The following items are the Rail Crossings and Engineering Branch’s (RCEB) accomplishments in 2017.

**Hiring**

2017 Accomplishments: RCEB acquired a new Utilities Engineer (UE) to work in the San Francisco Office to fill a vacant position.

**Rail Safety and Security Information Management System (RSSIMS)**

2017 Accomplishments: RCEB selected a vendor for the Rail Safety and Security Information Management System (RSSIMS) bulk update assessment. This vendor assessed the database and provided options to modify it to support the addition of bulk update features. RCEB, in conjunction with the Office of Rail Safety (ORS), is reviewing the assessment and modifications recommended.

**STOP / YIELD Signs Contract**

The CPUC is the lead agency for coordinating the installation of STOP and YIELD signs at passive crossings in California as noted in the California Manual on Uniform Traffic Control Devices. The determination of whether to install a STOP or a YIELD sign is a safety critical decision dependent upon a number of specific factors. Passive crossings are those in which there are no active warning devices such as gates and signals. In September 2016, the CPUC hired a contractor to work on the first phase of the project, which involves inventory review, database update and cleanup, and a sightline analysis for the passive crossings.

2017 Accomplishments: The first phase is approximately 80% complete and should be completed in early 2018.

**Inventory Contract Phase 1**

The Section 130 Program allows for a percentage of the funds for the CPUC to use in database and inventory efforts in support of furthering better analysis for the Section 130 Program. RCEB selected a contractor to conduct field inventory of 1,556 active crossing locations in 2016, and entering the corresponding data into RSSIMS. The CPUC still needs to inventory approximately 4,000 crossings. RCEB plans to separate the project into three or four phases, depending on actual costs and available budget over the next five years.

2017 Accomplishments: The phase I active inventory project was completed in August 2017.

**Railroad Preemption**

On October 1, 2010, as the result of National Transportation Safety Board’s recommendations regarding preempted highway-rail crossings, the FRA issued Safety Advisory SA-2010-02, which states in part “… that States, local highway authorities, and railroads conduct comprehensive periodic joint inspections of highway traffic signal preemption interconnections and use information obtained from any railroad and highway traffic signal recording devices during those inspections.” RCEB plans to develop a statewide railroad preemption program and notify all local highway authorities that they should conduct joint inspections with the railroads of all their highway traffic signal preemption interconnections and to correct all deficiencies found as a result of those inspections.

2017 Accomplishments: RCEB developed guidelines for state and local agencies to refer to when designing and implementing railroad preemption systems. In 2017, RCEB met with the Caltrans to continue discussions on the preemption guidelines. Caltrans staff agrees with the RCEB preemption directive. However, Caltrans is still working on the design elements to comply with the directive. After RCEB finalizes its preemption guidelines, it will post the guidelines on the CPUC website for the local highway authorities to review and use when considering preemption.
General Order (GO) 145

GO 145 explains the process in which vehicles may become exempt from the mandatory stop requirement at crossings of Section 22454 of the Vehicle Code. It also provides the criteria that must exist at a particular crossing in order for the crossing to be considered exempt. GO 145, Section 4.5 requires that the CPUC publish a list of exempt crossings and update the list annually. The list shall be provided to each railroad corporation, passenger and stage corporation, and some petroleum carriers.

2017 Accomplishments: RCEB checked about 550 of the exempt crossings. Of those staff verified, 30 crossings remained exempt with the majority closed. RCEB still needs to verify about 250 crossings.

Emergency Notification System (ENS)

All railroads were required to post ENS signs at all their at-grade crossings by September 1, 2015 (California Manual of Uniform Traffic Control Devices, 2014 Edition, Section 8B.18 and 49 CFR §234.317). Title 49, §234.317 requires that if the dispatching railroad and the maintaining railroad(s) are not the same entity, the dispatching railroad for a highway-rail or pathway grade crossing shall provide to the maintaining railroad the telephone number that is to be displayed on the ENS sign. RCEB is involved in an effort to determine the railroad, which will include some transit systems, that is responsible for the ENS sign at crossings in a shared rail corridor. Once RCEB determines the responsible railroads, the data will be included in the RSSIMS database. In 2016, RCEB prepared and provided lists to UPRR and BNSF of potential shared corridor crossings in which they operate.

