

## Barnes, Juliana (FRA)

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**From:** Malone, Desiree@HSR <Desiree.Malone@hsr.ca.gov>  
**Sent:** Thursday, December 29, 2016 2:10 PM  
**To:** Barnes, Juliana (FRA)  
**Cc:** mlrule@transystems.com; Everett, Lynn (FRA); Giovinazzi, Giles@DOT; Gilliland, Barbara@HSR; Malone, Desiree@HSR  
**Subject:** Q4-16 Deliverables - Email 2 of 3  
**Attachments:** AWP FY 16.pdf; PMP 2016 Annual Update.pdf; Q4-16 Deliverables Transmittal 2.doc  
**Categories:** CHSRA

Hi Juliana,

As stated in the email 1 of 3 - the sum of the Q4 deliverables are too large to send in one email; therefore, I'm spreading them over 3 emails. Each email will have a separate transmittal form for the included deliverables.

This second of 3 emails includes:

- Q4-16 Deliverables Transmittal 2
- 2016 Annual Work Plan
- 2016 Program Management Plan

If you have any questions, or something fails to open for you, please let me know.

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**CALIFORNIA**  
High-Speed Rail Authority

# *Annual Work Plan FY16/17*

*October 2016*





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## Background

Established in 1996, the California High-Speed Rail Authority (Authority) is the state department responsible for planning, constructing and operating the 520-mile-long high-speed rail system in California connecting San Francisco to Los Angeles/Anaheim. The high-speed rail system is ultimately envisioned to extend to Sacramento and to San Diego.

The Authority is governed by a nine-member Board of Directors (five appointed by the Governor, two appointed by the Senate Committee on Rules, and two by the Speaker of the Assembly). There are elected Chair and Vice-Chair positions within the Board of Directors. The Authority is led by the Chief Executive Officer (CEO) who reports to the Board of Directors. The CEO works with the Board on the program's direction and a broad range of issues regarding the ongoing program, establishing program policies and goals, certifying environmental documents, and entering into agreements.

## Introduction

This document is the Authority's Annual Work Plan (AWP). The AWP is prepared annually for the Federal Railroad Administration and submitted in compliance with the federal American Recovery and Reinvestment Act of 2009 (ARRA) and Fiscal Year 10 (FY 10) grant agreements. The AWP is a requirement within Task 5 of Attachment 3, Statement of Work for the ARRA and FY 10 agreements.

The Authority receives federal funding through the two grants identified above. These funds contribute to the completion of environmental documentation and preliminary engineering for the Phase 1 system from San Francisco to Los Angeles/Anaheim, and construction of the First Construction Section (FCS) generally from Madera to Shafter as shown in Figure 1. The two grants fund activities that are broken out by tasks within the grant in Attachment 3, Statement of Work. The tasks include:

- Task 1: Environmental Review (San Francisco – Los Angeles/Anaheim)
- Task 2: Preliminary Engineering (San Francisco – Los Angeles/Anaheim)
- Task 3: Other Related Work Needed Prior to Construction
- Task 4: Project Administration and Statewide Cost Allocation Plan (SWCAP) (*now complete*)
- Task 5: Program, Project and FCS Construction Management
- Task 6: Real Property Acquisition and Environmental Mitigation
- Task 7: Early Work Program (*closed*)
- Task 8: Final Design and Construction Contract Work for the FCS
- Task 9: Interim Use Project Reserve
- Task 10: Unallocated Contingency

The ten tasks are broken down into sub-tasks as defined in the Task and Sub-Task Descriptions in Appendix A – Grant Tasks and Sub-Tasks. The AWP outlines the work necessary to establish and manage project control systems to maintain, manage, and monitor project schedule, budget, documentation, procurement and tracking of deliverables so that implementation of the project stays on schedule and within budget.



Figure 1 - Phase 1 and First Construction Section



This AWP provides a programmatic overview followed by a summary of specific activities related to each grant task as outlined in Attachment 3, Statement of Work, and highlights planned milestones and key activities in fiscal year July 1, 2016 to June 30, 2017 (FY16/17).

## Staffing

The Authority's Board of Directors (Board) and Executive Management recognize the importance of a strong management structure and proper staffing to ensure the successful delivery of the high-speed rail program. The organizational model includes: Monitoring by multiple external agencies and federal grant funded oversight; an active Board of Directors to set policy and make environmental, contracting and financial decisions; a senior Executive management team with extensive project development experience; interagency support for many standard state administrative functions; and reliance on the private sector to deliver the project under contracts negotiated and managed by government employees and legal counsel.

The Authority Board sets direction and governs the organization through broad policies and objectives that outline the Authority's Business Plan. In addition to selecting the Chief Executive Officer (CEO), the board provides direct oversight of two key functions – internal audit and risk management.

The CEO has established an organization that provides direction and oversight for all aspects of developing and implementing the high-speed rail system. The Executive management team includes the CEO, chief counsel, chief financial officer, chief program manager and other senior management. Several key positions are specifically called out in statute [Section 185024 Public Utilities Code]. The staffing plan utilizes an integrated approach wherein the organization consists of both state employees and consultant staff from its rail delivery partner hired in 2015 and financial advisor hired in 2016.

The executive leadership team spans all functional areas to ensure consistency throughout the program, and has experienced staff at the regional level to enhance outreach and service delivery within local communities. It is responsible for selecting senior management staff, establishing management plans, identifying and monitoring risks, overseeing budgetary requirements and other organizational processes. Figure 2 - Authority Management Team shows the key leadership positions, these include:

- Chief Executive Officer
- Chief Deputy Director
- Chief Administrative Officer
- Chief Counsel
- Chief of Communications
- Chief Financial Officer
- Chief Program Manager
- Regional Directors (Northern California, Central Valley, and Southern California)

The executive leadership and senior management staff oversee the architectural and engineering design professionals and the construction design-build teams including:

- Regional Consultants (RCs) – Environmental documentation and preliminary engineering deliverables

- Environmental and Engineering Consultants (EECs) – Environmental assessment, mitigation monitoring and engineering support after completion of environmental documents
- Right-of-Way (ROW) Consultants – Technical staff to support appraisal and acquisition of property
- Project and Construction Management (PCM) Consultants – Oversee the delivery of each construction package
- Design and Construction Contractors – Complete a civil construction package
- Operations and Maintenance – System operator to manage and maintain the system.

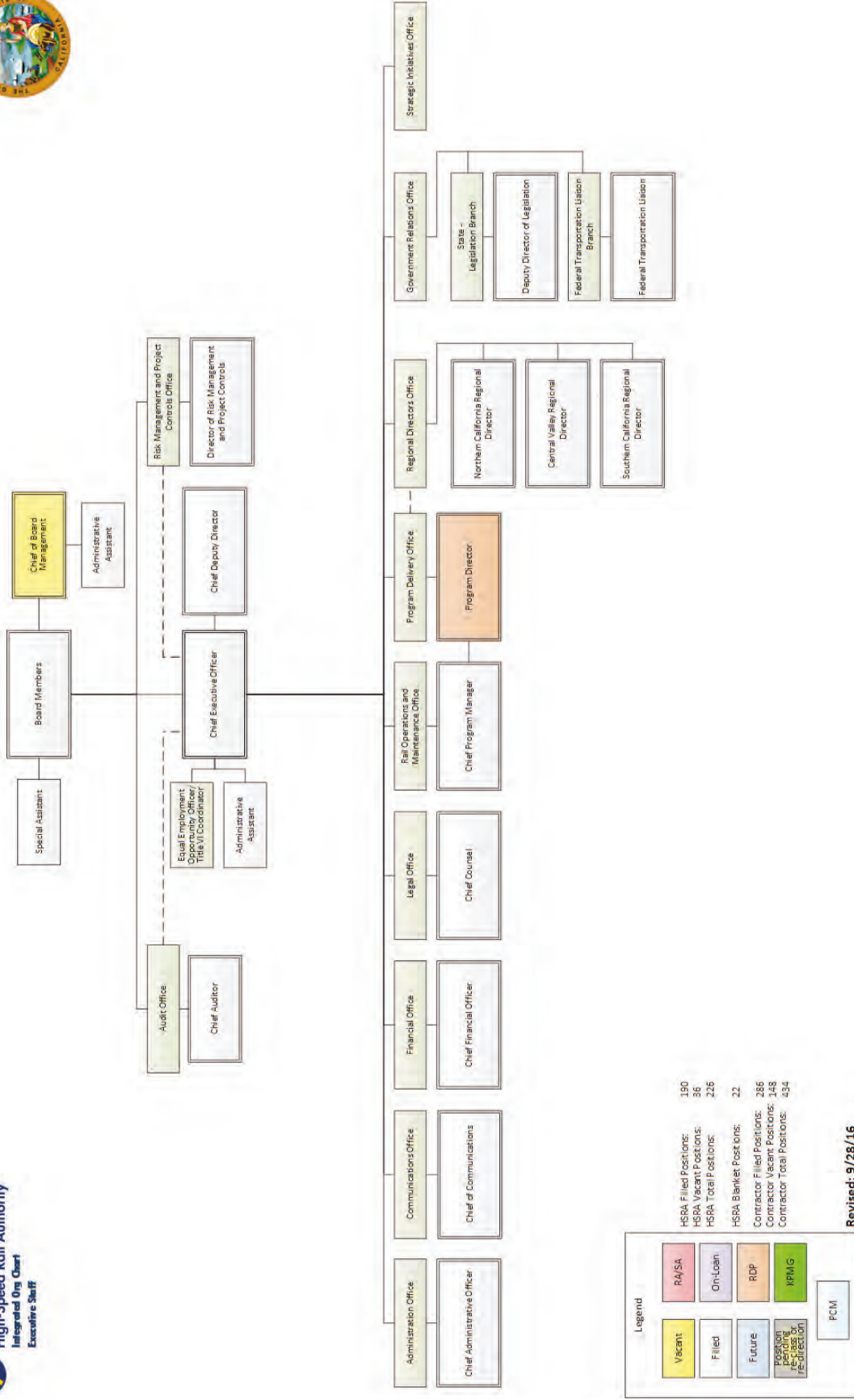


Figure 2 - Authority Management Team

CALIFORNIA

High-Speed Rail Authority

Data Date: October 1, 2016

Environmental/Engineering

STB ROD

Issue RFP

Issue NTP

Substantial Completion

Complete PE&P

Issue RFP

Issue NTP

Substantial Completion

High-Speed Rail Trains

Issue NTP

Issue RFP

Substantial Completion

Thrust 1 (Valley to Valley)

Issue NTP

Issue RFP

Substantial Completion

Test Track

Complete Static Testing

Complete Dynamic Testing

Complete Prototype Testing

Complete Static Testing

Complete Dynamic Testing

Testing and Commissioning

Complete Static Testing

Complete Dynamic Testing

Complete Final Run

High-Speed Rail Trains

Issue NTP

Issue RFP

Substantial Completion

Thrust 1 (Valley to Valley)

Issue NTP

Issue RFP

Substantial Completion

Test Track

Complete Static Testing

Complete Dynamic Testing

Complete Prototype Testing

Complete Static Testing

Complete Dynamic Testing

Testing and Commissioning

Complete Static Testing

Complete Dynamic Testing

Complete Final Run

Silicon Valley to Central Valley Line (San Jose to Poplar Avenue)

San Jose to FCS

San Jose Approach

San Jose to Pacheco Pass

Pacheco Pass Tunnels

Foothills to Carlucci Rd. & Wye Leg - Carlucci Rd. to FCS

First Construction Segment (FCS)

CP 1

CP 2-3

CP 4

San Francisco to San Jose

Merced to Bunch Rd. & Wye Leg West

FCS to Bakersfield

Merced to FCS & FCS to Burbank

Wye Leg East

Bakersfield to Palmdale

SCP 1

SCP 2

SCP 3

SCP 4

SCP 5

SCP 6

Palmdale to Burbank

SCP 7

SCP 8

SCP 9

Burbank to Anaheim Corridor Improvements

Burbank to Los Angeles

Los Angeles to Anaheim

San Jose to FCS

Nov-17

Jun-18

Jan-22

Dec-17

Mar-18

Nov-17

Nov-17

May-18

Oct-21

Dec-17

Mar-18

Sep-17

Complete

Mar-12

Oct-13

Jun-19

Apr-14

Jul-15

Jun-19

May-15

Apr-16

Apr-19

San Francisco to San Jose

Merced to Bunch Rd. & Wye Leg West

FCS to Bakersfield

Merced to FCS & FCS to Burbank

Wye Leg East

Bakersfield to Palmdale

SCP 1

SCP 2

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Burbank to Anaheim Corridor Improvements

