curb Ramps	66	Curb ramp(s)
CONSTRUCT FISH CREEK BRIDGE	1	2403	Storm Water Mitigation	70.5	Acre(s) treated/pollutant
Construct Maintenance Worker Safety Improvements	4	1483P	Roadside Safety Improvements	37	Location(s)
Construct New Materials Lab	1	2355	Materials Laboratories	1	Location(s)
CONSTRUCT RETAINING WALL	7	5292	Major Damage (Permanent Restoration)	1	Location(s)
Construct Retaining Wall on MRN 131	4	2906J	Major Damage (Permanent Restoration)	1	Location(s)
CONSTRUCT RSP/SLOPE	4	2030N	Major Damage (Emergency Opening)	2	Location(s)
Controller replacement	4	1488Z	Transportation Management Systems	442	Field element(s)
Conway Guardrail	9	0658	Safety Enhancements	27	Collision(s) reduced
CONWAY RANCH SHOULDERS	9	2624	Collision Severity Reduction	8	Collision(s) reduced

**State Highway Operation and Protection Program (SHOPP)
Project Outputs**

Project Title	District	PPNO	Output	Approved Quantity	Unit
Cook's Valley CAPM		1 4743	Pavement Preservation (CAPM)	38.9	Lane mile(s)
Corralitos Creek ADA		5 2530	ADA - New Curb Ramps	2	Curb ramp(s)
Corridor Bridge Rails		1 2376	Bridge Rail Replacement/Upgrade		Linear feet rail
Corridor Bridge Rails Mitigation		1 2376M	Bridge Rail Replacement/Upgrade	0	Linear feet
Corfe Madera Bridge Maintenance		4 2906F	Bridge Rehabilitation and Replacement	1	Bridge(s)
Cosumnes Bridge Replc		3 6912	Bridge Rail Replacement/Upgrade	59.46	Linear feet rail
Cottonwood Creek Bridge Joint Replacement		2 3932	Major Damage (Emergency Restoration)	1	Location(s)
Cottonwood Creek Bridge Rehab Landscape Project		6 6857A	Bridge Rehabilitation and Replacement	0	Bridge(s)
Cottonwood Creek Bridge Replacement		3 2425	Bridge Scour	1	Bridge(s)
COTTONWOOD CREEK BRIDGE REPLACEMENT (Br. No. 41-0065 L/R&S)		6 6857	Bridge Rehabilitation and Replacement	3	Bridge(s)
Cottonwood Excess Land Transfer		2 3774	Roadside Protection and Restoration	1	Location(s)
Count Station Repair & Install		3 4125	Transportation Management (TMC's & Field Equipment)		Field element(s)
County Line Rockfall Protection		3 4299	Roadway Protective Betterments	1	Bridge(s)
County Road 95 Intersection Improvement		3 8672	Safety Improvements	0.05	Annual fatal and serious injury collision(s)
County Road OC Hit		3 3713	Major Damage (Emergency Opening)		Location(s)
County Road P		3 3803	Safety Improvements	0.26	Annual fatal and serious injury collision(s)
COVELO COMPLETE STREETS FCO		1 4760	SHOPP - Sustainability and Miscellaneous	1.5	Centerline mile(s)
COVELO PAVEMENT		1 4676	Roadway Rehabilitation (3R)	50.7	Lane mile(s)
Coyote Grade Shoulder Widening		1 3102	Safety Improvements	18	Collision(s) reduced
CPI Pump Plant		3 9820A	Roadway Rehabilitation (3R)	0	Lane mile(s)
CRANDALL CREEK SEISMIC RETROFIT BRIDGE #33-0273		4 0086Q	Bridge Seismic Restoration	1	Bridge(s)
CREEK FIRE EMERGENCY WORK		6 7055	Major Damage (Emergency Opening)	1	Location(s)
CRESCENT CITY ADA		1 1095	ADA - New Curb Ramps	94	Curb ramp(s)
Crescent Mills Arlington LTL Combine		2 3904	Channelization	1	Each
			Pavement Preservation (CAPM)	16.4	Lane mile(s)
Crescent Mills CAPM		2 3714	Pavement Preservation (CAPM)	16.4	Lane mile(s)
Crib-wall		7 5323	Major Damage (Permanent Restoration)	1	Location(s)
Cramberg Combined		2 3619A	Operational improvement(s)	1	Each
			Roadway Rehabilitation (3R)	45.1	Lane mile(s)
Cramberg Rehab		2 3619	Roadway Rehabilitation	45.1	Lane mile(s)
CROSSWALK SAFETY ENHANCEMENT		4 0488Q	Collision Severity Reduction	33	Collision(s) reduced
Crosswalks and Flashing Beacons in Merced, San Joaquin, Stanislaus, an		10 3629	SHOPP - Complete Streets	384	Bicycle and pedestrian infrastructure (linear feet)
Crowded Bench		2 3764	Major Damage (Emergency Opening)	1	Location(s)
Crowder Flat Pavement		2 3841	Roadway Rehabilitation (3R)	8	Lane mile(s)
CS near CSULB		7 5972	SHOPP - Complete Streets	3146	Bicycle and pedestrian infrastructure (linear feet)
CTS Advance Mitigation		5 2704	Roadside Enhancement (Mitigation Site Relinquishments)	3	Location(s)
Culver City New Crew Building		7 5500	Maintenance Facilities	1	Location(s)
Culvert Rehab		3 5105	Drainage System Restoration	30	Culvert(s) (ea)
Culvert Rehab and Wildlife Crossing		3 3335	Drainage System Restoration	4	Culvert(s) (ea)
CULVERT REHABILITATION		11 1134	Drainage System Restoration	7	Culvert(s) (ea)
Culvert Rehabilitation & Fish Passage		1 1142	Drainage System Restoration	30	Culvert(s) (ea)
			4754	11.6	Culvert(s) (ea)
Culvert Rehabilitation near Fish Camp in Mariposa County		10 3158	Drainage System Restoration	19	Culvert(s) (ea)
Culvert Repair		7 5223	Drainage System Restoration	1	Culvert(s) (ea)
CULVERT REPAIR/REPLACEMENT (+HIJA SM)		8 3017J	Drainage System Restoration	9	Culvert(s) (ea)
Culvert Repairs		1 4839	Major Damage (Emergency Restoration)	2	Location(s)
			4842	1	Location(s)
CULVERT REPLACEMENT		11 0602	Drainage System Restoration	4	Culvert(s) (ea)
			1247	81	Culvert(s) (ea)
Culvert Revegetation Child		1 2433M	Drainage System Restoration	0	Culvert(s) (ea)
Cummings CAPM		1 4742	Pavement Preservation (CAPM)	43.5	Lane mile(s)
Cummings Valley Rd Int		9 2620	Safety Enhancements	3	Collision(s) reduced
Curb Ramps		4 0434H	ADA - Pedestrian Infrastructure	18	Curb ramp(s)
CURVE IMPROVEMENT ON ROAD 416		6 8016	Safety Improvements	0.45	Annual fatal and serious injury collision(s)
Curve Warning Signs		2 3815	Collision Severity Reduction	2.59	Annual fatal and serious injury collision(s)
Curve Warning Signs Upgrade in Santa Clara County		4 2034K	Collision Severity Reduction	0.4	Annual fatal and serious injury collision(s)
CVEF & WIM Near Somis		7 5406	Commercial Vehicle Enforcement Facilities & Weigh-In-Motion Scales	1	Location(s)
CVEF IMPROVEMENT/MOBILITY		11 1385	Commercial Vehicle Enforcement Facilities & Weigh-In-Motion Scales	2	Location(s)
CZU August Lightning Complex Fire Restoration		5 3024	Major Damage (Emergency Opening)	1	Location(s)
D 10 MVDS replacement and upgrade		10 3227	Transportation Management (TMC's & Field Equipment)	41	Field element(s)
D 10 TMS REPAIR		10 3226	Transportation Management (TMC's & Field Equipment)	20	Field element(s)
D10 BRIDGE SUBSTRUCTURE REPAIRS		10 3102	Capital Bridge Preventative Maintenance Program	13	Bridge(s)
D2 Park Fire DO		2 3929	Major Damage (Emergency Restoration)	6	Location(s)
D3 ADIEM and Sand Barrel upgrade		3 3313	Safety Enhancements	3	Collision(s) reduced
D4 Cooling Tower Rehab		4 2907E	Office Buildings	1	Location(s)
D4 HQ Elevators Repair		4 1462A	Office Buildings	1	Location(s)
D5 Maintenance Office		5 3035	Maintenance Facilities	1	Location(s)
D5 Maintenance Station Relocation (Phase 1)		5 2920	Maintenance Facilities	1	Location(s)
D5 North Maintenance Station Security		5 3231	Maintenance Facilities	4	Location(s)
D5 South Maintenance Station Security		5 3230	Maintenance Facilities	6	Location(s)
D9 End Treatments		9 2631	Safety Enhancements	4	Collision(s) reduced
D9 LAB		9 2649	Materials Laboratories	1	Location(s)
Damnation Creek Safety		1 1144	Safety Improvements	0.68	Annual fatal and serious injury collision(s)
Dan Wilson Creek Br.		4 8315N	Bridge Rehabilitation	1	Bridge(s)
Davenport Bio		5 1967X	Drainage System Restoration	0	Culvert(s) (ea)
DAVENPORT CULVERT REPLACEMENT		5 1967	Drainage System Restoration	4	Culvert(s) (ea)
DDO		4 2911M	Major Damage (Emergency Opening)	2	Location(s)
DEATH VALLEY FLOOD DAMAGE DO		9 2734	Major Damage (Emergency Restoration)	1	Location(s)
Deer Creek Canwall		2 3747	Major Damage (Emergency Opening)	1	Location(s)
DeHaven to Rockport CAPM		1 4771	Pavement Preservation (CAPM)	16.9	Lane mile(s)
Del Loma Combine		2 3903	Pavement Preservation (CAPM)	21.3	Lane mile(s)
			Turnout(s)	2	Each
Del Loma Pavement		2 3701	Pavement Preservation (CAPM)	21.3	Lane mile(s)
Del Norte STAA Improvements		1 1161	Operational Improvements	0	Daily Vehicle Hour(s) of Delay (DVHD)
DELANO FACILITY		6 7094	Maintenance Facilities	1	Location(s)
Delano SR-155 Rehab (3R)		6 6940	Roadway Rehabilitation (3R)	2.6	Lane mile(s)
Delano to Pixley Mainline Improvement		6 8112	Mixed flow lane-mile(s) constructed	25.2	Miles
			Roadway Rehabilitation (2R)	51.7	Lane mile(s)

**State Highway Operation and Protection Program (SHOPP)
Project Outputs**

Project Title	District	PPNO	Output	Approved Quantity	Unit
Delano to Pixley Rehab	6	6963	Roadway Rehabilitation (2R)	51.7	Lane mile(s)
DELANO TO PIXLEY REPLACEMENT PLANTING PROJECT	6	8115	Roadway Rehabilitation (2R)	0	Lane mile(s)
Delta Bridges M/E upgrade 2	3	7298	Major Damage (Permanent Restoration)	4	Location(s)
Delta Fire Restoration	2	3741	Major Damage (Emergency Opening)	2	Location(s)
Derby Street Signalization	6	6709	Safety Improvements	6	Collision(s) reduced
Derrick CAPM	6	6753	Pavement Rehabilitation	40	Lane mile(s)
Detection Restoration Service Contract	4	1488T	Transportation Management (TMC's & Field Equipment)	248	Field element(s)
		1488V	Transportation Management (TMC's & Field Equipment)	235	Field element(s)
		1488W	Transportation Management (TMC's & Field Equipment)	295	Field element(s)
		1488X	Transportation Management (TMC's & Field Equipment)	144	Field element(s)
		1488Y	Transportation Management (TMC's & Field Equipment)	392	Field element(s)
DEUEL OVERHEAD UC	10	3235B	Bridge Rail Replacement/Upgrade	964	Linear feet rail
Devil's Corral Safety	2	3803	Safety Improvements	20	Collision(s) reduced
Devil's Corral Safety Combine	2	3910	Safety Improvements	20	Collision(s) reduced
Devil's Slide Mitigation	4	2917N	Major Damage (Permanent Restoration)	1	Location(s)
Diamond Star Curve	2	3663	Safety Improvements	16	Collision(s) reduced
Dibble Creek CAPM	2	3719	Pavement Preservation (CAPM)	37.8	Lane mile(s)
Dickenson Roundabout	6	7009	Safety Improvements	0.16	Annual fatal and serious injury collision(s)
Diddy Roost Culverts	2	3789	Drainage System Restoration	39	Culvert(s) (ea)
Director Order - Overhead Sign Structure	12	3789A	Major Damage (Emergency Opening)	1	Location(s)
DIRECTORS ORDER (AIRPORT FIRE)	8	3024X	Major Damage (Emergency Restoration)	1	Location(s)
Directors Orders - Concrete Curtain Wall Panel	12	2839	Major Damage (Emergency Opening)	1	Location(s)
DISTRICT 9 ZEV	9	2643	SHOPP - Misc	5	Location(s)
District Building Roof Replacement	7	5287	L&B Office Facilities	1	Location(s)
District Office Flood - IT Restoration	5	3151	Major Damage (Emergency Restoration)	1	Location(s)
District Office Flood Building Repairs	5	3152	Major Damage (Emergency Restoration)	1	Location(s)
District Office Flood Electrical Repairs	5	3150	Major Damage (Emergency Restoration)	1	Location(s)
District Office Flood Haz Waste Removal	5	3154	Major Damage (Emergency Restoration)	1	Location(s)
District Wide Curve Warning	1	7022	Safety Enhancements	30	Collision(s) reduced
District Wide Scour Counter-Measures	2	3549	Capital Bridge Preventative Maintenance Program	8	Bridge(s)
District-wide CCTV	7	5395	Transportation Management Systems	65	Field element(s)
Dixie Fire South	2	3852	Major Damage (Emergency Opening)	1	Location(s)
DN 199 Roundabout	1	1154	Safety Improvements	0.32	Annual fatal and serious injury collision(s)
DN-199 Culverts	1	1055	Drainage System Restoration	15	Culvert(s) (ea)
DN-199 Safety Improvements	1	1121	Safety Improvements	20	Collision(s) reduced
DO	4	0379T	Major Damage (Emergency Opening)	1	Location(s)
		2804C	Major Damage (Emergency Opening)	1	Location(s)
		2906N	Major Damage (Emergency Opening)	1	Location(s)
		2907H	Major Damage (Emergency Opening)	1	Location(s)
		2908B	Major Damage (Emergency Opening)	1	Location(s)
		2908G	Major Damage (Emergency Restoration)	1	Location(s)
		2908K	Major Damage (Emergency Opening)	1	Location(s)
		2908N	Major Damage (Emergency Opening)	4	Location(s)
		2909C	Major Damage (Emergency Opening)	1	Location(s)
		2909E	Major Damage (Emergency Opening)	1	Location(s)
		2909P	Major Damage (Emergency Opening)	1	Location(s)
		2910B	Major Damage (Emergency Opening)	1	Location(s)
		2911B	Major Damage (Emergency Opening)	1	Location(s)
		2911E	Major Damage (Emergency Restoration)	1	Location(s)
		2911F	Major Damage (Emergency Opening)	1	Location(s)
		2911Q	Major Damage (Emergency Opening)	1	Location(s)
		2912E	Major Damage (Emergency Opening)	1	Location(s)
		2912F	Major Damage (Emergency Opening)	1	Location(s)
		2912H	Major Damage (Emergency Restoration)	1	Location(s)
		2912M	Major Damage (Emergency Opening)	1	Location(s)
		2913B	Major Damage (Emergency Restoration)	1	Location(s)
		2913G	Major Damage (Emergency Opening)	1	Location(s)
		2915N	Major Damage (Emergency Opening)	1	Location(s)
		2917L	Major Damage (Emergency Restoration)	1	Location(s)
		2917P	Major Damage (Emergency Restoration)	4	Location(s)
		2917Q	Major Damage (Emergency Restoration)	3	Location(s)
		2917R	Major Damage (Emergency Restoration)	2	Location(s)
		2917T	Major Damage (Emergency Opening)	1	Location(s)
		2917V	Major Damage (Emergency Opening)	1	Location(s)
		2918A	Major Damage (Emergency Restoration)	4	Location(s)
		2918C	Major Damage (Emergency Restoration)	1	Location(s)
		2918F	Major Damage (Emergency Restoration)	1	Location(s)
		2918H	Major Damage (Emergency Restoration)	1	Location(s)
		2918J	Major Damage (Emergency Restoration)	1	Location(s)
		2918K	Major Damage (Emergency Opening)	1	Location(s)
		2918L	Major Damage (Emergency Restoration)	1	Location(s)
		2918M	Major Damage (Emergency Restoration)	1	Location(s)
		2918P	Major Damage (Emergency Restoration)	31	Location(s)
		2918Q	Major Damage (Emergency Restoration)	4	Location(s)
		2918T	Major Damage (Emergency Opening)	7	Location(s)
		2918V	Major Damage (Emergency Restoration)	1	Location(s)
		2919A	Major Damage (Emergency Restoration)	4	Location(s)
		2919B	Major Damage (Emergency Restoration)	2	Location(s)
		2919D	Major Damage (Emergency Restoration)	1	Location(s)
		2919E	Major Damage (Emergency Restoration)	57	Location(s)
		2919F	Major Damage (Emergency Restoration)	1	Location(s)
		2919J	Major Damage (Emergency Restoration)	1	Location(s)
		2919L	Major Damage (Emergency Restoration)	2	Location(s)
		2919N	Major Damage (Emergency Restoration)	42	Location(s)
		2919P	Major Damage (Emergency Restoration)	1	Location(s)
		2919Q	Major Damage (Emergency Opening)	3	Location(s)
		2919R	Major Damage (Emergency Restoration)	2	Location(s)
		2919S	Major Damage (Emergency Restoration)	2	Location(s)
		2919T	Major Damage (Emergency Restoration)	5	Location(s)
		2920B	Major Damage (Emergency Restoration)	296	Location(s)
		2920C	Major Damage (Emergency Opening)	299	Location(s)
		2920E	Major Damage (Emergency Restoration)	1	Location(s)

State Highway Operation and Protection Program (SHOPP)
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Project Title	District	PPNO	Output	Approved Quantity	Unit
		2920F	Major Damage (Emergency Restoration)	3	Location(s)
		2920G	Major Damage (Emergency Restoration)	1	Location(s)
		2920H	Major Damage (Emergency Restoration)	1	Location(s)
		2920J	Major Damage (Emergency Restoration)	1	Location(s)
		2920N	Major Damage (Emergency Restoration)	1	Location(s)
		2920P	Major Damage (Emergency Restoration)	17	Location(s)
		2920Q	Major Damage (Emergency Restoration)	1	Location(s)
		2920R	Major Damage (Emergency Restoration)	4	Location(s)
		2920T	Major Damage (Emergency Opening)	5	Location(s)
		2921A	Major Damage (Emergency Restoration)	1	Location(s)
		2921B	Major Damage (Emergency Restoration)	33	Location(s)
		2921C	Major Damage (Emergency Restoration)	1	Location(s)
		2921E	Major Damage (Emergency Restoration)	1	Location(s)
		2921G	Major Damage (Emergency Restoration)	1	Location(s)
		2921H	Major Damage (Emergency Restoration)	1	Location(s)
		2921M	Major Damage (Emergency Restoration)	1	Location(s)
		2921T	Major Damage (Emergency Restoration)	2	Location(s)
		2921V	Major Damage (Emergency Restoration)	3	Location(s)
		2922A	Major Damage (Emergency Restoration)	1	Location(s)
		2922C	Major Damage (Emergency Restoration)	1	Location(s)
		2922G	Major Damage (Emergency Restoration)	1	Location(s)
		2922L	Major Damage (Emergency Restoration)	1	Location(s)
		2923C	Major Damage (Permanent Restoration)	1	Location(s)
		2923D	Major Damage (Emergency Restoration)	1	Location(s)
		2923E	Major Damage (Permanent Restoration)	1	Location(s)
		2923H	Major Damage (Permanent Restoration)	1	Location(s)
		2923S	Major Damage (Permanent Restoration)	1	Location(s)
		2924B	Major Damage (Permanent Restoration)	1	Location(s)
		2925C	Major Damage (Emergency Restoration)	16	Location(s)
		2925F	Major Damage (Emergency Restoration)	1	Location(s)
		2925K	Major Damage (Permanent Restoration)	3	Location(s)
		2925M	Major Damage (Emergency Restoration)	1	Location(s)
		2925T	Major Damage (Emergency Restoration)	1	Location(s)
		2926A	Major Damage (Emergency Restoration)	1	Location(s)
		2926B	Major Damage (Emergency Restoration)	1	Location(s)
		2926C	Maintenance Facilities	2	Location(s)
		2926D	Maintenance Facilities	4	Location(s)
		2926F	Major Damage (Permanent Restoration)	1	Location(s)
		2926H	Major Damage (Emergency Restoration)	6	Location(s)
		2926J	Major Damage (Emergency Restoration)	1	Location(s)
		2926K	Major Damage (Emergency Restoration)	1	Location(s)
		2926M	Maintenance Facilities	3	Location(s)
		2926N	Maintenance Facilities	4	Location(s)
		2926P	Maintenance Facilities	8	Location(s)
		2926Q	Major Damage (Emergency Restoration)	36	Location(s)
		2926R	Major Damage (Emergency Restoration)	32	Location(s)
		2926S	Major Damage (Emergency Restoration)	1	Location(s)
		2926T	Major Damage (Emergency Restoration)	1	Location(s)
		2926V	Major Damage (Emergency Restoration)	3	Location(s)
		2927A	Major Damage (Emergency Restoration)	1	Location(s)
		2927D	Major Damage (Emergency Restoration)	1	Location(s)
		2927E	Major Damage (Emergency Restoration)	4	Location(s)
		2927F	Major Damage (Emergency Restoration)	1	Location(s)
		2927M	Major Damage (Emergency Restoration)	1	Location(s)
		2928E	Major Damage (Emergency Restoration)	1	Location(s)
		2928P	Major Damage (Emergency Restoration)	1	Location(s)
		2929E	Major Damage (Emergency Restoration)	2	Location(s)
		2929F	Major Damage (Emergency Restoration)	2	Location(s)
		2929G	Major Damage (Emergency Restoration)	1	Location(s)
		2929J	Major Damage (Emergency Restoration)	1	Location(s)
		2929L	Major Damage (Emergency Restoration)	2	Location(s)
		2929M	Major Damage (Emergency Restoration)	1	Location(s)
		2929P	Major Damage (Emergency Restoration)	3	Location(s)
		2929Q	Major Damage (Emergency Restoration)	1	Location(s)
		2929R	Major Damage (Emergency Restoration)	3	Location(s)
		2929S	Major Damage (Emergency Restoration)	1	Location(s)
		2929T	Major Damage (Emergency Restoration)	1	Location(s)
		2929V	Major Damage (Emergency Restoration)	1	Location(s)
		2930A	Major Damage (Emergency Restoration)	1	Location(s)
		2930C	Major Damage (Emergency Restoration)	1	Location(s)
		2930E	Major Damage (Emergency Restoration)	1	Location(s)
		2930G	Major Damage (Emergency Restoration)	1	Location(s)
		2930H	Major Damage (Emergency Restoration)	1	Location(s)
		2930J	Major Damage (Emergency Restoration)	1	Location(s)
		2930K	Major Damage (Emergency Restoration)	1	Location(s)
		2930L	Major Damage (Emergency Restoration)	3	Location(s)
		2930P	Major Damage (Emergency Restoration)	1	Location(s)
		2930Q	Major Damage (Emergency Restoration)	1	Location(s)
		2930R	Major Damage (Emergency Restoration)	1	Location(s)
		2930T	Major Damage (Emergency Restoration)	1	Location(s)
		2931B	Major Damage (Emergency Restoration)	1	Location(s)
		2931D	Major Damage (Emergency Restoration)	1	Location(s)
		2931E	Major Damage (Permanent Restoration)	1	Location(s)
		2931F	Major Damage (Emergency Restoration)	1	Location(s)
		2931S	Major Damage (Emergency Restoration)	1	Location(s)
		2932C	Major Damage (Emergency Restoration)	2	Location(s)
DO - 18TH STREET BRIDGE REPAIRS	11	1608	Major Damage (Emergency Restoration)	1	Location(s)
DO - 5/163 SEP BRIDGE DECK REHABILITATION	11	1520	Major Damage (Emergency Restoration)	1	Location(s)
DO - S2 SUB-SURFACE GROUND STABILIZATION	11	1415	Major Damage (Emergency Opening)	1	Location(s)
DO - BRIDGE DECK REPAIRS	11	1616	Major Damage (Emergency Restoration)	2	Location(s)
DO - Culvert Failure	7	5608	Major Damage (Emergency Opening)	1	Location(s)
DO - EMERGENCY - REPAIR FAILED CULVERT	11	1580	Major Damage (Emergency Restoration)	1	Location(s)
DO - EMERGENCY - REPAIR STORM DAMAGE	11	1581	Major Damage (Emergency Restoration)	1	Location(s)
		1583	Major Damage (Emergency Restoration)	26	Location(s)
DO - EMERGENCY - REPLACE PUMP	11	1566	Major Damage (Emergency Restoration)	1	Location(s)
DO - EMERGENCY - SECURITY MEASURES	11	1587	Maintenance Facilities	10	Location(s)
DO - EMERGENCY CLEAN DRAINAGE CHANNELS	11	1610	Major Damage (Permanent Restoration)	5	Location(s)
DO - I-8 PAVEMENT REPAIR	11	1620	Major Damage (Permanent Restoration)	1	Location(s)

**State Highway Operation and Protection Program (SHOPP)
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Project Title	District	PPNO	Output	Approved Quantity	Unit
DO - KAY STORM DAMAGE	11	1488	Major Damage (Emergency Restoration)	7	Location(s)
DO - MUD POT SR111	11	1368	Major Damage (Emergency Opening)	1	Location(s)
DO - OLD TOWN VIADUCT REPAIRS	11	1607	Major Damage (Emergency Restoration)	1	Location(s)
DO - REMOVE BOULDERS AND DEBRIS	11	1498	Major Damage (Emergency Restoration)	4	Location(s)
DO - REMOVE BOULDERS AND REPAIR ROADWAY	11	1542	Major Damage (Emergency Restoration)	4	Location(s)
DO - REMOVE TREES	11	1539	Major Damage (Emergency Restoration)	136	Location(s)
DO - REPAIR DAMAGE DUE TO WATERLINE BREAK	11	1470	Major Damage (Emergency Restoration)	1	Location(s)
DO - REPAIR DAMAGED TMS	11	1602	Major Damage (Emergency Restoration)	8	Location(s)
DO - REPAIR FAILED CULVERT	11	1584	Major Damage (Emergency Restoration)	1	Location(s)
DO - REPAIR RAMP PAVEMENT	11	1518	Major Damage (Emergency Restoration)	63	Location(s)
DO - REPAIR SINKHOLES	11	1585	Major Damage (Emergency Restoration)	2	Location(s)
DO - REPAIR STORM DAMAGE	11	1586	Major Damage (Emergency Restoration)	5	Location(s)
		1588	Major Damage (Emergency Restoration)	2	Location(s)
DO - REPAIR WASHOUT	11	1496	Major Damage (Emergency Restoration)	1	Location(s)
DO - REPLACE BACKPLATES, INSTALL BACKUP GENERATORS AND SIGNS	11	1418	Major Damage (Emergency Restoration)	91	Location(s)
DO - REPLACE CULVERTS	11	1503	Major Damage (Emergency Restoration)	6	Location(s)
DO - REPLACE FAILED CULVERT AT CARMEL MOUNTAIN RD ON I-5	11	1414	Major Damage (Emergency Opening)	1	Location(s)
DO - REPLACE FAILED CULVERTS	11	1423	Major Damage (Emergency Opening)	1	Location(s)
		1469	Major Damage (Emergency Restoration)	1	Location(s)
DO - REPLACE SINKHOLE	11	1504	Major Damage (Emergency Restoration)	1	Location(s)
DO - Rockslide	7	5872	Major Damage (Emergency Opening)	1	Location(s)
DO - SD 5 SLOPE REPAIR	11	1459	Major Damage (Emergency Restoration)	26	Location(s)
DO - STABILIZE RETAINING WALL	11	1471	Major Damage (Emergency Restoration)	1	Location(s)
DO - TO REPAIR STORM DAMAGE	11	1543	Major Damage (Emergency Restoration)	4	Location(s)
DO - UE	7	5735	Major Damage (Emergency Opening)	5	Location(s)
		5826	Major Damage (Emergency Opening)	1	Location(s)
		5845	Major Damage (Emergency Restoration)	8	Location(s)
DO - Wild Fire	7	5997	Major Damage (Emergency Restoration)	2	Location(s)
DO - Wildfire	7	5753	Major Damage (Emergency Opening)	1	Location(s)
DO- BRIDGES ENCAMPMENTS	11	1446	Major Damage (Emergency Restoration)	62	Location(s)
DO CLEAN CULVERTS & RESTORE STREAM BANK ON RTE 79	11	1365	Major Damage (Emergency Opening)	1	Location(s)
DO I-8 SINK HOLE FLINN SPRINGS	11	1421	Major Damage (Emergency Opening)	1	Location(s)
DO I/JA FENCING AT MTCE STATIONS	8	3023R	Maintenance Facilities	3	Location(s)
		3032P	Maintenance Facilities	2	Location(s)
		3032Q	Maintenance Facilities	2	Location(s)
DO REPAIR EROSION DAMAGE	11	1412	Major Damage (Emergency Opening)	1	Location(s)
DO REPAIR SINKHOLE ON RTE 805	11	1356	Major Damage (Emergency Opening)	1	Location(s)
DO- REPLACE CULVERT FAILURE & REPAIR SINKHOLE ROSE CANYON BR	11	1413	Major Damage (Emergency Opening)	1	Location(s)
DO SAN PASQUAL WILDFIRE	11	1347	Major Damage (Emergency Opening)	1	Location(s)
DO SBD-10 AT RTE 38 & SIXTH ST	8	3016K	Major Damage (Emergency Opening)	2	Location(s)
DO STORM EVENT REPAIRS	11	1364	Major Damage (Emergency Opening)	1	Location(s)
DO/SB1/4Q420	4	1457L	Major Damage (Emergency Opening)	1	Location(s)
DO/SB1/ALA 84 PM21.6 Slide	4	2031F	Major Damage (Emergency Opening)	1	Location(s)
DO/SB1/ALA-880 PM28.6	4	2032H	Major Damage (Emergency Opening)	1	Location(s)
DO/SB1/CC-24-PM R0.01	4	2024M	Major Damage (Emergency Restoration)	3	Location(s)
DO/SB1/Construct Ref. Wall	4	2907D	Major Damage (Emergency Opening)	1	Location(s)
DO/SB1/CSP CULVERT	4	2030G	Major Damage (Emergency Opening)	1	Location(s)
DO/SB1/Deck and Girder Repair	4	2804P	Major Damage (Emergency Opening)	1	Location(s)
DO/SB1/Expansion Joint Repair SOL-37	4	2904J	Major Damage (Emergency Opening)	1	Location(s)
DO/SB1/EXPANSION JOINTS	4	2907J	Major Damage (Emergency Opening)	1	Location(s)
DO/SB1/FENCING/ACCESS GATES	4	2906M	Major Damage (Emergency Opening)	1	Location(s)
DO/SB1/Kincaid Repair	4	2033J	Major Damage (Emergency Opening)	4	Location(s)
DO/SB1/LNU/Myers Wildfire	4	2906B	Major Damage (Emergency Opening)	1	Location(s)
DO/SB1/NAP-121	4	2905D	Major Damage (Emergency Opening)	1	Location(s)
DO/SB1/Project	4	2034D	Major Damage (Emergency Opening)	1	Location(s)
DO/SB1/PSPS ALA	4	2033D	Major Damage (Emergency Opening)	4	Location(s)
DO/SB1/PSPS MRN	4	2033E	Major Damage (Emergency Opening)	5	Location(s)
DO/SB1/REALIGNMENT/CIDH PILES	4	2030C	Major Damage (Emergency Opening)	1	Location(s)
DO/SB1/Repair at Junction Box	4	2908D	Major Damage (Emergency Opening)	1	Location(s)
DO/SB1/Repair Facilities	4	2907B	Major Damage (Emergency Opening)	1	Location(s)
DO/SB1/REPLACE TIMBER SHEATHINGS	4	2031C	Major Damage (Emergency Opening)	1	Location(s)
DO/SB1/SCL 880 PM 2.7	4	3033G	Major Damage (Emergency Opening)	1	Location(s)
DO/SB1/SCL35/9.5	4	2035F	Major Damage (Emergency Opening)	1	Location(s)
DO/SB1/SCU Wildfire Damage	4	2906D	Major Damage (Emergency Opening)	1	Location(s)
DO/SB1/SF/CONCRETEBARRIERREPAIR	4	2907M	Major Damage (Emergency Opening)	1	Location(s)
DO/SB1/Slide Repair	4	2908E	Major Damage (Emergency Opening)	3	Location(s)
DO/SB1/SM 1 PM 39.0 Install Elec Generator	4	2031K	Major Damage (Emergency Opening)	1	Location(s)
DO/Sb1/SM-1-Wildfires Damage Repair	4	2906E	Major Damage (Emergency Opening)	1	Location(s)
DO/SB1/SOL-80	4	2905E	Major Damage (Emergency Opening)	1	Location(s)
DO/SB1/Soldier Pile	4	2030P	Major Damage (Emergency Opening)	1	Location(s)
DO/SB1/SOLDIER PILE/LAGGING WALL	4	2030Q	Major Damage (Emergency Opening)	1	Location(s)
DO/Sb1/Son-1/Drainage Repair	4	2906K	Major Damage (Emergency Opening)	1	Location(s)
DO/SB1/Temp Backup Generators	4	2034E	Major Damage (Emergency Opening)	1	Location(s)
DO/SB1/Temp Generators	4	2033H	Major Damage (Emergency Opening)	1	Location(s)
Dalan Culvert Clearing	5	3042	Major Damage (Emergency Opening)	1	Location(s)
Dalan Fire Restoration	5	3028	Major Damage (Emergency Opening)	20	Location(s)
Dalan Point Slide	5	3207	Major Damage (Emergency Restoration)	1	Location(s)
Dominie Creek Fish Passage	1	1113	Bridge Rehabilitation	1	Bridge(s)
Dominie Fish Passage Mitigation	1	1113M	Bridge Rehabilitation and Replacement	0	Bridge(s)
DO-MRN-101-Slide	4	2929B	Major Damage (Emergency Restoration)	1	Location(s)
Donner Park to Trout Creek Road Rehab	3	4294	Pavement Preservation	2.3	Lane mile(s)
Donner Summit SRRA ACP Replacement	3	4325	Safety Roadside Rest Area Restoration	2	Location(s)
Doran Maintenance Station	7	5546	Maintenance Facilities	1	Location(s)
DO-REPLACE BRIDGE DECK 57-0365	11	1445	Major Damage (Emergency Opening)	1	Location(s)
Dorris CAPM	2	3712	Pavement Preservation (CAPM)	21.3	Lane mile(s)
Dos Pueblos to Gaviota CAPM and Wildlife Crossing	5	3072	SHOPP - Sustainability and Miscellaneous	1	Location(s)
Downtown Madera CAPM	6	7005	Pavement Preservation (CAPM)	10.8	Lane mile(s)
Downtown Redding CAPM	2	3826	Pavement Preservation (CAPM)	24.8	Lane mile(s)
Downtown Watsonville Safety Project	5	3105	Safety Improvements	0.24	Annual fatal and serious injury collision(s)
Dr. Fine Bridge Replacement	1	0100V	Bridge Rehabilitation and Replacement	1	Bridge(s)
Drainage Failure	7	6135	Major Damage (Emergency Restoration)	1	Location(s)
Drainage Improvement	7	4848	Drainage System Restoration	3	Culvert(s) (ea)
Drainage Improvement & MGS	4	2031M	Major Damage (Permanent Restoration)	2	Location(s)
Drainage Improvement & Replace Culvert System	7	4849	Drainage System Restoration	1	Culvert(s) (ea)