2017 Accomplishments: RCEB met with UPRR and BNSF to discuss the lists and resolve which railroad was responsible for the ENS signs on their shared corridor crossings.

Proceedings

1. Mid-Coast Light Rail Transit Extension

In January 2017, the San Diego Association of Governments (SANDAG) submitted five Applications (A.17-01-005, A.17-01-006, A.17-01-007, A.17-01-008 and A.17-01-009) to construct a total of 35 proposed grade-separated rail crossings as part of the Mid-Coast Light Rail Transit Extension project on the San Diego Trolley system. RCEB filed protests against four of the Applications due to potential safety concerns regarding at-grade pedestrian crossings within nine of the proposed stations.

2017 Accomplishments: During 2017, RCEB participated in the proceeding through filings and testimony, and continued to discuss the design with SANDAG.

2. Park Boulevard

The City of San Diego (City) filed Application A.14-12-003 in December 2014 requesting authorization of design plans for the proposed Park Boulevard railroad crossing adjacent to the downtown Petco Baseball Stadium. The CPUC approved the design plans in 2015. The City of San Diego and San Diego Padres subsequently submitted filings requesting further design changes. RCEB identified safety concerns regarding some of the new proposed design changes. The assigned Administrative Law Judge (ALJ) directed the parties to meet and confer to collaborate on the underlying safety concerns and potential solutions. During 2016, the parties met and conferred.

2017 Accomplishments: In early 2017, RCEB filed comments stating agreement with the general concept that resulted from 2016 discussions, but raised concerns that the City did not provide plans showing the actual proposed changes. As a result, the ALJ issued a Proposed Decision, which would authorize the crossing, subject to a further filing of the final design plans.
3. Application A.17-03-005: Construction of Third Track at the Rosecrans / Marquardt Crossing

2017 Accomplishments: RCEB protested A.17-03-005 because the addition of a third track at the crossing will increase the potential for vehicular and pedestrian rail related accidents at the crossing. The FRA ranks the crossing as one of the most unsafe crossings in the country. The proceedings should be completed in 2018.


In 2017, the Union Pacific Railroad Company (UPRR) filed Application A.17-10-009 to request CPUC approval to alter, close, or relocate the existing Highway 32A crossing in Yolo County. Due to the curvature of the roadway at the crossing, there have been several accidents at the crossing over the years. In addition, there have also been several non-related train accidents at the crossing due to motorists not being able to negotiate the curvature of the roadway there. RCEB supports the application and will work with stakeholders to alter, close, or to find an alternative for people to access the surrounding area near the crossing.

Routine Work 2017

1. Formal Applications: RCEB receives, reviews, and processes approximately 20 formal applications a year. Normally, local highway agencies submit these applications to the CPUC for approval to construct new at-grade or grade-separated crossings. From January to October 2017, RCEB staff received notice of 25 new formal applications. RCEB staff also continued the processing of nine applications from 2016. In 2017, RCEB closed seven proceedings. RCEB also filed protests against five of the formal applications.

2. Environmental Impact Report Reviews: California has a statutory requirement that planning of future developments is subject to public review under The California Environments Review Act. RCEB reviews the EIRs to identify impacts to rail crossings and corridors during development. In cases where the proposed projects affect highway-rail crossings, RCEB will notify the agency that prepared the EIR of its concerns. The process of reviewing the EIRs has produced positive results; agencies that have projects that may affect the safety of highway-rail crossings have implemented measures to enhance the safety of those crossings. From January to October 2017, RCEB completed approximately 270 reviews and issued five notifications.

3. Rail Crossing Accidents: From January to October 2017, RCEB received 147 incident reports from railroads and light rail transit systems. RCEB staff reviewed and closed 49 of the incidents and continues to review the remaining 98 incidents.

4. General Order (GO) 88-B requests: GO 88-B applications are requests to modify existing highway-rail crossings. RCEB staff has the authority to approve GO 88-B applications. For each application, RCEB staff must review the application and participate in a diagnostic review of the application crossing. From January to October 2017, RCEB received 77 new GO 88-B applications. Staff reviewed and granted 73 applications.