Burbank to Los Angeles

Los Angeles to Anaheim

San Jose to FCS

Nov-17

Jun-18

Jan-22

Dec-17

Mar-18

Nov-17

Nov-17

May-18

Oct-21

Dec-17

Mar-18

Sep-17

Complete

Mar-12

Oct-13

Jun-19

Apr-14

Jul-15

Jun-19

May-15

Apr-16

Apr-19

San Francisco to San Jose

Merced to Bunch Rd. & Wye Leg West

FCS to Bakersfield

Merced to FCS & FCS to Burbank

Wye Leg East

Bakersfield to Palmdale

SCP 1

SCP 2

SCP 3

SCP 4

SCP 5

SCP 6

Palmdale to Burbank

SCP 7

SCP 8

SCP 9

Burbank to Anaheim Corridor Improvements

Burbank to Los Angeles

Los Angeles to Anaheim

San Jose to FCS

Nov-17

Jun-18

Jan-22

Dec-17

Mar-18

Nov-17

Nov-17

May-18

Oct-21

Dec-17

Mar-18

Sep-17

Complete

Mar-12

Oct-13

Jun-19

Apr-14

Jul-15

Jun-19

May-15

Apr-16

Apr-19

San Francisco to San Jose

Merced to Bunch Rd. & Wye Leg West

FCS to Bakersfield

Merced to FCS & FCS to Burbank

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Bakersfield to Palmdale

SCP 1

SCP 2

SCP 3

SCP 4

SCP 5

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SCP 2

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SCP 4

SCP 5

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Jun-19

Apr-14

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Apr-16

Apr-19

San Francisco to San Jose

Merced to Bunch Rd. & Wye Leg West

FCS to Bakersfield

Merced to FCS & FCS to Burbank

Wye Leg East

Bakersfield to Palmdale

SCP 1

SCP 2

SCP 3

SCP 4

SCP 5

SCP 6

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Nov-17

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May-18

Oct-21

Dec-17

Mar-18

Sep-17

Complete

Mar-12

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Jun-19

May-15

Apr-16

Apr

Figure 3 - Authority Program Phase 1 Milestone Road Map

## Schedule

As defined in the 2016 Business Plan, the Authority is projecting passenger service to start on the initial project segment, from the Silicon Valley to the Central Valley, in 2025 and Phase 1 completion by 2029. The milestone schedule and phasing strategy to meet these goals is shown above in Figure 3. The milestones provide a high-level summary of the key activities necessary to guide resource planning, and project scheduling and construction. It also shows the overall progression of work and how the interim use of the FCS for operations testing fits within the overall schedule for the start of high-speed rail revenue service by January 2025.

In FY 16/17 the Authority is expected to finalize work on all Phase 1 environmental documents which are scheduled to be completed by December 2017 (see Task 1 summary). In addition, construction of the FCS through Construction Package's (CP) 1-4 will continue with key construction milestones summarized in Task 8. Finally, RFP's are projected to be released for track and systems, and high-speed rail trainsets in Spring 2017.

The Authority provides the FRA with quarterly schedule updates that contain more detailed information about the current status of each grant task. The September schedule update is included in Appendix D.

## Cost Estimate

The Authority updates the program cost estimate every two years as part of the business plan (a legislative statutory requirement). These costs were recently updated and included in the *Connecting and Transforming California, 2016 Business Plan* published on May 1, 2016. All cost estimates below are as of May 2016.

The updated costs to complete the environmental, preliminary engineering and planning efforts for the Phase 1 System from San Francisco to Anaheim are summarized below. The cost to complete has increased over previous budget projections due to a variety of reasons, including unanticipated additional environmental documentation and alignment variations to be studied. Project development costs are summarized in Table 1 and include spent-to-date and additional costs needed to complete work related to Tasks 1-4.

**Table 1 - Project Development Costs**

Project Development costs	Amount (\$ millions)
<b>Environmental/Planning Spent-to-Date</b>	\$ 643
<b>Phase 1 Environmental/Planning Cost to Complete</b>	\$ 403
<b>Total</b>	<b>\$1,046</b>

Task 8 covers civil infrastructure construction for the FCS. CP's 1-4 have been procured and contract amounts (including provisional sums) and contingency are summarized in Table 2 below. One additional contract remains to be released for final design and construction of FCS track work. It is anticipated that contract will be released within the FY 17/18.



**Table 2 - Design Build Contract Costs**

Section <sup>1</sup>	Contractor	Current Contract (\$ millions)	Contingency (\$ millions)
<b>SR 99</b>	Caltrans <sup>2</sup>	\$ 226	\$ 9
<b>CP 1</b>	Tutor-Perini/Zacary/Parsons (TPZP)	\$ 1,285	\$ 160
<b>CP 2-3</b>	Dragados/Flatiron	\$ 1,365	\$ 261
<b>CP 4</b>	California Rail Builders	\$ 444	\$ 62

<sup>1</sup> Contract amounts as of September 2016 Finance and Audit Report

<sup>2</sup> Using CMGC Delivery method, contingency split between Early Works and Main packages

A detailed capital cost estimate of all Phase I program costs can be found at [http://www.hsr.ca.gov/docs/about/business\\_plans/2016\\_Business\\_Plan\\_Basis\\_of\\_Estimate.pdf](http://www.hsr.ca.gov/docs/about/business_plans/2016_Business_Plan_Basis_of_Estimate.pdf)

## Budget Summary

Phase 1 planning and FCS construction are funded through federal grants, and state resources from Proposition (Prop) 1A and Cap and Trade. The state funds and some local resources contribute to the match required in the ARRA and FY 10 grants. Local match is allocated to station area planning work in cities along the Phase 1 system. Table 3 summarizes federal and state funding. The Authority realizes that additional state funds will be required to complete the full scope of the grant agreements. These funds are identified as additional resources to be expended as part of construction in Task 8. Appendix B – Detailed Grant Budget contains the grant Quarterly Budget Update, September 30, 2016.

**Table 3 - Budget Summary**

Task	Federal Budget	State Match	Total	Additional Resources
<b>1 Environmental</b>	\$173,327,113	\$326,207,370	\$499,534,483	
<b>2 Preliminary Engineering</b>	\$254,362,236	\$ 82,999,427	\$337,361,663	
<b>3 Other Related Work</b>	\$ 83,009,008	\$106,416,974 <sup>1</sup>	\$189,425,982	
<b>4 Project Administration</b>	\$ 677,872	-	\$ 677,872	
<b>5 Construction Management</b>	\$221,959,777	\$197,267,290	\$419,227,067	\$139,400,000
<b>6 Property Acquisition</b>	\$468,304,427	\$383,970,052	\$852,274,479	\$ 91,105,000
<b>7 Early Works</b>	-	-	-	
<b>8 Final Design &amp; Construction</b>	\$2,109,117,773	\$1,662,939,722	\$3,772,057,495	\$994,541,391
<b>9 Project Reserves</b>	\$161,879,645	\$ 46,267,108	\$208,146,753	
<b>10 Unallocated Contingency</b>	\$ 8,538,380	\$59,508,288	\$68,046,668	
<b>Total</b>	<b>\$3,481,176,231</b>	<b>\$2,865,576,231</b>	<b>\$6,346,752,462</b>	<b>\$1,225,046,391</b>

<sup>1</sup> Includes local funding

The following chapters outline the resources, plans and milestones for FY 16/17 for the tasks of the grant agreement except tasks 4, 7, 9 and 10 – Task 4 is complete; Task 7 was deleted; and use of Task 9 and 10 are detailed in separate reports (Interim Use Plan and the Unallocated Contingency Management Plan respectively).

## Procurement

The power to enter into contracts necessary to carry out the functions of the Authority is provided by the statutes that created the Authority. These statutes include:

- Public Utilities Code § 185033 which gives the Authority the contracting power to enter into contracts with private or public entities for the design, construction and operation of the high-speed rail Program. The contracts may be separated into individual tasks or segments or may include all tasks and segments, including a design-build or design-build-operate contract.
- Public Utilities Code 185036(a) which allows for architecture and engineering (A&E) and other professional service procurements. The Authority issues RFQs and RFPs respectively.
  - A&E procurements are consistent with the requirements of Government Code Section 4525, et seq., and California Code of Regulations Title 21, Division 6, Chapter 1, Article 1.
  - Other professional service procurements are consistent with the requirements of Public Contract Code Sections 10295 and 10335, et seq. For design-build (DB) procurements, the Authority is currently using a two-step process consisting of a request for qualifications followed by a request for proposals.

The overall procurement strategy has been developed through an ongoing process of industry engagement, including issuance of requests for expressions of interest, industry forums and one-on-one meetings. Design-build (DB), as well as other alternative delivery strategies, are under consideration for delivery of the Silicon Valley to Central Valley initial operating segment.

## Deliverables

The Authority provides FRA with an update of key deliverables once a quarter including:

- Quarterly Progress Reports
- Quarterly Budget Update
- Funding Contribution Plan
- Right-of-Way Acquisition Plan
- Summary Schedule
- Contingency Plan Update
- SF 425 – Federal and State Match Expenditures

In addition, this past year the FRA and the Authority began conducting a quarterly review of all grant required deliverables' due dates and collaboratively revise the due dates as appropriate. Specific deliverables related to each task area are summarized in their respective task below.

## Task 1 Environmental

The environmental review process is conducted in accordance with the requirements of the National Environmental Policy Act (NEPA), the California Environmental Quality Act (CEQA), Section 106 of the National Historic Preservation Act (NHPA), Section 4(f) of the Department of Transportation Act (49 U.S.C. 303), and other applicable environmental laws and regulations (collectively NEPA/CEQA).

Environmental review includes the preparation of environmental documentation for each project section, development of resource agency agreements in support of the NEPA/CEQA process and the process to obtain regulatory agency approvals and environmental permits. A mitigation monitoring system has been established to ensure contractor compliance with the environmental documentation Record of Decision (ROD) mitigation and permit conditions. Should alignment changes be proposed that affect previous clearances, staff is included in change management decision making to ensure environmental requirements are considered and documented as outlined in the Design-Build Program Plan – Project Management Plan.

### Staffing

The environmental team organizational chart is on Figure 4. The Director of Environmental Services provides direction and oversight of the preparation of environmental clearance documents that are prepared in each region by regional consultants managed by the regional directors. The team is also responsible for securing the permits necessary to begin construction. The team includes the following leadership positions:

- Director of Environmental Planning
- Deputy Director of Environmental Planning
- Supervising Environmental Planner
- Regional Environmental Manager – South
- Regional Environmental Manager – Central
- Regional Environmental Manager – North
- Special Projects Manager
- Permitting, Mitigation and Compliance Manager



## Agency Coordination

The Authority and FRA have entered into a Memorandum of Understanding with the U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (USACE) to facilitate compliance with the National Environmental Policy Act (NEPA - 42 U.S.C. section 4321, et seq.), the Clean Water Act (CWA – section 404 [U.S.C. section 1344]), and the Rivers and Harbors Action section 14 (33 U.S.C section 408) processes for the project-level (Tier 2) EISs for the ten sections of the program. Three steps in the checkpoint process require concurrence from the EPA and USACE. These steps are integrated with the environmental approval process as noted below:

Checkpoint A – Purpose and need; integrated with the purpose and need definition;

Checkpoint B – Range of alternatives; integrated with the alternatives analysis that leads to the range of alternatives studied in the EIR/EISs; and,

Checkpoint C – Least environmentally damaging practicable alternative (LEDPA); integrated with the selection of the preferred alternative.

The Checkpoint A process has been completed for the Phase 1 sections. Because some sections will not require an individual Section 404 permit for project construction (e.g., San Francisco to San Jose, Burbank to Los Angeles and Los Angeles to Anaheim), it may not be necessary to submit Checkpoint B and C documentation for agency review and concurrence. An EPA and USACE agreement on this approach is anticipated later in 2016. For the remaining sections that will require Checkpoints B and C, work is underway with completion anticipated in FY16/17.