**State Highway Operation and Protection Program (SHOPP)
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Project Title	District	PPNO	Output	Approved Quantity	Unit
Drainage Improvement, Culvert Repair, Replacement	7	4845	Drainage System Restoration	36	Culvert(s) (ea)
Drainage Rehabilitation	7	4847	Drainage System Restoration	1	Culvert(s) (ea)
DRAINAGE RESTORATION	10	3139	Drainage System Restoration	19	Culvert(s) (ea)
Drainage Restoration - Fish Passage	4	2914L	Drainage System Restoration	1	Culvert(s) (ea)
		2914V	Drainage System Restoration	4	Culvert(s) (ea)
DRAINAGE RESTORATION ON ROUTE 163	11	1485	Drainage System Restoration	11	Culvert(s) (ea)
Drainage System Restoration	4	2029G	Drainage System Restoration	29	Culvert(s) (ea)
	10	3511	Drainage System Restoration	34	Culvert(s) (ea)
Dri Whiskey	2	3456	Pavement Rehabilitation	21	Lane mile(s)
Drum Forebay Drainage Restoration	3	5142	SHOPP - PROTECT Program	31	Culvert(s) (ea)
Dubakella Slip-out	2	3748	Major Damage (Emergency Opening)	1	Location(s)
Dunnigan 5 Rehab	3	8578	Pavement Preservation (CAPM)	24.7	Lane mile(s)
Dunsmuir GAP	2	3685	Pavement Preservation	27.8	Lane mile(s)
Durham Pentz Intersection	3	2710	Safety Improvements	0.14	Annual fatal and serious injury collision(s)
DVMS PANELS	11	1174	Transportation Management (TMC's & Field Equipment)	25	Field element(s)
DWR BRIDGE SEISMIC RETROFIT	10	0338	Bridge Seismic Restoration	6	Bridge(s)
E8-S163 CONNECTOR OC	11	1256	Bridge Rail Replacement/Upgrade	318	Linear feet rail
EA 2XP704 - Tramoto Slide	7	6290	Major Damage (Emergency Restoration)	1	Location(s)
EA 2XU604 - LA 1/103 Bridge Hit	7	6420	Major Damage (Emergency Restoration)	1	Location(s)
Eagles Nest Safety Project	3	6003	Safety Improvements	5	Collision(s) reduced
Earthquake Bridge Repairs	1	2599	Major Damage (Emergency Restoration)	8	Location(s)
East Cedar Pass Safety	2	3607	Safety Improvements	18	Collision(s) reduced
East Crk Slough Scour Mitigation	4	1483D	Bridge Preventative Maintenance	1	Bridge(s)
EAST LAKE CO TMS	1	3104	Transportation Management (TMC's & Field Equipment)	11	Field element(s)
East Palisades Class 1 Path	2	3864	SHOPP - Complete Streets	7675	Bicycle and pedestrian infrastructure (linear feet)
East Red Bluff CAPM	2	3453	Pavement Rehabilitation	13.6	Lane mile(s)
East Sonora 108 CAPM	10	22370	Pavement Preservation (CAPM)	25	Lane mile(s)
EAST WASCO CAPM	6	8005	Pavement Preservation (CAPM)	12.8	Lane mile(s)
Easton Rumble Strip	6	6962	Safety Improvements	11	Collision(s) reduced
ED 193 Replace Double Barrel Culvert	3	3637	Major Damage (Emergency Restoration)	1	Location(s)
ED 193 Slipout	3	3631	Major Damage (Permanent Restoration)	2	Location(s)
ED 49 CAPM near Auburn	3	4803	Pavement Preservation (CAPM)	19	Lane mile(s)
ED 49 Sinkhole/Culvert Replacement	3	3470	Major Damage (Emergency Opening)	3	Location(s)
ED 50 Advance Warning & ITS	3	3312	Transportation Management (TMC's & Field Equipment)	37	Field element(s)
ED 50 CAPM	3	3341	Pavement Preservation (CAPM)	42.7	Lane mile(s)
ED 50 Culvert Rehab	3	3315A	Drainage System Restoration	54	Culvert(s) (ea)
		3317	Drainage System Restoration	32	Culvert(s) (ea)
ED 50 Culverts	3	3315	Drainage System Restoration	28	Culvert(s) (ea)
ED 50 Forni Culvert	3	3351	Major Damage (Emergency Opening)	1	Location(s)
ED 50 MBGR Upgrade to current standards	3	3311	Safety Enhancements	25	Collision(s) reduced
ED 50 Pavement Dip	3	3372	Major Damage (Emergency Restoration)	1	Location(s)
ED 50 Rockfall - Slope Stabilization	3	3365	Major Damage (Emergency Restoration)	1	Location(s)
ED 50 SLT Pavement	3	3356	Major Damage (Emergency Restoration)	20	Location(s)
ED 50 Tree Removal	3	3352	Major Damage (Emergency Restoration)	251	Location(s)
ED 50 Upper Truckee River Br Fire Repairs	3	3340	Major Damage (Emergency Opening)	1	Location(s)
ED Storm Damage	3	3167	Major Damage (Emergency Restoration)	46	Location(s)
ED-50 Down Drain	3	3339	Major Damage (Permanent Restoration)	1	Location(s)
ED-50 Vision Zero Improvements	3	3368	Safety Improvements	3.6	Annual fatal and serious injury collision(s)
Edison 2R Rehab	6	6981	Roadway Rehabilitation (2R)	5.8	Lane mile(s)
Eel River Bridge Child	1	4692M	Bridge Seismic Restoration	0	Bridge(s)
Eel River Bridge Replacement	1	4692	Bridge Seismic Restoration	1	Bridge(s)
EEL RIVER BRIDGE SEISMIC	1	2301B	Bridge Formula Program	1	Bridge(s)
Eel River Bridge Seismic Mitigation	1	2301M	Bridge Formula Program	0	Bridge(s)
EFA - Contract #05A2162 - JPB Roadway Repair	5	2905	Major Damage (Emergency Opening)	1	Location(s)
EFA - Contract #05A2163 - Clear Arch Culvert	5	2908	Major Damage (Emergency Opening)	6	Location(s)
EFA - Contract #05A2172 - Drainage System Repair	5	2909	Major Damage (Emergency Opening)	1	Location(s)
EFA - Contract #05A2173 - Mud Point Repair	5	2907	Major Damage (Emergency Opening)	1	Location(s)
EFA - Contract #05A2179 - Clear Structures	5	2911	Major Damage (Emergency Opening)	5	Location(s)
EFA - Contract #05A2180 - Repair Slip outs	5	2912	Major Damage (Emergency Opening)	4	Location(s)
EFA - Contract #05A2181 - Repair at 3 locations	5	2913	Major Damage (Emergency Opening)	3	Location(s)
EFA - Contract #05A2183 - Repair Rockfall Barriers	5	2914	Major Damage (Emergency Opening)	8	Location(s)
EFA - Contract #05A2189 - Polar Star	5	2997	Major Damage (Emergency Opening)	1	Location(s)
EFA Contract #05A2200	5	2998	Major Damage (Emergency Opening)	1	Location(s)
Ehlers Left Turn Pocket	1	1110	Non-Capacity Increasing Operational Improvements	0.2	Daily Vehicle Hour(s) of Delay (DVHD)
EI Camino Real/Floribunda Left-Turn Channelization	4	0686	Safety Improvements	120	Collision(s) reduced
EI Dorado 2R Rehab	6	7014	Roadway Rehabilitation (2R)	43.9	Lane mile(s)
EI Dorado to Clinton Rehab	6	6949	Roadway Rehabilitation (3R)	18.9	Lane mile(s)
EI Jaro Drapery System	5	3226	Major Damage (Emergency Restoration)	1	Location(s)
EI Monte Bus Sta Bridge Deck Replc	7	4902	Bridge Rehabilitation and Replacement	1	Bridge(s)
EI Verano Safety Improvements	4	2921L	Collision Severity Reduction	0.02	Annual fatal and serious injury collision(s)
Elam Safety	2	3879	Safety Improvements	0.08	Annual fatal and serious injury collision(s)
Elephant Butte Tunnel	2	3853	Major Damage (Emergency Opening)	1	Location(s)
Elephant Seals Culvert	5	3064	Major Damage (Emergency Opening)	1	Location(s)
Elk Creek Bridge LTM	1	4588M	Bridge Rail Replacement and Upgrade	0	Bridge(s)
Elk Creek Bridge Replacement	1	4588	Bridge Rail Replacement and Upgrade	532	Linear feet rail
Elk Creek Bridge Replacement & BMMN	1	4799	Bridge Rail Replacement and Upgrade	532	Linear feet rail
ELK CREEK SCOUR	1	4733	Major Damage (Emergency Opening)	5	Location(s)
Elk to Mendocino CAPM	1	4697	Pavement Preservation (CAPM)	34.4	Lane mile(s)
Elkhorn Bridge Debris Removal	3	8574	Major Damage (Emergency Opening)	1	Location(s)
Elkhorn Roundabout	6	7042	Safety Improvements	39	Collision(s) reduced
Elkhorn Slough Bridge Scour	5	3084	Major Damage (Emergency Opening)	1	Location(s)
Elkhorn SRRA Upgrades	3	5848	Roadside Safety Improvements	1	Location(s)
Emergency Bridge Deck Repair	1	4935	Major Damage (Emergency Restoration)	1	Location(s)
Emergency Hazard Tree Removal	1	7032	Major Damage (Emergency Opening)	4	Location(s)
Emergency Landslide Repair	1	4891	Major Damage (Emergency Restoration)	1	Location(s)
Emergency Pump Repair	3	6256	Major Damage (Emergency Opening)	1	Location(s)
Encino POC Demo	7	4915	Bridge Rehabilitation and Replacement	0	Bridge(s)
End-of-life replacement of TMS field devices	4	2914F	Transportation Management Systems	108	Field element(s)
Enos Lane CAPM & ADA Curb Ramps	6	6755	Pavement Rehabilitation	22.2	Lane mile(s)
					Lane mile(s)
Env Mitigation for 0Q790	4	2929W	Major Damage (Permanent Restoration)	0	Location(s)
Env Mitigation for 0Q820	4	2923W	Major Damage (Permanent Restoration)	0	Location(s)
Envir Mitigation for Pulga	3	2293A	Major Damage (Permanent Restoration)	0	Location(s)
Environmental Mitigation	1	2378M	Storm Water Mitigation	0	Acre(s) treated/pollutant

**State Highway Operation and Protection Program (SHOPP)
Project Outputs**

Project Title	District	PPNO	Output	Approved Quantity	Unit
		4 0480W	Bridge Preventative Maintenance	0	Bridge(s)
		8060B	Safety Improvements	0	Collision(s) reduced
		7 4273	Collision Severity Reduction	0	Annual fatal and serious injury collision(s)
Environmental Mitigation for parent project 0J100		4 0481G	Major Damage (Permanent Restoration)	0	Location(s)
ERRECA AND LODI ZEV		10 3209A	SHOPP - Misc	3	Location(s)
Eskimo Hill Superelevation Improvement		2 3673	Safety Improvements	14	Collision(s) reduced
Esparto		3 8663	Safety Enhancements	6	Collision(s) reduced
Eureka CAPM		1 2380	Pavement Rehabilitation	7	Lane mile(s)
Eureka Sidewalks & Curbs		1 2456	ADA - New Curb Ramps	31	Curb ramp(s)
Eureka Slough Bridges		1 2417	Bridge Seismic Restoration	1	Bridge(s)
Eureka Slough Bridges Replacement		1 2600	Bridge Seismic Restoration	2	Bridge(s)
Eureka/Arcata Corridor MBGR		1 2375	Safety Enhancements	46	Collision(s) reduced
Eureka-Arcata Corridor Combined Mitigation		1 2538	# Sign(s), light(s), greenway, or other safety / beautification	1	Each
			Bridge Rail Replacement and Upgrade	0	Linear feet rail
			Collision Severity Reduction	0	Collision(s) reduced
			Operational Improvements	0	Daily Vehicle Hour(s) of Delay (DVHD)
Eureka-Arcata Corridor MBGR Mitigation		1 2375M	Safety Enhancements	0	Collision(s) reduced
EXTEND MGS RIV 215		8 3025A	Safety Improvements	0.15	Annual fatal and serious injury collision(s)
EXTEND PLANT ESTABLISHMENT & BIOLOGICAL MONITORING Required		4 2924W	Bridge Preventative Maintenance	0	Bridge(s)
Failed Culvert Yolo 5		3 8576	Major Damage (Emergency Opening)	1	Location(s)
Fair Oaks Avenue Improvements		7 5196	Non-Capacity Increasing Operational Improvements	64	Daily Vehicle Hour(s) of Delay (DVHD)
Far North TMS		2 3843	Transportation Management Systems	19	Field element(s)
Farad Ditch Slope Stabilization		3 4287	Roadway Protective Betterments	1	Bridge(s)
Fawndale Culverts		2 3792	Drainage System Restoration	36	Culvert(s) (ea)
FCCO 22/23		7 5377	Storm Water Mitigation	181	Acre(s) treated/pollutant
Feather River Scour		3 8140	Bridge Scour	1	Bridge(s)
Felton Pedestrian Safety Improvements		5 3012	Safety Improvements	0.5	Annual fatal and serious injury collision(s)
Fernbridge Bridge Repair		1 2598	Major Damage (Emergency Restoration)	1	Location(s)
Ferndale Access		1 2623	Major Damage (Permanent Restoration)	1	Location(s)
Fifth Ave. DO Project		4 2030B	Major Damage (Emergency Opening)	1	Location(s)
Fire Damage Repair		1 4949	Major Damage (Emergency Restoration)	1	Location(s)
Fire Damage Repairs		1 4855	Major Damage (Emergency Restoration)	1	Location(s)
Fire Damage repairs & tree Removal		7 6374	Major Damage (Emergency Restoration)	12	Location(s)
Fire Erosion Control Measures on Mariposa SR 140		10 3432	Major Damage (Emergency Opening)	15	Location(s)
Firebaugh & Buttonwillow Bridge Pile Repair		6 6773	Bridge Preventative Maintenance	4	Bridge(s)
Firebaugh 3R Rehab		6 6972	Roadway Rehabilitation (3R)	6.6	Lane mile(s)
Firebaugh ADA		6 6747	ADA - New Curb Ramps	18	Curb ramp(s)
FISH CREEK BRIDGE MITIGATION		1 2403M	Storm Water Mitigation	0	Acre(s) treated/pollutant
FISH SPRINGS PAVEMENT		9 2667	Roadway Rehabilitation (3R)	37.4	Lane mile(s)
Floriston Safety Improvement		3 4322	Safety Improvements	71	Collision(s) reduced
Flume Creek CAPM		2 3777	Pavement Preservation (CAPM)	45.4	Lane mile(s)
Flume Creek Leftover Culverts		2 3863	Drainage System Restoration	31	Culvert(s) (ea)
Flynn Creek CAPM & Tapered Edge		1 4598	Pavement Rehabilitation	35.7	Lane mile(s)
Follow up Mitigation Cordilleras Crk. (21730)		4 2916W	Bridge Rehabilitation and Replacement	0	Bridge(s)
Follow-up mitigation to 2017 storm director's order project EA04-4K850		4 2032E	Major Damage (Permanent Restoration)	1	Location(s)
Foothill Curb Ramps - with R/W		7 4745B	ADA - New Curb Ramps	5	Curb ramp(s)
Foothill-Davenport Seismic Retrofit		4 2910D	Bridge Seismic Restoration	2	Bridge(s)
Forest Dump Slide		2 3749	Major Damage (Emergency Opening)	1	Location(s)
Fort Bragg ADA		1 4546	ADA - New Curb Ramps	36	Curb ramp(s)
		4996	ADA - New Curb Ramps	36	Curb ramp(s)
			Pedestrian/Bicycle facilities mile(s) constructed	0.6	Miles
Fort Tejon 2R Rehab		6 6895	Roadway Rehabilitation (2R)	17.5	Lane mile(s)
Fortuna Median Long ENV Monitoring		1 2461M	Roadside Safety Improvements	0	Location(s)
Fortuna Median Roadside Safety Project		1 2461	Roadside Safety Improvements	150	Location(s)
FPI-Ramp Metering on I880(Auto Mail-Mowry) & SR84(Thornton-Newark Blvd		4 0012B	Transportation Management (TMC's & Field Equipment)	9	Field element(s)
Francis B. Mathews Rest Area		2 3559	Roadside Safety Improvements	1	Location(s)
Frank Cox Road Left-Turn Channelization		10 3560	Safety Improvements	0.14	Annual fatal and serious injury collision(s)
Fre 168 Culvert Rehab		6 6992	Drainage System Restoration	136	Culvert(s) (ea)
FRE 180 Emergency Slope Repairs		6 8089	Major Damage (Emergency Restoration)	10	Location(s)
Fre 180 Landscape Mitigation		6 8053	Safety Improvements	0	Annual fatal and serious injury collision(s)
FRE 41 Roadside Safety Improvements		6 7013	Roadside Safety Improvements	6	Location(s)
Fre 41 Santa Ana Pump Replace		6 8062	Major Damage (Emergency Restoration)	1	Location(s)
FRE 99 Repair Concrete Girders		6 8127	Major Damage (Emergency Restoration)	1	Location(s)
					Location(s)
FRE I-5 REHABILITATION		6 8049	Roadway Rehabilitation (2R)	39.6	Lane mile(s)
Fre-168 Recycled Water Irrigation UpgradeEFFICIENCY		6 6851	Highway Planting Restoration	30	Acre(s)
Fre-198/Ker-119 Culverts		6 6802	Drainage System Restoration	5	Culvert(s) (ea)
Fre-41-99:168 & 180 Fiber Optic		6 6881	Transportation Management (Fiber Optic Cable)	49.7	Mile(s) of cable
Fre-99 & 41 Recycled Water		6 6922	Roadside Rehabilitation	0	Acre(s)
Fredonyer Emergency Opening Temporary Bypass		2 3939	Major Damage (Emergency Restoration)	1	Location(s)
Fredonyer Slip Out		2 3781	Major Damage (Emergency Opening)	1	Location(s)
FREEMAN 3 CAPM		9 2672	Pavement Rehabilitation	15.2	Lane mile(s)
FREEMAN GULCH SAFETY IMPROVEMENTS		9 2705	Collision Severity Reduction	1	Annual fatal and serious injury collision(s)
Freight Corridor Improvements on LA-60		7 5297	Trans Permit Requirements for Bridges	4	Bridge(s)
French Camp RD Intersection Control		10 3477	Safety Improvements	25	Collision(s) reduced
FRENCH FIRE EMERGENCY WORK		6 8007	Major Damage (Emergency Opening)	1	Location(s)
Fresh Pond Slipout		3 3326	Major Damage (Permanent Restoration)	1	Location(s)
FRESNO 168 CULVERT REHAB CDFW COMPENSATORY MITIGATION		6 8116	Drainage System Restoration	0	Culvert(s) (ea)
Fresno 198 Culvert Rehab		6 6921	Drainage System Restoration	76	Culvert(s) (ea)
FRESNO 5, BRIDGE DECK REHABILITATION		6 8001	Bridge Preventative Maintenance	2	Bridge(s)
Fresno County Culvert and Pavement Repair		6 8140	Major Damage (Emergency Restoration)	1	Location(s)
Fresno County Culvert Improvement Visual Mitigation and Biological Mit		6 8154	Drainage System Restoration	0	Culvert(s) (ea)
Fresno County Culvert Improvements		6 7071	Drainage System Restoration	104	Culvert(s) (ea)
Fresno Irrigation Upgrades		6 6888	Highway Planting Restoration	214	Acre(s)
Fresno Materials Lab Replacement		6 8081	Materials Laboratories	1	Location(s)
Fresno Secure Bridge Emergency Project		6 7096	Major Damage (Emergency Opening)	31	Location(s)
FRESNO SR 41 REHAB		6 7064	Pavement Preservation (CAPM)	12.9	Lane mile(s)
Front Street MS		7 5913	Maintenance Facilities	1	Location(s)
Future 680/237 Separation		4 2920L	Bridge Rehabilitation and Replacement	1	Bridge(s)
Fwy 10/405 Erosion Control		7 5091	Storm Water Mitigation	38.5	Acre(s) treated/pollutant
Gap Closure Rehab		6 6678	Roadway Rehabilitation	10.4	Lane mile(s)

**State Highway Operation and Protection Program (SHOPP)
Project Outputs**

Project Title	District	PPNO	Output	Approved Quantity	Unit
Garcia Bridge Scour	1	2550	Bridge Scour	1	Bridge(s)
Garapata Creek Bridge Rail Replacement	5	2696	Bridge Rail Replacement and Upgrade	0.01	Annual fatal and serious injury collision(s)
Garwoods Bridge fire damage repair	10	3695	Major Damage (Permanent Restoration)	1	Location(s)
Gaviota Creek Improvements	5	3015	Protective Betterments	1	Location(s)
Gaviota Creek Scour Emergency Project	5	3169	Major Damage (Emergency Restoration)	1	Location(s)
Gaviota Culvert Replacement	5	3330	Drainage System Restoration	3	Culvert(s) (ea)
Gaviota Culvert Replacement Landscape Mitigation	5	3330Y	Drainage System Restoration	0	Culvert(s) (ea)
Gaviota Culvert Replacement Seed Collection	5	3330X	Drainage System Restoration	0	Culvert(s) (ea)
Gaviota Rest Area Water Systems Upgrade	5	2462	Roadside Safety Improvements	2	Location(s)
Gaviota Rockfall Protection Repair	5	3139	Major Damage (Emergency Opening)	1	Location(s)
Gaviota-Nojoqui CAPM	5	2700	Pavement Preservation (CAPM)	27.6	Lane mile(s)
Gianella-Muir Safety & Meridian Rd Signal Combined	3	2116A	Safety Improvements	27	Collision(s) reduced
			Traffic signal interconnect project(s)	1	Each
Gianella-Muir Safety Project	3	2116	Safety Improvements	20	Collision(s) reduced
GLE 32 CAPM	3	3790	Pavement Preservation (CAPM)	20.7	Lane mile(s)
GLE-5 CAPM	3	3712	Pavement Preservation (CAPM)	34.4	Lane mile(s)
Gleason Bio Mitigation	4	0748R	Major Damage (Permanent Restoration)	0	Location(s)
Gleason Realignment	4	0748E	Major Damage (Permanent Restoration)	1	Location(s)
Glen Cyn Rd UC Median Barrier	5	3003	Major Damage (Emergency Opening)	1	Location(s)
Glenn 5 Roadside Safety	3	3709	Roadside Safety Improvements	64	Location(s)
Gold Nugget	3	4002	Pavement Preservation (CAPM)	22.9	Lane mile(s)
Golden Empire CAPM	6	6889	Pavement Rehabilitation	4	Lane mile(s)
Good Fred	2	3468	Roadway Rehabilitation	20.9	Lane mile(s)
Goose Lake Pavement	2	3839	Pavement Preservation (CAPM)	29.1	Lane mile(s)
Gore Paving	4	0480E	Roadside Safety Improvements	22	Location(s)
Goshen to Traver Emergency Pavement Replacement	6	6993	Major Damage (Emergency Opening)	1	Location(s)
GRADING IMPROVEMENTS, UPGRADING GUARDRAIL AND END TREATMENTS	11	1189	Safety Enhancements	6	Collision(s) reduced
Graeagle CAPM	2	3709	Pavement Preservation (CAPM)	17.1	Lane mile(s)
Grapevine Channel Repair	6	6749	Drainage System Restoration	23	Culvert(s) (ea)
Grapevine Culvert Repair	6	6884	Drainage System Restoration	4	Culvert(s) (ea)
Grapevine Rehab	6	6980	Roadway Rehabilitation (2R)	23.2	Lane mile(s)
Grapevine Rockfall Mitigation	6	8125	Major Damage (Permanent Restoration)	1	Location(s)
Grass Lake Maintenance Station	2	3805	Maintenance Facilities	1	Location(s)
Grass Valley Wildfire Evacuation Route	3	4143	SHOPP - Sustainability and Miscellaneous	7.7	Centerline mile(s)
Gray Creek Bridge	2	3829	Bridge Rehabilitation and Replacement	1	Bridge(s)
GREEN VALLEY ROAD INTERSECTION CONTROL INSTALLATION	4	2029L	Safety Improvements	0.21	Annual fatal and serious injury collision(s)
GREENVILLE OH REHAB	4	0480J	Bridge Rehabilitation	1	Bridge(s)
Grenada Pavement	2	3697	Pavement Preservation (CAPM)	53.1	Lane mile(s)
Groundwater Seepage	7	6415	Major Damage (Emergency Restoration)	1	Location(s)
Guadalupe ADA	5	2466	ADA - New Curb Ramps	21	Curb ramp(s)
Guadalupe CAPM	5	3053	Pavement Preservation (CAPM)	4.7	Lane mile(s)
Guadalupe to Santa Maria SR 166 CAPM	5	3006	Pavement Preservation (CAPM)	22.6	Lane mile(s)
Gualala Shoulders	1	4630	Safety Improvements	0.08	Annual fatal and serious injury collision(s)
GUARDRAIL NEAR ARCATA	1	2460	Safety Enhancements	9	Collision(s) reduced
			Roadside Enhancement (Mitigation Site Relinquishments)	2	Location(s)
Habitat Advanced Mitigation	3	2438	Major Damage (Permanent Restoration)	1	Location(s)
Habitat Restoration	4	2034J	Roadside Enhancement (Mitigation Site Relinquishments)	9	Location(s)
Habitat Advanced Mitigation	3	8380	Major Damage (Permanent Restoration)	1	Location(s)
Hanford 198 CAPM	6	8014	Pavement Preservation (CAPM)	26.2	Lane mile(s)
Hanford 198 Irrigation Upgrades	6	6815	Highway Planting Restoration	17.9	Acre(s)
Hanford SR-198 Roadside Safety	6	6799	Roadside Safety Improvements	15	Location(s)
Happy Camp Combine	2	3926	Operational Improvement(s)	4	Each
			Pavement Preservation (CAPM)	1.3	Lane mile(s)
			Pedestrian/Bicycle facilities mile(s) constructed	1.3	Miles
Happy Camp Pavement and Drainage	2	3937	Pavement Preservation (CAPM)	1.3	Lane mile(s)
Hare Creek Bridge	1	4588B	Bridge Rail Replacement/Upgrade	868	Linear feet rail
Hartsok Creek Fish Passage	1	2597	Drainage System Restoration	1	Culvert(s) (ea)
Hat Creek Bridge Replacement	2	3483	Bridge Rehabilitation	1	Bridge(s)
Hawthorne ADA w/ R/W	7	4749B	ADA - New Curb Ramps	69	Curb ramp(s)
Hawthorne ADA w/o R/W	7	4749	ADA - New Curb Ramps	69	Curb ramp(s)
Hawthorne Mobility Hub	7	6106	SHOPP - Complete Streets	460	Bicycle and pedestrian infrastructure (linear feet)
Hayfork Pavement	2	3842	Pavement Preservation (CAPM)	11.9	Lane mile(s)
Hazardous Tree Removal and Disposal	1	3134	Major Damage (Emergency Opening)	1	Location(s)
HEARN GULCH SLOP/OUT	1	8508	Major Damage (Emergency Opening)	1	Location(s)
Heartwood Hill Embankment Restoration	5	3017	Major Damage (Permanent Restoration)	1	Location(s)
Heim Pump Station	7	5043	Drainage System Restoration	1	Pump plant(s) (ea)
Heleslide	2	3746	Major Damage (Emergency Opening)	1	Location(s)
Herbert Miles SRRA Water Wastewater	2	3849	New Safety Roadside Rest Areas	2	Location(s)
HFST on 110 and 91 connector	7	5084	Safety Improvements	30	Collision(s) reduced
High Friction and Open Grade Surface Treatments	3	4901	Safety Improvements	153	Collision(s) reduced
High Friction Surface Treatment	7	5037	Safety Improvements	436	Collision(s) reduced
Highland Rumble Strip	6	6886	Safety Improvements	16	Collision(s) reduced
Highway 154 Bio Monitoring Project	5	2919X	Drainage System Restoration	0	Culvert(s) (ea)
Highway Curve Warning Signs	2	3844	Collision Severity Reduction	0.43	Annual fatal and serious injury collision(s)
HILLSDALE BLVD OC BRIDGE (#35-0198) BALUSTER RAILS UPGRADE AND REPLACE	4	2024C	Bridge Rail Replacement and Upgrade	252	Linear feet rail
Hilmar Complete Street	10	3561	SHOPP - Complete Streets	31110	Bicycle and pedestrian infrastructure (linear feet)
Hill Pavement Rehab	2	3817	Roadway Rehabilitation (2R)	45.8	Lane mile(s)
HIUCHICA CREEK-REMOVE CULVERTS AND WIDEN ROADWAY	4	0775G	Safety Improvements	0	Collision(s) reduced
HM315	4	1498N	Bridge Preventative Maintenance	8	Bridge(s)
HM315 Bridge Program	4	0273S	Bridge Preventative Maintenance	10	Bridge(s)
HM315-Bridge Program	4	1496K	Bridge Preventative Maintenance	3	Bridge(s)
HMA MEDIUM OVERLAY (CAPM)	4	2913D	Pavement Preservation (CAPM)	30	Lane mile(s)
Hollister SR25 Median Barrier Project	5	3204	Safety Improvements	0.03	Annual fatal and serious injury collision(s)
Hollywood Worker Safety	7	5072	Roadside Safety Improvements	229	Location(s)
Hoods Creek Bridge Replacement	10	3526	Bridge Scour	1	Bridge(s)
Hopland ADA	1	4675	ADA - New Curb Ramps	21	Curb ramp(s)
Hopland CAPM	1	4442	Pavement Rehabilitation	35.2	Lane mile(s)
Hopper Slough Bridge Replac	4	1451C	Bridge Rehabilitation and Replacement	1	Bridge(s)
Horizontal Alignment Warning Signs	4	2035C	Collision Severity Reduction	0.16	Annual fatal and serious injury collision(s)
			Collision Severity Reduction	0.29	Annual fatal and serious injury collision(s)
HORIZONTAL CURVE WARNING SIGNS	8	3010Y	Safety Enhancements	0	Collision(s) reduced
			Collision Severity Reduction	7	Collision(s) reduced
			Collision Severity Reduction	3	Collision(s) reduced

**State Highway Operation and Protection Program (SHOPP)
Project Outputs**

Project Title	District	PPNO	Output	Approved Quantity	Unit
Hornet Drive Off Ramp Improvement	3	6242	Non-Capacity Increasing Operational Improvements	2740	Daily Vehicle Hour(s) of Delay (DVHD)
Horse Creek Bridge Replacement	2	3629	Bridge Scour	1	Bridge(s)
Horse Creek Long-Term Mitigation	2	3905	Bridge Scour	0	Bridge(s)
Horse Gulch Combined	2	3983	Safety Improvements	0.13	Annual fatal and serious injury collision(s)
Horse Gulch Curve	2	3862	Safety Improvements	0.13	Annual fatal and serious injury collision(s)
HOV BUFFER STRIPING RIV-91	8	3005X	Non-Capacity Increasing Operational Improvements	126	Daily Vehicle Hour(s) of Delay (DVHD)
HOV LAND DEGRADATION MITIGATION PROJECT	8	3020P	Operational Improvements	175	Daily Vehicle Hour(s) of Delay (DVHD)
Howling Wolf South Slip-Out	1	4729	Major Damage (Emergency Opening)	1	Location(s)
HSR CP 4 - SR 46 IMPROVEMENTS	6	8108	Safety Improvements	0.11	Annual fatal and serious injury collision(s)
Huichica Creek Bridge Mitigation	4	1775H	Safety Improvements	0	Collision(s) reduced
Hum 101 Slipout	1	2604	Major Damage (Emergency Restoration)	1	Location(s)
HUM 36 Storm Damage Repair	1	2602	Major Damage (Emergency Restoration)	7	Location(s)
HUM 96 Storm Damage Repair	1	2603	Major Damage (Emergency Restoration)	1	Location(s)
HUM 96-169 5 BRIDGES Rail Upgrade	1	2449	Bridge Rail Replacement and Upgrade	2508	Linear feet rail
HUM to DN-101 CAPM	1	7027	Pavement Preservation (CAPM)	33	Lane mile(s)
HUM-101 Drainage North	1	2498	Drainage System Restoration	80	Culvert(s) (ea)
HUM-101 Drainage North - LTM Child	1	2498M	Drainage System Restoration	0	Culvert(s) (ea)
HUM-101 Drainage South	1	2497	SHOPP - PROTECT Program	80	Culvert(s) (ea)
HUM-101 Drainage South Mitigation	1	2497M	Drainage System Restoration	0	Culvert(s) (ea)
HUM-101 Strengthen 2 Bridges	1	2400	Trans Permit Requirements for Bridges	2	Bridge(s)
HUM-101/MEN-271 Culverts	1	7002	Drainage System Restoration	25	Culvert(s) (ea)
HUM-169 Restoration	1	2501	Major Damage (Permanent Restoration)	4	Location(s)
HUM-254 Culvert Rehab	1	2484	SHOPP - Sustainability and Miscellaneous	44	Location(s)
HUM-254 culverts	1	2518	Drainage System Restoration	20	Culvert(s) (ea)
Hum-254 culverts revegetation	1	2518M	Drainage System Restoration	0	Culvert(s) (ea)
HUM-299 Blue Lake Widen & Rumble	1	2427	Safety Improvements	40	Collision(s) reduced
HUM-299 CAPM	1	2494	Pavement Preservation (CAPM)	26.8	Lane mile(s)
HUM-299 Culverts	1	2433	Drainage System Restoration	44	Culvert(s) (ea)
HUM-299 Curve Improve Mitigation	1	2522M	Safety Improvements	0	Annual fatal and serious injury collision(s)
HUM-299 CURVE IMPROVEMENT	1	2522	Safety Improvements	158	Collision(s) reduced
HUM-299 East CAPM	1	2570	Pavement Preservation (CAPM)	31.8	Lane mile(s)
HUM-299 OFF RAMP IMPROVEMENT	1	2397	Safety Enhancements	7	Collision(s) reduced
HUM-299 Snow Storm Damage	1	2572	Major Damage (Emergency Restoration)	1	Location(s)
HUM-299 Widen Shoulders	1	2434	Safety Improvements	30	Collision(s) reduced
HUM-36 CAPM 201.121	1	2495	Pavement Preservation (CAPM)	44.4	Lane mile(s)
HUM-36 Drainage	1	2549	Drainage System Restoration	37	Culvert(s) (ea)
Human Made - Wire Theft	7	6297	Major Damage (Permanent Restoration)	8	Location(s)
Human-made Damages	7	6428	Major Damage (Emergency Restoration)	1	Location(s)
Humphrey Maintenance Station L5816	7	5749	Maintenance Facilities	1	Location(s)
Humphrey Road Intersection Improvement	3	8147	Safety Improvements	0.16	Annual fatal and serious injury collision(s)
Hunter/Panther Creek Bridge Replacement	1	1072	Bridge Seismic Restoration	2	Bridge(s)
Hunter-Panther Mitigation	1	1137M	Bridge Seismic Restoration	0	Bridge(s)
HURRICANE HILARY STORM DAMAGE	8	3022X	Major Damage (Emergency Restoration)	20	Location(s)
		3022Y	Major Damage (Emergency Restoration)	2	Location(s)
HWY 101 Sign Replacement Project	4	2914M	Signs and Lighting Rehabilitation	17	Sign(s)
Hwy 12/160 Intersection Improvements	3	5961	Safety Improvements	26	Collision(s) reduced
Hwy 154 Drainage Improvements	5	2919	Drainage System Restoration	27	Culvert(s) (ea)
Hwy 154 Landscape Mitigation	5	2919Y	Drainage System Restoration	0	Culvert(s) (ea)
Hwy 166 Embankment Repairs	5	3238	Major Damage (Emergency Restoration)	3	Location(s)
Hwy 17 Drainage Improvements	5	2921	Drainage System Restoration	17	Culvert(s) (ea)
Hwy 17 Drainage Landscape Project	5	2921Y	Drainage System Restoration	0	Culvert(s) (ea)
Hwy 17 Source Control Landscape Split	5	1989Y	Storm Water Mitigation	0	Acre(s) treated/pollutant
Hwy 217 San Jose Crk Bridge Replacement	5	2386	Bridge Rehabilitation and Replacement	1	Bridge(s)
Hwy 246 Storm damage drainage repair	5	3210	Major Damage (Emergency Restoration)	3	Location(s)
HWY 26/49 Intersection Control Improvement	10	3494	Safety Improvements	22	Collision(s) reduced
Hwy 68 Curve Correction	5	2742	Safety Improvements	182	Collision(s) reduced
Hwy 70 Segment 2 Combined	3	2295A	Operational improvement(s)	1	Each
			Passing lane mile(s) constructed	6	Miles
			Safety Improvements	35	Collision(s) reduced
I 5 Big and Tall	2	3696	Trans Permit Requirements for Bridges	8	Bridge(s)
I 580 Separation Bridge MTCE	10	3533	Bridge Preventative Maintenance	1	Bridge(s)
I-10 Closure Pour in El Monte	7	5067	Bridge Preventative Maintenance	4	Bridge(s)
I-10 EB BARRIER INSTALL IN COLTON	8	3024Z	Safety Improvements	0.3	Annual fatal and serious injury collision(s)
I-10 Express Lanes-San Antonio Ave to Route 15 (Contract 1)	8	3009P	HOV/HOT lane-mile(s) constructed	41.4	Miles
I-10 TMS Between SM and DTLA	7	5041	Transportation Management Systems	129	Field element(s)
I-110 Upgrade OHS	7	5074	Signs and Lighting Rehabilitation	500	Sign(s)
I-15 CAPM	8	3018M	Pavement Preservation (CAPM)	41.2	Lane mile(s)
I-15 CONCRETE LANE REPLACEMENT	11	1350	Roadway Rehabilitation (3R)	12.1	Lane mile(s)
I-15 CORONA DECELERATION LANE	8	3021L	Safety Improvements	0.33	Annual fatal and serious injury collision(s)
I-15 MOJAVE WILDLIFE CROSSINGS (IJA) (DESIGN BUILD)	8	3021K	SHOPP - Sustainability and Miscellaneous	3	Location(s)
I-15 S - CULVERT/TUNNEL LIGHTING/ADA	11	1315	SHOPP - PROTECT Program	18	Culvert(s) (ea)
I-210 Glendora BMP	7	5005	Storm Water Mitigation	32.4	Acre(s) treated/pollutant
I-210/SR-2 Upgrade Lighting Systems to LED	7	5393	Signs and Lighting Rehabilitation	1397	Lighting fixture(s)
I-5 - Pavement Rehab in Castaic	7	5994	Pavement Preservation (CAPM)	112.5	Lane mile(s)
I-5 ASSET MGMT SPLIT	11	1434	Pavement Preservation (CAPM)	55.8	Lane mile(s)
I-5 BRIDGE REHAB	11	1483	Bridge Rehabilitation and Replacement	4	Bridge(s)
I-5 CANNON RD SB AUXILIARY LANE	11	1279	Non-Capacity Increasing Operational Improvements	77	Daily Vehicle Hour(s) of Delay (DVHD)
I-5 CAPM in Downey & Commerce	7	5535	Pavement Preservation (CAPM)	37.9	Lane mile(s)
I-5 CAPM N/O DTLA	7	6081	Pavement Preservation (CAPM)	80.1	Lane mile(s)
I-5 DETENTION BASINS	11	1164	Storm Water Mitigation	73	Acre(s) treated/pollutant
I-5 Fast Freight Corridor I-5/Rte 99 Separation	6	6876	Trans Permit Requirements for Bridges	1	Bridge(s)
I-5 Freight Corridor	7	5281	Trans Permit Requirements for Bridges	12	Bridge(s)
I-5 Freight Corridor California Aqueduct	6	6877	Trans Permit Requirements for Bridges	2	Bridge(s)
I-5 Grade Raise	3	5881	Roadway Rehabilitation (2R)	16.3	Lane mile(s)
I-5 INSTALL HIGH TENSION CABLE BARRIER (HTCB)	11	1265	Collision Severity Reduction	8	Collision(s) reduced
I-5 MOBILITY PROJECT	11	1320	Non-Capacity Increasing Operational Improvements	550	Daily Vehicle Hour(s) of Delay (DVHD)
I-5 NCC CARLSBAD HOV	11	0615J	Auxiliary lane mile(s) constructed	1	Miles
			HOV/HOT lane-mile(s) constructed	8.1	Miles
			Operational improvement(s)	7	Each
			Operational Improvements	77	Daily Vehicle Hour(s) of Delay (DVHD)
			Pedestrian/Bicycle facilities mile(s) constructed	0.44	Miles
I-5 NCC FINAL CMGC PACKAGE	11	0615K	Operational Improvements	260	Daily Vehicle Hour(s) of Delay (DVHD)
			Pedestrian/Bicycle facilities mile(s) constructed	0.86	Miles