5. Operation Lifesaver: Operation Lifesaver is a non-profit organization dedicated to promoting rail safety education in an effort at reducing and eliminating accidents and incidents at highway railroad grade crossings and railroad right of ways. In 2017, RCEB staff volunteered and participated at 19 Operation Lifesaver events. The 19 events included eight events that resulted in 17 rail safety presentations to about 450 students and adults. RCEB also participated in eight special events (fairs and community gatherings). At the events, staff operated booths and shared the rail safety message with about 1,800 people. RCEB staff also participated in two Operation Lifesaver meetings and responded to a data request from the California Department of Motor Vehicles.
New Procedures

Senate Bill 215

In 2016, the Governor signed into effect Senate Bill (SB) 215. In part, SB 215 requires that all formal applications submitted to the CPUC after January 1, 2017, must be assigned to an Administrative Law Judge and Commissioner. As a result, RCEB no longer is responsible for preparing the draft decisions for each rail crossing related application. RCEB still reviews the applications and as such becomes a party to each rail crossing application filed with the CPUC. The new process does not impact the judgement of RCEB and its ability to protest applications it does not support.

Routine Work

Section 130 Program

The CPUC and Caltrans jointly administer the railroad-highway grade crossing improvement program, more commonly known as the Section 130 Program. California receives about $16 million from the federal government each year to improve crossings. At the CPUC, RCEB identifies project locations, determines eligibility for funding and respective ranking of Section 130 project crossings, conducts diagnostic meetings, develops the scope of work and submits projects for funding to Caltrans. Caltrans administers the federal funding and contracts with local agencies and railroads to implement the project scopes of work. After projects are contracted, CPUC and Caltrans jointly coordinate on project implementation with the involved agencies.

2017 Accomplishments: RCEB developed and delivered 21 new project packages to Caltrans for funding of crossing safety improvements worth $37.8 million.

Section 190 Program

The State of California established the Section 190 Program to help local agencies with funding of grade separation projects. It allocates $15 million of dedicated annual state funding to assist local agencies in developing projects to grade separate crossings to accomplish local safety and transportation goals. The process involves a formal CPUC proceeding where local agencies nominate projects to receive funding. RCEB evaluates a nominated project using a formula the CPUC developed. After RCEB ranks the projects in priority order, local agencies may request the funds as their projects are ready for implementation. While the program has limited funding, it does provide some assistance to highway agencies to partially pay for their grade separation projects. RCEB works on the Section 190 Program on an annual basis. For fiscal years 2016 and 2017, the CPUC received 38 nominations.

Crossing Maintenance Program

In 1965, the California State Legislature established the Grade Crossing Protection Maintenance Fund to pay to the railroads the local roadway authority’s (city or county) share of the cost of maintaining automatic warning devices at highway-rail crossings that the railroad installed or upgraded after October 1, 1965. The CPUC verifies the claims and forwards the valid claims to Caltrans for payment. The California Transportation Commission (CTC) pays the claims in the Caltrans budget. The CPUC recommended that the CTC allocate approximately $3.75 million to the maintenance fund in fiscal year 2018-2019.

Crossing Inventory

The CPUC is the state agency responsible for the State rail crossing inventory data. The data on specific crossings is not complete, and although the CPUC has made significant strides in improving the data in recent years, there is a significant need for RCEB to continue its inspections of crossing inventory. California has
approximately 12,500 public and private rail and rail transit crossings. RCEB staff enters the updated crossing information into RSSIMS.

National Committee on Uniform Traffic Control Devices

RCEB has developed a strong relationship with the Federal Highway Administration (FHWA) through both our joint administration (with Caltrans) of the Section 130 program, as well as participation in the National Committee on Uniform Traffic Control Devices (NCUTCD) highway-rail committee. Two RCEB staff members are voting members of the NCUTCD. RCEB participates by attending the meetings and analyzing proposed changes, offering comments, identifying unintended consequences, proposing further changes, participating in committee exchanges on technical matters and ultimately voting on proposed changes. The participation is mutually beneficial to both FHWA and the State of California.