## Schedule

Phase 1 environmental clearances are expected to be completed by December 2017. Major milestones are shared with the Board on a monthly basis; in the Fall of 2016, major milestones will also be submitted to FRA to post to the Federal Permitting Dashboard. As dates change, the Authority will provide FRA with revised schedule information in order to update the dashboard. The Environmental Milestone Schedule and Permitting Milestone Schedules (September 2016) are included in Appendix C – Environmental Milestone and Permits Schedules.

## Budget

The Environmental Review budget is \$499,534,483 and summarized in Table 3 - Budget Summary (on page 7). All federal expenditures related to this task are from the ARRA grant. Each segment's project costs, schedules and status are contained in a monthly Operations Report. The Operations Report is reviewed by the Authority's Board of Directors Finance and Audit Committee on a monthly basis. The most recent Operations Report is located on the Board's Finance and Audit Committee website at [http://www.hsr.ca.gov/Board/monthly\\_fa\\_committee\\_meeting.html](http://www.hsr.ca.gov/Board/monthly_fa_committee_meeting.html)

The Quarterly Budget Update (Appendix B – Detailed Grant Budget) provides a summary of Task 1 by project section. Table 4 below summarizes the budget for each project section as identified in the detailed Quarterly Budget Update (updated September 30, 2016).



Table 4 - Task 1, Environmental Analysis, ARRA Grant Budget

Section <sup>1</sup>	Total
San Francisco – San Jose	\$ 66,007,861
San Jose – Merced	\$161,504,942
Merced – Fresno	\$ 35,339,004
Fresno – Bakersfield	\$ 45,858,851
Bakersfield – Palmdale	\$ 75,065,146
Palmdale – Los Angeles	\$ 86,328,516
Los Angeles – Anaheim	\$ 29,430,163
<b>Total</b>	<b>\$499,534,483</b>

<sup>1</sup> Quarterly Budget Update September 30, 2016

## Regulatory Documentation and Guidelines

Environmental documentation is governed by many laws and regulations. The Authority provides guidance to the regional consultants on preparation of the environmental documentation in order to ensure consistency across all environmental preparers. This guidance includes:

Project-Level Environmental Analysis Methodologies - Provides the methodological guidance for the preparation of technical reports and impact chapters of project-level environmental documents. [https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Project\\_EIR-EIS\\_Environmental\\_Methodology\\_Guidelines-Version5.02.pdf](https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Project_EIR-EIS_Environmental_Methodology_Guidelines-Version5.02.pdf);

Additional Guidance for Evaluating Impacts under NEPA – Outlines the analytical approach for identifying, evaluating and documenting environmental impacts under NEPA. <https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/NEPA%20Impact%20Guidance.pdf>;

Guidance for Preparing Environmental Reviews for Electrical Interconnections – Describes the analytical and documentation steps for evaluating project-related electrical interconnections required for obtaining electrical power for the system. [https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Env\\_Review\\_for\\_Electrical\\_Interconnections.pdf](https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Env_Review_for_Electrical_Interconnections.pdf);

Refined Guidance on Project EIR/EIS and Technical Report Content – Clarifies the content to be included in technical reports prepared in support of the EIR/EIS. [https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Technical\\_Report\\_Preparation\\_Guidance\\_2016.pdf](https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Technical_Report_Preparation_Guidance_2016.pdf);

Alternatives Analysis Methods for Project-Level Environmental Impact Reports and Environmental Impact Statements (EIR/EIS) – Provides guidance on conducting the alternatives analysis and documenting it in an alternatives analysis report. <https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Alternatives%20Analysis%20Methods.pdf>;

Independent Utility/Logical Termini of HSR Sections – Outlines the requirement for establishing the logical termini for each of the HSR sections. [https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Authority\\_Independent\\_Utility\\_Letter\\_02102009.pdf](https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Authority_Independent_Utility_Letter_02102009.pdf);

Multilingual Public Outreach Guidelines – Sets guidelines for public outreach to meet the Title VI requirements for multilingual outreach. <https://chsra.pbid.com/pmt/Environmental/VL/07.%20Outreach%20and%20Participation%20Guidance/Guidance%20for%20Multi-lingual%20Public%20Outreach%20Ver%201.pdf>;

US Army Corp of Engineers Section 404/408 Memorandum of Understanding (MOU) – This document establishes the framework for integration of the Section 404/408 permit process with the environmental process. [https://chsra.pbid.com/pmt/Environmental/VL/06.%20Regulatory%20Permits%20and%20Guidance/NEPA\\_Section%20404\\_Section\\_408%20MOU%20Ver%201.pdf](https://chsra.pbid.com/pmt/Environmental/VL/06.%20Regulatory%20Permits%20and%20Guidance/NEPA_Section%20404_Section_408%20MOU%20Ver%201.pdf);

Section 106 Programmatic Agreement for the National Historic Preservation Act Programmatic Agreement – Outlines the requirements and responsibilities for the approval process for the State Historic Preservation Officer (SHPO). <https://chsra.pbid.com/pmt/Environmental/VL/05.%20Cultural%20Resources%20Guidance/Section%20106%20Programmatic%20Agreement%20Ver%201.pdf>);

Administrative Record Guidance – Describes the steps to organize, assemble and provide the administrative record in support of each individual EIR/EIS. <https://chsra.pbid.com/pmt/Environmental/VL/03.%20Environmental%20Admin%20Record%20Guidance/20160105%20Revised%20Documentation%20Guidance-%20Admin%20Record%20FINAL.pdf>);

Environmental Compliance Program Manual – Details the key elements of the program and lists the set of standards and procedures. <https://chsra.pbid.com/pmt/Environmental/pa/compliance/Forms/AllItems.aspx>

Environmental Re-examination Guidance – Describes the evaluation and documentation process for design and other changes to the high-speed rail project following environmental approval. [https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Env%20Re-Exam%20Guidance\\_Complete%20Doc%20\(April%202014\).pdf](https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Env%20Re-Exam%20Guidance_Complete%20Doc%20(April%202014).pdf)).

## Procurement

Procurement activities planned for FY 16/17 are minor contract amendments for budget and time to complete the environmental deliverables in process. No other major procurements are anticipated.

## Deliverables

The Authority provides the following deliverables to the FRA for each project section:

- Notice of Intent
- Scoping Report
- Agency Coordination Plan
- Purpose and Need Statement
- Alternative Analysis Report
- Administrative Draft EIR/EIS

- Draft EIR/EIS
- Administrative Final EIR/EIS
- Final EIR/EIS
- Record of Decision
- Mitigation and Monitoring Evaluation Plan (MMEP)
- Environmental Re-examinations (as necessary)

To date, the Authority has completed all Notices of Intent, Scoping Reports, Agency Coordination Plans, Purpose and Need Statements and Alternative Analysis Reports for all Phase 1 project sections. Two Final EIR/EIS documents (Merced – Fresno and Fresno – Bakersfield) and permitting activities for commencing project construction in accordance with the project’s Notice of Determination (NOD)/Record of Decision (ROD) have been completed to date. The Authority is in the process of completing supplemental documents on these completed documents.

Table 5 summarizes the deliverables expected to be completed in FY 16/17.

**Table 5 - FY 16/17 Environmental Deliverables**

<b>Deliverable/Section<sup>1</sup></b>	<b>Schedule</b>
<b>Administrative Draft EIR/EIS</b>	
San Francisco – San Jose	4 <sup>th</sup> Qtr 2016
San Jose – Merced	TBD
Bakersfield – Palmdale	TBD
Palmdale – Burbank	TBD
Burbank – Los Angeles	TBD
Los Angeles – Anaheim	TBD
<i>Supplemental Documents</i>	
Bakersfield F Street	4 <sup>th</sup> Qtr 2016
Central Valley Wye	4 <sup>th</sup> Qtr 2016
<b>Draft EIR/EIS</b>	
San Francisco – San Jose	TBD
San Jose – Merced	1 <sup>st</sup> Qtr 2017
Bakersfield – Palmdale	2 <sup>nd</sup> Qtr 2017
Palmdale – Burbank	2 <sup>nd</sup> Qtr 2017
Burbank – Los Angeles	3 <sup>rd</sup> Qtr 2017
Los Angeles – Anaheim	3 <sup>rd</sup> Qtr 2017
<i>Supplemental Documents</i>	
Bakersfield F Street	4 <sup>th</sup> Qtr 2016
Central Valley Wye	1 <sup>st</sup> Qtr 2017

<b>Administrative Final EIR/EIS</b>	
<i>Supplemental Documents</i>	
<b>Bakersfield F Street</b>	TBD
<b>Final EIR/EIS</b>	
<i>Supplemental Documents</i>	
<b>Bakersfield F Street</b>	TBD
<b>Draft Agency Decision Documents (NOD/ROD)</b>	
<i>Supplemental Documents</i>	
<b>Bakersfield F Street</b>	TBD
<b>MMEP</b>	
<i>Supplemental Documents</i>	
<b>Bakersfield F Street</b>	TBD

1 September 2016

The Authority will continue the permitting process, the acquisition and securing of off-site mitigation parcels, and compliance oversight of design-build work. Permitting milestones are summarized in Appendix C – Environmental Milestone and Permits Schedules. These are updated on a monthly basis and shared with FRA Environmental Management staff through standing agency briefings.

## Task 2 Preliminary Engineering

The Authority follows a standard design development process for each segment. Work has focused on the development of design standards, development of preliminary engineering to support environmental documentation and contract procurement and review of contractor submittals and requests for design variances and/or alternative technical concepts. The phases include:

- **Preliminary Engineering** – The Authority provides ongoing oversight of regional consultant developed plans for design consistency across the system. This work supports alternatives development of the various sections in the Phase 1 system.
- **Preliminary Engineering for Project Development (PE4PD) Design** – These plans support draft and final EIR/EIS alternatives, provides an itemized construction cost estimate and conforms with all requirements and commitments included in decision documents (FRA ROD; Authority Board Resolution, CEQA findings, and Mitigation Monitoring and Report Plan). The level of engineering detail in PE4PD design plans is sufficient to determine the required footprint for the high-speed rail program facilities and identify environmental impacts.
- **Preliminary Engineering for Procurement (PE4P) Design** – These plans support procurement of final design and construction services and provide a more detailed construction cost estimate.

The Authority updates the Design Criteria Manual with new information gathered during preliminary engineering on the various project sections as well as with new information identified through the design-builders. During this fiscal year, the design manual will be updated to include elements of design for stations as well as more refined criteria related to tunneling.

Engineering staff also support the review of various DB contractor proposals related to design refinements and/or variations. This work includes: final design submittal review, design variance requests, constructability reviews, and value engineering.