**State Highway Operation and Protection Program (SHOPP)
Project Outputs**

Project Title	District	PPNO	Output	Approved Quantity	Unit
I-5 North Coast Corridor HOV Extension - Phase 1 - Encinitas HOV	11	0615F	Auxiliary lane mile(s) constructed	2	Miles
			HOV/HOT lane-mile(s) constructed	17.8	Miles
			Operational improvement(s)	13	Each
			Pedestrian/Bicycle facilities mile(s) constructed	8.9	Miles
I-5 North County Drainage Project/Sand Shed	7	5440	SHOPP - PROTECT Program	17	Culvert(s) (ea)
I-5 PAVEMENT ANCHOR PROJECT	10	3427	Roadway Rehabilitation (3R)	83.4	Lane mile(s)
I-5 PAVEMENT REHAB	11	1301	Pavement Rehabilitation	0	Lane mile(s)
I-5 Permit Load Mobility Improvement	3	5868	Trans Permit Requirements for Bridges	1	Bridge(s)
I-5 Protective Betterments in Castaic	7	5013	Protective Betterments	1	Location(s)
I-5 REPAIR - Bike Path	11	1218	SHOPP - Sustainability and Miscellaneous	1	Location(s)
I-5 ROADSIDE REHAB	11	1245	Roadside Rehabilitation	136.6	Acre(s)
I-5 Roadside Safety Improvements	3	8572	Roadside Safety Improvements	32	Location(s)
I-5 SLOPE STABILIZATION	11	1203	Storm Water Mitigation	10	Acre(s) treated/pollutant
I-5 TMDL in Burbank/Glendale	7	5321	Storm Water Mitigation	28	Acre(s) treated/pollutant
I-5 to Kerman Rumble Strip	6	6975	Safety Improvements	23	Collision(s) reduced
I-5 Traffic Signal Upgrade @ Cesar Chavez	7	5433	Safety Improvements	3	Collision(s) reduced
I-5 Tunnel Lighting	7	5489	Signs and Lighting Rehabilitation	1137	Lighting fixture(s)
I-5 Vertical Clearance (Colusa & Yolo)	3	5869	Trans Permit Requirements for Bridges	5	Bridge(s)
I-5 Vertical Clearance (Yolo)	3	8563	Trans Permit Requirements for Bridges	3	Bridge(s)
I-5 West End Viaduct	3	5863	Trans Permit Requirements for Bridges	2	Bridge(s)
I-5 WIM Station	10	3501	Commercial Vehicle Enforcement Facilities & Weigh-In-Motion Scales	1	Location(s)
I-5NCC ITS ELEMENTS	11	1281	Transportation Management (TMC's & Field Equipment)	103	Field element(s)
I-605 CAPM, Irwindale	7	5946	Pavement Preservation (CAPM)	39.9	Lane mile(s)
			Storm Water Mitigation	34.4	Acre(s) treated/pollutant
I-605 CAPM, OC to Telegraph	7	5971	Pavement Preservation (CAPM)	95.8	Lane mile(s)
			Roadside Safety Improvements	36	Location(s)
			Storm Water Mitigation	79	Acre(s) treated/pollutant
I-605 Rehab, Telegraph to I-10	7	5521	Roadway Rehabilitation (2R)	93.2	Lane mile(s)
I-680 Express Lanes/Rehab Project	4	2905H	Roadway Rehabilitation (2R)	28.7	Lane mile(s)
I-680/SR 4 Interchange - Widen Route 4 (Phase 3)	4	0298E	HOV/HOT lane-mile(s) constructed	2	Miles
			Mixed flow lane-mile(s) constructed	7.8	Miles
			Modified/Improved interchange(s)	10	Each
			New bridge(s)	2	Each
I8 - PAVEMENT REHAB	11	1255	Roadway Rehabilitation (2R)	22.8	Lane mile(s)
I-8 ADA RAMPS	11	1227	ADA - New Curb Ramps	17	Curb ramp(s)
I-8 CONCRETE BARRIER INSTALLATION	11	1598	Safety Improvements	0.38	Annual fatal and serious injury collision(s)
I-8 CULVERT REPLACEMENT	11	1194	Drainage System Restoration	20	Culvert(s) (ea)
I-8 DIRECTOR'S ORDER (WEST FIRE)	11	1343	Major Damage (Emergency Opening)	1	Location(s)
I-8 EL CAJON BRIDGE REHAB	11	1339	Bridge Preventative Maintenance	2	Bridge(s)
I-8 PAVE REHAB FROM LAKE JENNINGS UC TO WILLOWS RD OC	11	1458	Pavement Preservation (CAPM)	16.8	Lane mile(s)
I-80 Across the Top	3	6689X	Roadway Rehabilitation (3R)	8	Lane mile(s)
I-80 CAPM Antelope to Sierra College	3	5150	Pavement Preservation (CAPM)	51.4	Lane mile(s)
I-80/APPIAN/CUMMINGS BRIDGE RAIL	4	2022K	Bridge Formula Program	2	Bridge(s)
I-805 BRIDGE PRESERVATION	11	1387	Bridge Rehabilitation and Replacement	4	Bridge(s)
I805 MIDDLE MAINT & REHAB	11	1309	Transportation Management Systems	77	Field element(s)
I805 NORTH MAINT & REHAB	11	1308	Drainage System Restoration	15	Culvert(s) (ea)
I-805 North Operational Improvements	11	1285	# Sign(s), light(s), greenway, or other safety / beautification	17	Each
			Auxiliary lane constructed	1.25	Miles
			Auxiliary lane mile(s) constructed	2	Miles
			Bicycle lane mile(s)	0.34	Miles
			Close circuit television camera(s)	1	Each
			Communications (fiber optics)	0.5	Miles
			Culvert(s)	610	LF
			Freeway ramp meter(s)	2	Each
			Mainline shoulder(s) constructed	1.2	Miles
			New bridge(s)/tunnel(s)	0.1	SQFT
			Operational Improvements	888	Daily Vehicle Hour(s) of Delay (DVHD)
			Ramp(s) and connector(s) constructed	1.2	Miles
I-805 S. MAINT AND REHAB PROJECT	11	1311	Roadway Rehabilitation (2R)	129.4	Lane mile(s)
I-805 SWEETWATER RIVER BRIDGE UPGRADE	11	1280	Bridge Rail Replacement/Upgrade	1920	Linear feet rail
I805/I8 - INSTALL HIGH FRICTION SURFACE TREATMENT	11	1358	Safety Improvements	107	Collision(s) reduced
IMP BRIDGE STRUCTURE REHAB	11	1329	Bridge Rehabilitation and Replacement	6	Bridge(s)
IMP, NEAR/JIN EL CENTRO, ROADSIDE SAFETY	11	1252	Roadside Safety Improvements	34	Location(s)
IMP-78 PAVEMENT REHAB	11	1473	Roadway Rehabilitation (2R)	15	Lane mile(s)
IMP-8 STORM DAMAGE	11	1487	Major Damage (Emergency Restoration)	37	Location(s)
IMP-98 PAVEMENT REHAB	11	1456	Pavement Preservation (CAPM)	22	Lane mile(s)
IMPROVE MTC FACILITY	11	1398	Maintenance Facilities	1	Location(s)
Improve Safety	4	2025R	Safety Improvements	139	Collision(s) reduced
IMPROVE TRAFFIC OPERATIONS AT INTERSECTION	4	2911K	Operational Improvements	1515	Daily person hours of delay (DPHD)
INDEPENDENCE EQUIP CANOPY	9	2662	Maintenance Facilities	1	Location(s)
Ingot Curve Improvement	2	3742	Safety Improvements	38	Collision(s) reduced
INSIDE PARK CULVERTS	1	1130	Drainage System Restoration	9	Culvert(s) (ea)
Inside Shoulder Widening	5	3074	Safety Improvements	64	Collision(s) reduced
Install 26 Miles of Fiber Optics Trunk Line, Hubs and TOS/TMS Elements	4	0064A	Transportation Management Systems	30	Field element(s)
INSTALL ADA RAMPS	11	1191	ADA - New Curb Ramps	28	Curb ramp(s)
Install APS(Accessible Ped Signal)	4	1491J	Collision Severity Reduction	8	Collision(s) reduced
Install Electric System (Flashing Beacon with Type 9B sign W3-3)	4	2034H	Safety Improvements	88	Collision(s) reduced
INSTALL HIGH FRICTION SURFACE TREATMENT	4	1481B	Safety Enhancements	5	Collision(s) reduced
Install Midwest Guardrail System	10	3190	Safety Enhancements	3	Collision(s) reduced
Install Outer Separation Barriers	4	1493F	Safety Improvements	23	Collision(s) reduced
Install Power Supply	4	1495F	Safety Improvements	65	Collision(s) reduced
Install protected left turn channelization	7	5611	Safety Improvements	101	Collision(s) reduced
Install Protected Left Turn Signal	7	5610	Safety Improvements	27	Collision(s) reduced
INSTALL RADAR DETECTION SYSTEMS	11	1263	Transportation Management (TMC's & Field Equipment)	48	Field element(s)
Install Ramp Meters	3	6701	Transportation Management (TMC's & Field Equipment)	4	Field element(s)
Install RCP	4	1452G	Drainage System Restoration	3	Culvert(s) (ea)
INSTALL SHOULDER RUMBLE STRIPS	4	2913E	Safety Improvements	0.25	Annual fatal and serious injury collision(s)
Install Signals at SB-18 & Pawnee Rd	8	3023E	Safety Improvements	0.12	Annual fatal and serious injury collision(s)
Install Signals/Construct Roundabout	4	2028S	Safety Improvements	0.02	Annual fatal and serious injury collision(s)

**State Highway Operation and Protection Program (SHOPP)
Project Outputs**

Project Title	District	PPNO	Output	Approved Quantity	Unit
INSTALL TOS, RM & FIBER ON 580,680 & 780 In Ala, CC Cos - Child Pro-1	4	2020W	Transportation Management Systems	118	Field element(s)
INSTALL TOS, RM & FIBER ON ROUTES 580, 680 & 780 IN ALA, CC & SOL	4	2906A	Transportation Management Systems	0	Field element(s)
INSTALL TOS/RM AND FIBERS	4	2027J	Transportation Management Systems	84	Field element(s)
INSTALL TRAFFIC SIGNAL AT SR 18/BEAR VALLEY CUTOFF	8	3025C	Safety Improvements	0.28	Annual fatal and serious injury collision(s)
Install Traffic Signal or Roundabout	4	2927T	Safety Improvements	0.8	Annual fatal and serious injury collision(s)
INSTALL TRAFFIC SIGNAL SR-38/BRYANT	8	3024F	Safety Improvements	0.28	Annual fatal and serious injury collision(s)
Install viaduct	6	8158	Major Damage (Emergency Restoration)	1	Location(s)
Install/upgrade/enhance pavement markers	4	2920D	Safety Improvements	0.17	Annual fatal and serious injury collision(s)
Install/upgrade/enhance pavement markers and enhance stripes	4	2921R	Safety Improvements	0.24	Annual fatal and serious injury collision(s)
Installation of fiber optic cable	3	5846	Transportation Management (TMC's & Field Equipment)	13	Field element(s)
Intelligent Transportation System Technology (Advanced Technology Corridors at Border Ports of Entry)	11	1241	ITS element(s)	166	Each
			Transportation Management (Fiber Optic Cable)	13.8	Mile(s) of cable
Intersection Control Improvement	10	3418	Safety Improvements	34	Collision(s) reduced
Interstate 5 (I-5) Managed Lanes Multimodal Operational Improvements.	12	2833C	HOV/HOT mainline constructed	54	Miles
			Operational Improvements	7250	Daily Vehicle Hour(s) of Delay (DVHD)
Inwn Cr Br Rehab Culvert	4	1493K	Capital Bridge Preventative Maintenance Program	1	Bridge(s)
ITS Restoration	7	5247	Transportation Management (TMC's & Field Equipment)	602	Field element(s)
ITS Restoration Work in Hassan Manaa's area	7	5245	Transportation Management (TMC's & Field Equipment)	170	Field element(s)
ITS Restoration work in Shimelis area	7	5246	Transportation Management (TMC's & Field Equipment)	384	Field element(s)
Jack Peters Cr Bridge	1	4682	Bridge Rail Replacement and Upgrade	563	Linear feet rail
Jack Peters Long Term Mitigation	1	4682M	Bridge Rail Replacement and Upgrade	0	Bridge(s)
Jack's Peak CAPM	5	3051	Pavement Preservation (CAPM)	11.5	Lane mile(s)
Jackson Slough Road Intersection Improvement	3	5964	Safety Improvements	0.26	Annual fatal and serious injury collision(s)
James Creek East & West Safety	1	4766	Safety Improvements	44	Collision(s) reduced
James Creek East Safety	1	4717	Safety Improvements	30	Collision(s) reduced
James Creek West Safety	1	4691	Safety Improvements	14	Collision(s) reduced
Jenner Replace Culvert	4	2022P	Drainage System Restoration	6	Culvert(s) (ea)
Jennings/Knights Curve Improvement	3	8508	Safety Improvements	0.24	Annual fatal and serious injury collision(s)
JOHN WILKIE SRRA REHAB	8	3013K	Safety Roadside Rest Area Restoration	2	Location(s)
KEENE PAVEMENT	9	2668	Roadway Rehabilitation (3R)	44.8	Lane mile(s)
Kelsey Creek L Turn Channelization	1	3126	Safety Improvements	18	Collision(s) reduced
KEOUGH CAPM	9	2719	Pavement Preservation (CAPM)	48.8	Lane mile(s)
Ker 33 Culvert Rehab	6	6894	Drainage System Restoration	40	Culvert(s) (ea)
KER 33 Environmental Mitigation	6	8121	Drainage System Restoration	0	Culvert(s) (ea)
Ker 58 ADA	6	6757	ADA - New Curb Ramps	4	Curb ramp(s)
Ker 58 CAPM/WIM update	6	8013	Pavement Preservation (CAPM)	71	Lane mile(s)
Ker 99 Pavement Repair	6	8031	Major Damage (Emergency Opening)	1	Location(s)
KER 15 CAPM	6	7070	Roadway Rehabilitation (3R)	56.9	Lane mile(s)
Ker204 ADA Ramp Repair	6	6871	ADA - New Curb Ramps	77	Curb ramp(s)
Kern 155 Roadway/Slope/Culvert Repair	6	8047	Major Damage (Emergency Restoration)	3	Location(s)
Kern 178 Maintenance Access	6	3729	Roadside Safety Improvements	62	Location(s)
Kern 184/Sunset Roundabout	6	6791	Safety Improvements	16	Collision(s) reduced
KERN 204 BRIDGE RAIL UPGRADE	6	8095	Bridge Rail Replacement and Upgrade	0.06	Annual fatal and serious injury collision(s)
KERN 223 REHAB	6	3019	Roadway Rehabilitation (2R)	17	Lane mile(s)
Kern 5 Emergency Pavement Repairs	6	7049	Major Damage (Emergency Opening)	1	Location(s)
Kern 5 SCALING/ROCK REMOVAL	6	8098	Major Damage (Emergency Restoration)	1	Location(s)
Kern 99 N/B 2R	6	6731	Pavement Preservation	33	Lane mile(s)
Kern Canyon Culvert Rehab	6	6925	Drainage System Restoration	62	Culvert(s) (ea)
Kern County Secure Bridge Emergency Project	6	7098	Major Damage (Emergency Restoration)	34	Location(s)
Kern-Kings Pumping Plant Upgrades	6	6796	Drainage System Restoration	9	Culvert(s) (ea)
Kettleman 2R Rehab	6	6928	Roadway Rehabilitation (2R)	16.8	Lane mile(s)
Kettleman Roundabout	6	7031	Safety Improvements	43	Collision(s) reduced
KIN 41 DRAINAGE RESTORATION	6	8088	Drainage System Restoration	51	Culvert(s) (ea)
King City CAPM	5	2900	Pavement Preservation (CAPM)	28	Lane mile(s)
King City CAPM Biological Monitoring	5	2900X	Pavement Preservation (CAPM)	0	Lane mile(s)
King City CAPM Landscape Mitigation	5	2900Y	Pavement Preservation (CAPM)	0	Lane mile(s)
King City Trees planting mitigation	5	2312Y	Collision Severity Reduction	0	Collision(s) reduced
King Salmon Rehab 2R	1	2382	Pavement Preservation	20.6	Lane mile(s)
Kings 43 CAPM	6	6965	Pavement Rehabilitation	6	Lane mile(s)
Kings Canyon Bridge Rail	6	6766	Bridge Rail Replacement/Upgrade	535	Linear feet
Kingsburg 99 Rehab	6	6727	Roadway Rehabilitation (2R)	16.6	Lane mile(s)
Kingsburg Rumble Strips	6	7060	Safety Improvements	7	Collision(s) reduced
Kingvale/Soda Springs Gutter	3	4309	Major Damage (Permanent Restoration)	7	Location(s)
KLAMATH CAPM	1	1129	Pavement Preservation (CAPM)	50.1	Lane mile(s)
Klamath Lake Rehab 2R	2	3754	Roadway Rehabilitation (2R)	9	Lane mile(s)
Klamathon Fire Restoration	2	3738	Major Damage (Emergency Opening)	1	Location(s)
KORBEL WALLS	1	2492	Major Damage (Permanent Restoration)	1	Location(s)
LA 105 - Drainage upgrade	7	5624	Drainage System Restoration	1	Pump plant(s) (ea)
LA 110 Hard Running Shoulder	7	5083	Safety Improvements	504	Collision(s) reduced
LA 118 Drainage System Restoration	7	5506	Drainage System Restoration	15	Culvert(s) (ea)
LA 126 Reactive Safety 010	7	5732	Safety Improvements	7	Collision(s) reduced
LA 14 Roadside Safety Improvements	7	4976	Roadside Safety Improvements	55	Location(s)
LA 2 MBGR	7	5151	Collision Severity Reduction	24	Collision(s) reduced
LA 2 Video Wall	7	5409	Transportation Management Systems	0	Field element(s)
LA 210 - Washout	7	5873	Major Damage (Emergency Opening)	1	Location(s)
LA-002/005 Replace/Update Drainage Pumps	7	5924	Drainage System Restoration	2	Pump plant(s) (ea)
LA-010 Pavement 2R	7	6026	Roadway Rehabilitation (2R)	47.4	Lane mile(s)
LA-010-WORKER SAFETY 18/19	7	4716	Roadside Safety Improvements	106	Location(s)
LA-014 Replace/Line Culverts	7	5794	Drainage System Restoration	15	Culvert(s) (ea)
LA-091 reduce severity collisions	7	4968	Safety Enhancements	3	Collision(s) reduced
LA-1 Lincoln/Fiji Safety	7	5854	Safety Improvements	58	Collision(s) reduced
LA-1 TMDL, PE:KM-JX	7	5686	Storm Water Mitigation	16.9	Acre(s) treated/pollutant
LA-1, PCH/ Atlantic Safety Improv	7	5239	Safety Improvements	32	Collision(s) reduced
LA-1, Signal Improvement	7	5612	Safety Improvements	41	Collision(s) reduced
LA-10 & 57 Stormwater TMDL	7	6027	Storm Water Mitigation	56.3	Acre(s) treated/pollutant
LA-10 ADA, PE:DA	7	5746	ADA - New Curb Ramps	8	Curb ramp(s)
LA-10 Bridge Rail	7	5736	Bridge Rail Replacement/Upgrade	8	Linear feet rail

**State Highway Operation and Protection Program (SHOPP)
Project Outputs**

Project Title	District	PPNO	Output	Approved Quantity	Unit
			Major Damage (Emergency Opening)	1	Location(s)
		5993	Bridge Rail Replacement and Upgrade	0.23	Annual fatal and serious injury collision(s)
LA10 Roadside Rehab	7	5378	Roadside Rehabilitation	22.5	Acre(s)
LA-10, Culvert Rehabilitation	7	5547	SHOPP - PROTECT Program	22	Culvert(s) (ea)
LA-101 Pavement Rehab near Universal	7	5366	Pavement Preservation (CAPM)	37	Lane mile(s)
LA-101 Upgrade CCTV/CMS	7	5221	Transportation Management Systems	101	Field element(s)
LA-101 Western/Sunset/Fountain Bridge Rail/Fence	7	5959	Bridge Rail Replacement and Upgrade	1.17	Annual fatal and serious injury collision(s)
LA-101, Bridge Rail Upgrade	7	5429	Bridge Rail Replacement and Upgrade	1867	Linear feet rail
LA-101/110 Four Level Interchange/Lighting Upgrades	7	5744	Signs and Lighting Rehabilitation	301	Lighting fixture(s)
LA-101-PEH	7	5821	Major Damage (Emergency Opening)	58	Location(s)
LA-103 PM 0.07, Repair Bridge Deck	7	5883	Major Damage (Emergency Opening)	1	Location(s)
LA-103 Repair Damage Slope	7	5838	Major Damage (Emergency Opening)	6	Location(s)
LA-107 Torrance Maintenance Station	7	5372	Maintenance Facilities	1	Location(s)
LA-110 Bridge Replacement	7	5701	Bridge Rail Replacement and Upgrade	0.15	Annual fatal and serious injury collision(s)
LA-110 PM 6.6/7.45 - Washout	7	5875	Major Damage (Emergency Opening)	3	Location(s)
LA-110 Reactive HFST	7	6126	Safety Improvements	1.41	Annual fatal and serious injury collision(s)
LA-110 Stormwater TMDL	7	6018	Storm Water Mitigation	60.5	Acre(s) treated/pollutant
LA-110 Upgrade Bridge Railing	7	5740	Bridge Rail Replacement and Upgrade	0.05	Annual fatal and serious injury collision(s)
LA-134 Overhead Signs	7	5375	Signs and Lighting Rehabilitation	20	Sign(s)
LA-134 Pavement Preservation	7	4817	Pavement Preservation (CAPM)	112	Lane mile(s)
LA-134 Storm Water	7	5687	Storm Water Mitigation	13.6	Acre(s) treated/pollutant
LA-134 Upgrade TMS	7	5222	Transportation Management Systems	48	Field element(s)
LA-138 Pavement CAPM	7	6195	Pavement Preservation (CAPM)	13.1	Lane mile(s)
LA-138 Roundabout at 60th St W	7	5573	Safety Improvements	0.8	Annual fatal and serious injury collision(s)
LA-14, Bridge Replacement	7	5728	Trans Permit Requirements for Bridges	1	Bridge(s)
LA2 ADA in LCF	7	5392	ADA - New Curb Ramps	61	Curb ramp(s)
LA-2 Culvert	7	5509	Drainage System Restoration	27	Culvert(s) (ea)
LA-2 Permanent Restoration Slope Recon	7	5967	Major Damage (Permanent Restoration)	1	Location(s)
LA-2 TMC Electrical	7	5780	TMC Facilities	1	Location(s)
LA-2 TMC Mech	7	5781	TMC Facilities	1	Location(s)
LA-210 2R in San Fernando	7	4801	Roadway Rehabilitation (2R)	64.3	Lane mile(s)
LA-210 Drainage	7	5976	Drainage System Restoration	20	Culvert(s) (ea)
LA-210 Drainage Near Sunland Blvd	7	5628	Drainage System Restoration	6	Culvert(s) (ea)
LA-210 Repair Drainage System	7	5629	Drainage System Restoration	8	Culvert(s) (ea)
LA-210, Upgrade ADA ramps (OS)	7	4985	ADA - New Curb Ramps	252	Curb ramp(s)
LA-213 Traffic Signal, PE:LL	7	5870	Safety Improvements	0.18	Annual fatal and serious injury collision(s)
LA-27 Major Damage	7	5939	Major Damage (Permanent Restoration)	1	Location(s)
LA28 GRN	7	6345	Operational Improvements	2509	Daily person hours of delay (DPHD)
LA28 Mobility Hubs	7	6460	SHOPP - Complete Streets	1553	Bicycle and pedestrian infrastructure (linear feet)
LA-39/ N. Fork San Gabriel Bridge Replacement	7	5298	Bridge Scour	1	Bridge(s)
LA-405 (PM 23.5), Edward Vincent Jr. Park UIF installation - FCO	7	6108	Storm Water Mitigation	90	Acre(s) treated/pollutant
LA-405 Bridge Seismic Restoration	7	5490	Bridge Seismic Restoration	1	Bridge(s)
LA-405 Drainage, PE:MN-KY	7	5796	Drainage System Restoration	52	Culvert(s) (ea)
LA-405 Mobility - TMS	7	5643	Transportation Management Systems	39	Field element(s)
LA-405 PM 43.2 Unsheltered @ Raymer St OH	7	5837	Major Damage (Emergency Restoration)	1	Location(s)
LA-405, Pavement Rehabilitation	7	5484	Pavement Preservation (CAPM)	118.8	Lane mile(s)
LA-47 Upgrade TMS	7	5636	Transportation Management Systems	8	Field element(s)
LA-5 (PM 17.2), Hollenbeck Park Lake BMPs construction - FCO	7	6107	Storm Water Mitigation	101	Acre(s) treated/pollutant
LA-5 Mobility - TMS	7	5635	Transportation Management Systems	34	Field element(s)
LA-5 Pavement Preservation	7	6356	Pavement Preservation (CAPM)	93.9	Lane mile(s)
LA-5 Pavement Rehab in Burbank	7	5733	Roadway Rehabilitation (2R)	3.7	Lane mile(s)
LA-57 OH Signs	7	5789	Signs and Lighting Rehabilitation	4	Sign(s)
LA-57 Signs and Lighting	7	5698	Signs and Lighting Rehabilitation	138	Lighting fixture(s)
LA-60 Safety O10 HFST	7	5991	Safety Improvements	0.18	Annual fatal and serious injury collision(s)
LA-605 Florence Maintenance Station	7	5679	Maintenance Facilities	3	Location(s)
LA-710 Rehab Phase 1	7	4137	Roadway Rehabilitation	65	Lane mile(s)
LA-710 TMS, POLB to I-405	7	5357	Transportation Management Systems	24	Field element(s)
LA-710 Upgrade Pump Plant	7	5786	Drainage System Restoration	3	Pump plant(s) (ea)
LA-710, Drainage System Restoration	7	5374	Drainage System Restoration	4	Pump plant(s) (ea)
LA-D7 Office Building Boilers Replacement	7	5379	L&B Office Facilities	1	Location(s)
LaDicino Guardrail	1	7018	Safety Enhancements	174	Collision(s) reduced
LAFRANCHI SAFETY	1	4763	Safety Improvements	0.57	Annual fatal and serious injury collision(s)
Lagoon Creek and American River Bridge	3	6916	Bridge Scour	4	Bridge(s)
Lagunitas Creek Bridge	4	0756K	Bridge Formula Program	2	Bridge(s)
Lak 20/29/53 Culvert Rehab	1	3047B	Drainage System Restoration	28	Culvert(s) (ea)
LAK-175 Curve Improvement	1	3118	Safety Improvements	18	Collision(s) reduced
LAK-29 COMBINED	1	3124	Mixed flow lane-mile(s) constructed	3.08	Miles
			Safety Improvements	83	Collision(s) reduced
LAK-29 combined mitigation	1	3099M	Mixed flow lane-mile(s) constructed	3.08	Miles
			Safety Improvements	0	Collision(s) reduced
Lak-29/C St Left Turn Channelization	1	3216	Safety Improvements	0.09	Annual fatal and serious injury collision(s)
LAKE 20 SHOULDERS	1	4647	Safety Improvements	14	Collision(s) reduced
LAKE 20 Shoulders ENV Mitigation	1	4647M	Safety Improvements	0	Collision(s) reduced
Lake 29 Expressway - Safety	1	3099	Safety Improvements	83	Collision(s) reduced
Lake 29 Widening and Truck Lane	1	3203	Safety Improvements	59	Collision(s) reduced
Lake Boulevard Pavement	2	2711	Pavement Preservation (CAPM)	20.4	Lane mile(s)
Lake Britton Bridge Rail DO	2	3820	Major Damage (Emergency Opening)	1	Location(s)
LAKE COUNTY TREE REMOVAL	1	3135	Major Damage (Emergency Opening)	1	Location(s)
Lake Merritt Railroad Bridge Replacement	4	0050N	Bridge Rehabilitation and Replacement	0	Bridge(s)
Lake Shasta Viaducts	2	3806	Bridge Rehabilitation and Replacement	3	Bridge(s)
LAKEPORT CAPM	1	3206	Pavement Preservation (CAPM)	55	Lane mile(s)
LAK-MEN Fire Damage Repairs	1	7025	Major Damage (Emergency Opening)	1	Location(s)
Landscape 18/19	7	4713	Roadside Safety Improvements	60	Location(s)
Landscape and Biological Mitigation	4	2905C	Bridge Scour	0	Bridge(s)
Landscape Mitigation	1	4587M	Bridge Rehabilitation and Replacement	0	Bridge(s)
			Bridge Rehabilitation and Replacement	0	Bridge(s)
LANDSCAPE MITIGATION FOR 42210	11	1465	Drainage System Restoration	0	Culvert(s) (ea)
Landscape restoration for 05-1J880 parent project	5	2787Y	Drainage System Restoration	0	Culvert(s) (ea)
Landslide			Major Damage (Emergency Opening)	2	Location(s)
			Major Damage (Emergency Restoration)	9	Location(s)
			Major Damage (Emergency Restoration)	1	Location(s)
			Major Damage (Emergency Restoration)	3	Location(s)
Landslide Repair near Commisky	1	4775	Major Damage (Emergency Restoration)	1	Location(s)
Landslide Repair near Piercy	1	4793	Major Damage (Emergency Opening)	1	Location(s)
LAS 395 Dixie Fire	2	3860	Major Damage (Emergency Opening)	40	Location(s)
Las 70 Embankment Repair	2	3869	Major Damage (Emergency Opening)	3	Location(s)

**State Highway Operation and Protection Program (SHOPP)
Project Outputs**

Project Title	District	PPNO	Output	Approved Quantity	Unit	
Las Cruces CAPM	5	2542	Pavement Rehabilitation	42.6	Lane mile(s)	
Lassen 139 Fire Drainage Improvements	2	3811	Major Damage (Emergency Opening)	13	Location(s)	
Lassen County fires damage repairs	2	3808	Major Damage (Emergency Opening)	1	Location(s)	
Lassen County ITS	2	3837	Transportation Management Systems	17	Field element(s)	
LAST CHANCE GRADE Permanent Restoration	1	1112	Major Damage (Permanent Restoration)	1	Location(s)	
Lava and Tennant Fires DO	2	3851	Major Damage (Emergency Opening)	2	Location(s)	
LCG Landslide Repair	1	1145	Major Damage (Emergency Restoration)	1	Location(s)	
LEE VINING REHAB	9	2645	ADA - New Curb Ramps	27	Curb ramp(s)	
Leff Turn/ADA	7	5435	Safety Improvements	5	Collision(s) reduced	
Lemoore/Hanford Worker Safety	6	6737	Roadside Safety Improvements	47	Location(s)	
LERDO CANAL MEDIAN GAP CLOSURE	6	6964	Roadside Safety Improvements	1	Location(s)	
Levee Restoration at Smith Canal Bridges	10	3597	Bridge Rehabilitation and Replacement	2	Bridge(s)	
Liberty Safety Improvement	10	3207	Safety Improvements	36	Collision(s) reduced	
Limekin Creek Bridge Replacement	5	2524	Bridge Rehabilitation and Replacement	1	Bridge(s)	
Little Golden Gate Storm-Water	1	2366	Storm Water Mitigation	5.5	Acre(s) treated/pollutant	
Little Lost Man Fish Passage	1	2447	Bridge Rehabilitation	1	Bridge(s)	
Little Sur Retaining Wall	5	2849	Major Damage (Permanent Restoration)	1	Location(s)	
Live Oak Rehab	3	8378	Roadway Rehabilitation	3.2	Lane mile(s)	
Live Oak Safety	3	8381	Safety Improvements	51	Collision(s) reduced	
Live Oak Streetscape, Rehab & Safety	3	8376A	Roadway Rehabilitation	3.2	Lane mile(s)	
			Safety Improvements	51	Collision(s) reduced	
			Safety Improvements	0	Collision(s) reduced	
Uano Mitigation Project	4	0817R	Safety Improvements	0	Collision(s) reduced	
LNU Fire Restoration	3	2855	Major Damage (Emergency Opening)	1	Location(s)	
LODI ROADSIDE REHAB	10	3428	Roadside Rehabilitation	14	Acre(s)	
LOG JAM REMOVAL	1	4725	Major Damage (Emergency Opening)	2	Location(s)	
Lolita Repair Culvert	1	4898	Major Damage (Emergency Restoration)	1	Location(s)	
Lolita Slide	1	2530	Major Damage (Emergency Opening)	1	Location(s)	
Loma Rica Rd./Spring Valley Road Widening & Rehab	3	9587	Roadway Rehabilitation	4.4	Lane mile(s)	
Lompoc Pavement Failure	5	3258	Major Damage (Emergency Restoration)	1	Location(s)	
LONE PINE SIDEWALK	9	2647	ADA - New Curb Ramps	11	Curb ramp(s)	
Long Barn CAPM	10	0157	Pavement Rehabilitation	41.8	Lane mile(s)	
Long Beach ADA	7	5434	Safety Improvements	12	Collision(s) reduced	
Long Beach PCH - Upgrade curb ramps	7	5575	ADA - New Curb Ramps	114	Curb ramp(s)	
Long-Term Mitigation - CCC Work	1	4767M	Bridge Rehabilitation and Replacement	0	Bridge(s)	
LONGVALE REHAB	1	4694	Roadway Rehabilitation (2R)	37.4	Lane mile(s)	
Los Banos SR 152 Pavement Anchor	10	3425	Pavement Preservation (CAPM)	18	Lane mile(s)	
Los Molinos ADA	2	3606	ADA - Pedestrian Infrastructure	28	Curb ramp(s)	
LOS PENASQUITOS LAGOON RESTORATION FCO	11	1431	Storm Water Mitigation	46	Acre(s) treated/pollutant	
Lost Hills Rehab	6	6820	Pavement Preservation	20	Lane mile(s)	
Lost Hills Rubber Rehab	6	6729	Pavement Preservation	36	Lane mile(s)	
Lost Hills to Wasco Rumble Strip	6	6865	Safety Improvements	17	Collision(s) reduced	
Louise OC - Amestoy POC	7	5918	Bridge Rail Replacement and Upgrade	0.12	Annual fatal and serious injury collision(s)	
Lovers Lane Rehab	6	6696	Roadway Rehabilitation (3R)	6.4	Lane mile(s)	
Lower Moffett Creek Scour	2	3546	Bridge Rehabilitation	1	Bridge(s)	
Loyalton and Claremont Fires	2	3809	Major Damage (Emergency Opening)	2	Location(s)	
LTM Blue Lake Realignment & SPGA Wall	1	2535M	Major Damage (Permanent Restoration)	0	Location(s)	
LTM Oilwell Hill Safety	1	4748M	Safety Improvements	0	Annual fatal and serious injury collision(s)	
Lucerne Complete Streets	1	4950	SHOPP - Complete Streets	21395	Bicycle and pedestrian infrastructure (linear feet)	
Lynch Canyon	3	2796	Safety Improvements	11	Collision(s) reduced	
MacArthur Maze/Increase Vertical Clearance	4	1460R	Trans Permit Requirements for Bridges	4	Bridge(s)	
MADERA 99 AND 152. BRIDGE DECK REHAB	6	8000	Bridge Preventative Maintenance	2	Bridge(s)	
Madera 99 Widening	6	5335A	Roadway Rehabilitation	23.5	Lane mile(s)	
Madre and Gifford Fire Repairs	5	3260	Major Damage (Emergency Restoration)	50	Location(s)	
Maintenance Facility Rehabilitation	4	2911R	Maintenance Facilities	1	Location(s)	
Maintenance safety improvement Roseville rd U/C to 80/Bus 80 merge	3	6716	Roadside Safety Improvements	49	Location(s)	
Maintenance safety improvement Watt to Placer Co. line	3	6715	Roadside Safety Improvements	67	Location(s)	
Maintenance Station Secure Fencing	6	8102	Maintenance Facilities	2	Location(s)	
		8103	Maintenance Facilities	2	Location(s)	
		8104	Maintenance Facilities	4	Location(s)	
		8105	Maintenance Facilities	1	Location(s)	
Maintenance Station Security Improvements	1	4905	Maintenance Facilities	5	Location(s)	
		2	3914	Maintenance Facilities	22	Location(s)
Maintenance Station Security Measures DO	10	3659	Maintenance Facilities	4	Location(s)	
Major Damage	4	2913H	Major Damage (Permanent Restoration)	1	Location(s)	
MAJOR DAMAGE - PERMANENT RESTORATION	4	2032N	Major Damage (Permanent Restoration)	2	Location(s)	
Major Storm Damage	4	2917C	Major Damage (Permanent Restoration)	1	Location(s)	
major Slope Stability	7	5296	Major Damage (Permanent Restoration)	1	Location(s)	
			Roadside Enhancement (Mitigation Site Relinquishments)	4	Location(s)	
Manchester Mitigation	1	4699		4	Location(s)	
Manning & Polk Jones Cattle Pass	1	3098	Bridge Rail Replacement/Upgrade	197	Linear feet	
MANOR MARKET COMPLETE STREETS	9	2688	SHOPP - Complete Streets	3659	Bicycle and pedestrian infrastructure (linear feet)	
MANZANAR PAVEMENT	9	2671	Roadway Rehabilitation (3R)	45	Lane mile(s)	
Marconi Curve Barrier	3	6414	Collision Severity Reduction	6	Collision(s) reduced	
Maricopa Highway CAPM	6	6896	Pavement Preservation (CAPM)	17.9	Lane mile(s)	
Maricopa Highway CAPM Environmental Mitigation	6	8048	Pavement Preservation (CAPM)	0	Lane mile(s)	
Marin 1 Bridge Rail replacements	4	2020N	Bridge Rail Replacement and Upgrade	0.04	Annual fatal and serious injury collision(s)	
Marin City Second Culvert	4	2917D	SHOPP - Sustainability and Miscellaneous	1	Location(s)	
Marin Hwy 1 Combined Culvert replacement	4	2910M	Drainage System Restoration	50	Culvert(s) (ea)	
MARIN SR 131, CAPM	4	2904N	Pavement Preservation (CAPM)	12.5	Lane mile(s)	
Marina to Castroville CAPM	5	3034	Pavement Preservation (CAPM)	22.6	Lane mile(s)	
Mariposa 49 Pavement Anchor Project	10	3618	Pavement Preservation (CAPM)	42.8	Lane mile(s)	
Mariposa County Storm Damage	10	3450	Major Damage (Emergency Opening)	1	Location(s)	
MARIPOSA CROSSWALKS	10	3131	Safety Enhancements	13	Collision(s) reduced	
Mariposa SR 140 Briceburg Fire	10	3479	Major Damage (Emergency Opening)	1	Location(s)	
Mariposa SR 49 CAPM	10	3233	Pavement Rehabilitation	34.6	Lane mile(s)	
Market Street Northbound On-ramp Improvements	5	2635	Collision Severity Reduction	8	Collision(s) reduced	
Marysville Hotel Fire	3	9834	Major Damage (Emergency Restoration)	1	Location(s)	
Marysville Railroad Bridge Rehab (SHOPP)	3	9820	Roadway Rehabilitation (3R)	2.3	Lane mile(s)	
Mathews Road UC	10	3235	Bridge Rehabilitation		Bridge(s)	
Maxwell SB SRRA Rehab	3	2803	Safety Roadside Rest Area Restoration	1	Location(s)	
Maxwell SRRA	3	2793	Roadside Safety Improvements	1	Location(s)	
Maxwell SRRA Rehab	3	2975	Safety Roadside Rest Area Restoration	1	Location(s)	
MBGR Replacement in Santa Clara County	4	1495A	Collision Severity Reduction	18	Collision(s) reduced	
McCloud CAPM	2	3773	Pavement Preservation (CAPM)	27.1	Lane mile(s)	
McCloud Intersection Safety	2	3873	Safety Improvements	0	Annual fatal and serious injury collision(s)	
McConnel OH Fill	3	6912A	Bridge Rail Replacement/Upgrade	0	Linear feet	
McConnel OH Pre-cast Girders	3	6912C	Bridge Rail Replacement/Upgrade	0	Linear feet rail	