### Staffing

The organizational chart is highlighted on Figure 5. Serving under the Chief Engineer, the Director of Engineering provides direction and oversight of preliminary engineering policy and guidance for the development of plans associated with alignment development for environmental clearance documents. The plans are prepared in each region by regional consultants managed by the regional directors. The team consists of primarily RDP staff that prepares standards and oversees plans prepared by regional consultants and design-build teams for compliance with directed standards. Management roles cover the following engineering areas and include regional lead coordinators in Fresno:

- Infrastructure Manager
- Structures Manager
- Geotechnical Manager
- Tunneling Manager
- Underground Structures and Seismic Manager
- Civil/Drainage/Alignment/Track Manager



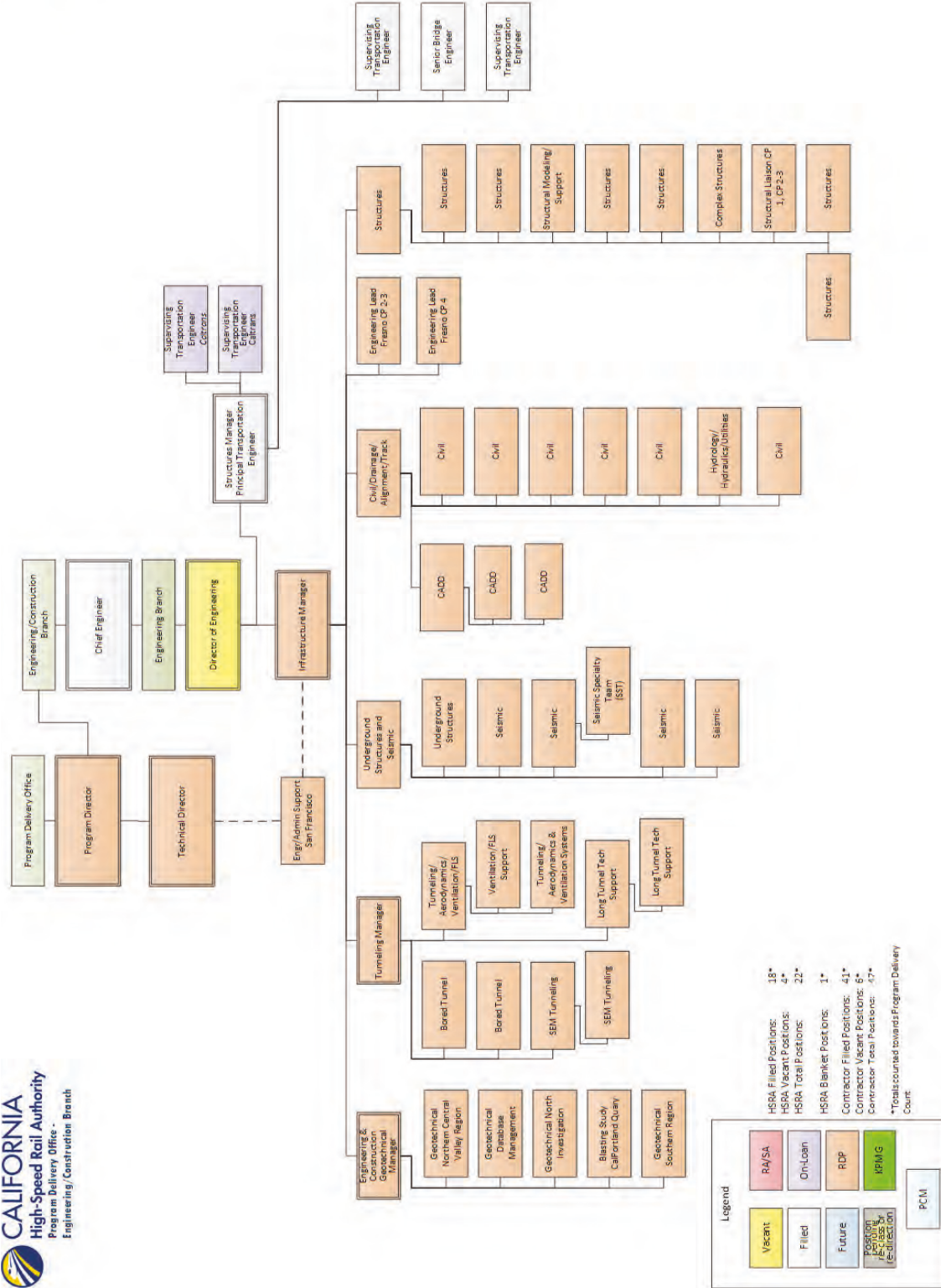


Figure 5 - Engineering Organization

## Schedule

Phase 1 preliminary engineering for environmental clearances is expected to be completed during FY 16/17. The Authority shares major milestones with the Board on a monthly basis and provides regular updates to FRA. The Environmental Milestone Schedule (September 2016) provided in Appendix B highlights when preliminary engineering for project definition, and preliminary engineering for procurement will be completed. This schedule is updated monthly and provided to FRA during monthly resource planning meetings.

## Budget

The preliminary engineering budget is \$337,361,663 and summarized in Table 6. All federal expenditures related to this task are from the ARRA grant. Each segment's project costs, schedules and status are included in the Operations Report, and reviewed by the Authority's Board of Directors Finance and Audit Committee monthly. These costs include preliminary engineering costs for project definition. The most recent Operations Report can be found on the Board's Finance and Audit Committee website at [http://www.hsr.ca.gov/Board/monthly\\_fa\\_committee\\_meeting.html](http://www.hsr.ca.gov/Board/monthly_fa_committee_meeting.html)

The Quarterly Budget Update (Appendix B – Detailed Grant Budget) provides a summary of Task 2 by project section. Table 6 below summarizes the budget for each project section as identified in the detailed Quarterly Budget Update.

**Table 6 - Task 2, Preliminary Engineering, ARRA Grant Budget**

Section <sup>1</sup>	Total
<b>San Francisco – San Jose</b>	\$26,484,517
<b>San Jose – Merced</b>	\$85,582,423
<b>Merced – Fresno</b>	\$16,090,509
<b>Fresno – Bakersfield</b>	\$43,482,519
<b>Bakersfield – Palmdale</b>	\$78,192,522
<b>Palmdale – Los Angeles</b>	\$66,485,509
<b>Los Angeles – Anaheim</b>	\$21,043,664
<b>Total</b>	<b>\$337,361,663</b>

<sup>1</sup> Quarterly Budget Update September 30, 2016

## Regulatory Documentation and Guidelines

Planning and conceptual design supports the development of alternatives to be evaluated during the environmental review. Design development is based on performance criteria in the legislation governing the high-speed rail program, and outlined in the business plan. The general performance requirements for the system are described in Technical Memorandum 0.3 - Basis of Design Policy, which is a foundation document for the development of design standards and criteria. The technical memorandum defines the major components and performance objectives that support the development of the engineering and regulatory basis for the high-speed rail program, including its components, objectives, processes, requirements and assumptions which are governed by the Authority. The Authority's policies that determine the processes, standards, and subsystems of the high-speed rail system are generally divided to address:

- Program implementation

- Performance requirements
- Infrastructure
- Systems (electrification, train controls and communications)
- Rolling stock
- Maintenance
- Operations

Conceptual engineering in support of programmatic environmental studies was developed based on a review and compilation of existing high-speed rail standards. The standards and criteria reflected the best practices at the time of the program-level studies and serve to support the development of conceptual alternatives applicable to the California environment and terrain.

Through the alignment and station screening evaluation process, a number of alignment and station options were identified, evaluated and defined for further study in the programmatic EIR/EIS. These alignment and station options are developed based on engineering criteria and parameters established for the screening evaluation. The regional teams complete the definition of the alignment and station options and provide the definitions to the environmental teams as the basis of their analyses.

**Technical Memorandum 0.1 - Preliminary Engineering for Project Definition Guidelines:** Presents design guidance for a minimum level of engineering, referred to as preliminary engineering for project definition (PEPD), required to support the project-specific environmental impact report/environmental impact statement process. It defines design elements, development level and engineering outputs with the objective of providing a consistent approach in developing preliminary engineering documents to a level that supports the identification of an inclusive environmental envelope. [http://www.hsr.ca.gov/docs/programs/eir\\_memos/Proj\\_Guidelines\\_TM0\\_1\\_PE\\_for\\_Project\\_Def\\_Guidelines\\_R4\\_021815.pdf](http://www.hsr.ca.gov/docs/programs/eir_memos/Proj_Guidelines_TM0_1_PE_for_Project_Def_Guidelines_R4_021815.pdf)

**Technical Memorandum 0.3 - Basis of Design:** Defines the major components and performance objectives of the high-speed rail system as envisioned by the Authority, outlining the objectives, requirements, and assumptions for the continuing development of the high-speed rail system. Specifically, it focuses on components, objectives, processes, requirements, and assumptions, which are governed by Authority policy. The policies are divided into program implementation, performance requirements, infrastructure, systems (electrification, train controls and communications), rolling stock and operations. [http://www.hsr.ca.gov/docs/programs/eir\\_memos/TM%200.3%20Basis%20of%20Design%20R3%20120222%20no%20sigs.pdf](http://www.hsr.ca.gov/docs/programs/eir_memos/TM%200.3%20Basis%20of%20Design%20R3%20120222%20no%20sigs.pdf)

**Design Criteria Manual** – Compilation of all the technical memorandum for individual elements of design. [http://www.hsr.ca.gov/docs/programs/construction/CP23\\_executed/P13\\_57\\_EX\\_IIIA\\_01\\_Design\\_Criteria\\_Manual.pdf](http://www.hsr.ca.gov/docs/programs/construction/CP23_executed/P13_57_EX_IIIA_01_Design_Criteria_Manual.pdf)

**Technical Memorandum 0.1.1 Preliminary Engineering for Procurement (PE4P)** – provides guidance on elements of design and process to inform bidders on construction packages. [http://www.hsr.ca.gov/docs/programs/eir\\_memos/Proj\\_Guidelines\\_TM\\_01\\_1\\_Preliminary\\_Engineering\\_for\\_Procurement\\_Scope\\_R3\\_131224\\_no\\_sigs.pdf](http://www.hsr.ca.gov/docs/programs/eir_memos/Proj_Guidelines_TM_01_1_Preliminary_Engineering_for_Procurement_Scope_R3_131224_no_sigs.pdf)

## Technical Memorandum 100.07 Value Engineering Implementation Plan -

<https://chsra.pbid.com/pmt/eng/SitePages/hs-tm.aspx?View={90E58D02-D2C4-4D7E-B64B-7C8176BB6023}&FilterField1=LinkTitle&FilterValue1=TM%20100%2E07%20Value%20Engineering%20Implementation%20Plan>

## Design Variance Request Policy -

[http://www.hsr.ca.gov/docs/programs/construction/CP23\\_executed/P13\\_57\\_05\\_IVE\\_02\\_Design\\_Variance\\_Request\\_Procedure.pdf](http://www.hsr.ca.gov/docs/programs/construction/CP23_executed/P13_57_05_IVE_02_Design_Variance_Request_Procedure.pdf)

## Procurement

Procurement activities planned for FY 16/17 are minor contract amendments for budget and time to complete environmental deliverables in process. No other major procurements are anticipated.

## Deliverables

The Authority provides the following deliverables to the FRA related to Task 2:

- PE to Support Environmental Review
- Design Manual (Technical Memorandums)
- CONOPS for the FCS
- Rolling Stock Performance Specifications
- System Safety and Security Management Plan (SSMP)

To date, two Final EIR/EIS documents (Merced – Fresno and Fresno – Bakersfield) and have been completed. In addition, in progress drafts of the Design Manual, FCS CONOPS Plan, Rolling Stock Performance Specifications and SSMP have been provided. The Authority will complete preliminary engineering and update all plans in FY 16/17.

**Table 7 - FY 16/17 Engineering Deliverables**

Deliverable/Section <sup>1</sup>	Schedule
<b>PE to Support Environmental Review</b>	
San Francisco – San Jose	1 <sup>st</sup> Qtr 2017
San Jose – Merced	2 <sup>nd</sup> Qtr 2017
Bakersfield – Palmdale	2 <sup>nd</sup> Qtr 2017
Palmdale – Burbank	2 <sup>nd</sup> Qtr 2017
Burbank – Los Angeles	3 <sup>rd</sup> Qtr 2017
Los Angeles – Anaheim	3 <sup>rd</sup> Qtr 2017
<b>Supplemental Documents</b>	
Bakersfield F Street	4 <sup>th</sup> Qtr 2016
Central Valley Wye	1 <sup>st</sup> Qtr 2017
Design Manual Update	4 <sup>th</sup> Qtr 2016
CONOPS for the FCS and any other operating segments	4 <sup>th</sup> Qtr 2016 (update)
Rolling Stock Performance Specifications	3 <sup>rd</sup> Qtr 2016
Systems Safety and Security Management Plan (SSMP)	3 <sup>rd</sup> Qtr 2016

## Task 3 Other Related Work

The Authority performs additional work required prior to the start of construction for each section. The areas covered under this task include:

- **Station Area Planning** – Work completed by the RC’s to support the environmental documentation phase as well as support to local jurisdictions to evaluate land use and access planning around stations
- **Right-of-Way (ROW) Work** – Work to support the identification of properties for environmental evaluation that establishes the footprint for environmental analysis and identification of the acquisition and relocation plan
- **Ridership Forecasting** – Updates to ridership forecasts to support financial planning and operational development needs related to concessionaire planning
- **LAUS/SoCal Investments** – ROW preservation

### Staffing

**Station Area Planning:** Over the past year, planning staff has put a substantial emphasis on executing its station area planning contracts and developing working relationships with Phase 1 station cities. This work ensures coordinated infrastructure planning for the future high-speed rail stations. The Authority’s planning team has provided technical assistance to the station cities helping with procurements, public involvement, and district scale planning (coordinating infrastructure investments, high-speed rail’s high-performance station design criteria, and access planning at the station with the station area). Civic Spark Fellows (an AmeriCorps program) are also being provided as additional support to station cities. The Director of Planning and Integration reports to the Chief Program Manager and is made up of a mix of Authority and RDP staff. The staff develop policies and procedures for station planning, design standards for stations and coordinates with station cities on station area planning. Management roles cover the following primary areas:

- Transportation Planning and Local Support
- Station Development and Design
- Sustainability

**Right-of-Way:** To construct the various segments of California’s high-speed rail system in the Central Valley, the Authority must acquire nearly 1,200 properties and land parcels. Accordingly, the Authority has a standard government transportation ROW function to conduct land surveys, prepare maps, prepare deeds, appraise property, acquire property, plan for utility relocation, and provide relocation assistance to homeowners and businesses. The right-of-way function also provides other property-related services such as managing encroachments, addressing damage to private property, coordinating permits, and providing escrow and title services. Efforts related to this task are focused on support for the environmental documentation phase. For more detailed information related to the ROW program staffing see Chapter 5, Real Property Acquisition and Environmental Mitigation.

**Ridership Forecasting:** The ridership forecasting team is part of the Financial Office, Commercial Division. It is led by the Deputy Director Commercial and focuses on modeling to support the Authority’s financial planning efforts. The work is primarily overseen by RDP staff and conducted by Cambridge Systematics, an RDP sub-consultant.



**LAUS ROW Preservation:** ARRA funding has been identified to purchase ROW in and adjacent to LAUS, including dedicated platforms and tracks within LAUS, and land to accommodate up to ten run-through tracks for future use. Since February 2011, staff is working closely with Metro on planning, environmental, and preliminary engineering activities in order to accommodate these purchases. This effort is managed by the Southern California Regional Director.

## Schedule

Appendix D – Summary Schedule (September 2016) provides an overview of the Task 4 activities. The next year will focus on the completion of station area planning in Phase 1 station cities and completion of the LAUS ROW procurement.

**Station Area Planning:** Although the Authority is actively engaged with station cities advance station area planning activities within the ARRA expenditure period, the station cities have taken and/or needed more time than anticipated to procure contractors and initiate their station area planning activities. The station cities could not reach the projected ARRA budget level or timeline to fully expend this line-item allocation. Therefore, on October 28, 2016, the Authority submitted a GARF to transfer \$2,800,000 of the Station Area Planning allocation to construction activities (Task 8). The schedule for each station area plan can be found on the Summary Schedule Update under Task 3 for each project section.

**Right-of-Way:** In order to accelerate ROW purchases, FRA has granted the Authority the use of a Working Capital Advance (WCA). This has helped accelerate the purchase of high value properties. Specific properties are identified and the Authority provides the FRA an update on the status of expenditures on a monthly basis. The Authority will continue with the WCA process throughout FY 16/17. In addition to the Quarterly Schedule Update identified above, the Authority also provides FRA with a quarterly ROW acquisition update. The latest update can be found at <https://chsra.pbid.com/pmt/gm/Deliverables/Forms/AllItems.aspx> by sorting on the deliverables pull down menu for ROW Acquisition Plan.

**Ridership Forecasting:** Work over FY 16/17 the model will support the efforts of the environmental team to complete the Phase 1 documentation. The model will also be evaluated for possible updates to support financial modeling needs. No major updates are planned this FY.

**LAUS ROW Preservation:** The Quarterly Schedule update includes the schedules for the Burbank-LA and LA-Anaheim project sections which will incorporate improvements at Los Angeles Union Station (LAUS). The Authority is actively coordinating with LA Metro to incorporate high-speed rail into the LAUS. As LA Metro advances plans and environmental clearance, the Authority is reviewing technical and engineering concepts as LA Metro identifies a preferred alternative and publishes the draft EIR/EIS for LinkUS. All grant-associated LAUS ROW acquisitions are expected to be finalized by the Spring of 2017.

## Budget

The budget for Task 3 Other Related Work is \$189,425,982 summarized in Table 8 below. All federal expenditures related to this task are from the ARRA grant. The Quarterly Budget Update (Appendix B – Detailed Grant Budget) provides a summary of Task 3 by project section. Table 8 below summarizes the budget for each project section as identified in the detailed Quarterly Budget Update. This task also includes other local funding as part of the anticipated state match for the station area planning and LAUS

sub-tasks. In addition, a separate sub-task has also been created for pre-construction planning and legal services related to pre-construction efforts.

**Table 8 - Task 3, Other Related Work, ARRA Grant Budget**

Section <sup>1</sup>	ARRA	State	Local	Total
<b>3.1 Station Area Planning (RC)</b>	\$4,681,420	\$4,856,623		\$9,538,043
<b>3.2 ROW Work (RC)</b>	\$5,719,426	\$5,933,475		\$11,652,901
<b>3.3 ROW Work (RDP)</b>	\$237,231	\$246,109		\$483,340
<b>3.4 Ridership Forecasting</b>	\$1,662,521	\$1,724,741		\$3,387,262
<b>3.5 Construction Planning/ Procurement Support</b>	\$2,009,773	\$2,084,989		\$4,094,762
<b>3.6 Station Area Planning<sup>2</sup></b>	\$2,700,000	\$4,200,000	\$4,100,000	\$11,000,000
<b>3.7 LAUS/SoCal Investments<sup>2</sup></b>	\$32,000,000		\$48,000,000	\$80,000,000
<b>3.8 Legal Services – pre construction</b>	\$33,998,637	\$35,271,037		\$69,269,674
<b>Total</b>	<b>\$83,009,008</b>	<b>\$54,316,974</b>	<b>\$52,100,000</b>	<b>\$189,425,982</b>

<sup>1</sup> Quarterly Budget Update September 30, 2016

<sup>2</sup> Includes local funding

## Regulatory Documentation and Guidelines

**Station Area Planning:** The Authority works with stakeholders on station design and station area plans. This work begins with siting and defining the environmental footprint and sizing of the station. In addition, staff is also working collaboratively with each Phase 1 station city to address transportation access planning, identify land use changes, and developing community transportation hubs.

The station cities are key stakeholders for the program. Federal and state funding is allocated toward the development of station areas. The funding is dedicated to support station area planning and local land use decisions related to transit-oriented development, joint development and other transit-supportive enhancement opportunities. Interagency agreements have been executed with all but one station city (Millbrae). The agreements outline the station access and development plan partnership between the city and the Authority.

The Authority has developed a variety of guidelines, plans and procedures for use by designers, local jurisdictions and other stakeholders in initiating and carrying out this process:

- High-Speed Train Station Area Development: General Principles and Guidelines – Outline of the Authority’s general principles and guidelines for station area development.  
[https://chsra.pbid.com/sites/ao/pm\\_pub/pf/POLI-PLAN-01%20HST\\_Station\\_Area\\_Development\\_General\\_Principles\\_and\\_Guidelines.pdf](https://chsra.pbid.com/sites/ao/pm_pub/pf/POLI-PLAN-01%20HST_Station_Area_Development_General_Principles_and_Guidelines.pdf)
- California High-Speed Train Project: Urban Design Guidelines – A comprehensive planning guide that provides domestic and international examples of station area design, urban design and transit-oriented development. This guide includes simple diagrams that analyze and explain successful public places and how each promotes livability and transit use. Urban design implemented around high-speed rail stations can encourage destination stations and enhance the value of the surrounding community. The report is intended to be used by cities and communities throughout the state as they work with their stakeholders and residents to create a vision for their high-speed rail station areas.  
[http://www.hsr.ca.gov/docs/programs/green\\_practices/sustainability/Urban%20Design%20Guidelines.pdf](http://www.hsr.ca.gov/docs/programs/green_practices/sustainability/Urban%20Design%20Guidelines.pdf)



- Station Deliverables for PEPD and Environmental Documents Memorandum - Defines station planning deliverables for use in preliminary engineering for project definition deliverables and project-level draft environmental documents. This memorandum clarifies how to develop conceptual station plans.  
<https://chsra.pbid.com/pmt/pln/plndocs/Station%20Deliverable%20Memo%2005.27.16.pdf>
  - Project Design Criteria Manual Chapter 14 Stations – Presents station design principles and goals as well as space requirements, passenger amenities, station performance, circulation, connections and safety and security for high-speed rail preliminary and final station design. The intended use of this chapter relates to high-speed rail dedicated stations as well as facilities shared in existing stations with other transportation agencies, owners and operators. Because high-speed rail station ridership is expected to increase over time, not all functions referenced in this document will be included in all initial station programs; instead, construction will occur in a staged or phased manner as the high-speed rail system expands.  
[https://chsra.pbid.com/pmt/pln/plndocs/Des%20Crit%20Manual%20Chap14%20Stations%20%2031Mar2016\\_Submittal%20Issued.pdf](https://chsra.pbid.com/pmt/pln/plndocs/Des%20Crit%20Manual%20Chap14%20Stations%20%2031Mar2016_Submittal%20Issued.pdf)
  - Station Area Parking Guidance Technical Memorandum – Defines appropriate station area parking to be evaluated for the draft project-level environmental documents. As such, this technical memorandum defines the maximum possible footprint without taking into account how changes in local land use and transit connectivity can influence parking demand. This technical memorandum explains the desired parking approach, including cost and layout, along with the process for implementation including Authority, local and private-sector responsibilities.  
<https://chsra.pbid.com/pmt/pln/plndocs/Revised%20Station%20Area%20Parking%20Guidance%20with%20signatures.pdf>
- Vision California – An effort to explore the critical role of land use and transportation investments in meeting the environmental, fiscal and public health challenges facing California today and in the future. New modeling tools are applied to formulate and compare scenarios for how California can accommodate growth based on policy decisions and development patterns. [http://www.hsr.ca.gov/Programs/Green\\_Practices/sustainability.html](http://www.hsr.ca.gov/Programs/Green_Practices/sustainability.html)
- UC Berkeley Research on the Potential for Transit-Oriented Development in the Central Valley - These reports, prepared with the support of the Authority, examine the potential for transit-oriented development around high-speed rail stations in the Central Valley. They focus on proposed stations sites in the cities of Stockton, Merced, and Fresno and presents planning approaches and design concepts for land use, urban design and multimodal access and circulation in and around the proposed high-speed rail station areas. [http://www.hsr.ca.gov/Programs/Green\\_Practices/sustainability.html](http://www.hsr.ca.gov/Programs/Green_Practices/sustainability.html)

**Right-of-Way:** For more detailed information related to the ROW program see Task 6, Real Property Acquisition and Environmental Mitigation.

**Ridership Forecasting:** Documentation related to the development of the Authority’s ridership and revenue forecasting can be found on the Authority’s website at [http://www.hsr.ca.gov/About/ridership\\_and\\_revenue.html](http://www.hsr.ca.gov/About/ridership_and_revenue.html). Information can be found on the California High-Speed Rail Ridership and Revenue Model, Version 3 Model Documentation completed by Cambridge Systematics, February 17, 2016. In addition, reports from the Authority’s Ridership Technical Advisory Panel can also be found.

## Procurement

Procurement activities planned for FY 16/17 are minor contract amendments for budget and time to complete station area planning or ROW planning activities. No other major procurements are anticipated.

## Deliverables

The following deliverables scheduled for FY16/17 are below. To date, in progress drafts of the ROW Procedures Manual and FCS Contingency Plan have been provided to FRA. ROW Acquisition Plans for the FCS are provided quarterly.

**Table 9 - FY 16/17 Other Related Work Deliverables**

<b>Deliverable<sup>1</sup></b>	<b>Schedule</b>
<b>Station Area plans</b>	2 <sup>nd</sup> Qtr 2017
<b>ROW Procedures Manual</b>	2 <sup>nd</sup> Qtr 2017
<b>ROW Acquisition Plan for the FCS</b>	Quarterly
<b>FCS Contingency Plan (Update)</b>	4 <sup>th</sup> Qtr 2016

<sup>1</sup> September 2016

## Task 5 Program, Project and FCS Construction Management

This task focuses on the overall management of the program and construction oversight of the design-builders. Deliverables in this area focus on the overall program and project management and construction oversight provided by the Project Construction Managers (PCM).

### Staffing

Together, the Authority and RDP form an integrated organization. The Authority provides overarching program oversight and policy direction, and the RDP manages, monitors and oversees the program's operations and progress. The organization is broken down into four primary areas which include:

**Program Management:** Program management is overseen by the Director of Program Operations and a Program Controls Manager. They are responsible to provide recommendations and support related to program delivery approach and master program planning such as oversight of program controls including program scope, cost, and schedule.