**State Highway Operation and Protection Program (SHOPP)
Project Outputs**

Project Title	District	PPNO	Output	Approved Quantity	Unit
McConnell OH	3	6912D	Bridge Rail Replacement/Upgrade	0	Linear feet rail
McCoy Creek Bridge Replacement	1	4545	Bridge Rehabilitation	1	Bridge(s)
McCoy Creek Revegetation	1	4710	Bridge Rehabilitation and Replacement	0	Bridge(s)
McCOY CREEK SINKS	1	4702	Major Damage (Permanent Restoration)	1	Location(s)
McGowan Pump Plant	3	9734	Major Damage (Emergency Opening)	1	Location(s)
McHenry Ave & Coralwood Road Intersection Control Improvement	10	3660	Safety Improvements	0.08	Annual fatal and serious injury collision(s)
McMullin Grade CAPM	6	6934	Pavement Rehabilitation	12.3	Lane mile(s)
MEADOW FARMS ADA	9	2641	ADA - New Curb Ramps	14	Curb ramp(s)
MEDIAN BARRIER & SAFETY LIGHTING	4	1497F	Safety Improvements	460	Collision(s) reduced
Meeks Creek Bridge Replacement	3	3473	SHOPP - Sustainability and Miscellaneous	1	Location(s)
Men 253 Emergency Storm Damage Repairs	1	4803	Major Damage (Emergency Restoration)	2	Location(s)
MEN-1 BRIDGE SCOUR REPAIR	1	8511	Major Damage (Emergency Opening)	3	Location(s)
MEN-1 DRAINAGE	1	4768	Drainage System Restoration	130	Culvert(s) (ea)
MEN-1 Fish Passage	1	4629	SHOPP - Sustainability and Miscellaneous	2	Location(s)
MEN-1 Widen Shoulders	1	4656	Safety Improvements	11	Collision(s) reduced
MEN-128 SLIP OUT	1	4737	Major Damage (Emergency Opening)	1	Location(s)
MEN-162 Super E Improvement	1	4652	Safety Improvements	14	Collision(s) reduced
MEN-271 Class 3 CAPM	1	4783	Pavement Preservation (CAPM)	14.1	Lane mile(s)
MEPA Guaiala Kruse Ranch Rd to Vantage Rd	4	2919X	Drainage System Restoration	0	Culvert(s) (ea)
MEPA Hooker & Sonoma Creek Bridges	4	2911N	Bridge Scour	0	Bridge(s)
MER 140 GUARDRAIL UPGRADE	10	3018	Safety Enhancements	49	Collision(s) reduced
MER 140 Planada Intersection	10	3506	Safety Improvements	17	Collision(s) reduced
MER 140 SAFETY DEVICES	10	3074	Collision Severity Reduction	8	Collision(s) reduced
MER 140/165 Mobility Improvements	10	3438	Operational Improvements	53.2	Daily Vehicle Hour(s) of Delay (DVHD)
MER 165 Intersection Control	10	3498	Safety Improvements	9	Collision(s) reduced
Mer 33 Curb Ramps	10	3441	ADA - New Curb Ramps	67	Curb ramp(s)
MER 5 OPERATIONAL IMPROVEMENTS	10	3447	Operational Improvements	144.6	Daily Vehicle Hour(s) of Delay (DVHD)
MER 99 Highway planting and irrigation	10	5431Y	Roadway Rehabilitation (2R)	0	Lane mile(s)
MER County SR 165 Intersection Control Improvement	10	3642	Safety Improvements	0.35	Annual fatal and serious injury collision(s)
MER John Erca Roadside Rest Area	10	3215	Safety Roadside Rest Area Restoration	2	Location(s)
MER SR 152 Bridge Maintenance	10	3529	Capital Bridge Preventative Maintenance Program	6	Bridge(s)
MER STA. & TUO TMS Replacement	10	3563	Transportation Management Systems	27	Field element(s)
MER-152,165 Upgrade ADA facilities	10	3149	ADA - New Curb Ramps	40	Curb ramp(s)
Mer-99 Install Median Barrier	10	3510	Safety Improvements	124	Collision(s) reduced
MER-99 PAVEMENT REHABILITATION	10	5431	Roadway Rehabilitation (2R)	16.5	Lane mile(s)
Mer-99 Rehabilitate Four Bridges (39-0126L/0126R/0128L/0128R)	10	3534	Bridge Preventative Maintenance	4	Bridge(s)
Merced 165 Pavement Anchor Project	10	3625	Pavement Preservation (CAPM)	10.2	Lane mile(s)
MERCED 99 GUARDRAIL	10	3442	Collision Severity Reduction	5	Collision(s) reduced
Merced County SR 99	10	3431	Major Damage (Emergency Opening)	1	Location(s)
Merced County SR 99 NB	10	3541	Major Damage (Emergency Restoration)	1	Location(s)
Merced Pavement Anchor Project	10	3439	Pavement Preservation (CAPM)	24	Lane mile(s)
MERCED SEISMIC RESTORATION	10	3122	Bridge Seismic Restoration	7	Bridge(s)
Merced SR 99 Overlay	10	3486	Major Damage (Emergency Restoration)	1	Location(s)
Middle Fork Smith River Curve Improvement	1	1141	Safety Improvements	20	Collision(s) reduced
MIDDLETOWN MITIGATION	1	3128	Safety Improvements	0	Collision(s) reduced
Middletown North Safety	1	3218	Safety Improvements	0.2	Annual fatal and serious injury collision(s)
Middletown Safety South	1	3208	Safety Improvements	0.17	Annual fatal and serious injury collision(s)
Midpines CAPM	10	4736	Pavement Rehabilitation	6.4	Lane mile(s)
Midwest Guardrail System Installation	10	3622	Collision Severity Reduction	0.12	Annual fatal and serious injury collision(s)
Mill Creek Safety	1	1156	Safety Improvements	0.19	Annual fatal and serious injury collision(s)
Miller Street Signal Modification	5	2870	Safety Improvements	25	Collision(s) reduced
Millerton Gulch Br Scour Mitigation	4	0480C	Bridge Preventative Maintenance	0	Bridge(s)
Miner Slough	4	0886	Bridge Formula Program	1	Bridge(s)
Mineral Multi-Use Path and Shoulders	2	3902	SHOPP - Complete Streets	8050	Bicycle and pedestrian infrastructure (linear feet)
MINOR PAVEMENT REHABILITATION (CAPM)	4	2913P	Pavement Preservation (CAPM)	45.5	Lane mile(s)
Minor Rehab - CAPM 001	4	2906C	Pavement Preservation (CAPM)	18.8	Lane mile(s)
MITIGATION AT SANBORN REGIONAL	4	2914Y	Bridge Rehabilitation and Replacement	0	Bridge(s)
Mitigation Plant Establishment	4	2921W	Pavement Preservation (CAPM)	0	Lane mile(s)
Mitigation Plant establishment for EA 3J08A	4	2916X	Bridge Preventative Maintenance	0	Bridge(s)
Mitigation project for EA 0J300 for plant establishment/erosion ctrl.	4	2911P	Major Damage (Permanent Restoration)	0	Location(s)
Mitigation with Napa Flood Control	4	1464H	Roadside Enhancement (Mitigation Site Relinquishments)	1	Location(s)
Mobility - ADA	4	2916V	ADA - New Curb Ramps	21	Curb ramp(s)
Mobility - TMS	7	5642	Transportation Management Systems	72	Field element(s)
Mobility (TMS) on Ven 23	7	5365	Transportation Management Systems	44	Field element(s)
MODESTO COLLISION SEVERITY REDUCTION	10	3296	Collision Severity Reduction	0.14	Annual fatal and serious injury collision(s)
MODESTO MTN.SIN. REHABILITATION	10	3527	Maintenance Facilities	1	Location(s)
Modesto Soil Stockpile Encapsulation	10	3125	Hazardous Waste Mitigation	3	Location(s)
Modoc 139 Drainage	2	3589	Drainage System Restoration	8	Culvert(s) (ea)
Modoc 299 Pit River Bridge Rehab	2	3928	Bridge Formula Program	1	Bridge(s)
MOJAVE PAVEMENT	9	2654	Roadway Rehabilitation (3R)	21	Lane mile(s)
MOJAVE RIVER BRIDGE DECK OVERLAY	8	3017G	Bridge Rehabilitation and Replacement	1	Bridge(s)
Mokelumne River Bridge Upgrade	10	3219	Bridge Rail Replacement and Upgrade	810	Linear feet rail
Mon 101 Drainage	5	2797	Drainage System Restoration	36	Culvert(s) (ea)
Mon 101 Drainage Bio Monitoring	5	2797X	Drainage System Restoration	0	Culvert(s) (ea)
Mon 101 Sinkhole	5	3027	Major Damage (Emergency Opening)	1	Location(s)
Mon 101 TMS	5	4020	Transportation Management (TMC's & Field Equipment)	11	Field element(s)
Mon Safety Rumble Strip Project	5	2883	Safety Improvements	231	Collision(s) reduced
Mon Scr Roadside Safety	5	2452	Roadside Safety Improvements	69	Location(s)
Mon, SB1 101 Failed Drainage Repairs	5	3156	Major Damage (Emergency Opening)	1	Location(s)
Mon, SB1 Various Storm Damage	5	3147	Major Damage (Emergency Restoration)	8	Location(s)
Mon-1 December Storm Damage	5	3068	Major Damage (Emergency Opening)	9	Location(s)
Mon-1 Sinkhole and Slide Clearing	5	3098	Major Damage (Emergency Restoration)	3	Location(s)
Mono Chain Up Area	9	2616	Roadside Safety Improvements	12	Location(s)
MONO COUNTY PAVEMENT DAMAGE	9	2713	Major Damage (Emergency Restoration)	3	Location(s)
Mono Mitigation Bank	9	2621	Roadside Enhancement (Mitigation Site Relinquishments)	11	Location(s)
Montague CAPM	2	3753	Pavement Preservation (CAPM)	6.3	Lane mile(s)
Monte Vista Pavement Rehabilitation	3	5133	Roadway Rehabilitation (2R)	13.2	Lane mile(s)
Monterey-San Benito Co Roadside Safety Improvements	5	2571	Roadside Safety Improvements	52	Location(s)
Monument Fire	2	3856	Major Damage (Emergency Opening)	43	Location(s)
Morgan Canyon CAPM	6	6809	Pavement Rehabilitation	13.6	Lane mile(s)
Morgan Summit Curve Combined	2	3641	Safety Improvements	24	Collision(s) reduced

**State Highway Operation and Protection Program (SHOPP)
Project Outputs**

Project Title	District	PPNO	Output	Approved Quantity	Unit
Mormon Slough BOH, Bridge Repair	10	3531	Bridge Preventative Maintenance	1	Bridge(s)
Morning Drive 3R Rehab	6	6798	Roadway Rehabilitation (3R)	7.1	Lane mile(s)
Morrison, Robinson & Kelsey Creek	1	3130	Bridge Rail Replacement and Upgrade	456	Linear feet rail
Morro Bay CAPM	5	3054	Pavement Preservation (CAPM)	34.4	Lane mile(s)
Morro Rd Soldier Pile Wall	5	2927	Major Damage (Permanent Restoration)	1	Location(s)
Morro Rd Soldier Wall- Bio Monitoring	5	2927X	Major Damage (Permanent Restoration)	0	Location(s)
Moss Cove, Irvine Lodge & Empire Camp SRRA's	1	4574	Roadside Safety Improvements	3	Location(s)
Moss Landing CAP-M	5	2889	Pavement Preservation (CAPM)	22.4	Lane mile(s)
Motorcycle Curve	3	7807	Safety Improvements	12	Collision(s) reduced
Mount Whitney Roundabout	6	7040	Safety Improvements	54	Collision(s) reduced
MOUNTAIN COUNTIES BRIDGE RAILS	10	3134	Bridge Rail Replacement and Upgrade	893	Linear feet rail
MPA Route 140 Pavement Preservation	10	3167	Pavement Preservation (CAPM)	54.8	Lane mile(s)
Mm 1 10.7-11 Plant Establishment	4	2032Q	Major Damage (Permanent Restoration)	1	Location(s)
MRN 1 CAPM	4	1480A	Pavement Preservation (CAPM)	27.8	Lane mile(s)
MRN 101 ADA	4	1495K	ADA - New Curb Ramps	10	Curb ramp(s)
Mm 101 Storm Damage Repair	4	1492J	Major Damage (Permanent Restoration)	2	Location(s)
Mm 131 ADA Infrastructure	4	1491A	ADA - New Curb Ramps	10	Curb ramp(s)
MRN 37 FLOOD REDUCTION PROJECT	4	5200	SHOPP - Sustainability and Miscellaneous	2.3	Centerline mile(s)
Mm101 Storm Damage Regrade Slope	4	2032M	Major Damage (Permanent Restoration)	1	Location(s)
MRN-37 11.2/14.6 CAPM	4	1452B	Pavement Preservation (CAPM)	14	Lane mile(s)
Mt Cartago Mitigation Bank	9	0661	Roadside Enhancement (Mitigation Site Relinquishments)	16	Location(s)
MT KONOCITI TMS	1	7017	Transportation Management (TMC's & Field Equipment)	21	Field element(s)
MTC Equip Trn Center Under 105	7	5511	Maintenance Facilities	1	Location(s)
Mud Creek Permanent Restoration	5	2850	Major Damage (Permanent Restoration)	1	Location(s)
Mudslide	7	6006	Major Damage (Emergency Restoration)	1	Location(s)
Multi Location Bike Ped Improvements	3	6257	Safety Improvements	0	Collision(s) reduced
Multi-asset Interchange Improvement	4	1493E	Bridge Seismic Restoration	3	Bridge(s)
Multiple Location Slipout Repairs	1	4906	Major Damage (Emergency Restoration)	2	Location(s)
Myers Flat Long-Term Mitigation	1	2502M	Major Damage (Permanent Restoration)	0	Location(s)
MYERS FLAT PERMANENT RESTORATION	1	2502	Major Damage (Permanent Restoration)	1	Location(s)
Mystic Rockfall Protection	3	4298	Roadway Protective Betterments	1	Bridge(s)
N Hollywood Roadside safety	7	5073	Roadside Safety Improvements	83	Location(s)
N Route 17 CAPM	5	2538	Pavement Rehabilitation	26.2	Lane mile(s)
N/B I-5 Slope Repair Near N/B crossover	7	6247	Major Damage (Permanent Restoration)	1	Location(s)
Nap 121 Storm Damage Repair	4	2022F	Major Damage (Permanent Restoration)	1	Location(s)
Napa 29 NB First St. Roundabouts	4	1488P	Safety Improvements	48	Collision(s) reduced
Napa 29, 121 & 128 Rumble Strips	4	2033M	Safety Improvements	80	Collision(s) reduced
Napa City Pavement Preservation	4	2915B	Pavement Preservation (CAPM)	29	Lane mile(s)
Napa River Bridge Scour Mitigation	4	2915M	Bridge Scour	1	Bridge(s)
Napa River Env. Mitigation and Establishment	4	0587M	Bridge Scour	0	Bridge(s)
Napa SR 121 CAPM	4	2025N	Pavement Preservation (CAPM)	15.1	Lane mile(s)
Navarro Combined	1	4807	Protective Betterments	1	Location(s)
			Safety Improvements	16	Collision(s) reduced
Navarro Drainage	1	4616	Roadway Protective Betterments	1	Location(s)
			Roadside Enhancement (Mitigation Site Relinquishments)	7	Location(s)
Navarro Mitigation	1	4693	Safety Improvements	16	Collision(s) reduced
Navarro Ridge Safety Project	1	4578	Safety Improvements	16	Collision(s) reduced
NB I 280 SB SR-1 CONNECTOR	4	2024H	Bridge Seismic Restoration	1	Bridge(s)
NB SLO 101 Superlevation and OGFC	5	2765	Safety Improvements	67	Collision(s) reduced
Near BFC slipout	2	3795	Major Damage (Emergency Opening)	1	Location(s)
Near China Slide PR	2	3720	Major Damage (Permanent Restoration)	1	Location(s)
Negranti Pond Embankment Repair	5	3085	Major Damage (Emergency Restoration)	2	Location(s)
NEV 174 Henderson Sinkhole	3	4453	Major Damage (Emergency Opening)	1	Location(s)
NEV 20 Shoulder Erosion	3	4008	Major Damage (Emergency Restoration)	12	Location(s)
NEV 20 Sinkhole	3	4006	Major Damage (Emergency Opening)	1	Location(s)
NEV 20 Slip Out	3	4009	Major Damage (Emergency Restoration)	1	Location(s)
Nev 49 Corridor Improvement Project	3	4136A	Collision Severity Reduction	0.38	Annual fatal and serious injury collision(s)
			Intersection/Signal improvement(s)	1	Each
			Slow vehicle lane(s)	1.5	Miles
			Truck climbing lane(s) constructed	1	Miles
NEV 49 Dual Barrel Culvert Replacement	3	4147	Major Damage (Emergency Restoration)	1	Location(s)
NEV 80 Accel & Aux Lanes	3	4318	Non-Capacity Increasing Operational Improvements	7	Daily Vehicle Hour(s) of Delay (DVHD)
Nev 80 Concrete Barrier	3	4297	Safety Enhancements	11	Collision(s) reduced
NEV 80 Landslides	3	4335	Major Damage (Emergency Restoration)	10	Location(s)
Nev 80 Rehab Pavement	3	4319	Non-Capacity Increasing Operational Improvements	22.8	Daily Vehicle Hour(s) of Delay (DVHD)
			Pavement Preservation	2.3	Lane mile(s)
NEV 80 Rutting 1	3	4329	Major Damage (Emergency Restoration)	35	Location(s)
			Major Damage (Permanent Restoration)	17	Location(s)
NEV 80 Rutting 2	3	4332	Major Damage (Permanent Restoration)	18	Location(s)
NEV 80 Rutting 2"	3	4330	Major Damage (Emergency Restoration)	37	Location(s)
Nev/Pla 20 CAPM	3	4003	Pavement Preservation (CAPM)	44.8	Lane mile(s)
NEV/PLA 80 Rutting 3	3	5167	Major Damage (Permanent Restoration)	11	Location(s)
NEV/PLA Turnouts	3	3997	Non-Capacity Increasing Operational Improvements	20	Daily Vehicle Hour(s) of Delay (DVHD)
Nev/Yub 49 slide removal/slope repair	3	4139	Major Damage (Emergency Opening)	4	Location(s)
Nev-174 Relinquishment	3	4450	Relinquishments	0.5	Centerline mile(s)
Nev-49 Corridor Improvement Project (Safety)	3	4136	Collision Severity Reduction	0.38	Annual fatal and serious injury collision(s)
Nev-49 Culvert Rehab (North)	3	4123	Drainage System Restoration	38	Culvert(s) (ea)
Nev-49 Culvert Rehab (South)	3	4124	Drainage System Restoration	39	Culvert(s) (ea)
Nev-49 Round Valley/Quail Creek	3	4138	Safety Improvements	13	Collision(s) reduced
Nev-49 Vision Zero Shoulder Widening	3	4146	Safety Improvements	0.1	Annual fatal and serious injury collision(s)
Nev-49 Wolf/Combie	3	4137	Safety Improvements	29	Collision(s) reduced
NEW FONTANA MAINTENANCE FACILITY	8	3005R	Maintenance Facilities	1	Location(s)
Nickname Required	4	0472F	Major Damage (Emergency Opening)	2	Location(s)
			Major Damage (Permanent Restoration)	0	Location(s)
			Major Damage (Permanent Restoration)	0	Location(s)
			Storm Water Mitigation	28	Acre(s) treated/pollutant
			Major Damage (Emergency Opening)	1	Location(s)
			Major Damage (Emergency Opening)	1	Location(s)
			Major Damage (Emergency Opening)	1	Location(s)
			Major Damage (Emergency Opening)	1	Location(s)
			Major Damage (Emergency Opening)	1	Location(s)
			Major Damage (Emergency Opening)	1	Location(s)
			Safety Improvements	0	Collision(s) reduced
			Operational Improvements	0	Daily Vehicle Hour(s) of Delay (DVHD)

State Highway Operation and Protection Program (SHOPP)
Project Outputs

Project Title	District	PPNO	Output	Approved Quantity	Unit
		2919W	Drainage System Restoration	0	Culvert(s) (ea)
		2926W	Roadway Rehabilitation (2R)	0	Lane mile(s)
		2928D	Bridge Formula Program	0	Bridge(s)
	7	5467	Major Damage (Emergency Opening)	1	Location(s)
		5468	Major Damage (Emergency Opening)	1	Location(s)
		5470	Major Damage (Emergency Opening)	1	Location(s)
		5473	Major Damage (Emergency Opening)	1	Location(s)
		5474	Major Damage (Emergency Opening)	2	Location(s)
		5475	Major Damage (Emergency Opening)	1	Location(s)
		5476	Major Damage (Emergency Opening)	1	Location(s)
		5477	Major Damage (Emergency Opening)	1	Location(s)
		5478	Major Damage (Emergency Opening)	4	Location(s)
		5480	Major Damage (Emergency Opening)	5	Location(s)
		5481	Major Damage (Emergency Opening)	5	Location(s)
		5482	Major Damage (Emergency Opening)	1	Location(s)
		5548	Major Damage (Emergency Opening)	2	Location(s)
		5549	Major Damage (Emergency Opening)	1	Location(s)
		5551	Major Damage (Emergency Opening)	1	Location(s)
		5552	Major Damage (Emergency Opening)	2	Location(s)
		5553	Major Damage (Emergency Opening)	6	Location(s)
		5554	Major Damage (Emergency Opening)	2	Location(s)
		5555	Major Damage (Emergency Opening)	1	Location(s)
		5557	Major Damage (Emergency Opening)	2	Location(s)
		5559	Major Damage (Emergency Opening)	3	Location(s)
		5560	Major Damage (Emergency Opening)	1	Location(s)
		5562	Major Damage (Emergency Opening)	1	Location(s)
		5565	Major Damage (Emergency Opening)	1	Location(s)
		5589	Major Damage (Emergency Opening)	1	Location(s)
		5593	Major Damage (Emergency Opening)	1	Location(s)
		5594	Major Damage (Emergency Opening)	1	Location(s)
		5597	Major Damage (Emergency Opening)	1	Location(s)
		5598	Major Damage (Emergency Opening)	1	Location(s)
		5599	Major Damage (Emergency Opening)	1	Location(s)
		5600	Major Damage (Emergency Opening)	1	Location(s)
		5602	Major Damage (Emergency Opening)	3	Location(s)
		5603	Major Damage (Emergency Opening)	1	Location(s)
		5604	Major Damage (Emergency Opening)	1	Location(s)
		5606	Major Damage (Emergency Opening)	1	Location(s)
		5607	Major Damage (Emergency Opening)	1	Location(s)
		5710	Major Damage (Emergency Opening)	54	Location(s)
		5711	Major Damage (Emergency Opening)	13	Location(s)
		5712	Major Damage (Emergency Opening)	50	Location(s)
		5713	Major Damage (Emergency Opening)	54	Location(s)
		5714	Major Damage (Emergency Opening)	1	Location(s)
		5715	Major Damage (Emergency Opening)	1	Location(s)
		5718	Major Damage (Emergency Opening)	1	Location(s)
		5723	Major Damage (Emergency Opening)	1	Location(s)
		5730	Major Damage (Emergency Opening)	1	Location(s)
		5731	Major Damage (Emergency Opening)	1	Location(s)
		5747	Major Damage (Emergency Opening)	1	Location(s)
		5822	Major Damage (Emergency Opening)	1	Location(s)
		5836	Major Damage (Emergency Opening)	2	Location(s)
		5914	Storm Water Mitigation	56.7	Acre(s) treated/pollutant
	8	3013R	Major Damage (Emergency Opening)	1	Location(s)
		3015X	Major Damage (Emergency Opening)	1	Location(s)
		3016Y	Major Damage (Emergency Opening)	1	Location(s)
		3017F	Major Damage (Emergency Opening)	1	Location(s)
		3019C	Major Damage (Emergency Opening)	1	Location(s)
		3019K	Major Damage (Emergency Opening)	2	Location(s)
		3019Y	Major Damage (Emergency Opening)	4	Location(s)
		3020G	Major Damage (Emergency Opening)	2	Location(s)
		3020H	Major Damage (Emergency Opening)	1	Location(s)
		3020R	Major Damage (Emergency Opening)	2	Location(s)
		3020U	Major Damage (Emergency Opening)	1	Location(s)
		3020V	Major Damage (Emergency Opening)	1	Location(s)
		3020W	Major Damage (Emergency Restoration)	6	Location(s)
		3020X	Major Damage (Emergency Restoration)	3	Location(s)
		3021C	Major Damage (Emergency Restoration)	3	Location(s)
		3021F	Major Damage (Emergency Restoration)	18	Location(s)
		3021S	Major Damage (Emergency Restoration)	1	Location(s)
		3023L	Major Damage (Emergency Restoration)	1	Location(s)
		3023S	Major Damage (Emergency Restoration)	1	Location(s)
		3023U	Major Damage (Emergency Restoration)	4	Location(s)
		3024Y	Major Damage (Emergency Restoration)	1	Location(s)
		3025K	Major Damage (Emergency Restoration)	1	Location(s)
		3025P	Major Damage (Emergency Restoration)	3	Location(s)
		3025Q	Major Damage (Emergency Restoration)	1	Location(s)
		3025R	Major Damage (Emergency Restoration)	1	Location(s)
		3025T	Major Damage (Emergency Restoration)	1	Location(s)
		3026P	Major Damage (Emergency Restoration)	1	Location(s)
		3026X	Major Damage (Emergency Restoration)	1	Location(s)
		3027A	Major Damage (Emergency Restoration)	1	Location(s)
		3027X	Major Damage (Emergency Restoration)	1	Location(s)
NILES CANYON ALAMEDA CREEK BRIDGE REPLACEMENT PROJECT	4	0084B	Bridge Rehabilitation and Replacement	1	Bridge(s)
Niles Canyon Flashing Beacons	4	2030E	Safety Improvements	13	Collision(s) reduced
NILES CANYON SAFETY PROJECT (MEDIUM TERM IMPROVEMENTS)	4	0076B	Safety Improvements	90	Collision(s) reduced
Nojoqui Bridge Rail - Bio Mitigation Monitoring	5	2561A	Bridge Rail Replacement and Upgrade	0	Linear feet rail
Nojoqui Creek Bridge (51-0018) Railing Upgrade	5	2561	Bridge Rail Replacement and Upgrade	844	Linear feet rail
North Buellton CAPM & Drainage	5	2726	Pavement Preservation (CAPM)	34.5	Lane mile(s)
North Canyon TMS Improvement	2	3556	Transportation Management (TMC's & Field Equipment)	16	Field element(s)
North Coast Tribal Wildfire and Evacuation Route Preparedness	1	4946	Protective Betterments	1	Location(s)
North Complex Fire	3	2640	Major Damage (Emergency Opening)	1	Location(s)
NORTH LONE PINE PAVEMENT	9	2679	Pavement Preservation (CAPM)	4.2	Lane mile(s)
North Mount Shasta Separator Rehab	2	3927	Bridge Formula Program	1	Bridge(s)

**State Highway Operation and Protection Program (SHOPP)
Project Outputs**

Project Title	District	PPNO	Output	Approved Quantity	Unit
North Nojiqui Grade Bio Monitoring	5	2902X	Pavement Preservation (CAPM)	0	Lane mile(s)
North Nojiqui Grade CAPM & Drainage	5	2902	Pavement Preservation (CAPM)	14.4	Lane mile(s)
North Nojiqui Grade Landscape Mitigation	5	2902Y	Pavement Preservation (CAPM)	0	Lane mile(s)
North of the 'Y' on 41 CAPM	5	3052	Pavement Preservation (CAPM)	12.1	Lane mile(s)
North Paso Robles Mitigation Planting	5	0040C	Roadway Rehabilitation (3R)	0	Lane mile(s)
North Point Arena CAPM	1	4738	Pavement Preservation (CAPM)	36	Lane mile(s)
North Sac 5 CapM	3	5859	Pavement Preservation (CAPM)	32.1	Lane mile(s)
North San Ardo Rehab	5	3009	Roadway Rehabilitation (2R)	24	Lane mile(s)
North Santa Barbara County Roadside Safety	5	2460	Roadside Safety Improvements	25	Location(s)
North Sherwin Shoulders	9	0662	Safety Enhancements	22	Collision(s) reduced
Northbound 2R/Fast Freight Corridor	6	6737A	Roadway Rehabilitation (2R)	33	Lane mile(s)
			Trans Permit Requirements for Bridges	1	Bridge(s)
Nov 24 SR 70 Slides DO	2	3934	Major Damage (Emergency Restoration)	2	Location(s)
Novato Creek Bridge Replacement	4	2925W	SHOPP - Sustainability and Miscellaneous	0.2	Centerline mile(s)
O'Brien CAPM	2	3699	Pavement Preservation (CAPM)	59	Lane mile(s)
O'Brien Deck and Rail Rehab	2	3630	Bridge Rehabilitation	1	Bridge(s)
Oak Fire Damage Repair	1	4757	Major Damage (Emergency Opening)	1	Location(s)
Oakhurst CAPM	6	6716	Pavement Rehabilitation	10	Lane mile(s)
O'Brien SRRA Waters	2	3552	Roadside Safety Improvements	1	Location(s)
Ocean Drive Left Turn Pocket	1	4816	Collision Severity Reduction	0.01	Annual fatal and serious injury collision(s)
Oceano OH UE Repairs	5	3099	Major Damage (Emergency Restoration)	1	Location(s)
OH Sign Hit	7	6100	Major Damage (Emergency Restoration)	1	Location(s)
OILWELL Class 1 Pavement	1	4678	Pavement Preservation (CAPM)	14.1	Lane mile(s)
Oilwell Hill Safety	1	4748	Safety Improvements	0.71	Annual fatal and serious injury collision(s)
OLANCHA 4-LANE FLOOD DAMAGE	9	2710	Major Damage (Emergency Restoration)	15	Location(s)
Old Creek Biological Monitoring	5	0072D	Bridge Rehabilitation and Replacement	0	Bridge(s)
Old Creek Bridge replacement	5	0072A	Bridge Rehabilitation and Replacement	1	Bridge(s)
O'Leary Creek Culvert Replacement	7	5676	Bridge Rehabilitation and Replacement	1	Bridge(s)
OLEMA CREEK	4	0315D	Major Damage (Permanent Restoration)	1	Location(s)
Omega Curves	3	4000A	Operational Improvements	9.6	Daily Vehicle Hour(s) of Delay (DVHD)
			Safety Improvements	98	Collision(s) reduced
Omega Curves (Lowell Hill)	3	4000	Safety Improvements	52	Collision(s) reduced
Omega Curves (Special Ops)	3	3996	Non-Capacity Increasing Operational Improvements	20	Daily Vehicle Hour(s) of Delay (DVHD)
Omega Curves (Turnouts)	3	3999	Non-Capacity Increasing Operational Improvements	10	Daily Vehicle Hour(s) of Delay (DVHD)
Omega Curves (White Cloud)	3	3994	Safety Improvements	46	Collision(s) reduced
OPERATIONAL IMPROVEMENTS	11	1476	Operational Improvements	204	Daily Vehicle Hour(s) of Delay (DVHD)
Ophir Palermo Safety, (Seg 1 SHOPP)	3	2294	Safety Improvements	58	Collision(s) reduced
Orland ADA Infrastructure	3	3788	ADA - New Curb Ramps	113	Curb ramp(s)
Orleans MS and Buckhorn CVEF	1	2568	Maintenance Facilities	1	Location(s)
Orville CAPM	3	2638	Pavement Preservation (CAPM)	7.6	Lane mile(s)
			Commercial Vehicle Enforcement Facilities & Weigh-In-Motion Scales	1	Location(s)
OTAY MESA CVEF SCALE	11	1433	Safety Improvements	10	Collision(s) reduced
Outer Separation Concrete Barrier Installation	4	1489A	Safety Improvements	5	Collision(s) reduced
			Safety Improvements	5	Collision(s) reduced
overhead sign panels	7	4906	Signs and Lighting Rehabilitation	525	Lighting fixture(s)
Pacific Grove ADA Pathway	5	2647	ADA - New Curb Ramps	8	Curb ramp(s)
Pacific MTC Station	7	5545	Maintenance Facilities	1	Location(s)
Padaro - (Segment 4B) Combined	5	7101R	HOV/HOT lane-mile(s) constructed	5.8	Miles
			Modified/Improved interchange(s)	0	Each
			Modified/Reconstructed bridge(s)	6	Each
			Roadway Rehabilitation (3R)	11.5	Lane mile(s)
			Sound wall mile(s) constructed	0.76	Miles
Paint Hobart Yard OH Bridge	7	5499	Bridge Rehabilitation and Replacement	1	Bridge(s)
Paint LA River Bridge	7	4730	Capital Bridge Preventative Maintenance Program	2	Bridge(s)
Paintersville & Mokelumne Seismic Retrofit	3	5832	Bridge Seismic Restoration	4	Bridge(s)
Pajaro River Flood Response	5	3161	Major Damage (Emergency Restoration)	1	Location(s)
Palermo Cox Safety (Seg 2 SHOPP)	3	2295	Safety Improvements	35	Collision(s) reduced
Panoche CAPM	6	6970	Pavement Preservation (CAPM)	46.3	Lane mile(s)
Paris Valley 2R Rehab	5	2546	Pavement Preservation	9.9	Lane mile(s)
Park Fire	3	2125	Major Damage (Emergency Restoration)	5	Location(s)
Parkhurst Median Barrier	6	7066	Safety Improvements	32	Collision(s) reduced
Pasatiempo II	5	2636	Safety Improvements	140	Collision(s) reduced
Paso Robles 46 CAPM	5	2903	Pavement Preservation (CAPM)	8.2	Lane mile(s)
PATTERSON SLOUGH CREEK BRIDGE DECK REPLACEMENT	4	0480A	Bridge Rehabilitation	1	Bridge(s)
PAVE AREAS FROM SHOULDER TO SOUNDWALL	4	1483N	Roadside Safety Improvements	52	Location(s)
Pave Gore & Narrow Areas	4	1494D	Roadside Safety Improvements	14	Location(s)
PAVE MAINTENANCE VEHICLE PULLOUTS BEYOND GORE AREAS	11	1146	Roadside Safety Improvements	96	Location(s)
Pavement	4	2916T	Pavement Preservation (CAPM)	60.8	Lane mile(s)
Pavement CAPM from Route 101/680 to Route 87	4	2904H	Pavement Preservation (CAPM)	18.3	Lane mile(s)
PAVEMENT PRESERVATION	4	2027G	Pavement Preservation (CAPM)	18.4	Lane mile(s)
Pavement Preservation and ADA Curb Ramps	7	4769	Pavement Rehabilitation	16	Lane mile(s)
PAVEMENT PRESERVATION AND SAFETY IMPROVEMENTS	4	2027C	Pavement Preservation (CAPM)	24.4	Lane mile(s)
PAVEMENT PROJECT	4	2912J	Pavement Preservation (CAPM)	30.9	Lane mile(s)
Pavement Rehab	7	4698	Pavement Rehabilitation	10.3	Lane mile(s)
			Pavement Rehabilitation	35.7	Lane mile(s)
			Pavement Preservation (CAPM)	78.8	Lane mile(s)
Pavement Rehab and ADA curb ramps	7	4770	Pavement Rehabilitation	4	Lane mile(s)
Pavement Rehab on Ven 232	7	5373	Pavement Preservation (CAPM)	14.7	Lane mile(s)
PAVEMENT REHABILITATION	4	2027D	Roadway Rehabilitation (2R)	12.9	Lane mile(s)
			Pavement Preservation (CAPM)	25.3	Lane mile(s)
			Pavement Rehabilitation	95.8	Lane mile(s)
			Pavement Preservation (CAPM)	66.7	Lane mile(s)
			Roadway Rehabilitation (2R)	23.9	Lane mile(s)
PAVEMENT REHABILITATION (CAPM)	8	3012K	Pavement Preservation (CAPM)	60.8	Lane mile(s)
PCH @ Anaheim St.	7	5257	Safety Improvements	18	Collision(s) reduced
PCH @ LAR Bridge Seismic Retrofit	7	5364	Bridge Seismic Restoration	2	Bridge(s)
PCH and Las Flores 010 Safety	7	5505	Safety Improvements	112	Collision(s) reduced
PCH at Los Alamitos Bay Br., Redux	7	5574	Bridge Seismic Restoration	1	Bridge(s)
PCH CAPM	7	4700	Pavement Preservation (CAPM)	98.9	Lane mile(s)
PCH CAPM, Malibu Lagoon to Ventura CL	7	5491	Pavement Preservation (CAPM)	63.4	Lane mile(s)
PCH CAPM, OC to Tarrance	7	4998	Pavement Preservation (CAPM)	81	Lane mile(s)
PCH CAPM, Tarrance to Santa Monica	7	5034	Pavement Preservation (CAPM)	79.9	Lane mile(s)
PCH Las Flores LL Proactive Safety	7	5684	Bridge Rail Replacement and Upgrade	0.25	Annual fatal and serious injury collision(s)
PCH Malibu Slope Repair	7	5059	SHOPP - PROTECT Program	1	Location(s)

**State Highway Operation and Protection Program (SHOPP)
Project Outputs**

Project Title	District	PPNO	Output	Approved Quantity	Unit
PCH Pavement Rehab & Complete Streets, Santa Monica to Malibu Lagoon	7	5625	Pavement Preservation (CAPM)	57.2	Lane mile(s)
Ped Enhancements	4	1492G	Collision Severity Reduction	4	Collision(s) reduced
PEDDLER HILL PAVEMENT ANCHOR	10	2680	Drainage System Restoration	13	Culvert(s) (ea)
Pedestrian Hybrid Beacons (X-Walk Safety Improvements)	4	0448R	Safety Enhancements	15	Collision(s) reduced
Pedestrian Signals #2	5	2628	Safety Enhancements	3	Collision(s) reduced
Permanent Restoration at Cushing Creek	1	1122	Major Damage (Permanent Restoration)	1	Location(s)
Permanent Slope Restoration	7	4930	Major Damage (Permanent Restoration)	2	Location(s)
Petaluma River Bridge	4	0332C	Bridge Rehabilitation and Replacement	1	Bridge(s)
Petaluma River Bridge Environmental Mitigation	4	2925Y	Bridge Rehabilitation and Replacement	0	Bridge(s)
Pfeiffer Canyon Mitigation	5	2855	Major Damage (Permanent Restoration)	1	Location(s)
Pfeiffer Mitigation Utility Relocation	5	2855X	Major Damage (Permanent Restoration)	0	Location(s)
Phase 4 Express Lanes 85/101	4	2927H	SHOPP - Carbon Reduction Program (CRP)	4	Centerline mile(s)
Philo Greenwood Shoulder Widening	1	4924	Safety Improvements	0.53	Annual fatal and serious injury collision(s)
Piedras Blancas Offsite Mitigation Plant Propagation	5	4928X	Roadway Protective Betterments	0	Location(s)
Piedras Blancas Offsite Mitigation Project	5	4928Y	Roadway Protective Betterments	0	Location(s)
Piedras Offsite Mitigation-New Location	5	4928R	Protective Betterments	0	Location(s)
Piercy Culvert Revegetation	1	4745M	Drainage System Restoration	0	Culvert(s) (ea)
Pilot Project #1	7	5157	Roadside Safety Improvements	72.5	Location(s)
Pilot Project #2	7	5159	SHOPP - Misc	1	Location(s)
Pioneer Bridge Damage	3	6258	Major Damage (Emergency Opening)	1	Location(s)
Pismo Beach CAPM	5	2630	Pavement Preservation (CAPM)	13.8	Lane mile(s)
Pismo Creek Scour Repair Project	5	2387	Bridge Scour	1	Bridge(s)
Pit One Grade Rockfall Mitigation	2	3784	SHOPP - PROTECT Program	1	Location(s)
Pit River Deck Improvements	2	3548	Capital Bridge Preventative Maintenance Program	1	Bridge(s)
Pit Rivers Seismic	2	3786	Bridge Seismic Restoration	2	Bridge(s)
Pixley-Earlimar Bridge Rail	6	6788	Bridge Rail Replacement/Upgrade	1493	Linear feet rail
PLA 267 CAPM	3	5728	Pavement Preservation (CAPM)	19.3	Lane mile(s)
PLA 65 Ranch	3	4899	Roadside Enhancement (Mitigation Site Relinquishments)	1	Location(s)
Pla 65 South Ingram Slough Slide Repair	3	4902	Major Damage (Permanent Restoration)	1	Location(s)
PLA 80 Bridge Replacement	3	5097	Bridge Rehabilitation and Replacement	4	Bridge(s)
PLA 80 Open-Graded	3	5159	Major Damage (Emergency Restoration)	1	Location(s)
PLA 80 Rock Retention Fencing	3	5145	Major Damage (Permanent Restoration)	2	Location(s)
PLA 80 Rutting 1	3	5163	Major Damage (Emergency Restoration)	15	Location(s)
PLA 80 Rutting 2	3	5164	Major Damage (Emergency Restoration)	25	Location(s)
		5166	Major Damage (Permanent Restoration)	12	Location(s)
PLA 80 Rutting 3	3	5165	Major Damage (Emergency Restoration)	8	Location(s)
PLA 80 Sinkhole & Culvert	3	5171	Major Damage (Emergency Restoration)	1	Location(s)
PLA 80 Storm Damage	3	5158	Major Damage (Emergency Opening)	2	Location(s)
PLA 89 Rockfall	3	5294	Major Damage (Emergency Opening)	1	Location(s)
PLA/ED 89 Drainage Repairs	3	5289	Major Damage (Emergency Opening)	11	Location(s)
PLA-28 Rehab	3	4681	Pavement Preservation (CAPM)	20.5	Lane mile(s)
PLA-28 Rehab Combine	3	4681A	Pavement Preservation (CAPM)	20.5	Lane mile(s)
			Safety Improvements	2	Collision(s) reduced
Pla-49 Rehab Project	3	4781	Roadway Rehabilitation	18.7	Lane mile(s)
Placer 49 2R	3	4788	Roadway Rehabilitation (2R)	7.8	Lane mile(s)
Placer 49 Safety Barrier	3	4787	Safety Improvements	13	Collision(s) reduced
Placer 80 Rehabilitation	3	5149	Roadway Rehabilitation (2R)	55.4	Lane mile(s)
Placer MBGR Upgrade	3	5026	Safety Enhancements	4	Collision(s) reduced
Placerville 49 CAPM	3	3157	Pavement Preservation (CAPM)	4.4	Lane mile(s)
Placerville CAPM	3	3337	Pavement Preservation (CAPM)	29.8	Lane mile(s)
Placerville Slide Repair	3	3636	Major Damage (Permanent Restoration)	1	Location(s)
Plant Establishment and Environmental Mitigation	4	2917E	Bridge Rail Replacement and Upgrade	0	Annual fatal and serious injury collision(s)
Plant establishment follow-up to Director's Order	4	2024N	Major Damage (Permanent Restoration)	0	Location(s)
PLU 70 PM 81.82	2	3885	Major Damage (Emergency Opening)	1	Location(s)
PLU 70 Stabilization	2	3920	Major Damage (Emergency Restoration)	1	Location(s)
Plumas 70 Drainage	2	3587	Drainage System Restoration	42	Culvert(s) (ea)
Plumas 70 Permanent Restoration	2	3723	Major Damage (Permanent Restoration)	8	Location(s)
PM 1.0 and 4.0 Viaduct	5	2874	Major Damage (Permanent Restoration)	2	Location(s)
PM 10.8 Extend Side Hill Viaduct	5	2847	Major Damage (Permanent Restoration)	1	Location(s)
PM 19.97 Hairpin Tieback	5	2876	Major Damage (Permanent Restoration)	1	Location(s)
POINT ARENA CAPM	1	4626	Pavement Rehabilitation	29.5	Lane mile(s)
Point Arena Repair Culvert	1	4728	Major Damage (Emergency Opening)	1	Location(s)
Poison Lake Curve Improvement	2	3796	Safety Improvements	20	Collision(s) reduced
Poison Lake Shalas Combine	2	3706A	Pavement Preservation (CAPM)	75.5	Lane mile(s)
			Safety Improvements	20	Collision(s) reduced
Poker Bar Culverts	2	3735	Drainage System Restoration	95	Culvert(s) (ea)
Port of Oakland FCO	4	2925A	Storm Water Mitigation	19	Acre(s) treated/pollutant
Porterville 65 & 190 Rumble Strips	6	6898	Safety Improvements	26	Collision(s) reduced
Porterville Intersection Improvements I	6	8106	Operational Improvements	441	Daily Vehicle Hour(s) of Delay (DVHD)
Porterville Median Barrier Replacement Planting	6	3032A	Safety Improvements	0	Collision(s) reduced
Portuguese and Cade Creek	2	3620	Bridge Rehabilitation and Replacement	2	Bridge(s)
Possey Tube 33-0106R and Webster Tube 33-0106L - Ventilation Upgrade	4	2919C	Bridge Rehabilitation and Replacement	2	Bridge(s)
Possey-Webster Tubes Power Systems	4	2909B	Major Damage (Permanent Restoration)	2	Location(s)
Potato Cut	2	3763	Safety Improvements	0.14	Annual fatal and serious injury collision(s)
Potato Slough Bridge Bearing Pads	10	3273	Capital Bridge Preventative Maintenance Program	1	Bridge(s)
Power Slide	2	3745	Major Damage (Emergency Opening)	1	Location(s)
Prairie Creek Curve Improvement	1	2536	Safety Improvements	0.56	Annual fatal and serious injury collision(s)
Prairie Creek Curve Improvement LTM	1	2536M	Safety Improvements	0	Annual fatal and serious injury collision(s)
Prospect Ave Retaining Wall	5	3239	Major Damage (Emergency Restoration)	1	Location(s)
Protective Betterment	7	5237	Protective Betterments	1	Location(s)
Provide an OGFC and safety lighting to improve safety	4	2922E	Safety Improvements	0.21	Annual fatal and serious injury collision(s)
Prunedale CAPM	5	2679	Pavement Preservation (CAPM)	37	Lane mile(s)
Prunedale Drainage	5	2679X	SHOPP - PROTECT Program	35	Culvert(s) (ea)
PSPS DO	8	3016U	Major Damage (Emergency Opening)	96	Location(s)
PSPS Emergency Responses	7	6300	Major Damage (Emergency Restoration)	5	Location(s)
PSPS High Priority Signals ? North ELB	5	3021	Major Damage (Emergency Opening)	42	Location(s)
PSPS High Priority Signals ? South ELB	5	3004	Major Damage (Emergency Opening)	12	Location(s)
PSPS Signal Visibility	3	4004	Major Damage (Emergency Opening)	49	Location(s)
PSPS SIGNAL VISIBILITY IMPROVEMENTS	6	7043	Major Damage (Emergency Opening)	41	Location(s)
PSPS Streetlight Backing plates	2	3783	Major Damage (Emergency Opening)	1	Location(s)
PSR4 - SCL-280 Roadside paving	4	1492D	Roadside Safety Improvements	39	Location(s)
PSR4 - SOL-680 storm damage restoration	4	1498M	Major Damage (Permanent Restoration)	1	Location(s)
PSSR - SCL-87 Pavement 2R	4	1492C	Roadway Rehabilitation (2R)	29.5	Lane mile(s)

**State Highway Operation and Protection Program (SHOPP)
Project Outputs**

Project Title	District	PPNO	Output	Approved Quantity	Unit
Pudding Creek Bridge	1	4507	Bridge Rail Replacement/Upgrade	361	Linear feet
Pudding Creek CAPM	1	0154T	Pavement Rehabilitation	32.6	Lane mile(s)
Pulga 70 Profile Change	3	2293	Major Damage (Permanent Restoration)	1	Location(s)
PUMP PLANT UPGRADES	6	8004	Drainage System Restoration	4	Pump plant(s) (ea)
Pumpkin Center 3R Rehab	6	6805	Roadway Rehabilitation (3R)	6	Lane mile(s)
Putah Creek	3	9504	Bridge Seismic Restoration	2	Bridge(s)
Putah Creek, Bridge 23-0099	4	2024F	Bridge Rail Replacement and Upgrade	0	Annual fatal and serious injury collision(s)
Queens PP	3	8386	Major Damage (Emergency Opening)	1	Location(s)
Queue conflict reduction	4	2025P	Non-Capacity Increasing Operational Improvements	866	Daily Vehicle Hour(s) of Delay (DVHD)
Quigil Viaduct Permanent Restoration	5	3190	Major Damage (Permanent Restoration)	1	Location(s)
Quincy Pavement	2	3827	Pavement Preservation (CAPM)	36.5	Lane mile(s)
R-113 3R	4	2020Q	Roadway Rehabilitation (3R)	17.1	Lane mile(s)
Raine Rest Area Infrastructure Upgrades	6	6885	Roadside Safety Improvements	2	Location(s)
Ramp Metering	4	0334J	Transportation Management (TMC's & Field Equipment)	11	Field element(s)
RAMP METERING SYSTEMS	4	2020G	Transportation Management Systems	50	Field element(s)
Ranchos Rehab	6	6708	Roadway Rehabilitation (3R)	6	Lane mile(s)
RANCHOS REHAB MITIGATION	6	6708A	Roadway Rehabilitation (3R)	0	Lane mile(s)
Rat Creek - Emergency	5	3041	Major Damage (Emergency Opening)	1	Location(s)
Rattlesnake 2 DO	2	3866	Major Damage (Emergency Opening)	1	Location(s)
Rattlesnake Slide DO	2	3821	Major Damage (Emergency Opening)	1	Location(s)
Real McCoy Fender & Ramp Replacement	4	0480D	Bridge Rehabilitation and Replacement	2	Bridge(s)
REALIGN ROADWAY (LTM)	1	2251M	Operational Improvements	0	Daily Vehicle Hour(s) of Delay (DVHD)
REALIGNMENT AT MILL CREEK	5	3030	Roadway Protective Betterments	1	Bridge(s)
Reconstruct Drainage	1	4745	Drainage System Restoration	23	Culvert(s) (ea)
Reconstruct Paved Ditch & Washout Slope w/ RSP	4	1499H	Major Damage (Permanent Restoration)	1	Location(s)
Reconstruct Ramps & Install Signal	4	1491G	Safety Improvements	74	Collision(s) reduced
RECYCLED WATER PROJECT / SD I-805	11	1243	Roadside Rehabilitation	40	Acre(s)
RECYCLED WATER PROJECT/SD I-805/I-905	11	1244	Roadside Rehabilitation	118	Acre(s)
Red Bluff Bridges	2	3733	Bridge Seismic Restoration	3	Bridge(s)
Red Bluff Drainage	2	3550	Drainage System Restoration	27	Culvert(s) (ea)
Red Rock Pavement	2	3787	Roadway Rehabilitation (3R)	31.2	Lane mile(s)
Red Rock Safety	2	3931	Safety Improvements	1.33	Annual fatal and serious injury collision(s)
Redcrest CAPM	1	2422	Pavement Rehabilitation	35.9	Lane mile(s)
Redding to Anderson Six Lane - Phase 1 & 2	2	3445A	Mixed flow lane-mile(s) constructed	15	Miles
			Modified/Reconstructed bridge(s)	8	Each
			New bridge(s)	2	Each
			Operational improvement(s)	6	Each
Reduce Frequency and Duration of HWY Workers Exposure	7	5000	Roadside Safety Improvements	35	Location(s)
Reef City CAPM	6	6988	Pavement Preservation (CAPM)	31.2	Lane mile(s)
Refugio Bridge Biological Monitoring	5	2448X	Bridge Rehabilitation and Replacement	0	Bridge(s)
Refugio Bridge Replacement	5	2448	Bridge Rehabilitation and Replacement	3	Bridge(s)
Refugio Mitigation Planting project	5	2448Y	Bridge Rehabilitation and Replacement	0	Bridge(s)
Regent's Slide Removal	5	3208	Major Damage (Emergency Restoration)	1	Location(s)
Rehab ALA 580	4	2905B	Pavement Preservation (CAPM)	77.2	Lane mile(s)
REHAB HUM-169 CULVERTS	1	2487	Drainage System Restoration	73	Culvert(s) (ea)
REHAB IDLEWILD MAINT STATION	1	1117	Maintenance Facilities	1	Location(s)
Rehab Primavera & La Colina Bridges	5	2651	Bridge Rehabilitation and Replacement	2	Bridge(s)
Rehab Segment 4A Mitigation Planting	5	2426Y	Roadway Rehabilitation	0	Lane mile(s)
Rehab segment 4B Mitigation Planting	5	2427Y	Roadway Rehabilitation (3R)	0	Lane mile(s)
Rehab Segment 4C Mitigation Planting	5	2429Y	Roadway Rehabilitation	0	Lane mile(s)
Rehab Transportation Related Facilities	1	7028	Maintenance Facilities	2	Location(s)
Rehabilitate Connection Ramp Pavement at var. locations	3	6711	Pavement Rehabilitation	0.1	Lane mile(s)
Rehabilitate Culvert	4	1453C	Drainage System Restoration	16	Culvert(s) (ea)
		1485E	Drainage System Restoration	1	Culvert(s) (ea)
REHABILITATE CULVERTS	1	4959	Drainage System Restoration	61	Culvert(s) (ea)
		0322B	Drainage System Restoration	21	Culvert(s) (ea)
REHABILITATE PAVEMENT	4	0481P	Roadway Rehabilitation (2R)	29.4	Lane mile(s)
		8012	Pavement Preservation (CAPM)	6.9	Lane mile(s)
REHABILITATE PLUMP PLANT	4	2917B	Drainage System Restoration	1	Pump plant(s) (ea)
Rehabilitate Pump Elements and Controls	4	1499E	Drainage System Restoration	2	Pump plant(s) (ea)
Relinquishment	7	5193	Relinquishments	2.6	Lane mile(s)
		5965	Relinquishments	6.5	Centerline mile(s)
Remove and replace failed pavement for both NB and SB	6	8058	Major Damage (Emergency Restoration)	253	Location(s)
Remove dead and dying trees Santa Clara County	4	2025U	Major Damage (Permanent Restoration)	9	Location(s)
Remove drought-stricken trees East Counties	4	2025T	Major Damage (Permanent Restoration)	16	Location(s)
Remove drought-stricken trees North Counties	4	2022J	Major Damage (Permanent Restoration)	13	Location(s)
Remove Hazardous Tree - Snow	5	3158	Major Damage (Emergency Restoration)	15	Location(s)
Remove Slide and Provide Traffic control	2	3918	Major Damage (Emergency Restoration)	2	Location(s)
Repair AC pavement and install new drainage system	4	2022E	Major Damage (Permanent Restoration)	2	Location(s)
REPAIR AIRPORT ROAD TIDEGATE	1	8507	Major Damage (Emergency Opening)	1	Location(s)
REPAIR BRIDGE DECK	11	1467	Bridge Preventative Maintenance	2	Bridge(s)
Repair Concrete Girders	6	8129	Major Damage (Emergency Restoration)	1	Location(s)
REPAIR CULVERT	1	1135	Major Damage (Emergency Opening)	1	Location(s)
		2541	Major Damage (Emergency Opening)	1	Location(s)
REPAIR CULVERT NEAR RIO DELL	1	2537	Major Damage (Emergency Opening)	1	Location(s)
Repair D06 Materials Lab	6	8096	Major Damage (Permanent Restoration)	1	Location(s)
					Location(s)
REPAIR DRAINAGE	1	1134	Major Damage (Emergency Opening)	3	Location(s)
		2543	Major Damage (Emergency Opening)	1	Location(s)
Repair Drainage Systems	5	3002	Major Damage (Emergency Opening)	3	Location(s)
REPAIR EXISTING LOOP DETECTORS	11	1262	Transportation Management Systems	170	Field element(s)
Repair Field Elements	3	8920	Transportation Management (TMC's & Field Equipment)	48	Field element(s)
REPAIR LANDSLIDE	1	4899	Major Damage (Emergency Restoration)	1	Location(s)
		4902	Major Damage (Emergency Restoration)	2	Location(s)
		4978	Major Damage (Emergency Restoration)	1	Location(s)
		4986	Major Damage (Emergency Restoration)	1	Location(s)
Repair Loop Detectors	3	6717	Transportation Management (TMC's & Field Equipment)	300	Field element(s)
Repair Loop Detectors and Field Elements	3	6717A	Transportation Management (TMC's & Field Equipment)	338	Field element(s)
Repair Push Up	1	3251	Major Damage (Emergency Restoration)	1	Location(s)
Repair Retaining Wall on MRN 1	4	2906H	Major Damage (Permanent Restoration)	1	Location(s)

State Highway Operation and Protection Program (SHOPP)
Project Outputs

Project Title	District	PPNO	Output	Approved Quantity	Unit		
Repair Sink		3233	Major Damage (Emergency Restoration)	1	Location(s)		
		3242	Major Damage (Emergency Restoration)	1	Location(s)		
		4918	Major Damage (Emergency Restoration)	1	Location(s)		
		4921	Major Damage (Emergency Restoration)	3	Location(s)		
		4999	Major Damage (Emergency Restoration)	1	Location(s)		
Repair Sinkhole	1	4926	Major Damage (Emergency Restoration)		Location(s)		
Repair Slide		3231	Major Damage (Emergency Restoration)	1	Location(s)		
		4781	Major Damage (Emergency Opening)	1	Location(s)		
		4972	Major Damage (Emergency Restoration)	1	Location(s)		
Repair Slide Damage	1	4908	Major Damage (Emergency Restoration)	1	Location(s)		
REPAIR SLIDE NEAR BRIDGEVILLE	1	8504	Major Damage (Emergency Opening)	1	Location(s)		
Repair Slip Out	1	3261	Major Damage (Emergency Restoration)	1	Location(s)		
Repair Slipout		3253	Major Damage (Emergency Restoration)	1	Location(s)		
		4922	Major Damage (Emergency Restoration)	1	Location(s)		
		4945	Major Damage (Emergency Restoration)	1	Location(s)		
		4968	Major Damage (Emergency Restoration)	1	Location(s)		
		4971	Major Damage (Emergency Restoration)	1	Location(s)		
		4989	Major Damage (Emergency Restoration)	1	Location(s)		
		4734	Major Damage (Emergency Opening)	1	Location(s)		
		3232	Major Damage (Emergency Restoration)	3	Location(s)		
Repair Storm Damage		3237	Major Damage (Emergency Restoration)	1	Location(s)		
		3240	Major Damage (Emergency Restoration)	4	Location(s)		
		3243	Major Damage (Emergency Restoration)	1	Location(s)		
		4788	Major Damage (Emergency Opening)	1	Location(s)		
		4901	Major Damage (Emergency Restoration)	1	Location(s)		
		4917	Major Damage (Emergency Restoration)	1	Location(s)		
		4919	Major Damage (Emergency Restoration)	1	Location(s)		
		4957	Major Damage (Emergency Restoration)	1	Location(s)		
		4973	Major Damage (Emergency Restoration)	1	Location(s)		
		4976	Major Damage (Emergency Restoration)	1	Location(s)		
		4980	Major Damage (Emergency Restoration)	1	Location(s)		
		4981	Major Damage (Emergency Restoration)	1	Location(s)		
		4982	Major Damage (Emergency Restoration)	1	Location(s)		
		4987	Major Damage (Emergency Restoration)	1	Location(s)		
		4990	Major Damage (Emergency Restoration)	1	Location(s)		
		4993	Major Damage (Emergency Restoration)	1	Location(s)		
		11	1634	Major Damage (Emergency Restoration)	205	Location(s)	
		Repair Storm Damage Hum 299	1	2611	Major Damage (Emergency Restoration)	3	Location(s)
		Repair Storm Damage HUM 36	1	4846	Major Damage (Emergency Restoration)	2	Location(s)
		Repair Storm Damage MEN-128	1	4997	Major Damage (Emergency Restoration)	1	Location(s)
Repair Storm Damage Near Willits	1	2609	Major Damage (Emergency Restoration)	3	Location(s)		
REPAIR STRUCTURE	1	2523	Major Damage (Emergency Opening)	1	Location(s)		
REPAIR UKIAH CULVERT	1	4719	Major Damage (Emergency Opening)	2	Location(s)		
Repair/replace old TMS	10	3515	Transportation Management Systems	14	Field element(s)		
Repair/upgrade pump stations	7	5024	Drainage System Restoration	3	Pump plant(s) (ea)		
Replace 7 Culverts on Mon-1	5	2478	Drainage System Restoration	7	Culvert(s) (ea)		
Replace Bridge Rails	4	1451A	Bridge Rail Replacement/Upgrade	1630	Linear feet rail		
REPLACE CULVERT NEAR LIMEKILN CREEK	5	2230	Drainage System Restoration	1	Culvert(s) (ea)		
Replace Drainage for Segment 9	7	5802	Drainage System Restoration	42	Culvert(s) (ea)		
REPLACE DRAINAGE INLETS	7	4721	Bridge Preventative Maintenance	1	Bridge(s)		
Replace Drainage Pumps	10	3251	Drainage System Restoration	6	Pump plant(s) (ea)		
Replace failed erosion control mesh and regrade slope	4	2908H	Major Damage (Permanent Restoration)	1	Location(s)		
Replace MBGR	3	4288	Safety Enhancements	94	Collision(s) reduced		
REPLACE SIGNS WITH TYPE XI SHEETING	11	1237	Signs and Lighting Rehabilitation	3772	Lighting fixture(s)		
Replace Trees	4	1453H	Roadside Rehabilitation	8.2	Acre(s)		
Replace/install new TMS in VAR counties and VAR State Routes	10	3608	Transportation Management Systems	18	Field element(s)		
Replacing pump plant	7	5516	Drainage System Restoration	1	Pump plant(s) (ea)		
Restore Slope Stability on 118		5294	Major Damage (Permanent Restoration)	1	Location(s)		
		5705	Major Damage (Permanent Restoration)	1	Location(s)		
Restriping	8	3016T	Safety Improvements	119	Collision(s) reduced		
Reveg Mitigation	1	1161M	Operational Improvements	0	Daily Vehicle Hour(s) of Delay (DVHD)		
Reward CAPM	6	6957	Pavement Rehabilitation	18.8	Lane mile(s)		
RHMA Overlay on NW LA-138	7	4804	Pavement Preservation (CAPM)	78.3	Lane mile(s)		
RHMA Overlay-ADA ramps/sw	3	6924	Pavement Rehabilitation	70.5	Lane mile(s)		
RIDGECREST/JINYOKERN PAVEMENT	9	2685	Pavement Preservation (CAPM)	23.8	Lane mile(s)		
Ridgewood Class 1 Pavement	1	4677	Pavement Preservation (CAPM)	37.5	Lane mile(s)		
Ridgewood Emergency Road Repair	1	4774	Major Damage (Emergency Opening)	1	Location(s)		
Ridgewood Grade ELB Wall	1	8503	Major Damage (Emergency Opening)	1	Location(s)		
Ridgewood Grade Safety	1	4772	Safety Improvements	0.34	Annual fatal and serious injury collision(s)		
Ridgewood Grade Safety LTM	1	4772M	Safety Improvements	0	Annual fatal and serious injury collision(s)		
Ridgewood Grade South	1	4731	Major Damage (Emergency Opening)	1	Location(s)		
Ridgewood Weigh In Motion	1	4698	Weight Stations & Weight-In-Motion Facilities	1	Location(s)		
Rincon Fish Passage	5	2799F	Drainage System Restoration	2	Culvert(s) (ea)		
Rio Vista Bridge Op-Systems Upgrade	3	5965	Major Damage (Permanent Restoration)	1	Location(s)		
Rio Vista Bridge Rehab	3	5960	Bridge Rehabilitation and Replacement	1	Bridge(s)		
Rio Vista Drawbridge Emergency	3	5962	Major Damage (Emergency Opening)	1	Location(s)		
Riparian Habitat Mitigation	10	3134A	Bridge Rail Replacement/Upgrade	0	Linear feet rail		
RIPON BRIDGE REHAB	10	0321	Bridge Rehabilitation	1	Bridge(s)		
RIV & SBD REPLACE PAVEMENT MARKINGS AT VARIOUS LOCATIONS	8	3017U	Safety Improvements	4	Collision(s) reduced		
RIV 010 INSTALL HTC&B AND MGS	8	3023J	Safety Improvements	0.72	Annual fatal and serious injury collision(s)		
RIV 010 Lane Replacement	8	3011V	Roadway Rehabilitation (2R)	24.1	Lane mile(s)		
Riv 015 Auxiliary Lane NB15 at Magnolia	8	3023M	Safety Improvements	0.05	Annual fatal and serious injury collision(s)		
RIV 015 CAPM & SLAB REPLACEMENT	8	3003M	Pavement Rehabilitation	84.7	Lane mile(s)		
RIV 015 Slab Replacement	8	3003L	Pavement Rehabilitation	54.6	Lane mile(s)		
RIV 074 HEMET HORIZONTAL DRAINS	8	3010H	Major Damage (Permanent Restoration)	1	Location(s)		
RIV 074 LAKE ELSINORE FACILITY	8	3011L	Maintenance Facilities	1	Location(s)		
RIV 095 CONSTRUCT CONCRETE/RSP & REPLACE CULVERTS	8	3002U	Major Damage (Permanent Restoration)	20	Location(s)		
RIV 10 ADVANCE MITIGATION	8	3002Q	Roadside Protection and Restoration	15	Location(s)		
Riv 10 Blythe Pavement Rehab: mainline, shoulders, ramps	8	3009K	Pavement Preservation	88.2	Lane mile(s)		
RIV 10 CAPM, DRAINAGE & ADA	8	3018N	Pavement Preservation (CAPM)	93.7	Lane mile(s)		
RIV 10 DESERT CENTER MTC&E STA DO WELL DRILLING	8	3012U	Major Damage (Emergency Opening)	1	Location(s)		
RIV 10 DESERT CENTER PAVEMENT REHAB: MAINLINE, SHOULDERS, RAMP&S G-13	8	3008Y	Roadway Rehabilitation (2R)	114	Lane mile(s)		
RIV 10 DESERT HILLS WB C&VEF UPGRADE	8	3014Q	Commercial Vehicle Enforcement Facilities & Weight-In-Motion Scales	1	Location(s)		

**State Highway Operation and Protection Program (SHOPP)
Project Outputs**

Project Title	District	PPNO	Output	Approved Quantity	Unit
RIV 10 INDIO MAINT FACILITY UPGRADE (+HIJA FC)	8	3014U	Maintenance Facilities	1	Location(s)
RIV 10 METHACRYLATE DECKS (VARIOUS ROUTES)	8	3002G	Capital Bridge Preventative Maintenance Program	7	Bridge(s)
RIV 10 NR COACHELLA PVMT REHAB SEGMENT 1 (DESIGN/BUILD)	8	3008A	Roadway Rehabilitation (2R)	49.5	Lane mile(s)
RIV 10 PALEN DITCH BRIDGE RAIL UPGRADE	8	3002L	Bridge Rail Replacement/Upgrade	520	Linear feet
RIV 10 PAVEMENT REHAB	8	3011W	Roadway Rehabilitation (2R)	26.2	Lane mile(s)
RIV 10 PAVEMENT REPLACEMENT	8	3008U	Roadside Safety Improvements	64	Location(s)
RIV 10 REHAB SUBSTRUCTURE	8	3002F	Bridge Rehabilitation	2	Bridge(s)
RIV 10 REPAIR STORM DAMAGE DO	8	3013E	Major Damage (Emergency Opening)	23	Location(s)
RIV 10 REPLACE EXISTING GUIDE SIGNS (PHASE 2)	8	3005C	Signs and Lighting Rehabilitation	758	Lighting fixture(s)
RIV 10 REPLACE EXISTING ROCK SLOPE PROTECTION	8	3008M	Bridge Rehabilitation	16	Bridge(s)
		3008N	Bridge Scour	24	Bridge(s)
		3008P	Bridge Rehabilitation	18	Bridge(s)
		3012J	Bridge Scour	2	Bridge(s)
RIV 10 REPLACE EXISTING WIM SYSTEM	8	3012H	Commercial Vehicle Enforcement Facilities & Weigh-In-Motion Scales	1	Location(s)
RIV 10 UPGRADE CACTUS CITY SRRA	8	0049T	Safety Roadside Rest Area Restoration	2	Location(s)
RIV 10 WHITE WATER SRRA (WATER/WASTEWATER)	8	3018Y	Safety Roadside Rest Area Restoration	2	Location(s)
RIV 10 WILEY'S WELLS SRRA (WATER/WASTEWATER)	8	3019E	Safety Roadside Rest Area Restoration	1	Location(s)
RIV 10, 15, 74 PC OVERLAY	8	3019G	Bridge Preventative Maintenance	5	Bridge(s)
Riv 10/60/86 Install Changeable Message Signs	8	3002T	Transportation Management (TMC's & Field Equipment)	6	Field element(s)
RIV 111 PALM SPRINGS CAPM	8	3008G	Pavement Preservation (CAPM)	34.9	Lane mile(s)
RIV 111/60 ROAD WASHOUT REPAIR	8	3013P	Major Damage (Emergency Opening)	8	Location(s)
RIV 111-PALM SPRINGS ADA (PHASE 2)	8	3007U	ADA - Pedestrian Infrastructure	128	Structure(s)
RIV 15 CAPM	8	3015U	Pavement Preservation (CAPM)	95.9	Lane mile(s)
RIV 15 DO	8	3025Y	Major Damage (Emergency Restoration)	1	Location(s)
RIV 15 IMP SAFETY FOR MICE	8	3007Q	Roadside Safety Improvements	32	Location(s)
RIV 15 NORCO/CORONA RECYCLED WATER	8	3008S	Highway Planting Restoration	75	Acre(s)
Riv 15 Sediment Stabilization, Erosion Control	8	3008E	Storm Water Mitigation	47.5	Acre(s) treated/pollutant
RIV 15 UPGRADE CURB RAMPS AND OTHER ADA RELATED ITEMS	8	3012C	ADA - New Curb Ramps	26	Curb ramp(s)
RIV 215 CAPM	8	3011E	Pavement Preservation (CAPM)	24.6	Lane mile(s)
		3011Y	Pavement Preservation (CAPM)	21.3	Lane mile(s)
RIV 215 CAPM IN PERRIS	8	3011H	Pavement Preservation (CAPM)	32.9	Lane mile(s)
RIV 215 HIGH-TENSION CABLE BARRIER NORTHBOUND	8	3023Y	Safety Improvements	0.6	Annual fatal and serious injury collision(s)
RIV 215 INSTALL AN OUTER SEPARATION BARRIER	8	3005N	Safety Improvements	23	Collision(s) reduced
RIV 215 PAVEMENT REHAB (CAPM +HIJA SAFETY)	8	3015L	Pavement Preservation (CAPM)	65.7	Lane mile(s)
RIV 215 S/B & N/B AUX LANE-TIGER	8	3013W	Safety Improvements	221	Collision(s) reduced
RIV 215 SEDIMENT STABILIZATION, EROSION CONTROL	8	3002A	Storm Water Mitigation	36	Acre(s) treated/pollutant
RIV 243 LAKE FULMER BR DO	8	3012Y	Major Damage (Emergency Opening)	1	Location(s)
RIV 243 MILL AND OVERLAY PAVEMENT	8	3011S	Pavement Preservation (CAPM)	26.6	Lane mile(s)
RIV 243/74 ROAD WASHOUT REPAIR	8	3013N	Major Damage (Emergency Opening)	11	Location(s)
RIV 371 INSTALL LEFT TURN LN	8	3021J	Safety Improvements	0.06	Annual fatal and serious injury collision(s)
RIV 60 CONSTRUCT TRAFFIC SIGNAL	8	3006X	Safety Improvements	14	Collision(s) reduced
RIV 60 INSTALL NEW RAMP METERING SYSTEMS	8	3011A	Transportation Management Systems	34	Field element(s)
Riv 60 Rehab Pavement near Beaumont	8	0033N	Pavement Rehabilitation	17.5	Lane mile(s)
RIV 60 REPLACE EXISTING GUIDE SIGNS (PHASE 1)	8	0022K	Signs and Lighting Rehabilitation	190	Lighting fixture(s)
RIV 60 RIVERSIDE UPGRADE IRRIGATION (DROUGHT)	8	3008R	Roadside Rehabilitation	15	Acre(s)
RIV 60 TRAFFIC OPERATIONS SYSTEM	8	0043L	Transportation Management Systems	19	Field element(s)
RIV 60 WB Shoulder Widening	8	0045G	Safety Improvements	382	Collision(s) reduced
RIV 62 MILL & OVERLAY	8	0023C	Pavement Rehabilitation	85.3	Lane mile(s)
RIV 62 WIDEN SHOULDERS	8	3010Q	Safety Improvements	8	Collision(s) reduced
RIV 74 CAPM	8	3008C	Pavement Preservation (CAPM)	27.1	Lane mile(s)
RIV 74 CORRIDOR IMPROVEMENTS	8	3008L	Pavement Preservation (CAPM)	42.7	Lane mile(s)
RIV 74 CRANSTON FIRE DO PH 1	8	3012T	Major Damage (Emergency Opening)	2	Location(s)
RIV 74 HEMET UPGRADE ADA	8	3003P	ADA - New Curb Ramps	70	Curb ramp(s)
RIV 74 LAKE ELSINORE MEDIAN BUFFER & WIDEN SHLDRS	8	3016R	Safety Improvements	21	Collision(s) reduced
RIV 74 REPLACE 2 BRIDGES	8	3005Q	Bridge Rehabilitation and Replacement	2	Bridge(s)
RIV 74 REPLACE CULVERT AND RESTORE SLOPE AND ROADWAY.	8	3010G	Major Damage (Permanent Restoration)	5	Location(s)
RIV 74 ROCK SLOPE STABILIZATION	8	3014A	Major Damage (Emergency Opening)	4	Location(s)
RIV 74 SLOPE STABILIZATION	8	3002J	Roadway Protective Betterments	1	Bridge(s)
RIV 74 SOURCE CONTROL IN LAKE ELSINORE	8	3001Y	Storm Water Mitigation	12	Acre(s) treated/pollutant
RIV 74 WARREN RD REPLACE CULVERT DO	8	3012V	Major Damage (Emergency Opening)	1	Location(s)
Riv 74 Widen Lanes, Add Shoulders & Rumble Strips	8	0050P	Safety Improvements	298	Collision(s) reduced
RIV 74/79/371 UPGRADE TO STANDARD BRIDGE RAIL	8	3002C	Bridge Rail Replacement and Upgrade	306	Linear feet rail
RIV 79 BARRIER NEAR SAN JACINTO	8	3015N	Safety Improvements	15	Collision(s) reduced
RIV 79 HEMET UPGRADE ADA	8	3002R	ADA - New Curb Ramps	24	Curb ramp(s)
RIV 79 INSTALL MIDWEST GUARDRAIL SYSTEM (MGS)	8	3010X	Collision Severity Reduction	14.2	Collision(s) reduced
RIV 79 NEAR TEMECULA WIDEN PAVEMENT TO PROVIDE 8' SHOULDERS	8	3006G	Safety Improvements	108	Collision(s) reduced
RIV 91 HIGHWAY PLANTING	8	3015Y	Roadside Rehabilitation	13	Acre(s)
RIV 91 RIVERSIDE PAVEMENT REHAB	8	3015M	Pavement Preservation (CAPM)	28.9	Lane mile(s)
Riv Co Advanced Mitigation	8	3004P	Roadside Protection and Restoration	4	Location(s)
RIV VAR ROUTES AVMS	8	3012Q	Transportation Management Systems	20	Field element(s)
RIV/SBD REPAIR DETECTION SITES	8	3006W	Transportation Management (TMC's & Field Equipment)	86	Field element(s)
RIV/SBD VAR INSTALL ROCK BLANKET	8	3008T	Roadside Safety Improvements	106	Location(s)
RIV/SBD VAR INSTALL ZEV CHARGING STATIONS	8	3011C	SHOPP - Sustainability and Miscellaneous	4	Location(s)
RIV-10 (1C083+1N060 COMBINE)	8	3019W	Roadway Rehabilitation (2R)	88.2	Lane mile(s)
RIV-10 INSTALL BARRIER TO COVER EMBANKMENT ON WB	8	3023K	Safety Improvements	0.15	Annual fatal and serious injury collision(s)
RIV-10 PAVEMENT MARKINGS AND STRIPING	8	3016G	Safety Improvements	4	Collision(s) reduced
RIV-74 CAPM + MMBN (CONST ONLY)	8	3023N	Pavement Preservation (CAPM)	27.1	Lane mile(s)
RIV-74 CRANSTON FIRE DO PH 2	8	3012W	Major Damage (Emergency Opening)	2	Location(s)
RIV-74 PAVEMENT REHABILITATION, CULVERT AND GUARDRAIL REPLACEMENT PROJ	8	3018X	Pavement Preservation (CAPM)	99.9	Lane mile(s)
RIV-79 NEAR TEMECULA MILL & OVERLAY	8	0066Q	Pavement Rehabilitation	32.5	Lane mile(s)
RIV-91 CAPM	8	3015G	Pavement Preservation (CAPM)	23.1	Lane mile(s)
River Bridges	3	6912F	Bridge Rail Replacement/Upgrade	0	Linear feet rail
RIVERBANK SLOPE PROTECTION	10	5411	Roadway Protective Betterments	1	Bridge(s)
Roadside Safety	7	4707	Roadside Safety Improvements	44	Location(s)
		4708	Roadside Safety Improvements	47	Location(s)
		4973	Roadside Safety Improvements	76	Location(s)
	11	1142	Roadside Safety Improvements	97	Location(s)
Roadside safety improv	7	4975	Roadside Safety Improvements	123	Location(s)
Roadside Safety Improvement	7	4808	Roadside Safety Improvements	30	Location(s)

**State Highway Operation and Protection Program (SHOPP)
Project Outputs**

Project Title	District	PPNO	Output	Approved Quantity	Unit
		5078	Roadside Safety Improvements	36	Location(s)
	11	1141	Roadside Safety Improvements	109	Location(s)
Roadside Safety Improvements	4	1452K	Roadside Safety Improvements	28	Location(s)
	7	4810	Roadside Safety Improvements	65	Location(s)
		5030	Roadside Safety Improvements	101	Location(s)
	10	3237	Roadside Safety Improvements	26	Location(s)
Roadway / retaining wall / slope repairs	6	8063	Major Damage (Emergency Restoration)	1	Location(s)
ROADWAY REHABILITATION	4	2027E	Pavement Preservation (CAPM)	15.2	Lane mile(s)
Roadway Safety Improvement	7	4811	Roadside Safety Improvements	60	Location(s)
Roadway Settlement	5	3170	Major Damage (Emergency Restoration)	1	Location(s)
Rock block barrier	7	5145	Collision Severity Reduction	1	Annual fatal and serious injury collision(s)
ROCK CREEK LONG TERM MIT MON	9	5970	Roadway Rehabilitation (3R)	0	Lane mile(s)
ROCK CREEK PAVEMENT	9	2669	Roadway Rehabilitation (3R)	11.2	Lane mile(s)
Rock Fall Protection	3	7926A	Roadway Protective Betterments	2	Location(s)
Rock Scaling + Slope Drapery Protection System	7	6103	Protective Betterments	2	Location(s)
Rockfall clearing and rockfall fence repairs	5	3220	Major Damage (Emergency Restoration)	1	Location(s)
Rockport to Leggett CAPM	1	4696	Pavement Preservation (CAPM)	30.9	Lane mile(s)
Rocks Road Guardrail Repair	5	3257	Major Damage (Emergency Restoration)	1	Location(s)
			Major Damage (Emergency Restoration)	1	Location(s)
Rocky Creek bridge ECE	5	3164	Bridge Formula Program	1	Bridge(s)
Rocky Creek Slip DO/EFA	5	3222	Major Damage (Emergency Restoration)	1	Location(s)
Rocky Creek Slip Out Permanent Structure	5	3229	Major Damage (Emergency Restoration)	1	Location(s)
Rodeo Creek Slide II	1	4553	Major Damage (Permanent Restoration)	1	Location(s)
ROSAMOND REHAB	9	2711	Roadway Rehabilitation (2R)	18.8	Lane mile(s)
Rosamond-Mojave Rehab	9	2633	Pavement Preservation	31.6	Lane mile(s)
Roseville MS Structure Replacements	3	5157	Maintenance Facilities	1	Location(s)
Route 1/San Antonio Creek Bridge Scour Mitigation	5	2563	Bridge Scour	2	Bridge(s)
Route 10 HOT Barrier Transition	7	5077	Collision Severity Reduction	6	Collision(s) reduced
Route 101 and Route 41 Barrier Improvements	5	2518	Safety Enhancements	38	Collision(s) reduced
Route 101/680-Drainage Pump Plants	4	2026C	Drainage System Restoration	3	Culvert(s) (ea)
Route 135 Signal Modifications	5	2703	Safety Improvements	660	Collision(s) reduced
Route 17 HFST	5	3025	Safety Improvements	856	Collision(s) reduced
Route 2 Cold plane & Overlay	7	5184	Pavement Preservation (CAPM)	20.3	Lane mile(s)
Route 246 Cap-M and Robinson Bridge	5	3010	Bridge Scour	1	Bridge(s)
Route 273 Gaps	2	3544	Pavement Rehabilitation	20.4	Lane mile(s)
ROUTE 38 FIRE DAMAGE	8	3017S	Major Damage (Emergency Opening)	1	Location(s)
ROUTE 38 WATERSHED MITIGATION	8	3017T	Major Damage (Emergency Restoration)	1	Location(s)
Route 41 Atascadero ADA Project	5	2532	ADA - New Curb Ramps	36	Curb ramp(s)
Route 46 Expressway Segment 4C	6	3386E	Intersection/Signal improvement(s)	2	Each
			Roadway lane mile(s) - new	6.9	Miles
ROUTE 62 COLLISION REDUCTION SAFETY PROJECT	8	3021M	Safety Improvements	0.42	Annual fatal and serious injury collision(s)
Route 68 Drainage Improvements	5	2787	Drainage System Restoration	33	Culvert(s) (ea)
ROUTE 78 SLOPE AND EROSION REPAIR	11	1125	Storm Water Mitigation	4.3	Acre(s) treated/pollutant
Route 98 Widening	11	1258	Intersection(s) modified	3	Each
			Operational improvement(s)	1	Each
			Pedestrian/Bicycle facilities mile(s) constructed	0.8	Miles
Routes 180, 245 Emergency Slip Out Repair	6	8044	Major Damage (Emergency Restoration)	8	Location(s)
Rowley Creek Road Left Turn Channelization	1	1157	Safety Improvements	0.07	Annual fatal and serious injury collision(s)
RPLC PVMT/Flood Wall	4	2030A	Major Damage (Emergency Opening)	1	Location(s)
RRTB	4	2022N	Collision Severity Reduction	19	Collision(s) reduced
RSP and Drainage	4	0751E	Major Damage (Emergency Opening)	1	Location(s)
RSP and REPLACE CULVERT	4	2030H	Major Damage (Emergency Opening)	2	Location(s)
RSP and SLIPOUT	4	2030K	Major Damage (Emergency Opening)	2	Location(s)
Rte 10 Santa Monica Rdside Safety	7	4715	Roadside Safety Improvements	214	Location(s)
Rte 10 Signs	7	5201	Signs and Lighting Rehabilitation	61	Sign(s)
Rte 101 Stormwater Source Control	7	4814	Storm Water Mitigation	53.9	Acre(s) treated/pollutant
RTE 123/ALA Pedestrian Crossing Improvements	4	2917G	SHOPP - Complete Streets	750	Bicycle and pedestrian infrastructure (linear feet)
Rte 134 Stormwater Source Control	7	4816	Storm Water Mitigation	12.7	Acre(s) treated/pollutant
Rte 14 Drainage Culvert	7	5219	Drainage System Restoration	17	Culvert(s) (ea)
Rte 14: 5J to Canyon Pk Rdside Safety	7	4809	Roadside Safety Improvements	97	Location(s)
RTE 15 UPGRADE MGS VAR LOCATIONS (HIJA SM & FIBER)	8	3017L	Collision Severity Reduction	0.38	Annual fatal and serious injury collision(s)
Rte 25 Curve Alignment Restoration	5	2697	Safety Improvements	14	Collision(s) reduced
RTE 40/95 SEP DO	8	3017A	Major Damage (Emergency Opening)	1	Location(s)
Rte 5, D.O. Joint Seal Assembly Unit Failures	12	2862L	Major Damage (Emergency Opening)	1	Location(s)
Rte 5, Slope Stabilization	12	2603	Major Damage (Emergency Opening)	1	Location(s)
RTE 56 - ROADSIDE WORKER SAFETY	11	1251	Roadside Safety Improvements	1.88	Annual fatal and serious injury collision(s)
Rte 57 Roadside Safety	7	4706	Roadside Safety Improvements	80	Location(s)
RTE 8, SD NEAR EL CAJON ROADSIDE SAFETY	11	1250	Roadside Safety Improvements	5	Location(s)
Rte 91 Roadside Safety	7	4714	Roadside Safety Improvements	35	Location(s)
RTE 98 ADA	11	1240	ADA - New Curb Ramps	22	Curb ramp(s)
Rte, 580 Rehab- Grind & Pave Roadway; Guard Rail; ADA Curbs @ Ramps	4	0135A	Pavement Preservation (CAPM)	79.4	Lane mile(s)
Rumble Strip Project	5	2882	Safety Improvements	118	Collision(s) reduced
Rumble Strips	3	4001	Safety Improvements	117	Collision(s) reduced
RUMBLE STRIPS, UPGRADE END TREATMENTS	11	1135	Safety Enhancements	38	Collision(s) reduced
Rumsey Slide	3	8668	Major Damage (Permanent Restoration)	1	Location(s)
RUSSIAN GULCH BRIDGE	1	4636	Bridge Rail Replacement/Upgrade	1134	Linear feet
S. Lake Tahoe Safety Project	3	3469	Safety Improvements	13	Collision(s) reduced
SAC 160 Sinkhole	3	7297	Major Damage (Emergency Opening)		Location(s)
		7300	Major Damage (Emergency Restoration)		Location(s)
SAC 5 & 50 Slab Replacement	3	5873	Major Damage (Emergency Opening)	2	Location(s)
Sac 5 Corridor Enhancement Project	3	5854A	HOV/HOT lane-mile(s) constructed	17	Miles
			Roadway Rehabilitation (3R)	67	Lane mile(s)
			Safety Improvements	20	Collision(s) reduced
			Sound wall mile(s) constructed	0.7	Miles
			Transportation Management (Fiber Optic Cable)	13	Mile(s) of cable
SAC 5 Garden Hwy	3	5887	Major Damage (Emergency Restoration)	3	Location(s)
		5888	Major Damage (Permanent Restoration)	5	Location(s)
Sac 5 Highway Planting Rehab	3	5865	Roadside Rehabilitation	12	Acre(s)
SAC 5 PCC Slab Replacement	3	5872	Major Damage (Emergency Opening)	2	Location(s)
SAC 5 Slabs	3	5153	Major Damage (Emergency Opening)	4	Location(s)
Sac 50 - Rehab Pavement	3	6177	Roadway Rehabilitation	53.6	Lane mile(s)
SAC 50 AUX LANES	3	6197	Non-Capacity Increasing Operational Improvements	143	Daily Vehicle Hour(s) of Delay (DVHD)
Sac 50 Design-Build	3	6254	HOV/HOT lane-mile(s) constructed	14	Miles
			Roadway Rehabilitation (3R)	53.6	Lane mile(s)
			Sound wall mile(s) constructed	2.4	Miles