**Program Delivery:** This area is overseen by Program Director who oversees both Program and Project Delivery to ensure coordination between Program technical expertise as well as individual construction project support. This area is supported by Regional Directors responsible for project and community coordination and delivery in the Northern, Southern and Central Valley regions. On-site functional teams are assigned responsibility for program delivery. Each team oversees and monitors the performance of associated work packages under their assigned disciplines (environmental, engineering, ROW, and etc.) Part of program delivery includes providing the specialized technical resources which may include, but not be limited to, tunneling, seismic design, high-speed rail systems (track electrification, train control, signaling, and communications), trainsets, track work, heavy maintenance facilities, high-speed rail system testing and commissioning, and facility operations and maintenance.

**Project Delivery:** Project Delivery includes the overall planning, coordination, and control of construction. The Program Director and Chief Engineer have overall responsibility for the execution of the construction work program. The construction project manager is responsible for managing both the construction team and the functional resources needed for the construction project, including the DB contractor. Assigning the project manager the responsibility of managing both the personnel and resources required for a specific project results in creating a single point of contact and accountability for each project as well as program wide consistency across each of the projects comprising the high-speed rail program. For more information on the construction organization see Task 8, Final Design and Construction Contract Work.

**Project & Construction Management:** The Chief Engineer and Construction Branch Manager oversee the overall organization with support from Authority construction contract managers and the PCM's. The Authority has also retained the services of specialty project and construction management (PCM) firms to provide on-site management expertise and staff to oversee the DB contracts. The PCM oversees and directs field inspectors, and work closely with the design-builder to assist in coordination with agencies and utility companies. PCM's also assist the design-builder in making field decisions to address conditions and/or activities that could impact budget or schedule. The PCM's for each construction project are:

- CP 1 – PGH Wong Engineering
- CP 2-3 – ARCADIS U.S. Inc.
- CP 4 – HNTB Corporation

The Authority primarily manages oversight activities from its headquarters program offices in Sacramento; project managers, project staff, the PCM and the DB are located in local construction project offices. This co-location enhances communication between all parties, expedites the DB approach and provides onsite oversight and coordination.

## Schedule

Appendix D – Summary Schedule (September 2016) provides an overview of the PCM schedule for each construction project. All other activities and deliverables related to this task will be performed over the ARRA and FY10 period of performance as required.

## Budget

The Task 5 budget is \$419,227,067 and is summarized in Table 10 below. Expenditures related to Program Management and Legal Services are covered only in the ARRA and State funds budget. The budget below reflects the executed amounts for PCM contracts for CP 1 through CP 4.

**Table 10 - Task 5, Program, Project and FCS Construction Management Budget**

Sub Task <sup>1</sup>	ARRA	State	FY10	State	Total	Additional State
<b>5.1 Program Management</b>	\$126,599,146	\$132,202,936	0	0	\$258,802,082	\$139,400,000
<b>5.2 Project Construction Management (PCM)</b>	\$48,748,955	\$50,906,782	\$44,500,052	\$11,952,478	\$156,108,267	
<b>5.3 Legal Services</b>	\$2,111,624	\$2,205,094	0	0	\$4,316,718	
<b>Total</b>	<b>\$177,459,725</b>	<b>\$185,314,812</b>	<b>\$44,500,052</b>	<b>\$11,952,478</b>	<b>\$419,227,067</b>	

<sup>1</sup> Quarterly Budget Update September 30, 2016

## Regulatory Documentation and Guidelines

**Management and Program/Project Controls:** Program management policies, procedures and tools are utilized to manage and control the delivery of the scope, budget and schedule commitments of the overall program. The program controls plan provides a functional overview of the control processes for managing the scope, budget and schedule at the program-level, whereas the regional project management plans address the specific control processes for managing scope, budget and schedule for each project. More detailed information is included in the Chapter 5, Management and Program/Project Controls of the Program Management Plan.

**Project Construction Management Manual (PCMM):** Establishes uniform guidelines and procedures in contract management and administration and design and construction oversight for each design-build contract. The PCMM addresses responsibilities subsequent to the award of contracts. It also presents, interprets and clarifies established general policies and practices applicable to the work, dealing with

various situations that may arise. The PCMM can be found on the Authority's web site at: [https://www.hsr.ca.gov/docs/programs/construction/PCM\\_Manual\\_Rev\\_0.pdf](https://www.hsr.ca.gov/docs/programs/construction/PCM_Manual_Rev_0.pdf). Various procedures and policies provide a framework for:

- Program structure and organization
- Contract administration
- Communication/documentation/reports
- DB contract submittals
- Verification, validation and self-certification
- Interface management and coordination
- Quality management
- Safety and security
- Schedule control
- Changes and claims
- Right-of-way
- Public involvement
- Completion and closeout

**Design-Build Program Plan:** The design-build program plan (DBPP) outlines the Authority's approach to project delivery and identifies the project implementation procedures and methods established by the Authority to achieve successful design-build project delivery. FRA approved the final plan in April 2016 and it is located on the FRA sharepoint site at: <https://chsra.pbid.com/pmt/gm/Deliverables/DBPP-PMP%20FCS%20CHSRA%20Final%20042016.pdf>

## Procurement

No significant procurements to complete the deliverables associated with this Task are anticipated.

## Deliverables

The following deliverables are scheduled for FY16/17.

**Table 11 - FY 16/17 Program, Project, and FCS Construction Management Deliverables**

Deliverable <sup>1</sup>	Schedule
<b>Annual Work Plan</b>	4 <sup>th</sup> Qtr 2016
<b>Program Management Plan</b>	4 <sup>th</sup> Qtr 2016
<b>Central Valley Project Financial Plan</b>	4 <sup>th</sup> Qtr 2016
<b>Phase 1 Program Financial Plan</b>	4 <sup>th</sup> Qtr 2016
<b>RFP's/NTP's for Design/Construction Services</b>	
<b>CP 5 RFP</b>	4 <sup>th</sup> Qtr 2016
<b>Network Integration Plan</b>	3 <sup>rd</sup> Qtr 2016
<b>Updated Service Development Plan</b>	2 <sup>nd</sup> Qtr 2017
<b>Infrastructure Maintenance Plan (update)</b>	2 <sup>nd</sup> Qtr 2017
<b>Rolling Stock Maintenance plan (update)</b>	2 <sup>nd</sup> Qtr 2017

<sup>1</sup> September 2016

## Task 6 Real Property Acquisition and Environmental Mitigation

Task 6 focuses on ROW delivery for construction and property associated with environmental mitigation. The ROW team maps, appraises, and acquires parcels and provides relocation assistance (associated with ROW) needed for CP1, CP2-3 and CP4. Emphasis in FY 16/17 is to continue to acquire property for construction and begin to focus on future property management activities. ROW schedules and costs are reported on a quarterly basis.

### Staffing

ROW is managed by the Director of Real Property and reports to the Program Director. The Director is supported by a manager of ROW information, and a Deputy Director of Real Property that oversees Authority agents who oversee the work of ROW consultants. The Authority's ROW division managers are located in the Sacramento headquarters office, in the Central Valley regional office in Fresno, the Southern California regional office in Los Angeles and the Northern California regional office in San Jose. The organization is shown on Figure 6. ROW consultants are responsible for performing ROW appraisal and acquisition services, including:

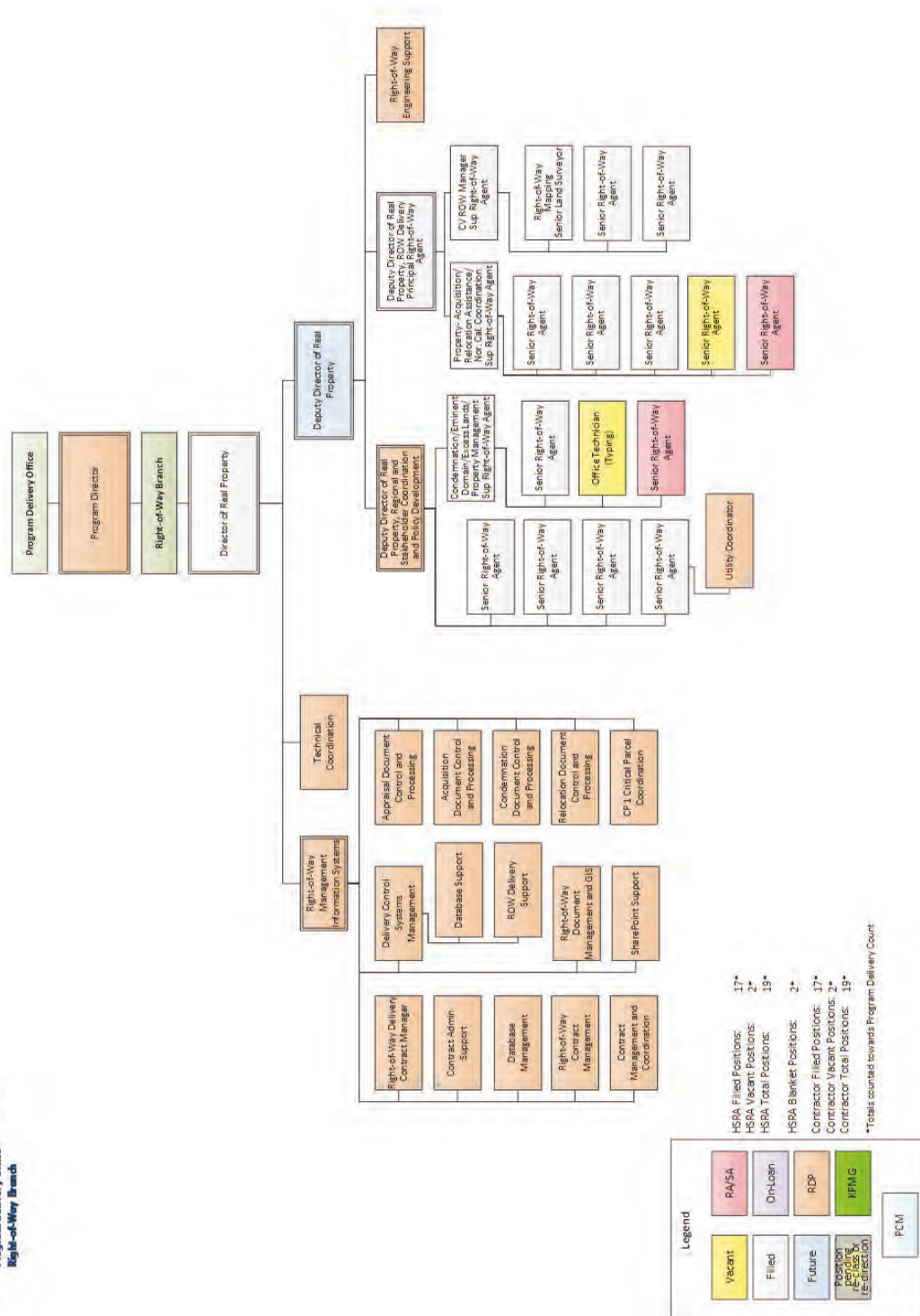
- Issuing initial letters to the property owners (Notice of Determination to Appraise [NODA])
- Conducting appraisals
- Issuing the first written offers
- Conducting negotiations
- Preparing the administrative settlement memo
- Issuing revised offers
- Establishing and providing relocation benefits and educating affected property owners about the benefits
- Preparing the acquisition quality checklist
- Preparing the memorandum of appraisal updates, the declaration of value and close escrow and the resolutions of necessity (RONs) needed for the condemnation process

### Agency Coordination

The ROW process involves extensive coordination with other agencies which include:

- California State Public Works Board (PWB): This independent agency of the state was created to oversee fiscal matters associated with construction of projects for state agencies. Under the California Property Acquisition Law, the PWB is authorized to approve real estate transactions. Before an offer of just compensation is approved, the PWB reviews the project and its budget and makes an initial determination that the state has the legal authority to purchase the property in question.
- California Department of General Services (DGS): The Real Property Services Section (RPSS) reviews and approves each parcel appraisal for just compensation prior to a written offer for acquisition. Upon execution of the parcel's ROW contract, the Real Property Services Section reviews and recommends approval.
- California Department of Finance (DOF): The Capital Program Branch reviews and executes ROW agreements for compliance with budgetary and project authority for the parcel acquisition.