**State Highway Operation and Protection Program (SHOPP)
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Project Title	District	PPNO	Output	Approved Quantity	Unit
Sac 50 Fiber Optics	3	6239	Transportation Management (TMC's & Field Equipment)	8.6	Field element(s)
Sac 50 Paint	3	6247	Capital Bridge Preventative Maintenance Program	11	Bridge(s)
Sac 50, 65th to Howe Aux Lane	3	6200	Non-Capacity Increasing Operational Improvements	108	Daily Vehicle Hour(s) of Delay (DVHD)
SAC 51 Fort Sutter	3	6416	Major Damage (Emergency Restoration)	1	Location(s)
SAC 51 Marconi Bridge Rail	3	6418	Major Damage (Emergency Restoration)	1	Location(s)
SAC 51 Roadside Safety	3	6413	Roadside Safety Improvements	53	Location(s)
SAC 51/80	3	6412	Bridge Rail Replacement/Upgrade	4413	Linear feet
SAC 80 - Planting Rehab	3	6721	Roadside Rehabilitation	10	Acre(s)
SAC 80 R&R RHMA	3	6714	Pavement Rehabilitation	31.4	Lane mile(s)
SAC 80 Roadside Safety	3	6716A	Roadside Safety Improvements	111	Location(s)
Sac 99 Fiber Optics	3	6925	Transportation Management (Fiber Optic Cable)	14	Mile(s) of cable
Sac 99 Fruitridge CAPM	3	6931	Pavement Preservation (CAPM)	24.8	Lane mile(s)
SAC 99 Storm Damage.	3	4943	Major Damage (Emergency Restoration)	3	Location(s)
SAC 99/51 Pump Plant Project	3	6932	SHOPP - PROTECT Program	5	Location(s)
SAC 99/51/160 Five Pump Plant Project	3	2794	Drainage System Restoration	5	Pump plant(s) (ea)
Sac Canyon ITS	2	3836	Transportation Management Systems	27	Field element(s)
SAC Connector Ramp Meters	3	6411	Transportation Management (TMC's & Field Equipment)	4	Field element(s)
Sac Gap Combined	2	3685A	Bridge Rehabilitation and Replacement	1	Bridge(s)
			Roadway Rehabilitation (2R)	27.8	Lane mile(s)
Sac River BOH (Brye Bend)	3	8901	Bridge Rehabilitation	2	Bridge(s)
Sac River BOH Deck Replacement	2	3614	Bridge Rehabilitation	1	Bridge(s)
Sac Roadside Safety	3	6246	Roadside Safety Improvements	76	Location(s)
SAC Translab HVAC repair	3	6265	Major Damage (Permanent Restoration)	1	Location(s)
Sac Valley ITS	2	3835	Transportation Management Systems	32	Field element(s)
Sac/ED Fiber Optics	3	6248	Transportation Management (Fiber Optic Cable)	3.5	Mile(s) of cable
Sac/Placer 80 Fiber Optics	3	6713	Transportation Management (Fiber Optic Cable)	18.4	Mile(s) of cable
SAC-12 Terminus Safety	3	5963	Safety Improvements	0.9	Annual fatal and serious injury collision(s)
Sac-160 Median Buffer	3	7299	Safety Improvements	0.7	Annual fatal and serious injury collision(s)
SAC-5 Vision Zero Acceleration Lane	3	5884	Safety Improvements	0.2	Annual fatal and serious injury collision(s)
SAC-51 Outer Separation Barrier	3	6419	Safety Improvements	1.02	Annual fatal and serious injury collision(s)
Sacramento River Bridge Seismic	2	3515	Bridge Seismic Restoration	2	Bridge(s)
Sacramento Translab Building A & Building B Asbestos Abatement	3	6268	Major Damage (Emergency Restoration)	1	Location(s)
Safety Improvement 010 project	7	5153	Safety Improvements	62	Collision(s) reduced
Safety Improvement Project	4	2915C	Safety Improvements	0.2	Annual fatal and serious injury collision(s)
Safety Improvements	3	3855	Safety Improvements	125	Collision(s) reduced
	8	3025E	Safety Improvements	0.18	Annual fatal and serious injury collision(s)
Safety Improvements-Signal Modification	4	2031E	Safety Improvements	21	Collision(s) reduced
Safety Lighting - NB Off to Del Paso	3	7295	Safety Improvements	0.09	Annual fatal and serious injury collision(s)
Safety Monitoring	4	2917J	Safety Improvements	0.25	Annual fatal and serious injury collision(s)
Safety Reactive Improvement at Various Locations	3	3168	Safety Improvements	1.17	Annual fatal and serious injury collision(s)
		7207	Safety Improvements	1.17	Annual fatal and serious injury collision(s)
Safety Upgrade 105/Crenshaw On/off ramps	7	5534	Collision Severity Reduction	1	Collision(s) reduced
Sage Canyon Road slope stabilization/ Nap-128 Install RSP	4	1464C	Major Damage (Permanent Restoration)	1	Location(s)
Salinas CAPM	5	2540	Pavement Rehabilitation	54.6	Lane mile(s)
Salinas Rehab	5	2474	Pavement Preservation	17.7	Lane mile(s)
Salinas to Castroville CAPM	5	2899	Pavement Preservation (CAPM)	12.7	Lane mile(s)
Salmon Creek Bridge	1	4491	Bridge Rehabilitation	1	Bridge(s)
		4808	Bridge Rehabilitation and Replacement	1	Bridge(s)
Salmon Creek Sandblast Waste Abatement	1	4753	Bridge Rehabilitation and Replacement	0	Bridge(s)
Salsipuedes Biological Monitoring	5	1501Y	Bridge Scour	0	Bridge(s)
SALSIPUEDES CREEK BRIDGE SCOUR MITIGATION	5	1501	Bridge Scour	1	Bridge(s)
Salsipuedes Creek Slip Out	5	3157	Major Damage (Emergency Restoration)	1	Location(s)
Salt Creek Canyon	3	2694	Safety Improvements	0.37	Annual fatal and serious injury collision(s)
		2964	Safety Improvements	0.37	Annual fatal and serious injury collision(s)
Salt Creek ELB DO	2	3857	Major Damage (Emergency Opening)	2	Location(s)
Salt Creek Part 2 ELB	2	3867	Major Damage (Emergency Opening)	2	Location(s)
San Antonio Cr Seismic Retrofit	5	2567	Bridge Seismic Restoration	1	Bridge(s)
San Antonio Creek	4	1487D	Bridge Preventative Maintenance	1	Bridge(s)
San Antonio Creek Permanent Restoration	7	6133	Major Damage (Permanent Restoration)	1	Location(s)
San Antonio River bridge-seismic retrofit	5	2565	Bridge Seismic Restoration	2	Bridge(s)
San Antonio river post-construction biological monitoring	5	2565A	Bridge Seismic Restoration	0	Bridge(s)
SAN DIEGO TRASH CAPTURE DEVICES AT VARIOUS LOCATIONS	11	1501	Storm Water Mitigation	50	Acre(s) treated/pollutant
San Gabriel River Bridge Rail Upgrade and Widening	7	4983	Bridge Rehabilitation and Replacement	1	Bridge(s)
SAN JOAQUIN RIVER (GARWOOD) BRIDGE	10	3401	Bridge Rehabilitation and Replacement	1	Bridge(s)
San Jose Creek 217 Biological Monitoring	5	2386X	Bridge Rehabilitation and Replacement	0	Bridge(s)
San Jose Creek Bridge replacement	5	2649	Bridge Rehabilitation and Replacement	2	Bridge(s)
San Lorenzo River Bridge and Kings Creek Bridge Replacement	5	2655	Bridge Formula Program	2	Bridge(s)
San Lucas Rehab	5	3014	Roadway Rehabilitation (2R)	24	Lane mile(s)
San Marcos Pass HFST	5	3011	Safety Improvements	151	Collision(s) reduced
SAN MATEO BMPs	4	2021C	Storm Water Mitigation	47.6	Acre(s) treated/pollutant
San Pablo CAPM in El Cerrito	4	2031N	Pavement Preservation (CAPM)	11.2	Lane mile(s)
Santa Barbara 101 Pavement Project	5	2798	Pavement Preservation (CAPM)	56.6	Lane mile(s)
Santa Clara River	7	5204	Storm Water Mitigation	38	Acre(s) treated/pollutant
Santa Cruz 1 CAPM and Bridge Rails	5	2804	Bridge Rail Replacement/Upgrade	1525	Linear feet
			Pavement Rehabilitation	28.3	Lane mile(s)
Santa Cruz 17 Culvert Replacement	5	3223	Major Damage (Emergency Restoration)	1	Location(s)
Santa Cruz 9 Drainage Bio Monitoring Child	5	2627X	Storm Water Mitigation	0	Acre(s) treated/pollutant
Santa Cruz Bridge Rails	5	2585	Bridge Rail Replacement/Upgrade	1525	Linear feet
Santa Cruz County APS	5	2590	ADA - New Curb Ramps	136	Curb ramp(s)
Santa Cruz Route 1 CAPM	5	2725	Pavement Preservation (CAPM)	8.2	Lane mile(s)
Santa Cruz Various Storm Damage	5	3102	Major Damage (Emergency Restoration)	13	Location(s)
Santa Fe Roundabout	6	7044	Safety Improvements	0.18	Annual fatal and serious injury collision(s)
Santa Margarita 58 Bio Monitoring	5	2845X	Pavement Preservation (CAPM)	0	Lane mile(s)
Santa Margarita 58 CAPM	5	2845	Pavement Preservation (CAPM)	11.7	Lane mile(s)
Santa Margarita 58 Landscape	5	2845Y	Pavement Preservation (CAPM)	0	Lane mile(s)
Santa Maria Bridge - Bio Monitoring	5	2650X	Bridge Rehabilitation and Replacement	0	Bridge(s)
Santa Maria CAPM	5	2629	Pavement Rehabilitation	24.5	Lane mile(s)
Santa Maria River Bridge - Landscape Mitigation	5	2650Y	Bridge Rehabilitation and Replacement	0	Bridge(s)
Santa Maria River Bridge Replacement	5	2650	Bridge Formula Program	1	Bridge(s)
Santa Maria Roadside Safety Improvements Project	5	2699	Roadside Safety Improvements	66	Location(s)

**State Highway Operation and Protection Program (SHOPP)
Project Outputs**

Project Title	District	PPNO	Output	Approved Quantity	Unit
Santa Rosa Maintenance Station	4	2029H	Maintenance Facilities	1	Location(s)
Saratoga Creek Bridge 2-yr PEP	4	2914W	Bridge Rehabilitation and Replacement	0	Bridge(s)
Saratoga Creek Bridge Plant Monitoring	4	2914X	Bridge Rehabilitation and Replacement	0	Bridge(s)
Sargent Br OH- Pvt settlement	4	1453B	Major Damage (Permanent Restoration)	1	Location(s)
Sawmill UC	3	6923	Bridge Rehabilitation	1	Bridge(s)
SB 101 4B (Padaro) Landscape Planting Project	5	7102L	HOV/HOT lane-mile(s) constructed	0	Miles
			Modified/Improved interchange(s)	0	Each
			Modified/Reconstructed bridge(s)	0	Each
			Roadway Rehabilitation (3R)	0	Lane mile(s)
			Sound wall mile(s) constructed	0	Miles
SB 101 4D North Landscape Mitigation	5	2431Y	Collision Severity Reduction	0	Annual fatal and serious injury collision(s)
SB 101 4D North San Ysidro to Olive Mill	5	7101T	Auxiliary lane constructed	0.4	Miles
			Auxiliary lane(s)	0.4	Miles
			Collision Severity Reduction	22	Collision(s) reduced
			HOV/HOT mainline constructed	1.4	Miles
			Mainline shoulder(s) constructed	1.4	Miles
SB 101 4D South Three Creeks	5	7101U	Collision Severity Reduction	0.12	Annual fatal and serious injury collision(s)
			Culvert(s)	233.61	LF
			Curve and vertical alignment correction(s)	3	Each
			HOV/HOT mainline constructed	0.9	Miles
			Mainline shoulder(s) constructed	0.9	Miles
			Mixed flow mainline constructed	1.7	Miles
			New bridge(s)/tunnel(s)	20602	SQFT
			Ramp(s) and connector(s) constructed	0.1	Miles
			Ramps modification(s)	1	Each
			Shoulder widening	2	Each
SB 101 Rehab - Padaro (Segment 4B)	5	2426A	Roadway Rehabilitation	11.5	Lane mile(s)
SB 101 Rehab - Summerland (Segment 4C)	5	2426C	Roadway Rehabilitation	6.6	Lane mile(s)
SB 15/138 IC SAFETY IMPROVEMENTS	8	3010J	Safety Improvements	44	Collision(s) reduced
SB 154, 246 Storm Damage	5	3141	Major Damage (Emergency Restoration)	12	Location(s)
SB 192 PM 5.1 Soldier Pile Wall	5	3221	Major Damage (Emergency Restoration)	1	Location(s)
SB 192, 150 Storm Damage	5	3149	Major Damage (Emergency Restoration)	15	Location(s)
SB 680 REHAB - TO BE COMBINED WITH EL	4	2905J	Pavement Preservation	28.7	Lane mile(s)
SB Collapsed Culverts	5	3240	Major Damage (Emergency Restoration)	3	Location(s)
SB Cottonwood Scales	2	3611	Commercial Vehicle Enforcement Facilities & Weigh-In-Motion Scales	1	Location(s)
SB Marsh Street Improvements	5	2740	Safety Improvements	20	Collision(s) reduced
SB Various Storm Damage 1	5	3153	Major Damage (Emergency Restoration)	19	Location(s)
SB Various Storm Damage 2	5	3167	Major Damage (Emergency Restoration)	16	Location(s)
SB/SLO Horizontal Curve Signs	5	2594	Safety Enhancements	20	Collision(s) reduced
SB/SLO Rumble Strip, Delineation, Sign Project	5	3026	Safety Improvements	111	Collision(s) reduced
SB-101 Gaviota Flood and Storm Damage	5	3140	Major Damage (Emergency Restoration)	13	Location(s)
SB-62 CAPM	8	3018E	Pavement Preservation (CAPM)	24	Lane mile(s)
SBD 040 COLD PLANE AND OVERLAY	8	3020J	Safety Improvements	0.3	Annual fatal and serious injury collision(s)
SBD 062 CONSTRUCT CONCRETE/RSP APRONS	8	3005P	Major Damage (Permanent Restoration)	10	Location(s)
SBD 066 UPGRADE TO STANDARD BRIDGE RAIL	8	3007L	Bridge Rail Replacement and Upgrade	490	Linear feet rail
SBD 10 & 71 PAVEMENT DELINEATION	8	3016E	Safety Improvements	3	Collision(s) reduced
SBD 10 BRIDGE REHAB	8	3006C	Bridge Preventative Maintenance	1	Bridge(s)
SBD 10 INSTALL GORE PAVING	8	3007V	Highway Planting Restoration	13.9	Acre(s)
			Roadside Safety Improvements	18	Location(s)
SBD 10 INSTALL TMS ELEMENTS	8	3009A	Transportation Management (TMC's & Field Equipment)	26	Field element(s)
Sbd 10 PLACE SLOPE PAVING	8	3001U	Roadside Safety Improvements	30	Location(s)
SBD 10 Redlands Rehab	8	0163C	Roadway Rehabilitation (2R)	9.6	Lane mile(s)
Sbd 10 Santa Ana River Br Seismic Retrofit	8	0133N	Bridge Rehabilitation	3	Bridge(s)
SBD 10 WORKER SAFETY	8	3003F	Roadside Safety Improvements	323	Location(s)
SBD 127 NEAR BAKER PAVEMENT REHAB	8	3004C	Pavement Preservation (CAPM)	58.2	Lane mile(s)
SBD 138 CURVE REVISION E/O I-15 (HIJIA CR)	8	3019X	Safety Improvements	0.52	Annual fatal and serious injury collision(s)
SBD 138 INSTALL TRAFFIC SIGNALS - TIGER	8	3010W	Safety Improvements	10	Collision(s) reduced
SBD 138 WIDEN MEDIAN AND SHOULDERS	8	3010F	Safety Improvements	55	Collision(s) reduced
SBD 142 Chino Hills CAPM	8	0241C	Pavement Rehabilitation	14	Lane mile(s)
SBD 15 BRIDGE RAIL UPGRADE	8	3011R	Bridge Formula Program	1	Bridge(s)
SBD 15 INSTALL ELECTRIC ZEV CHARGING STATIONS	8	3007E	SHOPP - Misc	4	Location(s)
SBD 15 INSTALL MEDIAN BARRIER	8	3010L	Safety Improvements	14	Collision(s) reduced
Sbd 15 Mtn Pass Mtce Sta Emulsion tank	8	3005G	L&B Maintenance Facilities	1	Location(s)
SBD 15 PAVEMENT REHAB	8	3015J	Pavement Preservation (CAPM)	50.6	Lane mile(s)
SBD 15 PERMANENT RESTORATION OF IRRIGATION AND PLANT MATERIAL	8	3006T	Major Damage (Permanent Restoration)	1	Location(s)
SBD 15 REGRADE CENTER MEDIAN	8	3002E	Collision Severity Reduction	20	Collision(s) reduced
SBD 15 REHAB	8	3003T	Pavement Preservation	11.5	Lane mile(s)
		3003U	Roadway Rehabilitation (2R)	59.1	Lane mile(s)
SBD 15 REHABILITATE EXISTING MAINLINE AND RAMP PAVEMENT	8	3003V	Pavement Rehabilitation	64.2	Lane mile(s)
SBD 15 REPAIR EARTHEN DIKE	8	3005L	Major Damage (Permanent Restoration)	1	Location(s)
SBD 15 ROADSIDE SAFETY	8	3007J	Roadside Safety Improvements	253	Location(s)
SBD 15 Valley Wells SRRA	8	3011M	Safety Roadside Rest Area Restoration	2	Location(s)
SBD 173 CONSTRUCT SOLDIER PILE WALL	8	3006J	Major Damage (Permanent Restoration)	1	Location(s)
SBD 178 REPAIR ROADWAY DAMAGE	8	3015V	Major Damage (Emergency Opening)	5	Location(s)
SBD 178 WASHOUT	8	3026Y	Major Damage (Emergency Restoration)	1	Location(s)
SBD 18 CAPM MILL AND OVERLAY	8	3011J	Pavement Preservation (CAPM)	22.4	Lane mile(s)
SBD 18 CONSTRUCT RAISE MEDIAN IN VICTORVILLE	8	3006F	Safety Improvements	29	Collision(s) reduced
SBD 18 CULVERTS	8	0181J	Drainage System Restoration	31	Culvert(s) (ea)
Sbd 18 DRAINAGE/CULVERTS & ITS	8	3011K	SHOPP - PROTECT Program	26	Culvert(s) (ea)
SBD 18 LUCERNE VALLEY PAVEMENT REHAB	8	3015H	Pavement Preservation (CAPM)	18	Lane mile(s)
SBD 18 PAVEMENT PRESERVATION	8	3007M	Pavement Rehabilitation	37.8	Lane mile(s)
SBD 2 UPGRADE BR RAILING @ SHEEP CREEK	8	0127J	Bridge Rail Replacement/Upgrade	228	Linear feet rail
SBD 210 GAP CLOSURE PROJECT	8	3009E	Auxiliary lane mile(s) constructed	1	Miles
			ITS element(s)	1	Each
			Mixed flow lane-mile(s) constructed	11	Miles
			Modified/Reconstructed bridge(s)	9	Each
			Roadway Rehabilitation (2R)	28.3	Lane mile(s)
			Sound wall mile(s) constructed	2.1	Miles
SBD 210 INSTALL RAMP METERING SYSTEMS	8	3003X	Transportation Management (TMC's & Field Equipment)	4	Field element(s)
SBD 210 RECONSTRUCT TRAVEL LANES AND SHOULDERS	8	3020S	Safety Improvements	0.34	Annual fatal and serious injury collision(s)
SBD 210 ROADWAY REHABILITATION	8	3009F	Pavement Preservation	28.3	Lane mile(s)
SBD 210 WIDEN E/B OFF RAMP @ WATERMAN AVE OC	8	3019V	Safety Improvements	0.08	Annual fatal and serious injury collision(s)

**State Highway Operation and Protection Program (SHOPP)
Project Outputs**

Project Title	District	PPNO	Output	Approved Quantity	Unit
SBD 21 5 LANE RECONFIGURATION & PAVEMENT WIDENING	8	3010E	Safety Improvements	123	Collision(s) reduced
SBD 21 5 MT VERNON/WASHINGTON ST OC	8	3002S	Bridge Rehabilitation and Replacement	1	Bridge(s)
SBD 21 5 REPLACE JOINT ARMORS DO	8	3012R	Major Damage (Emergency Opening)	1	Location(s)
SBD 21 5, 210, 10 & RIV 10 ROADSIDE REHABILITATION	8	3017X	Roadside Rehabilitation	36.9	Acre(s)
SBD 21 5/259 INSTALL TMS FIELD ELEMENTS	8	3007S	Transportation Management (TMC's & Field Equipment)	32	Field element(s)
SBD 247 PAVEMENT AND SHOULDER WIDENING	8	3011F	Pavement Preservation (CAPM)	47.5	Lane mile(s)
SBD 247 PAVEMENT REHAB (+HIJA CS)	8	3015A	Pavement Preservation (CAPM)	12.3	Lane mile(s)
SBD 330 CITY CREEK REPLACE BRIDGE RAIL	8	0256C	Bridge Rail Replacement/Upgrade	1230	Linear feet
SBD 330 CONSTRUCT ROCKFALL BARRIER	8	3002H	Roadway Protective Betterments	2	Bridge(s)
SBD 38 DO	8	3012S	Major Damage (Emergency Opening)	7	Location(s)
SBD 38 IMPLEMENT SEDIMENT CONTROLS (planting) phase 2	8	3008W	Storm Water Mitigation	27	Acre(s) treated/pollutant
SBD 38 PAVEMENT REHAB	8	3014G	Pavement Preservation (CAPM)	5.6	Lane mile(s)
SBD 38 PAVEMENT REHAB (+HIJA CS, FIBER)	8	3014N	Pavement Preservation (CAPM)	3.8	Lane mile(s)
Sbd 38 Replace Culverts	8	0205C	Drainage System Restoration	43	Culvert(s) (ea)
SBD 39 5 MILL 0.20" AND OVERLAY 0.20" RUBBERIZED ASPHALT WITH DIGOUTS	8	3009H	Pavement Preservation (CAPM)	60.7	Lane mile(s)
SBD 40 BRIDGE SCOUR MITIGATION	8	3008K	Bridge Rehabilitation and Replacement	2	Bridge(s)
SBD 40 NEEDLES REGRADE MEDIAN	8	3003J	Safety Enhancements	192	Collision(s) reduced
SBD 40 NEEDLES REGRADE MEDIAN - MULTIPHASE A&E	8	3002W	Collision Severity Reduction	41	Collision(s) reduced
SBD 40 RECONSTRUCT CHANNEL	8	3006V	Major Damage (Permanent Restoration)	1	Location(s)
SBD 40 REGRADE MEDIAN CROSS SLOPE (NEAR ARIZONA)	8	3001R	Safety Enhancements	281	Collision(s) reduced
SBD 40 REGRADE MEDIAN CROSS SLOPE (NEAR BARSTOW)	8	3007X	Collision Severity Reduction	41	Collision(s) reduced
SBD 40 REPLACE OR REHABILITATE COLORADO RIVER BR (CMGC)	8	3001S	Bridge Rehabilitation and Replacement	1	Bridge(s)
SBD 40 REPLACE THE EXISTING WIM	8	3007N	Weight Stations & Weight-In-Motion Facilities	1	Location(s)
SBD 40 UPGRADE SAFETY ROADSIDE REST AREAS (DESERT OASIS)	8	3011X	Safety Roadside Rest Area Restoration	2	Location(s)
SBD 40 UPGRADE SRRA	8	0206L	Safety Roadside Rest Area Restoration	2	Location(s)
Sbd 60 - REPLACE PIPELINE, MONTE VISTA AND BENSON BRIDGES	8	0033E	Bridge Rehabilitation	3	Bridge(s)
SBD 60 @ RAMONA OC	8	3009R	Trans Permit Requirements for Bridges	1	Bridge(s)
SBD 60 ADD WB AUX LANE, ADD EB DECEL LANE	8	3003N	Operational Improvements	1823.7	Daily Vehicle Hour(s) of Delay (DVHD)
SBD 60 REPLACE EXISTING GUIDE SIGNS (PHASE 1)	8	0178P	Signs and Lighting Rehabilitation	79	Lighting fixture(s)
SBD 60 Replace Lanes and Slabs - [G-13]	8	0224N	Roadway Rehabilitation (2R)	94.6	Lane mile(s)
SBD 62 REPAIR WASHED OUT AREA, REPLACE DAMAGED ASPHALT	8	3013C	Major Damage (Emergency Opening)	1	Location(s)
SBD 62 ROAD REPAIR	8	3016H	Major Damage (Emergency Opening)	1	Location(s)
SBD 62 Roadway Rehabilitation	8	3004A	Pavement Rehabilitation	41.2	Lane mile(s)
SBD 62/95 ROADWAY REHABILITATION	8	3013U	Pavement Rehabilitation	89	Lane mile(s)
SBD 66 CAPM	8	3007P	Pavement Preservation (CAPM)	11.6	Lane mile(s)
SBD 66 CAPM (1G660+1F400-COMBINE)	8	3019S	Bridge Rail Replacement and Upgrade	0.23	Annual fatal and serious injury collision(s)
			Pavement Preservation (CAPM)	11.6	Lane mile(s)
SBD 71 INSTALL, CCTV, CMS, VDS & FIBER OPTIC COMM SYS	8	3009N	Transportation Management (TMC's & Field Equipment)	37	Field element(s)
SBD 71, 210, 215, 259, REPLACE EXISTING GUIDE SIGNS (PHASE 2)	8	3005A	Signs and Lighting Rehabilitation	149	Lighting fixture(s)
SBD 83 RELINQUISHMENT TO CITY OF CHINO	8	3015C	Relinquishments	6.3	Centerline mile(s)
SBD 83 SAFETY ENHANCEMENTS	8	3016A	Safety Improvements	20	Collision(s) reduced
SBD 95 PAVEMENT REHAB	8	3015T	Pavement Preservation (CAPM)	14.1	Lane mile(s)
SBD 95 Roadway Rehabilitation	8	3002V	Pavement Rehabilitation	47.8	Lane mile(s)
		3003Y	Pavement Rehabilitation	31.9	Lane mile(s)
SBD 95 SHOULDER RUMBLE STRIPS	8	3006H	Safety Improvements	67	Collision(s) reduced
SBD COUNTY CENSUS STATIONS UPGRADE	8	3014F	Transportation Management Systems	39	Field element(s)
SBD I-10 EB BARRIER INSTALL	8	3024E	Safety Improvements	0.45	Annual fatal and serious injury collision(s)
SBD INSTALL CMS VAR ROUTES	8	3012N	Transportation Management Systems	26	Field element(s)
SBD LS726 UPGRADE FACILITY	8	3001P	L&B Maintenance Facilities	1	Location(s)
SBD REPLACE CMS VAR ROUTES	8	3012P	Transportation Management Systems	42	Field element(s)
SBD RTE 40 REPLACE WOODS WASH L/R & RSP VAR	8	3017K	Bridge Formula Program	8	Bridge(s)
SBD VAR Install Changeable Message Signs (CMS)	8	3012M	Transportation Management Systems	30	Field element(s)
Sbd-142 S-Curve	8	3020M	Operational Improvements	128	Daily Vehicle Hour(s) of Delay (DVHD)
SBD-15 - REPLACE RSP FOR 5 BRIDGES (+HIJA SAFETY)	8	3016N	Bridge Scour	5	Bridge(s)
SBD-15 BRIDGE REPAIR	8	3016M	Bridge Preventative Maintenance	2	Bridge(s)
SBD-15, 40 POLYESTER CONCRETE OVERLAY	8	3019H	Bridge Preventative Maintenance	3	Bridge(s)
SBD-18 CAPM	8	3015E	Pavement Preservation (CAPM)	27.8	Lane mile(s)
SBD-18 REPAIR SLOPE/EMBANKMENT	8	3012A	Major Damage (Permanent Restoration)	1	Location(s)
SBD-18 ROCK FENCE DO	8	3016J	Major Damage (Emergency Opening)	1	Location(s)
SBD-247 CL & SHOULDER RUMBLE STRIPS	8	3006K	Safety Improvements	65	Collision(s) reduced
SBD-330 DO LINE FIRE	8	3024S	Major Damage (Emergency Restoration)	10	Location(s)
SBD-38 WASHOUT	8	3026Z	Major Damage (Emergency Restoration)	1	Location(s)
SBD-395 MEDIAN BUFFER	8	3017R	Safety Improvements	0.18	Annual fatal and serious injury collision(s)
SBD-40 Bridge Scour	8	3018U	Bridge Scour	2	Bridge(s)
SBD-40 MONSOON STORM DAMAGE DO	8	3026T	Major Damage (Emergency Restoration)	1	Location(s)
Sbt 101 Heave	5	3097	Major Damage (Emergency Opening)	1	Location(s)
SBT US101 Pavement Rehabilitation Project	5	2776	Roadway Rehabilitation (2R)	30.3	Lane mile(s)
Sbt-25 Curve Planting Mitigation	5	2697Y	Safety Improvements	0	Annual fatal and serious injury collision(s)
SCI-101-CAPM	4	2912C	Pavement Preservation (CAPM)	100.2	Lane mile(s)
SCL 101 Br. Rail Replacement/Upgrade	4	0481H	Bridge Rail Replacement and Upgrade	4259	Linear feet rail
SCL 101 Rumble Strips.	4	1483F	Safety Improvements	85	Collision(s) reduced
SCL 152 - Construct MVPs & Veg Control Under MBGR	4	1452E	Roadside Safety Improvements	56	Location(s)
SCL 152 Median Barrier	4	0480K	Safety Improvements	79	Collision(s) reduced
SCL 17 CAPM	4	1480B	Pavement Preservation (CAPM)	50	Lane mile(s)
SCL 17 RUMBLE STRIPS, LIGHTING, BEACONS & STRIPING	4	1453A	Safety Improvements	264	Collision(s) reduced
SCL 237 Aux-Lane-WB	4	1492B	Non-Capacity Increasing Operational Improvements	332	Daily Vehicle Hour(s) of Delay (DVHD)
SCL 237_Aux-Lane-EB	4	1492A	Operational Improvements	521	Daily Vehicle Hour(s) of Delay (DVHD)
SCL 280 Reconfigure NB Off-ramp to Foothill Exp.	4	1488N	Safety Improvements	20	Collision(s) reduced
SCL 680 CAPM	4	2020P	Pavement Preservation (CAPM)	76.2	Lane mile(s)
SCL 680- Gore Pavement	4	0481T	Roadside Safety Improvements	160	Location(s)
SCL 82 ADA	4	1495G	ADA - New Curb Ramps	2	Curb ramp(s)
SCL 85 & ALA 80 _ ADA	4	0434G	ADA - New Curb Ramps	38	Curb ramp(s)
SCL 9 Saratoga Bridge Project	4	0386F	Bridge Rehabilitation and Replacement	1	Bridge(s)
SCL Recycled Water Facilities	4	2020J	Roadside Rehabilitation	13	Acre(s)
SCL VAR_Accessible Ped. Signal and Countdown Timer	4	1492E	Collision Severity Reduction	13	Collision(s) reduced

State Highway Operation and Protection Program (SHOPP)
Project Outputs

Project Title	District	PPNO	Output	Approved Quantity	Unit
SCL 280, Seismic Restoration, Arasteradero RD, UC and Bird Ave. OC	4	1483K	Bridge Seismic Restoration	3	Bridge(s)
SCL VAR, Sub-Structure Rehab.	4	1482R	Bridge Preventative Maintenance	4	Bridge(s)
SCL/SM-Route 35 Horizontal Curve Safety Project	4	1462H	Safety Improvements	24	Collision(s) reduced
SCL-101-Pavement Rehabilitation (2R)	4	2915G	Roadway Rehabilitation (2R)	76.8	Lane mile(s)
SCL-152 CAPM	4	1452D	Pavement Rehabilitation	9.4	Lane mile(s)
SCL-152 Drainage Improvement and MGS	4	2020F	Drainage System Restoration	1	Culvert(s) (ea)
SCL-17-BRIDGE RAIL UPGRADE AND REPLACEMENT	4	2021L	Bridge Rail Replacement and Upgrade	1423	Linear feet rail
SCL-880 Park Ave Bridge Rail Upgrade	4	2023K	Bridge Rail Replacement and Upgrade	398	Linear feet rail
SCI-880-CAPM	4	2915J	Pavement Preservation (CAPM)	81.7	Lane mile(s)
SCL-9 Install RSP and upgrade drainage	4	1464D	Major Damage (Permanent Restoration)	1	Location(s)
SCL-SM-280 CAPM	4	0449A	Pavement Preservation (CAPM)	90	Lane mile(s)
Scofield Ave UC Seismic Retrofit CMGC	4	0086R	Bridge Seismic Restoration	2	Bridge(s)
		0086S	Bridge Seismic Restoration	0	Bridge(s)
Scott River Bridge	2	3660	Bridge Rehabilitation and Replacement	1	Bridge(s)
Scotts Corner Separation	4	2910A	Bridge Rehabilitation and Replacement	1	Bridge(s)
Scotts Creek Coastal Resiliency Project	5	3137	Bridge Rehabilitation and Replacement	1	Bridge(s)
Scour at Arroyo De La Laguna	4	0481M	Bridge Scour	1	Bridge(s)
Scour Mitigation at various locations	3	8145	Bridge Scour	4	Bridge(s)
SCR 1 Drainage Improvements	5	2926	SHOPP - PROTECT Program	16	Culvert(s) (ea)
SCR 1 PM 33 Embankment Washout	5	3159	Major Damage (Emergency Restoration)	1	Location(s)
SCR 1 Roadside Safety	5	2843	Drainage System Restoration	0	Culvert(s) (ea)
SCR 1 Roadside safety Freedom-State	5	2843A	Collision Severity Reduction	9	Collision(s) reduced
SCR 236 Hazardous Tree Removal	5	3029	Major Damage (Emergency Opening)	1	Location(s)
SCR 35 Slip Out	5	3142	Major Damage (Emergency Restoration)	1	Location(s)
SCR 9 South Drainage and Erosion Control Improvements	5	2569	Storm Water Mitigation	6.3	Acre(s) treated/pollutant
SCR 9 Upper Drainage and Erosion Control Improvements	5	2627	SHOPP - PROTECT Program	15.4	Acre(s) treated/pollutant
SCR Rts 1, 9, 17, 129 SBT 25, 156	5	3008	Safety Improvements	753	Collision(s) reduced
SCR-1 CAPM	5	2432	Pavement Rehabilitation	28.3	Lane mile(s)
SCR1 Roadside Safety PM 10.6 to 26	5	2843B	Drainage System Restoration	29	Culvert(s) (ea)
SD - UPGRADE END TREATMENTS & INSTALL SHOULDER RUMBLE STRIPS	11	1190	Safety Improvements	68	Collision(s) reduced
SD-008-L0.7/R23.0 - DRAINAGE SYSTEM RESTORATION	11	1246	Drainage System Restoration	91	Culvert(s) (ea)
SD-008-R25.1/R40.1 - REHABILITATE CULVERTS.	11	1332	Drainage System Restoration	22	Culvert(s) (ea)
SD-075-CORONADO BRIDGE SUICIDE BARRIER	11	1352	Bridge Rehabilitation and Replacement	3	Bridge(s)
SD-125 (SD-54 TO SD-94)	11	1310	Roadway Rehabilitation (2R)	11.5	Lane mile(s)
SD-15 HIGH TENSION CABLE BARRIER	11	1515	Safety Improvements	0.24	Annual fatal and serious injury collision(s)
SD-15 PAVEMENT REHAB	11	1480	Pavement Preservation (CAPM)	95.1	Lane mile(s)
SD-5 MOBILITY TMS	11	1482	Transportation Management Systems	16	Field element(s)
SD-76 CULVERT REHAB	11	1307	Drainage System Restoration	77	Culvert(s) (ea)
SD-78 CORRIDOR REHABILITATION	11	1319	Pavement Rehabilitation	0	Lane mile(s)
SD-78 DO SLOPE REPAIR	11	1460	Major Damage (Emergency Restoration)	6	Location(s)
SD-79 JAPATUL VALLEY ROAD PAVEMENT	11	1455	Pavement Preservation (CAPM)	27.7	Lane mile(s)
SD-805 DO PALOMAR STREET	11	1493	Major Damage (Emergency Restoration)	1	Location(s)
SD-94 CULVERT REHAB	11	1303	Drainage System Restoration	36	Culvert(s) (ea)
Seaside ADA	5	2648	ADA - New Curb Ramps	13	Curb ramp(s)
SECENT PILE WALL	4	2031A	Major Damage (Emergency Opening)	1	Location(s)
Secret Town Culvert Rehabilitation	3	5114	Drainage System Restoration	29	Culvert(s) (ea)
Secret Valley SRRA	2	3734	Safety Roadside Rest Area Restoration	2	Location(s)
Security Measures at Maintenance Station 1	3	6728	Maintenance Facilities	4	Location(s)
SECURITY MEASURES AT MAINTENANCE STATIONS	9	5066	Maintenance Facilities	13	Location(s)
Security Measures at Maintenance Stations 2	3	9833	Maintenance Facilities	4	Location(s)
Segment 4A Mitigation Monitoring	5	2426X	Roadway Rehabilitation (3R)	0	Lane mile(s)
Segment 4B Mitigation Monitoring	5	2427X	Roadway Rehabilitation (3R)	0	Lane mile(s)
Segment 4C Mitigation Monitoring	5	2429X	Roadway Rehabilitation (3R)	0	Lane mile(s)
Segment 4D - North EWP	5	2426W	Safety Enhancements	22	Collision(s) reduced
Seismic Restoration	4	1493A	Bridge Seismic Restoration	1	Bridge(s)
Seismic Retrofit	3	6707	Bridge Seismic Restoration	2	Bridge(s)
		7478R	Bridge Seismic Restoration	5	Bridge(s)
Seismic Retrofit of I-5/Route 2 Connector	7	5414	Bridge Seismic Restoration	1	Bridge(s)
Selma to Fowler Rehab	6	6800	Roadway Rehabilitation (2R)	33.6	Lane mile(s)
Selma to Fowler Replacement Planting	6	7037	Roadway Rehabilitation (2R)	0	Lane mile(s)
SEMITROPIC CAPM	6	3425	Pavement Preservation (CAPM)	25.5	Lane mile(s)
Sequoia Trail Slide	5	3247	Major Damage (Emergency Restoration)	1	Location(s)
SF 101 13th Street FCO	4	2908F	Collision Severity Reduction	3	Collision(s) reduced
SF Curve Warning Signs	4	2034N	Collision Severity Reduction	0.1	Annual fatal and serious injury collision(s)
SF-101 & SM-1 Baluster Rails	4	1450E	Bridge Rail Replacement and Upgrade	2249	Linear feet rail
SFOBB Bridge Fender Repair	4	2927G	Bridge Formula Program	1	Bridge(s)
Shalas CAPM	2	3706	Pavement Rehabilitation	75.5	Lane mile(s)
Shaver Lake Viaduct	6	7061	Major Damage (Permanent Restoration)	1	Location(s)
Shaver Lake Viaduct Mitigation Project	6	8148	Major Damage (Permanent Restoration)	0	Location(s)
		8151	Major Damage (Permanent Restoration)	0	Location(s)
Shaver Marina Slipout	6	7034	Major Damage (Emergency Opening)	1	Location(s)
Shaver to Huntington CAPM & Culvert Rehab	6	6754A	Drainage System Restoration	59	Culvert(s) (ea)
			Pavement Rehabilitation	40.2	Lane mile(s)
SHEEHY CRK CULVERT REHAB	4	1453K	Drainage System Restoration	4	Culvert(s) (ea)
SHEEHY CRK PLANT MITIGATION	4	2914Q	Drainage System Restoration	0	Culvert(s) (ea)
Sheephouse Creek	4	2031S	Major Damage (Permanent Restoration)	1	Location(s)
Sheet Pile Wall	4	1450H	Major Damage (Permanent Restoration)	1	Location(s)
Shepherd to Top o' the 4-Lane Rumble Strip	6	6866	Safety Improvements	26	Collision(s) reduced
Shields to Nees CAPM	6	6971	Pavement Preservation (CAPM)	24.1	Lane mile(s)
Shiloah Slide II	2	3804	Major Damage (Emergency Opening)	1	Location(s)
Shingle Station Paving and Drainage	2	3791	Pavement Preservation (CAPM)	20.7	Lane mile(s)
Shoshone Drainage	9	0653	Drainage System Restoration	2	Culvert(s) (ea)
Shoulder Widening near Willits	1	4650	Safety Improvements	8	Collision(s) reduced
SHOULDERS MITIGATION AND MONITORING	9	3715	Collision Severity Reduction	0	Annual fatal and serious injury collision(s)
Sidehill & Dog Creek Seismic Retrofit	2	3346	Bridge Seismic Restoration	2	Bridge(s)
Sidehill Viaduct Bridge (Echo Summit)	3	3304	Bridge Rehabilitation	1	Bridge(s)
SIE 49 Coyote Ravine Sinkhole	3	7813	Major Damage (Emergency Opening)	1	Location(s)
SIE 49 Depot Hill Slipout	3	7812	Major Damage (Emergency Opening)	1	Location(s)
SIE 49 Failed Retaining Wall	3	7816	Major Damage (Emergency Restoration)	1	Location(s)
SIE 49 Spring St Culvert	3	7815	Major Damage (Emergency Restoration)	1	Location(s)
SIE 89 Wildlife Xing Repair	3	8010	Major Damage (Permanent Restoration)	1	Location(s)
Signal and ADA Upgrades	10	3516	Transportation Management Systems	22	Field element(s)
Signal Modification	7	5155	Safety Improvements	17	Collision(s) reduced
Signs and Lighting Rehabilitation	7	6117	Signs and Lighting Rehabilitation	48	Sign(s)
Silverado Trail Five-Way Intersection Improvements	4	1483B	Intersection/Signal improvement(s)	1	Each
			Operational Improvements	412	Daily person hours of delay (DPHD)

**State Highway Operation and Protection Program (SHOPP)
Project Outputs**

Project Title	District	PPNO	Output	Approved Quantity	Unit
Simmerly Slough (SHOPP)	3	9812	Bridge Scour	1	Bridge(s)
Sims Crag Combine	2	3543	Bridge Rehabilitation	2	Bridge(s)
Sims Road Sinkhole	5	3032	Major Damage (Emergency Opening)	1	Location(s)
Sinkhole	7	6009	Major Damage (Emergency Restoration)	1	Location(s)
		6060	Major Damage (Emergency Restoration)	1	Location(s)
SIS 263 Bridge Repairs	2	3785	Bridge Rehabilitation and Replacement	2	Bridge(s)
SIS 96 Corridor Slides	2	3877	Major Damage (Emergency Opening)	103	Location(s)
					Location(s)
SIS 96 PM 0 to 103	2	3899	Major Damage (Emergency Restoration)	3	Location(s)
SIS 96 Wild fire repair	2	3871	Major Damage (Emergency Opening)	105	Location(s)
SIS 97 Whitney Cr Var Loc	2	3872	Major Damage (Emergency Opening)	6	Location(s)
SIS Slip-Out Repair	2	3922	Major Damage (Emergency Restoration)		Location(s)
Sis Tri Deck Rehab	2	3516	Capital Bridge Preventative Maintenance Program	9	Bridge(s)
SIS Worker Safety	2	3732	Roadside Safety Improvements	64	Location(s)
Siskiyou 5 CRZ	2	3507	Safety Enhancements	5	Collision(s) reduced
SJ & STA TMS	10	3443	Transportation Management Systems	69	Field element(s)
SJ 12 ADA	10	3254	ADA - New Curb Ramps	10	Curb ramp(s)
SJ 12 ADA UPGRADE	10	3256	ADA - New Curb Ramps	47	Curb ramp(s)
SJ 120 Median Barrier	10	3509	Safety Improvements	0.23	Annual fatal and serious injury collision(s)
SJ 26 WIDENING	10	3275	Non-Capacity Increasing Operational Improvements	34	Daily Vehicle Hour(s) of Delay (DVHD)
SJ 4 CAPM	10	3277	Pavement Preservation (CAPM)	50.8	Lane mile(s)
		3517	Pavement Preservation (CAPM)	17.4	Lane mile(s)
SJ 4/99 BRIDGE REHAB	10	3148	Trans Permit Requirements for Bridges	1	Bridge(s)
SJ 5, 99, & 120 TMS Repair	10	3631	Transportation Management Systems	25	Field element(s)
SJ 99 ADA Improvements	10	3156	ADA - New Curb Ramps	40	Curb ramp(s)
SJ 99 ROADSIDE IMPROVEMENTS	10	3407	Roadside Safety Improvements	17	Location(s)
SJ BRIDGE MAINTENANCE	10	3113	Bridge Preventative Maintenance	1	Bridge(s)
SJ Changeable Message Signs	10	3250	Transportation Management Systems	28	Field element(s)
SJ County Fencing	10	3491	Major Damage (Emergency Opening)	1	Location(s)
SJ CULVERTS	10	3140	Drainage System Restoration	10	Culvert(s) (ea)
SJ DRAINAGE PUMP PLANT UPGRADE	10	3229	Drainage System Restoration	5	Pump plant(s) (ea)
SJ I-5 BRIDGE REHAB	10	3118	Bridge Seismic Restoration	3	Bridge(s)
SJ I-5 MVP & ROADSIDE PAVING	10	3112	Roadside Safety Improvements	61	Location(s)
SJ Middle River Bridge Roadway Realignment	10	3177	Safety Improvements	62	Collision(s) reduced
SJ Route 26 Increase Bridge Vertical Clearance	10	3169	Trans Permit Requirements for Bridges	1	Bridge(s)
SJ Route 99 Bridge Girder Replacement	10	3206	Capital Bridge Preventative Maintenance Program	1	Bridge(s)
SJ SR 12 Mokelumne Bridge Repair	10	3478	Major Damage (Emergency Opening)	1	Location(s)
SJ SR 4 Pavement Resurfacing and Restoration	10	3165	Roadway Rehabilitation (2R)	4.7	Lane mile(s)
SJ SR 4 Reconstruction of Hinge 32	10	3198	Capital Bridge Preventative Maintenance Program	1	Bridge(s)
SJ SR 5 Bridge Deck Rehabilitation	10	3193	Bridge Rehabilitation	2	Bridge(s)
SJ SR4 Left-turn Channelization	10	3492	Safety Improvements	18	Collision(s) reduced
SJ/ALP 88 DRAINAGE SYSTEM	10	3141	Drainage System Restoration	39	Culvert(s) (ea)
Slab Replacement and Shoulder Resurfacing	7	5029	Pavement Rehabilitation	39.9	Lane mile(s)
SLATER FIRE	1	1143	Major Damage (Emergency Opening)	1	Location(s)
Slater Fire drainage improvement	2	3810	Major Damage (Emergency Opening)	1	Location(s)
Slauson Ave Deck Replacement	7	6023	Bridge Rehabilitation and Replacement	1	Bridge(s)
Slide Repair	1	2613	Major Damage (Emergency Restoration)	1	Location(s)
		4907	Major Damage (Emergency Restoration)	1	Location(s)
		4985	Major Damage (Emergency Restoration)	1	Location(s)
Slipouts, Landslides, and Rockfall Repairs	5	3209	Major Damage (Emergency Restoration)	4	Location(s)
SLO 1 Storm Damage Repair	5	3081	Major Damage (Emergency Opening)	3	Location(s)
SLO 101 Gore Safety Improvements	5	3039	Safety Improvements	163	Collision(s) reduced
SLO 101 N Cnty TMS	5	4022	Transportation Management (TMC's & Field Equipment)	62	Field element(s)
SLO 166 CAPM	5	3071	Pavement Preservation (CAPM)	14.1	Lane mile(s)
SLO 46 Sinkhole	5	3065	Major Damage (Emergency Opening)	1	Location(s)
SLO County Asset Bio-Monitoring Project	5	2778X	Pavement Preservation (CAPM)	0	Lane mile(s)
SLO County Asset Management Improvements	5	2778	Pavement Preservation (CAPM)	34.7	Lane mile(s)
SLO Slides and Scour	5	3162	Major Damage (Emergency Restoration)	7	Location(s)
SLO Various Storm Damage 1	5	3138	Major Damage (Emergency Restoration)	1	Location(s)
		3148	Major Damage (Emergency Restoration)	15	Location(s)
Slope Paving, Drainage Corrections	7	4913	Storm Water Mitigation	0.9	Acre(s) treated/pollutant
Slope Repair and Drainage Improvements	1	2378	Storm Water Mitigation	14.3	Acre(s) treated/pollutant
Slope Repairs and Sinkhole	5	3168	Major Damage (Emergency Restoration)	4	Location(s)
Slope/Gore paving	7	4894	Roadside Safety Improvements	111	Location(s)
SLO-Var Sinkhole and Erosion Repairs	5	3101	Major Damage (Emergency Restoration)	3	Location(s)
SM 1 - Road Realignment	4	2916Q	Major Damage (Permanent Restoration)	1	Location(s)
SM 1 Multi-asset Roadway Rehab	4	2022C	Roadway Rehabilitation (2R)	16.7	Lane mile(s)
SM 101 Bridge Deck Overlay	4	2910K	Bridge Rehabilitation and Replacement	2	Bridge(s)
SM 101 Cordilleras Crk Br Replacement	4	1483C	Bridge Rehabilitation and Replacement	1	Bridge(s)
SM 280 Culvert Rehab	4	0732J	Drainage System Restoration	99	Culvert(s) (ea)
SM 280 MITIGATION AT LOS TRANCOS CREEK	4	1498R	Bridge Seismic Restoration	0	Bridge(s)
SM 82 Bike Safety	4	2910F	Safety Improvements	0.37	Annual fatal and serious injury collision(s)
SM 82 Roadway Rehab 3R	4	1496J	Roadway Rehabilitation (3R)	15.2	Lane mile(s)
SM 84 Injection Grouting	4	1464E	Major Damage (Permanent Restoration)	1	Location(s)
SM 84 Peek A Boo Soldier Pile Wall	4	1455C	Major Damage (Permanent Restoration)	1	Location(s)
SM 84 Peek-A-Boo SPW	4	1455B	Major Damage (Permanent Restoration)	1	Location(s)
SM BMPs	4	2804M	Storm Water Mitigation	77	Acre(s) treated/pollutant
		2904B	Storm Water Mitigation	161	Acre(s) treated/pollutant
SM1 Br Seismic+Rail	4	2021J	Bridge Seismic Restoration	1	Bridge(s)
SM-1 CAPM	4	0622B	Pavement Rehabilitation	21.2	Lane mile(s)
SM-1 Pescadero Crk. Br. Rails	4	1494G	Bridge Rail Replacement and Upgrade	840	Linear feet rail
SM-1 Safety Barrier	4	2021A	Safety Improvements	13	Collision(s) reduced
SM-1 TOS	4	1452A	Transportation Management Systems	10	Field element(s)
SM-1/84, Pillarcitos/S. Gregorio RSP	4	1483M	Bridge Preventative Maintenance	3	Bridge(s)
SM-1/San Gregorio Child Project	4	2924Y	Major Damage (Permanent Restoration)	0	Location(s)
SM101 CAPM Curb Ramps Upgrade	4	1487J	Pavement Preservation (CAPM)	10.8	Lane mile(s)
SM101 Mainline Paving	4	1487S	Pavement Rehabilitation	47.8	Lane mile(s)
SM280 Gore Paving	4	0481J	Roadside Safety Improvements	51	Location(s)
SM-280 Seismic at 5 Br.s	4	1498G	Bridge Seismic Restoration	5	Bridge(s)
SM-35 CAPM	4	2032D	Pavement Preservation (CAPM)	29.1	Lane mile(s)
SM-35 Curve Safety	4	1463A	Safety Improvements	13	Collision(s) reduced
SM-82/ECR Road Rehab/Sidewalk Upgrade	4	2930X	ADA - Pedestrian Infrastructure	82	Curb ramp(s)
			Roadway Rehabilitation (3R)	15.2	Lane mile(s)

**State Highway Operation and Protection Program (SHOPP)
Project Outputs**

Project Title	District	PPNO	Output	Approved Quantity	Unit
SM-82-Pavement Preservation	4	2915H	Pavement Preservation (CAPM)	20.4	Lane mile(s)
SM-92-CAPM	4	2915D	Pavement Preservation (CAPM)	29.1	Lane mile(s)
Smith River BR/HAMBRO Off Site Mitigation	1	1148M	Bridge Rehabilitation and Replacement	0	Bridge(s)
Smith River Bridge On Site Mitigation	1	1147M	Bridge Rehabilitation and Replacement	0	Bridge(s)
Snow Storm Damage in Men and Lake County	1	4806	Major Damage (Emergency Restoration)	90	Location(s)
Soda Creek Wall	1	4747	Major Damage (Permanent Restoration)	1	Location(s)
Soda Springs Pavement Rehabilitation	3	5111	Roadway Rehabilitation (2R)	10.4	Lane mile(s)
Sol 12 3R	4	0480P	Roadway Rehabilitation	0	Lane mile(s)
Sol 12 Rehab - SEG2	4	0480X	Roadway Rehabilitation (3R)	3.6	Lane mile(s)
Sol- 80 Outer Separation	4	1459D	Safety Improvements	6	Collision(s) reduced
Sol 80 raise oc	4	0481R	Trans Permit Requirements for Bridges	6	Bridge(s)
SOL 80 Roadway Rehab CAPM	4	1494F	Pavement Preservation (CAPM)	0	Lane mile(s)
SOL BMPs	4	2026G	Storm Water Mitigation	43.6	Acre(s) treated/pollutant
SOL SR 37,80 & 780 RRFB	4	1464J	Collision Severity Reduction	8	Collision(s) reduced
Sol-12 Rehab - SEG 1	4	0480Q	Roadway Rehabilitation (3R)	4.3	Lane mile(s)
Sol-12 Rehab - SEG 3	4	0480S	Roadway Rehabilitation (3R)	1.5	Lane mile(s)
Sol-80/29 Separation	4	1452F	Trans Permit Requirements for Bridges	1	Bridge(s)
SOLANO BMPs	4	2031H	Storm Water Mitigation	43.5	Acre(s) treated/pollutant
Soldier Pile Wall	4	0482T	Major Damage (Permanent Restoration)	2	Location(s)
		1450J	Major Damage (Permanent Restoration)	1	Location(s)
		2029N	Major Damage (Emergency Opening)	1	Location(s)
Solomon Canyon Bio Monitoring	5	2667X	Collision Severity Reduction	0	Annual fatal and serious injury collision(s)
Solomon Canyon CAPM	5	2586	Pavement Rehabilitation	18.5	Lane mile(s)
Solomon Canyon Rumble Strip/Shoulder Widening	5	2667	Collision Severity Reduction	0.38	Annual fatal and serious injury collision(s)
Solstice Creek	7	4846	Drainage System Restoration	13	Culvert(s) (ea)
Somes Bar CAPM	2	3721	Pavement Preservation (CAPM)	18.8	Lane mile(s)
SON 1 CL rumble strip	4	0820H	Safety Improvements	196	Collision(s) reduced
Son 1 Culvert Rehab	4	2912P	Drainage System Restoration	166	Culvert(s) (ea)
Son 1 Culverts Rehab	4	1453J	Drainage System Restoration	23	Culvert(s) (ea)
		1462M	Drainage System Restoration	27	Culvert(s) (ea)
		1462N	Drainage System Restoration	1	Culvert(s) (ea)
Son 1 Drainage System Restoration	4	2907A	Drainage System Restoration	14	Culvert(s) (ea)
SON 116 Bridge railing systems	4	2028P	Bridge Rail Replacement and Upgrade	430	Linear feet rail
SON 116 Guerneville ADA	4	1491B	ADA - New Curb Ramps	18	Curb ramp(s)
SON 116 PM9.15 Storm Damage	4	2909N	Major Damage (Permanent Restoration)	1	Location(s)
SON 116 Slide Repair	4	1464F	Major Damage (Permanent Restoration)	1	Location(s)
SON 12 Bridge Scour Mitigation	4	0269M	Bridge Scour	2	Bridge(s)
SON 12 CAPM	4	1493M	Pavement Preservation (CAPM)	20.1	Lane mile(s)
Son 12 Shoulder Widening	4	2032G	Safety Improvements	0.1	Annual fatal and serious injury collision(s)
SON-1 CAPM	4	2033B	Pavement Preservation (CAPM)	12.6	Lane mile(s)
SON-101 Bridge rails at four locations	4	2029C	Bridge Rail Replacement and Upgrade	2345	Linear feet rail
SON-101 Culverts	4	1459C	Major Damage (Permanent Restoration)	2	Location(s)
SON-101 N OF PEPPER RD - REGRADE SLOPE	4	0481B	Major Damage (Permanent Restoration)	1	Location(s)
SON101 Slide & Washout Repair	4	1462P	Major Damage (Permanent Restoration)	1	Location(s)
SON-116/121 INTERSECTION IMPROVEMENTS	4	2031J	Operational Improvements	300	Daily Vehicle Hour(s) of Delay (DVHD)
SON-12 ADA Facilities Upgrade	4	2914B	ADA - New Curb Ramps	8	Curb ramp(s)
SON-12 CAPM	4	2905A	Pavement Preservation (CAPM)	4.9	Lane mile(s)
SON-121 Bridge railing upgrade	4	2028Q	Bridge Rail Replacement and Upgrade	274	Linear feet rail
SON-121 WIDENING, RUMBLE STRIPS, & CURVE CORRECTION	4	0738	Safety Improvements	23	Collision(s) reduced
SON-37 WIM	4	0763L	Weight Stations & Weight-In-Motion Facilities	2	Location(s)
Sonoma SR 116 CAPM	4	2910G	Pavement Preservation (CAPM)	33.7	Lane mile(s)
Sonoma SR 128 CAPM	4	2027A	Pavement Preservation (CAPM)	41.3	Lane mile(s)
SONORA JCT SHOULDERS	9	2460	Collision Severity Reduction	19	Collision(s) reduced
Souquel Creek Biological Monitoring	5	2736X	Bridge Preventative Maintenance	0	Bridge(s)
Souquel Creek Landscape Planting	5	2736Y	Bridge Preventative Maintenance	0	Bridge(s)
Souquel Creek Scour Protection	5	2736	Bridge Preventative Maintenance	1	Bridge(s)
Source Control	7	4908	Storm Water Mitigation	17.5	Acre(s) treated/pollutant
South Ave Safety	2	3744	Safety Improvements	20	Collision(s) reduced
South Coast 101 Drainage	5	2799	Drainage System Restoration	38	Culvert(s) (ea)
South Fork Eel River Bridge #04-123	1	2301	Bridge Seismic Restoration	1	Bridge(s)
South Fork Eel River Bridge Seismic	1	4627	Bridge Seismic Restoration	1	Bridge(s)
SOUTH FORK EEL SLIDE & DRAINAGE	1	4727	Major Damage (Emergency Opening)	1	Location(s)
South Fork Mine CRZ	2	3557	Safety Enhancements	3	Collision(s) reduced
SOUTH FRESNO VIADUCT POLYESTER CONCRETE OVERLAY	6	6771	Capital Bridge Preventative Maintenance Program	2	Bridge(s)
SOUTH GATEWAY DRIVE OC DECK REHAB	6	6887	Bridge Rehabilitation	1	Bridge(s)
South Lane Pine CAPM	9	0657	Pavement Rehabilitation	11.5	Lane mile(s)
South Madera Rehab	6	8002	Pavement Preservation (CAPM)	24.2	Lane mile(s)
South Market Street ADA	2	3626	ADA - Pedestrian Infrastructure	19	Curb ramp(s)
South of Salinas Access Management Project	5	3253	Safety Improvements	0.54	Annual fatal and serious injury collision(s)
South of Sugarloaf SB Tanker Spill	5	3269	Major Damage (Emergency Restoration)	1	Location(s)
South Scr 9 CAPM	5	2879	Pavement Preservation (CAPM)	14.7	Lane mile(s)
South Taff CAPM	6	6950	Roadway Rehabilitation (3R)	9.5	Lane mile(s)
South Tahoe CAPM	3	3338	Pavement Preservation (CAPM)	12.6	Lane mile(s)
South Willits Median	1	4752	Safety Improvements	0.56	Annual fatal and serious injury collision(s)
Spring Cr. PM 15 Soldier Pile Wall	5	2875	Major Damage (Permanent Restoration)	1	Location(s)
SQF Complex Emergency Work	6	7056	Major Damage (Emergency Opening)	1	Location(s)
SR 065 MODIFY TRAFFIC SIGNAL SYSTEM	6	8052	Safety Improvements	0.09	Annual fatal and serious injury collision(s)
SR 099 at PM 20.12	10	3518	Major Damage (Emergency Restoration)	1	Location(s)
SR 1 Cnty Ln Pavement Rehab	7	4696	Pavement Rehabilitation	14.1	Lane mile(s)
SR 1 Wildlife Crossing & Drainage Improvement Project	5	3019	Drainage System Restoration	12	Culvert(s) (ea)
SR -12 / PAVEMENT PRESERVATION	4	2921D	Pavement Preservation (CAPM)	16.1	Lane mile(s)
SR 120 Intersection Control Improvement.	10	3620	Safety Improvements	0.12	Annual fatal and serious injury collision(s)
SR 120 TMC UPGRADE	10	3230	Transportation Management (Fiber Optic Cable)	8.9	Mile(s) of cable
SR 120 TUO Drainage System	10	3411	Drainage System Restoration	37	Culvert(s) (ea)
SR 121 Repair Bridge Girders.	4	0086U	Capital Bridge Preventative Maintenance Program	1	Bridge(s)
SR 128 CONN CREEK BRIDGE REPLACEMENT	4	0587H	Bridge Scour	1	Bridge(s)
SR 128 Conn Creek Bridge Replacement Plant Establishment	4	0587K	Bridge Scour	0	Bridge(s)
SR 12-Boas Dr Intersection Improvements	4	2026M	Safety Improvements	9	Collision(s) reduced
SR 132 ADA Improvements	10	3241	ADA - New Curb Ramps	29	Curb ramp(s)
SR 140 BRIDGE RAIL UPGRADE	10	3299	Bridge Rehabilitation and Replacement	3	Bridge(s)
SR 152 Intersection Control Improvement	10	3598	Safety Improvements	1.12	Annual fatal and serious injury collision(s)
SR 152 Median Barrier	10	3505	Safety Improvements	58	Collision(s) reduced
SR 152 Metal Beam Upgrade	10	3740	Safety Enhancements	4	Collision(s) reduced
SR 152 Pavement and Complete Streets	5	3070	SHOPP - Complete Streets	20359.8	Bicycle and pedestrian infrastructure (linear feet)

**State Highway Operation and Protection Program (SHOPP)
Project Outputs**

Project Title	District	PPNO	Output	Approved Quantity	Unit
SR 152 Soft Median Barrier	4	2909Q	Safety Improvements	0.62	Annual fatal and serious injury collision(s)
SR 154/Foxen Canyon Road Intersection Improvements	5	3224	Safety Improvements	0.26	Annual fatal and serious injury collision(s)
SR 180 Rumble Strip Project	6	8020	Safety Improvements	1.17	Annual fatal and serious injury collision(s)
SR 205 Bridge Mtce Repair	10	3528	Capital Bridge Preventative Maintenance Program	2	Bridge(s)
SR 205 Guardrail Upgrade	10	3474	Collision Severity Reduction	7	Collision(s) reduced
SR 25/156 Roundabout	5	2746	Safety Improvements	76	Collision(s) reduced
SR 25/156 Roundabout Landscape Split	5	2746Y	Safety Improvements	0	Collision(s) reduced
SR 29 ADA Compliance	4	1496E	ADA - New Curb Ramps	19	Curb ramp(s)
SR 29 One bridge, scour measures	4	1483E	Bridge Preventative Maintenance	1	Bridge(s)
SR 29 York to 128 Split CAPM	4	1490D	Pavement Rehabilitation	15.2	Lane mile(s)
SR 32 at Meridian Road Traffic Signalization	3	2120	Safety Improvements	7	Collision(s) reduced
			Traffic signal interconnect project(s)	1	Each
SR 4 and SR 26 in Calaveras, Amador, and Alpine Co.	10	3220	Safety Improvements	24	Collision(s) reduced
SR 4 OLD RIVER BRIDGE MAINTENANCE	10	3276	Bridge Preventative Maintenance	1	Bridge(s)
SR 41 - CAPM	6	8022	Pavement Preservation (CAPM)	27.2	Lane mile(s)
SR 49 Angels Camp Complete Streets	10	3429	ADA - New Curb Ramps	26	Curb ramp(s)
SR 49 San Andreas Complete Streets	10	3435	ADA - New Curb Ramps	49	Curb ramp(s)
SR 54 PAVEMENT PRESÉRVATION	11	1188	Pavement Preservation (CAPM)	36.2	Lane mile(s)
SR 56, 0.0/2.93 PAVEMENT REHABILITATION	11	1400	Pavement Preservation (CAPM)	13	Lane mile(s)
SR 59 Intersection Control	10	3466	Safety Improvements	22	Collision(s) reduced
SR 59 Pavement Anchor Project	10	3496	Pavement Preservation (CAPM)	6.6	Lane mile(s)
SR 63 & 137 Visalia & Exeter Rumble Strip	6	6897	Safety Improvements	25	Collision(s) reduced
SR 63 (OROS) TRAFFIC SAFETY IMPROVEMENT	6	8019	Safety Improvements	21	Collision(s) reduced
SR 65 & 190 I/C ROADSIDE SAFETY IMPROVEMENTS	6	6813	Roadside Safety Improvements	98	Location(s)
SR 70 Olivehurst Ave OC Bridge Hill Repairs	3	9827	Major Damage (Emergency Opening)	1	Location(s)
SR 75 MOBILITY PROJECT	11	1204	Relinquishments	1.2	Lane mile(s)
SR 75/282- CORONADO RELINQUISHMENT	11	1304	Relinquishments	9.8	Lane mile(s)
SR 76 - PAVEMENT REHABILITATION	11	1390	Pavement Preservation (CAPM)	33	Lane mile(s)
SR 78 - PAVEMENT REHABILITATION (PM 37.2-60.0)	11	1383	Pavement Preservation (CAPM)	45.6	Lane mile(s)
SR 78 - PAVEMENT REHABILITATION (PM 33.7-37.3)	11	1382	Pavement Preservation (CAPM)	9.1	Lane mile(s)
SR 83 RELINQUISHMENT TO THE CITY OF ONTARIO	8	3011G	Relinquishments	7.1	Centerline mile(s)
SR 88 Guardrail Upgrade	10	3199	Safety Enhancements	5	Collision(s) reduced
SR 89 CAPM	3	5292	Pavement Preservation (CAPM)	17.1	Lane mile(s)
SR 99 Aux Lanes Elk Grove Blvd to Calvine	3	6930	Operational Improvements	298	Daily Vehicle Hour(s) of Delay (DVHD)
SR 99 Oswald Rd	3	8383	Safety Improvements	0.28	Annual fatal and serious injury collision(s)
SR 99 ROADSIDE SAFETY IMPROVEMENTS	10	3298	Roadside Safety Improvements	13	Location(s)
SR-079 CAPM DRAINAGE AND BRIDGE RAIL PROJECT	8	3018L	Pavement Preservation (CAPM)	27.9	Lane mile(s)
SR1/SR9 Junction Lighting Project	5	3106	Safety Improvements	0.12	Annual fatal and serious injury collision(s)
SR108 TUOLUMNE WIRE MESH	10	3137	Roadway Protective Betterments	4	Bridge(s)
SR-110 Figueroa Improvements	7	5415	Operational Improvements	691	Daily Vehicle Hour(s) of Delay (DVHD)
SR-110,118 Sign rehab, PE:PN-KY	7	5704	Signs and Lighting Rehabilitation	62	Sign(s)
SR-111 & I-8 - COLLISION REDUCTION	11	1318	Collision Severity Reduction	20.4	Collision(s) reduced
SR120 MVP & ROADSIDE PAVING	10	3120	Roadside Safety Improvements	65	Location(s)
SR120 SLOPE MODIFICATION	10	3136	Roadway Protective Betterments	1	Bridge(s)
SR125 AND SR52 BRIDGE PRESERVATION	11	1468	Bridge Preventative Maintenance	2	Bridge(s)
SR-125 PAVEMENT REHAB	11	1257	Pavement Preservation (CAPM)	49.5	Lane mile(s)
SR-125 SB CONNECTORS TO SR-11/905 & SR-11 4-LANE FREEWAY	11	1325	Mixed flow lane-mile(s) constructed	6	Miles
			New bridge(s)	1	Each
			New interchange(s)	1	Each
			Operational Improvements	809	1,000 vehicle hour(s)/yr
SR-138 ADA Palmdale	7	5185	ADA - New Curb Ramps	70	Curb ramp(s)
SR-138 CULVERTS REPAIR PROJECT	8	3018A	Drainage System Restoration	39	Culvert(s) (ea)
SR-14 2R in Palmdale	7	4887	Roadway Rehabilitation (2R)	79.9	Lane mile(s)
SR-14 HOV Re-striping Project	7	6033	Collision Severity Reduction	10.6	Annual fatal and serious injury collision(s)
SR140 Curb Ramps and Sidewalk Installation	10	3151	ADA - New Curb Ramps	8	Curb ramp(s)
SR140 MARIPOSA CAPM	10	3252	Pavement Preservation (CAPM)	23.6	Lane mile(s)
SR140 SLOPE REPAIR	10	3194	Roadway Protective Betterments	1	Location(s)
SR-15 ADA CURB RAMPS	11	1449	ADA - New Curb Ramps	30	Curb ramp(s)
SR154 Baseline/Edison Landscape Mitigation	5	2674Y	Operational Improvements	0	Daily Vehicle Hour(s) of Delay (DVHD)
SR163 BRIDGE RAIL UPGRADE (LONG LEAD SHOPP)	11	1276	Bridge Rail Replacement/Upgrade	1959	Linear feet rail
SR163 MOBILITY	11	1355	Transportation Management Systems	9	Field element(s)
SR-164 ADA	7	4982	ADA - New Curb Ramps	96	Curb ramp(s)
SR-174 Safety Improvement Project	3	4451	Safety Improvements	72	Collision(s) reduced
SR-18 CAPM	8	3018T	Pavement Preservation (CAPM)	39.7	Lane mile(s)
			Pavement Preservation (CAPM)	21.8	Lane mile(s)
SR-18 CAPM, CULVERT REPAIR, GUARDRAIL UPGRADE	8	3016F	Pavement Preservation (CAPM)	17.8	Lane mile(s)
SR205 MVP & ROADSIDE PAVING	10	3111	Roadside Safety Improvements	41	Location(s)
SR205 SMART CORRIDOR - PHASE 2	10	3146	Transportation Management Systems	21	Field element(s)
SR-210U FRONTAGE RD LYTLE CREEK BRIDGE SEISMIC RETROFIT	8	3016L	Bridge Seismic Restoration	1	Bridge(s)
SR-213 Roadway Preservation & ADA Ramps	7	5371	Pavement Preservation (CAPM)	42.9	Lane mile(s)
SR237 Corridor Minor Pavement Rehabilitation for Ped/Bike	4	2914P	Pavement Preservation (CAPM)	53.7	Lane mile(s)
SR-259 Concrete Barrier	8	3016C	Safety Improvements	1	Collision(s) reduced
SR-39 Bridge rail upgrade	7	5396	Bridge Rail Replacement and Upgrade	301	Linear feet rail
SR-39 Reopening	7	5381	Protective Betterments	1	Location(s)
SR-39 Seismic Retrofit	7	5035	Bridge Seismic Restoration	1	Bridge(s)
SR4 CULVERT REPLACEMENT	10	3488	Drainage System Restoration	31	Culvert(s) (ea)
SR-4 ITS UPDATE	10	3422	Transportation Management Systems	40	Field element(s)
SR4 MVP & ROADSIDE PAVING	10	3110	Roadside Safety Improvements	38	Location(s)
SR4 Pavement Anchor Project	10	1044	Pavement Preservation (CAPM)	63.4	Lane mile(s)
SR-4 Ramp Metering System Installation	10	3274	Transportation Management Systems	14	Field element(s)
SR-51 ARB Child Project (CP1)	3	6402A	Bridge Rehabilitation and Replacement	0	Bridge(s)
SR-51 ARB Child Project (CP2)	3	6402B	Bridge Rehabilitation and Replacement	0	Bridge(s)
SR-51 ARB Child Project (CP3)	3	6402C	Bridge Rehabilitation and Replacement	0	Bridge(s)
SR-52 DIPS PAVEMENT REHAB	11	1302	Roadway Rehabilitation (3R)	7.8	Lane mile(s)
SR-52 ROADSIDE SAFETY IMPROVEMENT	11	1219	Roadside Safety Improvements	52	Location(s)
SR-60 2R in Montebello	7	4699	Roadway Rehabilitation (2R)	78.7	Lane mile(s)
SR60 Truck Climbing/ Descending Lanes	8	0046J	Pavement Preservation (CAPM)		Lane mile(s)
			Truck climbing lane mile(s) constructed	4.5	Miles
SR-62 CAPM	8	3017Y	Pavement Preservation (CAPM)	29.9	Lane mile(s)
SR-67 DRAINAGE RESTORATION	11	1314	Drainage System Restoration	33	Culvert(s) (ea)
SR-67 PLANT ESTABLISHMENT (CHILD OF 43031)	11	1623	Drainage System Restoration	0	Culvert(s) (ea)
SR-68 Culverts Biological Monitoring Project	5	2787X	Drainage System Restoration	0	Culvert(s) (ea)
SR-72 ADA & Relinquishment	7	5158	Relinquishments	0	Centerline mile(s)
SR-75 CITY OF SD RELINQUISHMENT	11	1264	Relinquishments	4.9	Lane mile(s)