### Figure 6 - Right-of-Way Organization

- California Department of Transportation: The Legal Division provides legal review and representation for ROW contracts, and performs legal services for cases of eminent domain through the Effective Order of Possession.

## Schedule

The Authority shares major milestones and the current status of ROW procurement with the Board on a monthly basis and provides quarterly updates to FRA. This information about the work in progress is shared in a monthly operations report. The most updated version can be found on the Board's Finance and Audit Committee website at [http://www.hsr.ca.gov/Board/monthly\\_fa\\_committee\\_meeting.html](http://www.hsr.ca.gov/Board/monthly_fa_committee_meeting.html)

Information is also shared quarterly with FRA. The latest update can be found at <https://chsra.pbid.com/pmt/gm/Deliverables/Forms/AllItems.aspx> by sorting on the deliverables pull down menu for ROW Acq Plan.

In July 2016, the FRA approved the Authority's request for the use of a \$60,000,000 working capital advance (WCA). Access to the WCA allowed the Authority to expedite several critical-path property acquisitions in CP 1 and CP 2-3. The Authority fully expended the initial \$60,000,000 WCA by the September 28, 2016 due date. In October 2015, the Authority requested a second WCA of \$65,000,000 to expedite the ROW acquisition process and correlative construction activities.

## Budget

The Task 6 budget is \$852,274,479 and is summarized in Table 12. Currently ARRA federal funding for preliminary ROW and environmental mitigation is through the ARRA grant. These activities will continue beyond the ARRA September 2017 performance period, with future funding covered by state resources.

The Authority executed a WCA in August 2016 and fully expended the initial \$60 million requested within August-September. The second WCA request of \$65,000,000 (approval pending at the time of this report) will enable an expedited ROW acquisition process and completion.

**Table 12 - Task 6, Real Property Acquisition and Environmental Mitigation Budget**

Sub Task <sup>1</sup>	ARRA	State	FY10	State	Total	Additional State
<b>6.1 Real Property – Preliminary ROW</b>	\$13,311,325	\$11,016,061	0	0	\$24,327,386	
<b>6.2 Real Property – ROW Services and Relocation</b>	\$93,438,986	\$77,327,358	\$3,092,482	\$3,850,622	\$177,709,448	\$ 9,987,112
<b>6.3 Real Property – Environmental Mitigation</b>	\$29,489,968	\$24,405,032	0	0	\$53,895,000	\$46,313,298
<b>6.4 Real Property – ROW Acquisition</b>	\$323,079,364	\$267,370,979	\$5,892,302	0	\$596,342,645	\$34,804,590
<b>Total</b>	<b>\$459,319,643</b>	<b>\$380,119,430</b>	<b>\$8,984,784</b>	<b>\$3,850,622</b>	<b>\$852,274,479</b>	<b>\$91,105,000</b>

<sup>1</sup> Quarterly Budget Update September 30, 2016



## Regulatory Documentation and Guidelines

**ROW Manual:** In support of the high-speed rail program and in compliance with federal and state mandates required by the California Property Acquisition Law and the Federal Uniform Relocation Assistance and Real Estate Property Acquisition for Federal and Federally Funded Policies Act of 1970, the Authority has developed policies and procedures for the appraisal, acquisition and management of real property. The Authority also developed the program's right-of-way manual, which includes policies and procedures for acquiring and managing property rights through purchase, easement, lease or other legal instruments including, when necessary, condemnation. These policies and procedures are being utilized consistently throughout the program.

**Property Management Plan:** Maintenance and protection of property interests acquired in the name of the State of California are provided by the property acquisition agent until control of the property is transferred to the contractor. The property acquisition agent is required to maintain an inventory of real property and improvements acquired for the project. Additional responsibilities assigned to the property acquisition agent include protecting the property from vandalism, encroachment or other misuse prior to turnover to the contractor.

**Right-of-Way Data Exchange System (ROWDES):** In addition to the right-of-way manual, the Authority uses this internal reporting system to track right-of-way acquisition and management. This database is used to manage every parcel acquired by the Authority. ROWDES contains modules for each step of the acquisition/management process, including appraisals, acquisition, condemnation, costs, etc. The data generated by ROWDES enables the generation of weekly reports on ROW status and is used to produce the Board monthly and FRA Quarterly reports.

## Procurement

In FY16/17 the Authority expects to award two additional contracts. The additional contracts include:

- ROW Services: Work related to environmental assessments, appraisals, acquisition and relocation services. (Anticipate awarding multiple contracts.)
- ROW Engineering: Work related to boundary surveys, appraisal maps, legal descriptions, title research for the San Jose to Madera section. (Expect to award up to four contracts.)
- ROW Property Management Services: Management of parcels once acquired, transfer to the DB for construction and final overall disposition of excess properties. (Will award up to four contracts.)

In addition, minor contract amendments may also be necessary to existing contracts to ensure the timely delivery of ROW for construction.

## Deliverables

The Authority provides FRA an update on ROW acquisition as part of its quarterly reporting. In addition, monthly reports will continue related to WCA ROW activities and expenditures. The latest acquisition update can be found by sorting on the deliverables pull down menu for ROW Acq Plan at the following link: <https://chsra.pbid.com/pmt/gm/Deliverables/Forms/AllItems.aspx>

## Task 8 Final Design and Construction Contract Work

The First Construction Segment (FCS) is approximately 118 miles traversing the Central Valley from northern Madera County to Shafter. The alignment is broken into four civil construction packages and one track work construction package (Figure 7). The five construction packages include:

- **SR 99 – Civil Infrastructure** – Caltrans is designing and constructing roadway improvements to support the high speed train infrastructure from Ashlan Avenue to Clinton Avenue in Fresno
- **CP 1 – Civil Infrastructure** – Avenue 19 (Madera) to East American Avenue (Fresno), 31 miles
- **CP 2-3 – Civil Infrastructure** – East American Ave (Fresno) to one mile north of Tulare/Kern County line, 65 miles
- **CP 4 – Civil Infrastructure** – One mile north of Tulare/Kern County line to Poplar Avenue north of Bakersfield, 22 miles
- **CP 5 – Track** (also known as Rail Infrastructure, RI1) – including systems, communications, signaling, and overhead power for CP1, CP2-3 and CP4

The following contractors have been procured to date:

- CP 1 was awarded to Tutor Perini/Zachry/Parsons (TPZP) Joint Venture in 2013
- CP 2-3 was awarded to the Dragados/Flatiron Joint Venture in 2015
- CP 4 was awarded to California Rail Builders: Farrovial Agroman US Corp in 2016

### Staffing

Chapter 3 of the DBPP outlines the roles and responsibilities of the Authority and the various contractors and consultant resources used to manage the DB construction. The plan was approved by FRA in April 2016 and can be found at <https://chsra.pbid.com/pmt/gm/Deliverables/DBPP-PMP%20FCS%20CHSRA%20Final%20042016.pdf>

The project director leads each construction section and has the overall responsibility for all construction elements including design, construction, ROW, third parties, project delivery, etc. The project director is supported by a project manager whose primary responsibility is to coordinate all the external and third party elements. A design and construction manager is the contract manager for each DB and PCM contract (Figure 8). They ensure effective coordination between the project team and the DB contractor. The project director is the Authority's lead representative for each construction project and the design and construction manager is the lead representative for DB and PCM contract issues.

The Authority has hired Project and Construction Management (PCM) firms (discussed in Task 5, Program, Project and FCS Construction Management) to oversee DB contract compliance. These firms provide on-site project and construction management services covering areas such as project pre-planning and programming; procurement, design and construction support; commissioning; testing; claims; and post construction services.

- Wong+Harris provides on-site oversight for CP 1
- Arcadis was procured for CP 2-3
- HNTB was procured for CP 4

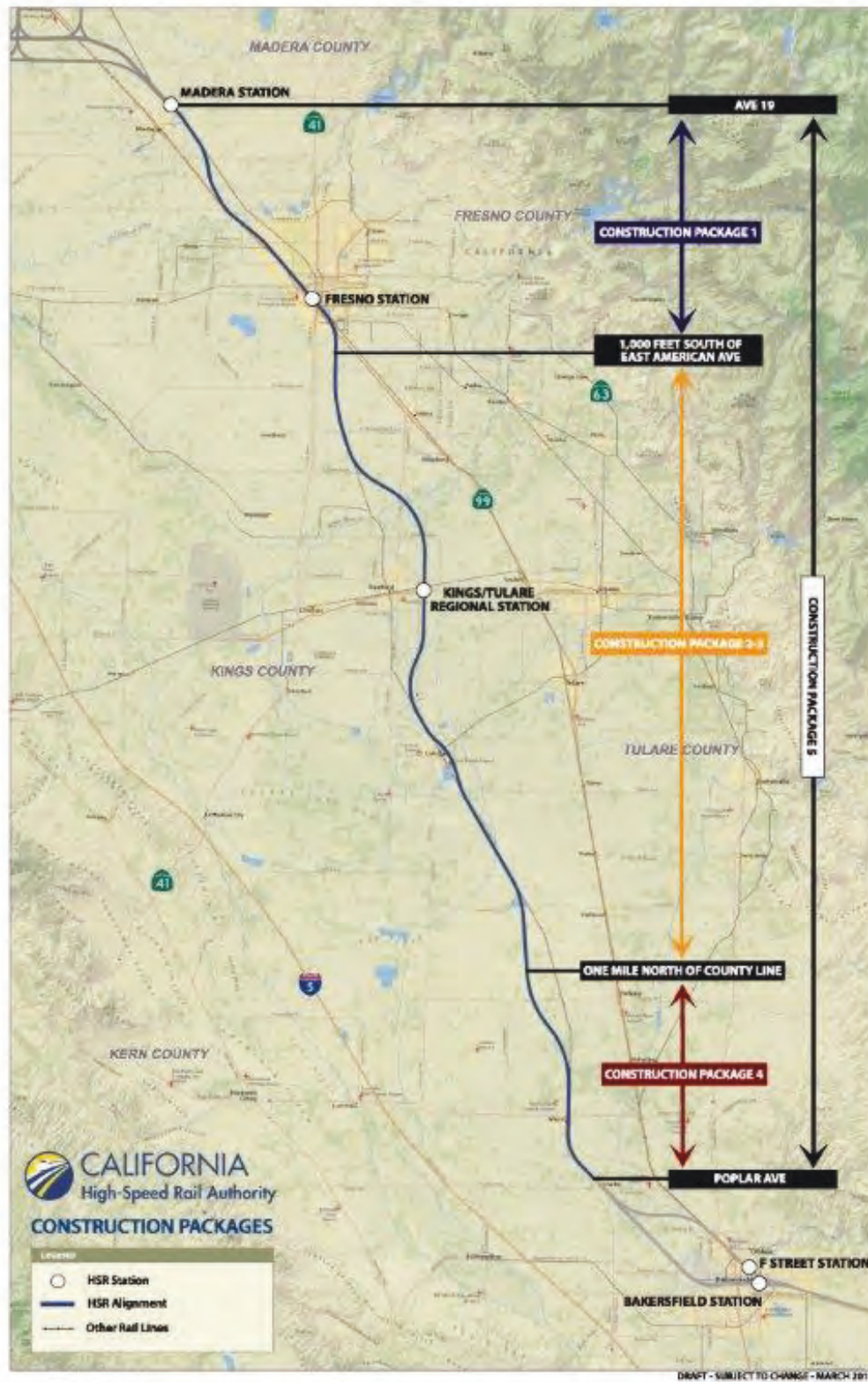


Figure 7 - First Construction Section





## Schedule

Appendix D – Summary Schedule (September 2016) provides an overview of the construction schedules for each construction project. In addition, FRA is provided the baseline schedules for each construction project as they are approved by the Authority. Baseline schedules have been provided for CP1 and CP 2-3. The CP 4 baseline schedule will be available 4<sup>th</sup> Quarter 2016.

## Budget

The Task 8 budget is summarized in Table 13. It reflects the grant agreement budget of \$3,772,057,495 for civil and track construction of the FCS. It also identifies the additional resources required of \$660,294,844 to complete the project as outlined in Attachment 3, Statement of Work of the grant agreements. Currently, funding for SR 99 is through the ARRA grant. The FCS Track Work Construction is currently under development. A budget will be identified prior to any proposal being released and the budget below will reflect only the federally funded portion of track work for the FCS.