State Highway Operation and Protection Program (SHOPP)
Project Outputs

Project Title	District	PPNO	Output	Approved Quantity	Unit
SR-75 CORONADO BRIDGE-PIERS	11	1065	Bridge Rehabilitation and Replacement	1	Bridge(s)
SR-76 PLANT ESTABLISHMENT (CHILD OF 43027)	11	1626	Drainage System Restoration	0	Culvert(s) (ea)
SR-76 SHOULDER WIDENING	11	1439	Safety Improvements	0.06	Annual fatal and serious injury collision(s)
SR-78 PAVEMENT REHABILITATION	11	1162	Pavement Rehabilitation	13.1	Lane mile(s)
SR-79 NORTH - CULVERT ASSET MANAGEMENT	11	1313	Drainage System Restoration	39	Culvert(s) (ea)
SR-86 AND 81ST AVE SIGNAL	8	3018F	Safety Improvements	1.54	Annual fatal and serious injury collision(s)
SR88 Pavement Anchor Project	10	7546	Pavement Preservation (CAPM)	22.6	Lane mile(s)
SR-91 OHS & ROADSIDE	7	5370	Signs and Lighting Rehabilitation	12	Sign(s)
SR94 CULVERT REHAB & SR188 CAPM	11	1306	Drainage System Restoration	33	Culvert(s) (ea)
SR-94 PAVEMENT REHAB	11	1177	Pavement Rehabilitation	18.9	Lane mile(s)
SR-94 PLANT ESTABLISHMENT (CHILD OF 43026)	11	1625	Drainage System Restoration	0	Culvert(s) (ea)
SR-94 PLANT ESTABLISHMENT (CHILD OF 43034)	11	1622	Drainage System Restoration	0	Culvert(s) (ea)
SR-99 Grade Raise	3	6944	SHOPP - Sustainability and Miscellaneous	2.3	Centerline mile(s)
SR99 MERCED REHAB	10	3089	Roadway Rehabilitation (2R)	19.6	Lane mile(s)
SR99 STANISLAUS CAPM RAMPS	10	3088	Pavement Rehabilitation	20	Lane mile(s)
SR99/120 Interchange	10	3126A	Operational Improvements	2385	Daily Vehicle Hour(s) of Delay (DVHD)
SRL CHILLER REPLACEMENT DO	8	3024P	Major Damage (Emergency Restoration)	1	Location(s)
SSBD 18 ROAD WASHOUT REPAIR	8	3013Q	Major Damage (Emergency Opening)	9	Location(s)
St. Francis Revetment Repair	5	3176	Major Damage (Emergency Restoration)	1	Location(s)
STA 5 BRIDGE REHAB	10	3420	Bridge Rehabilitation and Replacement	20	Bridge(s)
STA 99 MVP/EXTENDED GORES/SLOPE PAVING	10	3143	Roadside Safety Improvements	40	Location(s)
STA County SR 33 Intersection Control Improvement	10	3692	Safety Improvements	0.27	Annual fatal and serious injury collision(s)
STA SR 99 Maintenance Worker Safety Improvements	10	3189	Roadside Safety Improvements	39	Location(s)
STA SR 99 Replace Bridge Deck AC Overlay	10	3192	Capital Bridge Preventative Maintenance Program	6	Bridge(s)
STA/SJ SIGNS REHAB	10	3129	Signs and Lighting Rehabilitation	23	Lighting fixture(s)
Stafford Way Intersection Safety Improvement	3	8146	Safety Improvements	0.63	Annual fatal and serious injury collision(s)
Stanislaus ADA Curb Ramp Project	10	3599	ADA - New Curb Ramps	66	Curb ramp(s)
STANISLAUS AUXILIARY LANE	10	0037	Non-Capacity Increasing Operational Improvements	110	Daily Vehicle Hour(s) of Delay (DVHD)
Stanshaw Creek and Sandy Bar	2	3622	Bridge Rehabilitation	2	Bridge(s)
State Route 180 Two-way Left Turn Channelization	6	7047	Safety Improvements	0.08	Annual fatal and serious injury collision(s)
State Route 89 Henness Pass CAPM	3	8028	Pavement Preservation (CAPM)	30.3	Lane mile(s)
Stalene 80 Rock Fall Protection	3	7926	Roadway Protective Betterments	1	Bridge(s)
STOCKTON CHANNEL VIADUCT BRIDGE REHAB	10	3133	Bridge Rehabilitation	0	Bridge(s)
Storm Damage	4	2906G	Major Damage (Permanent Restoration)	1	Location(s)
	7	5293	Major Damage (Permanent Restoration)	1	Location(s)
Storm Damage - Permanent restoration	4	1461D	Major Damage (Permanent Restoration)	1	Location(s)
		2021D	Major Damage (Permanent Restoration)	1	Location(s)
		2021F	Major Damage (Permanent Restoration)	2	Location(s)
		2022D	Major Damage (Permanent Restoration)	5	Location(s)
		2022G	SHOPP - PROTECT Program	1	Location(s)
		2022H	Major Damage (Permanent Restoration)	1	Location(s)
		2028K	Major Damage (Permanent Restoration)	1	Location(s)
		2028M	Major Damage (Permanent Restoration)	1	Location(s)
		2028N	Major Damage (Permanent Restoration)	2	Location(s)
Storm Damage Permanent Restoration	4	2021G	Major Damage (Permanent Restoration)	1	Location(s)
		2028H	Major Damage (Permanent Restoration)	1	Location(s)
		2032A	Major Damage (Permanent Restoration)	1	Location(s)
Storm Drain Repair	7	3734	Drainage System Restoration	1	Culvert(s) (ea)
STORM WATER MITIGATION	4	2020E	Storm Water Mitigation	74.1	Acre(s) treated/pollutant
		2026E	Storm Water Mitigation	52.5	Acre(s) treated/pollutant
		2030D	Storm Water Mitigation	113.1	Acre(s) treated/pollutant
		7 4420	Storm Water Mitigation	23.2	Acre(s) treated/pollutant
		5068	Storm Water Mitigation	38.7	Acre(s) treated/pollutant
		5212	Storm Water Mitigation	13.1	Acre(s) treated/pollutant
		8 3018Q	Storm Water Mitigation	162.5	Acre(s) treated/pollutant
STORM WATER MITIGATION.	4	2020D	Storm Water Mitigation	23.2	Acre(s) treated/pollutant
Storm Water Source Control	7	4977	Storm Water Mitigation	12.3	Acre(s) treated/pollutant
Stormwater Mitigation	4	1487F	Storm Water Mitigation	12.8	Acre(s) treated/pollutant
		7 5234	Storm Water Mitigation	54.5	Acre(s) treated/pollutant
		5236	Storm Water Mitigation	29	Acre(s) treated/pollutant
Stormwater Mitigation on Ven 126	7	5519	Storm Water Mitigation	39.5	Acre(s) treated/pollutant
Stormwater Mitigation on Ven 23	7	5391	Storm Water Mitigation	18.7	Acre(s) treated/pollutant
Stormwater Mitigation on Ven 33 (Seg #1)	7	5508	Storm Water Mitigation	26.4	Acre(s) treated/pollutant
Stormwater Mitigation on Ven 33 (Seg #2)	7	5523	Storm Water Mitigation	14.9	Acre(s) treated/pollutant
Stormwater Source Control	7	4815	Storm Water Mitigation	7.2	Acre(s) treated/pollutant
		5089	Storm Water Mitigation	23.8	Acre(s) treated/pollutant
STORMWATER TRASH CAPTURE	4	2904C	Storm Water Mitigation	323.3	Acre(s) treated/pollutant
Stormwater Trash Collection FCO	4	2921N	Storm Water Mitigation	40	Acre(s) treated/pollutant
		2921P	Storm Water Mitigation		Acre(s) treated/pollutant
Stratford Kings River Bridge Replacement	6	6873	Bridge Rehabilitation and Replacement	1	Bridge(s)
Stratford-Lemoore CAPM	6	6935	Pavement Preservation (CAPM)	23	Lane mile(s)
STRATFORD-LEMOORE CAPM (ENVIRONMENTAL MITIGATION)	6	8092	Pavement Preservation (CAPM)	0	Lane mile(s)
Strathern Park North LADWP FCO	7	5741	Storm Water Mitigation	178	Acre(s) treated/pollutant
Strengthen Bridge	7	4966	Trans Permit Requirements for Bridges	1	Bridge(s)
Struve Slough Sidewalk Repair	5	3241	Major Damage (Permanent Restoration)	1	Location(s)
Sugar Pine Slipout	6	7006	Major Damage (Emergency Opening)	1	Location(s)
Suisun Crk Br Scour Mitigation	4	0487R	Bridge Scour	1	Bridge(s)
SUMMER STORM DAMAGE	8	3023F	Major Damage (Emergency Restoration)	1	Location(s)
Summit OH Bridge Rails	6	6673	Bridge Rail Replacement/Upgrade	1135	Linear feet
Susan River Pavement	2	3840	Roadway Rehabilitation (3R)	13.3	Lane mile(s)
SUSTAINABILITY/CLIMATE CHANGE	4	2927B	SHOPP - Sustainability and Miscellaneous	0	Centerline mile(s)
SUT 99 2R	3	8153	Roadway Rehabilitation (2R)	19	Lane mile(s)
SUT-99 Lomo Crossing	3	8385	Safety Improvements	57	Collision(s) reduced
Sutter Bypass Widening & Rehab	3	8132	Roadway Rehabilitation	13.5	Lane mile(s)
Sutter-Yuba 20 Corridor Improvements	3	8154	Safety Improvements	0.4	Annual fatal and serious injury collision(s)
SW Trash Capture MRN - FCO	4	2804J	Storm Water Mitigation	210.4	Acre(s) treated/pollutant
SW Trash Capture SM - FCO	4	2804H	Storm Water Mitigation	161	Acre(s) treated/pollutant
Sweetbrier Deck Replacement	2	3846	Bridge Rehabilitation and Replacement	1	Bridge(s)
Taff Left Turn Channelization	6	6994	Safety Improvements	18	Collision(s) reduced
Tahoe City Dormitory Replacement	3	5297	Maintenance Facilities	1	Location(s)
Tahoe City Housing Replacement	3	5290	Maintenance Facilities	1	Location(s)
Tahoe City Rehab Loc 2	3	6257B	Safety Improvements	2	Collision(s) reduced
Tangle Blue CAPM	2	3768	Pavement Preservation (CAPM)	21.7	Lane mile(s)
TCB CAPM	7	5007	Pavement Preservation (CAPM)	60.9	Lane mile(s)
TEHACHAPI MAINTENANCE STATION RELOCATION	9	2634	Maintenance Facilities	1	Location(s)

**State Highway Operation and Protection Program (SHOPP)
Project Outputs**

Project Title	District	PPNO	Output	Approved Quantity	Unit
Tehama 32 Wall Permanent Restoration	2	3726	Major Damage (Permanent Restoration)	1	Location(s)
Tehama CRZ	2	3632	Safety Enhancements	7	Collision(s) reduced
Tehama Plumas Scour Mitigation	2	3831	Bridge Scour	2	Bridge(s)
Tejon Pass OC Bridge: Seismic Retrofit	7	5032	Bridge Seismic Restoration	1	Bridge(s)
Tejon SRRA Water & Wastewater Upgrades	6	6976	Safety Roadside Rest Area Restoration	2	Location(s)
Temecula Auxiliary Lanes	8	3013F	Operational Improvements	3556	Daily Vehicle Hour(s) of Delay (DVHD)
Temecula Lane Replacement	8	3003K	Pavement Preservation	12	Lane mile(s)
Temp River Bridge Foundations	3	6912B	Bridge Rail Replacement/Upgrade	0	Linear feet
Temp River Bridges	3	6912E	Bridge Rail Replacement/Upgrade	0	Linear feet
Thames Creek Bridge MICE	2	3861	Bridge Preventative Maintenance	1	Bridge(s)
Thompson Creek Bridge	2	3825	Bridge Rehabilitation and Replacement	1	Bridge(s)
Three Chop Road Culvert Repair	1	2592	Major Damage (Emergency Restoration)	1	Location(s)
Three HUM Bridges	1	2302	Bridge Seismic Restoration	3	Bridge(s)
Three Mile Slough Emergency	3	5874	Major Damage (Emergency Opening)	1	Location(s)
Tidy Waters	2	3637	Drainage System Restoration	5	Culvert(s) (ea)
Timbers Blvd Safety	1	1152	Safety Improvements	0.24	Annual fatal and serious injury collision(s)
Timbuctoo	3	9590	Safety Enhancements	367	Collision(s) reduced
Tipton Bridge Deck Rehab	6	6679	Bridge Rehabilitation	1	Bridge(s)
TMC Hardware Replacement	4	1464L	Transportation Management (TMC's & Field Equipment)	1	Field element(s)
TMC Rehab	3	6255	Maintenance Facilities	1	Location(s)
TMDL - 21/22	7	5001	Storm Water Mitigation	39.2	Acre(s) treated/pollutant
TMDL 18/19	7	3279	Storm Water Mitigation	25.7	Acre(s) treated/pollutant
TMDL - 18/19	7	4174	Storm Water Mitigation	17.2	Acre(s) treated/pollutant
		4722	Storm Water Mitigation	9.1	Acre(s) treated/pollutant
TMDL - 19/20	7	3923	Storm Water Mitigation	92	Acre(s) treated/pollutant
TMDL - 20/21	7	4971	Storm Water Mitigation	5	Acre(s) treated/pollutant
		4980	Storm Water Mitigation	57.7	Acre(s) treated/pollutant
		5011	Storm Water Mitigation	34.9	Acre(s) treated/pollutant
		5025	Storm Water Mitigation	39.6	Acre(s) treated/pollutant
		5027	Storm Water Mitigation	29.2	Acre(s) treated/pollutant
TMDL 21/22	7	5012	Storm Water Mitigation	53.3	Acre(s) treated/pollutant
TMDL - 21/22	7	4997	Storm Water Mitigation	79	Acre(s) treated/pollutant
TMDL Listed Pollutant Source Control	4	1464K	Storm Water Mitigation	42	Acre(s) treated/pollutant
TMDL project	7	3884	Storm Water Mitigation	33	Acre(s) treated/pollutant
TMS Detection Repair	5	2735	Transportation Management (TMC's & Field Equipment)	100	Field element(s)
	6	6923	Transportation Management (TMC's & Field Equipment)	69	Field element(s)
TMS ELEMENT IN-HOUSE FIBER OPTIC	11	1171	Transportation Management (TMC's & Field Equipment)	24	Field element(s)
TMS Element Upgrade/Repair	6	6883	Transportation Management (TMC's & Field Equipment)	20	Field element(s)
TMS Equipment Rehab	4	2095C	Transportation Management Systems	272	Field element(s)
TMS Failure	7	6295	Major Damage (Permanent Restoration)	36	Location(s)
		6296	Major Damage (Permanent Restoration)	3	Location(s)
TMS Installations	7	4830	Transportation Management Systems	156	Field element(s)
TMS on ALA-580	4	1487A	Transportation Management (TMC's & Field Equipment)	76	Field element(s)
TMS Repair Service Contract	6	6880	Transportation Management (TMC's & Field Equipment)	38	Field element(s)
TMS Replacement	4	2915E	Transportation Management Systems	164	Field element(s)
TMS SIGNAL TECHNOLOGY REPLACEMENT	4	2915F	Transportation Management Systems	148	Field element(s)
TMS/CCTV Lifecycle Replacement	4	2910J	Transportation Management Systems	369	Field element(s)
Topanga Cyn Slide Repair	7	5291	Major Damage (Permanent Restoration)	1	Location(s)
TOPAZ SLOPOUT	9	2709	Major Damage (Emergency Restoration)	1	Location(s)
Toro Creek Bio Monitoring	5	3165X	Bridge Formula Program	0	Bridge(s)
Toro Creek Biological Monitoring	5	0072C	Bridge Rehabilitation and Replacement	0	Bridge(s)
Toro Creek Bridge replacement	5	0072	Bridge Rehabilitation and Replacement	1	Bridge(s)
Toro Creek Fish Passage	5	2427F	Roadway Rehabilitation (3R)	0	Lane mile(s)
Toro Creek southbound bridge replacement	5	3165	Bridge Formula Program	1	Bridge(s)
Tower Bridge Cables	3	9429	Major Damage (Permanent Restoration)	1	Location(s)
Town of Colma FCO	4	2924S	Storm Water Mitigation	161	Acre(s) treated/pollutant
TOWNE PASS FLOOD	9	2703	Major Damage (Emergency Opening)	30	Location(s)
Toyota Barrel Curve	2	3653	Safety Improvements	12	Collision(s) reduced
TRAFFIC CALMING FOR SBD COUNTY	8	3024R	Safety Improvements	4.2	Annual fatal and serious injury collision(s)
Traffic Circle	7	4632	Safety Enhancements	59	Collision(s) reduced
Traffic Control for Palisades Fire	7	6367	Major Damage (Emergency Restoration)	1	Location(s)
		6368	Major Damage (Emergency Restoration)	1	Location(s)
Traffic Signal on 62, twenty-nine palms	8	3005K	Safety Improvements	13	Collision(s) reduced
TRANCAS CREEK BRIDGE	7	4498	Bridge Rehabilitation and Replacement	1	Bridge(s)
Trash Capture - FCO	4	2904E	Storm Water Mitigation	60	Acre(s) treated/pollutant
		2904F	Storm Water Mitigation	125	Acre(s) treated/pollutant
Trash Capture Devices	4	2916R	Storm Water Mitigation	193.5	Acre(s) treated/pollutant
		2917A	Storm Water Mitigation	177.2	Acre(s) treated/pollutant
Trash Capture FCO Pittsburg San Pablo	4	2904D	Storm Water Mitigation	5.6	Acre(s) treated/pollutant
Trash Capture install BMP	4	2907C	Storm Water Mitigation	70	Acre(s) treated/pollutant
TRASH TREATMENT IN SIGNIFICANT TRASH GENERATING AREA (STGA)	8	3001W	Storm Water Mitigation	107	Acre(s) treated/pollutant
Tree Removal	7	6298	Major Damage (Emergency Restoration)	22	Location(s)
Tree Removal & Snow Damage Repairs	1	4761	Major Damage (Emergency Opening)	1	Location(s)
TRINIDAD CAPM	1	2439	Pavement Preservation (CAPM)	76.9	Lane mile(s)
Trinity 3 Drainage	2	3586	Drainage System Restoration	44	Culvert(s) (ea)
Trinity Culverts	2	3668	Drainage System Restoration	20	Culvert(s) (ea)
Trinity Dam Pavement	2	3838	Pavement Preservation (CAPM)	13.1	Lane mile(s)
Trinity Four Bridges	2	3633	Bridge Preventative Maintenance	4	Bridge(s)
Trinity Workers Safety	2	3555	Roadside Safety Improvements	12	Location(s)
Trout Creek Biological Monitoring	5	0072E	Bridge Rehabilitation and Replacement	0	Bridge(s)
Trout Creek Bridge replacement	5	0072B	Bridge Rehabilitation	1	Bridge(s)
Truck fire on SBD 40	8	3019A	Major Damage (Emergency Opening)	1	Location(s)
Truckee Storm Damaged Pavement	3	4683	Major Damage (Emergency Restoration)	117	Location(s)
TTI SYSTEM UPGRADE	10	3286	Transportation Management (TMC's & Field Equipment)	5	Field element(s)
TUL 063 CAPM	6	8064	Pavement Preservation (CAPM)	15.5	Lane mile(s)
Tul 190 Emergency Landslide Repair	6	8035	Major Damage (Emergency Restoration)	38	Location(s)
TUL 190 PRESERVATION	6	8018	Pavement Preservation (CAPM)	40.7	Lane mile(s)
Tul 198 Culvert Rehab	6	7015	Drainage System Restoration	122	Culvert(s) (ea)
Tul 245 Culvert Rehab	6	6959	Drainage System Restoration	155	Culvert(s) (ea)

**State Highway Operation and Protection Program (SHOPP)
Project Outputs**

Project Title	District	PPNO	Output	Approved Quantity	Unit
Tul 245 Culvert Rehab Biological Mitigation	6	8149	Drainage System Restoration	0	Culvert(s) (ea)
Tul 99 Culvert Rehab	6	6967	SHOPP - PROTECT Program	27	Culvert(s) (ea)
Tul 99 Emergency Debris Removal	6	8060	Major Damage (Emergency Restoration)	3	Location(s)
TULARE AND KINGS CO WIRE THEFT RESTORATION	6	6797	Major Damage (Permanent Restoration)	296	Location(s)
Tulare City Rehab	6	6944	Roadway Rehabilitation (2R)	12	Lane mile(s)
TULARE COUNTY SECURE BRIDGE EMERGENCY PROJECT	6	7097	Major Damage (Emergency Opening)	31	Location(s)
TULARE CULVERT REPLACEMENT	6	6286	Drainage System Restoration	7	Culvert(s) (ea)
					Culvert(s) (ea)
Tulare SR 137 Rehab	6	8008	Roadway Rehabilitation (3R)	9.1	Lane mile(s)
TULARE WORKER SAFETY IMPROVEMENTS	6	6700	Roadside Safety Improvements	26	Location(s)
Tul-Fre-Mad Pumping Plant Upgrades	6	6795	Drainage System Restoration	10	Culvert(s) (ea)
Tulucay Creek Bridge Replacement	4	1493C	Bridge Rehabilitation and Replacement	1	Bridge(s)
Turney Gulch III	6	6725	Bridge Rehabilitation and Replacement	2	Bridge(s)
Tunnel Lighting	7	4903	Signs and Lighting Rehabilitation	254	Lighting fixture(s)
Tuolumne 49 Pavement Anchor Project	10	3626	Pavement Preservation (CAPM)	11.9	Lane mile(s)
Tuolumne County Slip Out	10	3459	Major Damage (Emergency Opening)	1	Location(s)
TUOLUMNE DRAINAGE RESTORATION	10	3119	Drainage System Restoration	35	Culvert(s) (ea)
TUOLUMNE RIVER TRASH CONTROL	10	3475	Storm Water Mitigation	19	Acre(s) treated/pollutant
Turnaround Snow Job DO	2	3850	Major Damage (Emergency Opening)	14	Location(s)
Turnpike Sink Hole	5	3022	Major Damage (Emergency Opening)	1	Location(s)
Twain Sinkhole	2	3750	Major Damage (Emergency Opening)	1	Location(s)
Twin Lakes CAPM	1	3132	Pavement Preservation (CAPM)	27.8	Lane mile(s)
UKIAH REHAB	1	4695	Roadway Rehabilitation (2R)	25	Lane mile(s)
Ukonom 3 Drainage	2	3601	Drainage System Restoration	21	Culvert(s) (ea)
UNION AVE & WASHINGTON ST PUMP HOUSE REPAIRS	6	8124	Major Damage (Emergency Restoration)	2	Location(s)
Union Ave to White Lane 2R Rehab	6	6681	Roadway Rehabilitation (2R)	33.3	Lane mile(s)
Union Avenue High Intensity Activated crossWalk	6	6956	Safety Improvements	6	Collision(s) reduced
Union Pacific OH Deck Rehabilitation	7	5004	Bridge Rehabilitation and Replacement	1	Bridge(s)
University-Increase Vertical Clearance	4	1452H	Trans Permit Requirements for Bridges	1	Bridge(s)
Unsheltered Encampment	7	6085	Major Damage (Emergency Restoration)	1	Location(s)
Unsheltered Encampments Central	5	3045	Major Damage (Emergency Restoration)	14	Location(s)
Unsheltered Encampments North	5	3044	Major Damage (Emergency Restoration)	18	Location(s)
Unsheltered Encampments South	5	3063	Major Damage (Emergency Restoration)	20	Location(s)
Upgrade 3rd St. Bridge Railing with Concrete Barriers	7	5485	Major Damage (Permanent Restoration)	1	Location(s)
UPGRADE ADA CURB RAMPS	8	3012E	ADA - New Curb Ramps	14	Curb ramp(s)
		3012F	ADA - New Curb Ramps	15	Curb ramp(s)
Upgrade ADA ramps and accessibility	7	5010	ADA - New Curb Ramps	64	Curb ramp(s)
Upgrade Americans with Disabilities Act Ramps & Accessibility	7	4744	ADA - New Curb Ramps	42	Curb ramp(s)
Upgrade and Install TMS on LA-14	7	5646	Transportation Management Systems	34	Field element(s)
Upgrade bridge rails of two bridges in CAL Co	10	3247	Bridge Rail Replacement and Upgrade	808	Linear feet rail
UPGRADE CURB RAMPS/SIDEWALKS CLAREMONT AVE. TO SHATTUCK AVE (ASHBY)	4	0124M	ADA - Pedestrian Infrastructure	40	Curb ramp(s)
UPGRADE CURB RAMPS/SIDEWALKS DOMINGO AVE TO MABEL ST	4	0124N	ADA - Pedestrian Infrastructure	16	Curb ramp(s)
UPGRADE CURB RAMPS/SIDEWALKS HILLER DR TO CLAREMONT AVE	4	0144A	ADA - Pedestrian Infrastructure	6	Curb ramp(s)
UPGRADE CURB RAMPS/SIDEWALKS SHATTUCK AVE. TO 7TH ST. ASHBY (17 LOC.)	4	0124L	ADA - Pedestrian Infrastructure	15	Curb ramp(s)
Upgrade Curve Warning Signs	7	4969	Collision Severity Reduction	3	Collision(s) reduced
UPGRADE EMS SIGNS	3	4291	Transportation Management (TMC's & Field Equipment)	4	Field element(s)
Upgrade MBGR	3	7778	Safety Enhancements	16	Collision(s) reduced
	7	4785	Safety Enhancements	13	Collision(s) reduced
Upgrade MBGR and End Treatment	7	5231	Safety Enhancements	16	Collision(s) reduced
Upgrade MBGR and End Treatments	7	5082	Safety Enhancements	14	Collision(s) reduced
		6034	Collision Severity Reduction	30	Collision(s) reduced
			Roadside Safety Improvements	101	Location(s)
Upgrade MBGR Sac 5-80-99 Var	3	5850	Safety Enhancements	17	Collision(s) reduced
Upgrade MBGRs	7	5046	Collision Severity Reduction	6	Collision(s) reduced
Upgrade Median Concrete Barrier & Install Freeway Safety Lighting	4	2913J	Collision Severity Reduction	6.95	Annual fatal and serious injury collision(s)
Upgrade Metal Beam Guardrail	4	0481U	Collision Severity Reduction	17	Collision(s) reduced
Upgrade Pumps	7	4910	Drainage System Restoration	9	Culvert(s) (ea)
Upgrade Ramp Metering and Widen Ramps In CC County on Route 680	4	2020X	Transportation Management Systems	6	Field element(s)
Upgrade TMS	7	4819	Transportation Management (TMC's & Field Equipment)	115	Field element(s)
		5226	Transportation Management Systems	75	Field element(s)
Upgrade TMS elements on LA-101	7	5640	Transportation Management Systems	44	Field element(s)
Upgrade Transportation Management System	7	5040	Transportation Management Systems	62	Field element(s)
UPGRADE/INSTALL CURVE WARNING SIGNS	11	1201	Safety Enhancements	3	Collision(s) reduced
UPGRADE/INSTALL CURVE WARNING SIGNS AT HORIZONTAL CURVES	11	1200	Safety Enhancements	6	Collision(s) reduced
Upper Hwy 9 CAPM	5	2880	Pavement Preservation (CAPM)	14.2	Lane mile(s)
US 101 Managed Lanes Project - Northern Segment	4	0658D	HOV/HOT lane-mile(s) constructed	28.4	Miles
US 101 Rocks Road Tree Removal	5	3219	Major Damage (Permanent Restoration)	1	Location(s)
US 50 ICM Infrastructure	3	6250	Transportation Management Systems	79	Field element(s)
US 50 MBGR Upgrade	3	3318	Safety Enhancements	3	Collision(s) reduced
US101 Median Barrier	7	4709	Collision Severity Reduction	248	Collision(s) reduced
US101 STAA Operational Improvement Project	1	2251	Operational Improvements	0	Daily Vehicle Hour(s) of Delay (DVHD)
US-101 Workers Safety in the Valley	7	5363	Roadside Safety Improvements	2.38	Annual fatal and serious injury collision(s)
Valencia Creek Improvement Project	5	3056	Drainage System Restoration	11	Culvert(s) (ea)
VALLEY OAKS INTERSECTION	10	3476	Safety Improvements	18	Collision(s) reduced
Valley Plaza Park North LADWP FCO	7	5806	Storm Water Mitigation	501.6	Acre(s) treated/pollutant
Valley Plaza Park South LADWP FCO	7	5743	Storm Water Mitigation	138.4	Acre(s) treated/pollutant
Vandalism	7	6382	Major Damage (Emergency Restoration)	1	Location(s)
Vandenberg Village Pavement Preservation Project	5	3055	Pavement Preservation (CAPM)	27.2	Lane mile(s)
Var Loc OGAC_HFST	3	6722	Safety Improvements	262	Collision(s) reduced
Various Locations Erosion Control Measures	4	1487G	Storm Water Mitigation	7.8	Acre(s) treated/pollutant
Various Rumble Strip	3	8390	Safety Improvements	1.94	Annual fatal and serious injury collision(s)
VEHICLE DETECTION, WORKER SAFETY, COMPLETE STREETS	11	1397	Transportation Management Systems	56	Field element(s)
VEN 1/34 Stormwater TMDL	7	6217	Storm Water Mitigation	22.7	Acre(s) treated/pollutant
Ven 101 Padre Juan Rehab	7	4687	Roadway Rehabilitation (2R)	21.6	Lane mile(s)
Ven 101 Source Control in Ventura	7	4813	Storm Water Mitigation	21.8	Acre(s) treated/pollutant
VEN 118 Rumble Strip (010)	7	6130	Safety Improvements	0.34	Annual fatal and serious injury collision(s)

State Highway Operation and Protection Program (SHOPP)
Project Outputs

Project Title	District	PPNO	Output	Approved Quantity	Unit
Ven 118 Weigh Station	7	5255	Commercial Vehicle Enforcement Facilities & Weigh-In-Motion Scales	2	Location(s)
VEN-1 Permanent Restoration/RSP	7	5799	Major Damage (Permanent Restoration)	1	Location(s)
VEN-1 Secant Pile Wall at Sandy Dune	7	6348	Major Damage (Permanent Restoration)	1	Location(s)
Ven101 Rehab	7	5081	Commercial Vehicle Enforcement Facilities & Weigh-In-Motion Scales	2	Location(s)
VEN-101 Storm Water TMDL	7	5690	Storm Water Mitigation	13.6	Acre(s) treated/pollutant
VEN-118 Arroyo Simi Safety Fence	7	5977	Bridge Rehabilitation and Replacement	2	Bridge(s)
Ven-118 CAPM in Moorpark	7	5432	Pavement Preservation (CAPM)	8.2	Lane mile(s)
Ven-118 CAPM, ADA	7	5620	Pavement Preservation (CAPM)	32.1	Lane mile(s)
VEN-118 Stormwater TMDL	7	6196	Storm Water Mitigation	72.1	Acre(s) treated/pollutant
VEN-126 Pavement 2R	7	6077	Pavement Preservation (CAPM)	54.2	Lane mile(s)
VEN-150 ADA Curb Ramps	7	4746	ADA - New Curb Ramps	61	Curb ramp(s)
VEN-150 CAPM	7	5014	Pavement Preservation (CAPM)	11.1	Lane mile(s)
VEN-150 Pavement CAPM	7	5975	Pavement Preservation (CAPM)	50.9	Lane mile(s)
VEN-150 Pavement Rehab and Curb Ramps	7	5353	Pavement Preservation (CAPM)	6.3	Lane mile(s)
Ven-23 CAPM, JX	7	5626	Pavement Preservation (CAPM)	12.8	Lane mile(s)
Ven-23 Drainage Near Bardsdale	7	5801	Drainage System Restoration	7	Culvert(s) (ea)
VEN-23 REHAB	7	4688	Roadway Rehabilitation (2R)	46.7	Lane mile(s)
VEN-33 CAPM	7	5619	Pavement Preservation (CAPM)	18	Lane mile(s)
VEN-33, SA Crk, Br Rehab + Fish Psg	7	4496	Bridge Scour	1	Bridge(s)
		6431	Bridge Scour	1	Bridge(s)
VENTURA BLVD ON RAMP WIDEN	7	2681	Operational Improvements	12.5	Daily Vehicle Hour(s) of Delay (DVHD)
Ventura OH Replacement	7	4972	Bridge Rehabilitation and Replacement	1	Bridge(s)
Ventura PCH CAPM	7	5018	Pavement Preservation (CAPM)	14.2	Lane mile(s)
VICTOR ONRAMP	10	3145	Non-Capacity Increasing Operational Improvements	158	Daily Vehicle Hour(s) of Delay (DVHD)
VICTORVILLE MAINTENANCE STATION UPGRADE	8	3018H	Maintenance Facilities	1	Location(s)
Vincent Thomas Bridge Deck Replacement	7	6024	Bridge Formula Program	1	Bridge(s)
Vineyard Roundabout	5	2701	Safety Improvements	14	Collision(s) reduced
Virginia Creek Shoulders	9	2639	Safety Enhancements	54	Collision(s) reduced
Visalia Mall CAPM	6	7008	Pavement Preservation (CAPM)	18.5	Lane mile(s)
VMS, Queue Detection, and Lighting	4	2916S	Safety Improvements	0.03	Annual fatal and serious injury collision(s)
VP2	2	3707	Pavement Preservation (CAPM)	27	Lane mile(s)
Waddell Bluffs 2024	5	3237	Major Damage (Emergency Restoration)	1	Location(s)
Wagon Trail Construction Capital Funding	10	3067A	Roadway Rehabilitation (3R)	2.6	Lane mile(s)
Waldo Tunnel Lighting Rehabilitation	4	2914G	Signs and Lighting Rehabilitation	759	Lighting fixture(s)
Waldorf Washout	5	3270	Major Damage (Emergency Restoration)	1	Location(s)
Walker Fire	1	4796	Major Damage (Emergency Restoration)	1	Location(s)
Walker Road Slip-out	1	4730	Major Damage (Emergency Opening)	1	Location(s)
Wamble Road Left-Turn Channelization	10	3540	Safety Improvements	0.06	Annual fatal and serious injury collision(s)
Ward Curves	2	3640	Safety Improvements	20	Collision(s) reduced
Warlow SRRA Infrastructure Upgrades	6	6882	Roadside Safety Improvements	1	Location(s)
Warning Sign Upgrades	5	2595	Safety Enhancements	18	Collision(s) reduced
Wasco Route 46 CAPM	6	6810	Pavement Rehabilitation	3.8	Lane mile(s)
Wasco SR43/46 Intersection Improvements	6	6982	Safety Improvements	26	Collision(s) reduced
Washed out slope	7	6411	Major Damage (Emergency Restoration)	1	Location(s)
Washout	7	5888	Major Damage (Emergency Restoration)	3	Location(s)
		6066	Major Damage (Emergency Restoration)	2	Location(s)
Water Board Compliance Units	4	1453D	Storm Water Mitigation	52.1	Acre(s) treated/pollutant
Waterman Gap Fish Passage	5	2880F	SHOPP - Sustainability and Miscellaneous	1	Location(s)
Wave Overhead	5	3069	Bridge Rehabilitation and Replacement	2	Bridge(s)
Weaverville Fishwalk	2	3767	Drainage System Restoration	1	Culvert(s) (ea)
Weed Blvd Pavement	2	3830	Roadway Rehabilitation (3R)	27.2	Lane mile(s)
Weed SRRA	2	3657	Roadside Safety Improvements	2	Location(s)
Weedpatch Hwy 3R Rehab	6	6803	Roadway Rehabilitation (3R)	18.2	Lane mile(s)
Weedpatch to Lake Isabella Rumble Strips	6	6924	Safety Improvements	26	Collision(s) reduced
Weitchpec Slip-Out Repair	1	2529	Major Damage (Emergency Opening)	1	Location(s)
Wellsona Planting Mitigation Project	5	2766Y	Safety Improvements	0	Annual fatal and serious injury collision(s)
Wellsona Safety Improvements	5	2766	Safety Improvements	0.22	Annual fatal and serious injury collision(s)
West Ave. Maintenance Station Upgrade	6	6973	Maintenance Facilities	1	Location(s)
WEST LONG BARN CAPM	10	0126	Pavement Rehabilitation	4	Lane mile(s)
West Red Bluff CAPM	2	3558	Pavement Rehabilitation	10.1	Lane mile(s)
West Rosedale CAPM	6	6756	Pavement Rehabilitation	12.2	Lane mile(s)
West Shingletown Shoulder Widening	2	3921	Safety Improvements	0.38	Annual fatal and serious injury collision(s)
Western ADA R/W	7	4743B	ADA - New Curb Ramps	61	Curb ramp(s)
Western Ave ADA	7	4743	ADA - New Curb Ramps	130	Curb ramp(s)
WESTLEY REST AREA	10	3144	Safety Roadside Rest Area Restoration	2	Location(s)
WESTLEY REST AREA REHAB	10	3009	Roadside Safety Improvements	2	Location(s)
Westport Repair Landslide	1	4845	Major Damage (Emergency Restoration)	1	Location(s)
Westport Slide Complex	1	4794	Major Damage (Permanent Restoration)	1	Location(s)
Wet Collisions Reduction	10	3231	Safety Improvements	264	Collision(s) reduced
Wheatland Donut Hole HMA and ADA	3	9732	Pavement Preservation (CAPM)	2.5	Lane mile(s)
Wheeler Gorge 3 Tunnels	7	6360	Bridge Formula Program	3	Bridge(s)
Wheeler Ridge CAPM	6	6985	Pavement Preservation (CAPM)	42.7	Lane mile(s)
Whiskey Creek Bridge Emergency Repair	2	3933	Bridge Formula Program	1	Bridge(s)
Whiskey Creek Deck Replacement	2	3848	Bridge Rehabilitation and Replacement	1	Bridge(s)
Whiskey Creek Rehabilitation Long Lead	2	3680	Roadway Rehabilitation	14.4	Lane mile(s)
Whitmore Maintenance Station Rehab	3	5141	Maintenance Facilities	1	Location(s)
Widen Shoulders & Install Rumble	1	2435	Safety Improvements	13	Collision(s) reduced
Widen Shoulders & Install Rumble Strips	1	4630M	Safety Improvements	0	Annual fatal and serious injury collision(s)
Wildcat Creek Fish Passage	10	3557	Bridge Rehabilitation and Replacement	1	Bridge(s)
Wildfire	7	6293	Major Damage (Emergency Restoration)	12	Location(s)
Wildfire Damages	7	6301	Major Damage (Emergency Restoration)	1	Location(s)
Wildlife Crossing Structure	2	3889	SHOPP - Sustainability and Miscellaneous	1	Location(s)
Wildlife Habitat	5	2593	Roadside Protection and Restoration	1	Location(s)
Willow Creek Charging Station	1	2462	SHOPP - Misc	1	Location(s)
Willow Creek Widen & Rumble	1	2426	Safety Improvements	118	Collision(s) reduced
Willow Creek Widen & Rumble Mitigation	1	2426M	Safety Improvements	0	Collision(s) reduced
Willow Slough Replacement	3	6936	Bridge Rehabilitation and Replacement	2	Bridge(s)
Willows CAPM	3	3918	Pavement Preservation (CAPM)	5.5	Lane mile(s)
Willows SRRA	3	3710	Roadside Safety Improvements	2	Location(s)
Wilson Creek Restoration & SPGA Wall	1	1138	Major Damage (Permanent Restoration)	1	Location(s)
Winter 2021 Debris and Tree Removal	3	5154	Major Damage (Emergency Opening)	152	Location(s)
Wire Theft	7	6084	Major Damage (Emergency Restoration)	1	Location(s)
Witter Springs Safety Combined	1	3133	Bridge Rehabilitation	1	Bridge(s)
			Safety Improvements	14	Collision(s) reduced
Wolf Creek Pavement	2	3775	Pavement Preservation (CAPM)	12.6	Lane mile(s)

State Highway Operation and Protection Program (SHOPP)
Project Outputs

Project Title	District	PPNO	Output	Approved Quantity	Unit
Woodlake Bridge Replacement	6	6787	Bridge Rehabilitation	2	Bridge(s)
Woodland 16 Pavement Rehab	3	8678	Roadway Rehabilitation (3R)	5.6	Lane mile(s)
Workers Safety	7	5214	Roadside Safety Improvements	29	Location(s)
Warley Ranch Curve Improvement	2	3609	Safety Improvements	16	Collision(s) reduced
WRONG WAY PAVEMENT MARKERS	4	29145	Safety Improvements	0.27	Annual fatal and serious injury collision(s)
YOL & SAC Trash BMP Project (IIJA)	3	8788	Storm Water Mitigation	184	Acre(s) treated/pollutant
YOL 128 Slipouts	3	9307	Major Damage (Emergency Restoration)	2	Location(s)
Yol Curb Ramp Upgrades	3	5833	ADA - New Curb Ramps	23	Curb ramp(s)
Yol-16 Vision Zero Shoulder Widening	3	8679	Safety Improvements	0.57	Annual fatal and serious injury collision(s)
Yol-275 Tower Br Fender Replc	3	9427	Bridge Rehabilitation	1	Bridge(s)
YOL-84 Rehab Pavement	3	9058	Major Damage (Permanent Restoration)	1	Location(s)
Yolo 16/505 Debris Cleanup	3	8669	Major Damage (Emergency Opening)	4	Location(s)
Yolo Pavement Rehab	3	8784	Roadway Rehabilitation (3R)	48.1	Lane mile(s)
Yreka Maintenance Station Shop	2	3644	Equipment Facilities	1	Location(s)
Yreka Rehab	2	3643	Roadway Rehabilitation (3R)	11.2	Lane mile(s)
Ytias Creek Slipout	5	3249	Major Damage (Emergency Restoration)	1	Location(s)
YUB 49 Culvert Repair	3	9684	Major Damage (Emergency Opening)	1	Location(s)
YUB 65 CAPM & Drainage	3	9733	Pavement Preservation (CAPM)	21.5	Lane mile(s)
YUB 70 Bridge Widening and Rail Replc	3	9822	Bridge Rail Replacement/Upgrade	808	Linear feet rail
YUB 70 Median Barrier	3	9821	Safety Enhancements	3	Collision(s) reduced
Yuba 70 Eucalyptus Tree Removal and Fencing	3	9835	Major Damage (Emergency Restoration)	5	Location(s)
Yuba 70 Laurellen to Butte County Line SHOPP & STIP Combine (SEG 4&5)	3	9830	Passing lane mile(s) constructed	19.2	Miles
			Safety Improvements	80	Collision(s) reduced
Yuba 70 Safety Segment 4 & 5 SHOPP	3	9819	Safety Improvements		Collision(s) reduced
Yuba Pass SOH Bridge Replacement	3	4305	Bridge Formula Program	2	Bridge(s)
Yuba River Washouts	3	7809	Major Damage (Permanent Restoration)	4	Location(s)
YUB-SUT Campfire Debris Removal Pavement Damage Restoration	3	9828	Major Damage (Permanent Restoration)	4	Location(s)
Zaca Station to Orcutt Drainage Rehab	5	2918	SHOPP - PROTECT Program	13	Culvert(s) (ea)
Zaca Station to Orcutt Drainage Rehab Biological Monitoring	5	2918X	Drainage System Restoration	0	Culvert(s) (ea)
ZEV project	5	2705	SHOPP - Misc	3	Location(s)