**Table 13 - Task 8, Final Design and FCS Construction Budget**

Sub Task <sup>1</sup>	ARRA	State	FY10	State	Total
<b>8.1 SR 99</b>	\$101,889,294	\$124,010,706	0	0	\$ 225,900,000
<b>8.2 Civil Construction Package 1 (CP 1)</b>	\$479,871,360	\$367,440,832	\$541,762,788	\$58,956,469	\$1,448,031,449
<b>8.3 Civil Construction Package 2 (CP 2-3)</b>	\$706,738,379	\$857,745,697	\$93,048,378	\$138,235,436	\$1,795,767,890
<b>8.4 Civil Construction Package 4 (CP 4)</b>	\$62,045,209	\$75,515,983	\$123,762,365	\$41,034,599	\$302,358,156
<b>8.5 FCS Track Work Construction (CP 5)</b>	0	0	0	0	0
<b>Total</b>	<b>\$1,350,544,242</b>	<b>\$1,424,713,218</b>	<b>\$758,573,531</b>	<b>\$238,226,504</b>	<b>\$3,772,057,495</b>

<sup>1</sup> Quarterly Budget Update September 30, 2016

**Table 14 - Task 8, Additional Resources Budget**

Sub Task <sup>1</sup>	Additional Resources
<b>8.1 SR 99</b>	\$ 35,000,000
<b>8.2 Civil Construction Package 1 (CP 1)</b>	\$ 235,246,547
<b>8.3 Civil Construction Package 2 (CP 2-3)</b>	\$ 27,000,000
<b>8.4 Civil Construction Package 4 (CP 4)</b>	\$ 251,198,844
<b>8.5 FCS Track Work Construction (CP 5)</b>	\$ 446,096,000
<b>Total</b>	<b>\$ 994,541,391</b>

<sup>1</sup> Quarterly Budget Update September 30, 2016

## Regulatory Documentation and Guidelines

**Design-Build Program Plan (DBPP):** This plan outlines the Authority's approach to project delivery for the initial operating segment and identifies the project implementation procedures and methods established by the Authority to achieve successful design-build project delivery.

**Project and Construction Management Manual (PCMM):** This manual describes how the Authority will execute the design-build projects through an integrated staffing approach that uses Authority staff, PCM, RDP and other consultants. The PCMM establishes uniform guidelines and procedures in contract management and administration and design and construction oversight for each design-build contract. The PCMM addresses responsibilities subsequent to the award of contracts. It also presents, interprets and clarifies established general policies and practices applicable to the work in dealing with various situations that may arise.

## Procurement

Several procurements are expected in FY16/17. These include:

- Procurement of rail infrastructure CP 5, also known as Rail Infrastructure 1 (RI 1)
- Rolling Stock

Other procurements under discussion include small traditional design-bid-build contracts for specific upfront work including small civil construction packages or contracts for such activities as utility relocations, hazardous materials removal/remediation, site demolition, and clearing and grubbing.

## Deliverables

The deliverables identified in the grant agreement are noted below. The next fiscal year will see a dramatic increase in construction progress now that the three primary civil DB contracts have been executed. The following are some of the general activities that will occur:

### SR 99

- Complete the Early Works package and begin Main package construction
- Complete remaining UPRR easements and eminent domain parcel acquisitions

### CP 1

- Tuolumne Street overcrossing will be completed and Stanislaus bridge demolition will begin
- Work will continue on several structures including
  - Fresno River Viaduct
  - Cottonwood Creek Bridge
  - San Joaquin River Bridge
  - Fresno Trench and intrusion barrier construction
  - SR 180 undercrossing
  - Cedar Viaduct
- Work will begin in the following locations
  - Avenue 8 Bridge overpass
  - Avenue 12 overpass and road widening
  - American Avenue, Avenue 15 and Avenue 15 ½ overpasses



## CP 2-3

- North nine miles and south six miles complete clearing and grubbing, begin utility relocation, relocation of irrigation crossings and construction of floodplain crossings
- Begin BNSF relocations at Bowles and Monmouth
- Begin grade separations at Adams, Floral, Elkhorn, Kent, Kansas and Nevada avenues and at Avenue 56

## CP 4

- Complete environmental re-examinations
- Begin clearing and grubbing activities where ROW is available
- Complete utility agreements and final designs
- Prepare type selection reports and begin final design

The following deliverables are scheduled for FY16/17. The date noted below represents the last date a deliverable of that type is expected and that phase would be complete.

**Table 15 - FY 16/17 Final Design and Construction Contract Deliverables**

<b>Deliverable<sup>1</sup></b>	<b>Schedule</b>
<b>Construction Package 1</b>	
<b>Type Selection Reports</b>	4 <sup>th</sup> Qtr 2016
<b>60 % Design</b>	4 <sup>th</sup> Qtr 2016
<b>90% Design</b>	1 <sup>st</sup> Qtr 2017
<b>Ready for Construction Design</b>	2 <sup>nd</sup> Qtr 2017
<b>Construction Package 2-3</b>	
<b>Type Selection Reports</b>	2 <sup>nd</sup> Qtr 2017
<b>Construction Package 4</b>	
<b>Detailed Baseline Schedule</b>	4 <sup>th</sup> Qtr 2016

<sup>1</sup> September 2016

## Appendix A – Grant Tasks and Sub-Tasks (Grant Work Breakdown Structure)

### Task 1: Environmental Review

- Task 1.1. Regional Consultant Project Management (RC): Development of RC Project Management Plan.
- Task 1.2. Regional Consultant Public/Agency Participation (RC): Developing and implementing a public involvement program focused on identifying regional and local issues and concerns of the potential impacts of HST system and for proposing necessary mitigation measures.
- Task 1.3. Alternatives Analysis (RC): Project Definition including a segment-by-segment alignment description of the HST design options to be investigated in the Project EIR/EIS process(s).
- Task 1.4. EIR/EIS Analysis (RC): Technical studies necessary to evaluate and assess impacts of the HST Alternatives and No Project Alternative as part of the EIR/EIS process(s), addressing both alignments and proposed station locations.
- Task 1.5. Draft and Final EIR/EIS (RC): Preparation of the Draft EIR/EIS document(s) and Final EIR/EIS document(s), including necessary administrative review versions. The site-specific EIR/EIS document(s) must satisfy all the requirements of CEQA and NEPA.
- Task 1.6. Certification of EIR/EIS and ROD (RC): Preparation of other related environmental documents that are required as part of the certification of the Project EIR/EIS document(s), including Findings and a Statement of Overriding Considerations, the Record of Decision/Notice of Determination, and the Mitigation Monitoring and Reporting Plan.
- Task 1.7. Program Management (RDP): Project Management, Controls and communication related to environmental review and permitting for Rail Delivery Partners Team and Regional Consultants toward the goal of the Notice of Determination and Record of Decision.
- Task 1.8 Non-federal Resource and Other Agencies for Environmental Review (Multiple agencies): State agencies support of environmental permitting processes.

### Task 2: Preliminary Engineering (PE)

- Task 2.1. Regional Consultant PE (RC): Development of HST design concepts at a sufficient level of detail to develop accurate capital cost estimates, right-of-way requirements, construction staging, traffic and environmental impacts to satisfy CEQA and NEPA requirements.
- Task 2.2. Program Management (RDP): Project Management, controls and communication related to preliminary engineering for Rail Delivery Partner Team and Regional Consultants.
- Task 2.3. RDP Engineering (RDP): Engineering support to establish master standards for the project and establish procedures and systems to provide compliance and coordination between all sections.

### Task 3: Other Related Work Needed Prior to Start of Construction

- Task 3.1. Regional Consultant Station Area Planning (RC): RC-supported work with the local jurisdictions and public in developing HST station area plans.
- Task 3.2. Regional Consultant ROW Work (RC): Conduct assessments to identify segments at risk of imminent development or other changes in use that could significantly increase implementation costs and difficulty.

- Task 3.3. RDP ROW Work (RDP): Development of a Right-of-Way assessment and acquisition program.
- Task 3.4. Ridership Forecasting (RDP): Ridership work, ridership & revenue forecasts and station boarding's to support HST System phases of development.
- Task 3.5. Construction Planning / Procurement Support (RDP): Services to procure other services, equipment and construction for the total project implementation. Including possible staging options to best serve the project.
- Task 3.6. Station Area Planning: Development of a station area plan or equivalent incorporating a transit-oriented development (TOD) development code and/or specific plan (or equivalent) to the local comprehensive plan.
- Task 3.7. LAUS/So California Investments: Preservation and acquisition of property, rights-of way, and the related environmental clearances and engineering activities that will enable HST to operate at Los Angeles Union Station (LAUS).
- Task 3.8. Legal Services – Pre-construction: Legal assistance in negotiations pertaining to federal and state laws with freight and passenger rail companies that may be impacted by the HSR project.

#### **Task 4: Project Administration and Statewide Cost Allocation Plan (SWCAP, Complete)**

#### **Task 5: Program, Project and FCS Construction Management**

- Task 5.1. Program Management (RDP): Program Management activities may include program and project management and controls, engineering due diligence reviews, commercial and procurement support, program wide planning, implementation planning, system electrification and testing and commissioning, design/build support (as applicable), network integration and system assurance.
- Task 5.2 Project Construction Management (PCM): FCS project construction management activities may include contract administration, submittal review, quality assurance oversight inspection for work in place and materials, management of claims and change orders, and review and approval of progress payment requests and final acceptance of the work.
- Task 5.3 Legal Services – Construction: Legal assistance for issues that impact construction.

#### **Task 6: Real Property Acquisition and Environmental Mitigation**

- Task 6.1. Real Property – Preliminary ROW: Work performed in preparation for procurement up to, but not including, the first written offer to purchase
- Task 6.2. Real Property – ROW Services & Relocation: On-the-ground real property activities which may include parcel identification, survey and mapping, appraisals, offers of just compensation, negotiations and relocation benefits.
- Task 6.3 Real Property - Environmental Mitigation: Grantee-implemented environmental mitigation.
- Task 6.4 Real Property – ROW Acquisition: Capital costs of obtaining any real property interest necessary for the FCS. And, with FRA prior written approval, outside of the FCS.

#### **Task 7: Early Work Program (Deleted)**

### **Task 8: Final Design and Construction Contract Work for the FCS**

- Task 8.1: SR-99: Final design and construction for highway relocations (State Route-99) as well as interface reviews and civil infrastructure. This work will be completed by Caltrans working as a contractor to CHSRA.
- Task 8.2: Civil Infrastructure Construction Package 1 (CP1): Civil and structural infrastructure from approximately Avenue 19 in Madera County to approximately East American Avenue in Fresno County.
- Task 8.3: Civil Infrastructure Construction Package 2-3 (CP2-3): Civil and structural infrastructure between approximately East American Avenue in Fresno County to approximately one mile north of the Tulare-Kern County Line.
- Task 8.4: Civil Infrastructure Construction Package 4 (CP4): Final design and construction of civil and structural infrastructure from one mile north of the Tulare-Kern County Line southward to North of Bakersfield, currently near Poplar Ave.
- Task 8.5: FCS Track Work Construction (CP5): Final design and construction of track work for the civil and structural infrastructure construction in Construction Packages 1 through 4.

### **Task 9: Interim Use Project Reserve**

- Task 9.1 Project Reserves: Funds over and above the Unallocated Contingency that have been budgeted but not yet allocated to specific tasks.
- Task 9.2 Interim Use Reserve: Infrastructure necessary to initiate independent utility on the FCS funded under this Agreement which may include track, signal and communications elements, stations, and a limited maintenance facility.

**Task 10: Unallocated Contingency** – Contingency that is not allocated to a specific task or sub-task.

## **Appendix B – Detailed Grant Budget (September 2016)**



## Budget Summary

ARRA Grant # HSR-0009	Total Budgeted	Federal Budget	Federal Expended to Date <sup>1</sup>	Federal Outlays to Date <sup>2</sup>	State Budget	State Expended to Date <sup>3</sup>	Local (Other) Budget	Local (Other) Expended to Date	Total Budgeted (Prior Quarter)	Delta (Total Budgeted vs. Prior Quarter)	Additional State Budget
Task 1: Environmental Review	\$ 499,634,483	\$ 173,327,113	\$ 144,029,194	\$ 144,029,194	\$ 326,207,370	\$ 72,552,237	\$ -	\$ -	\$ 499,634,483	\$ -	\$ -
Task 2: Preliminary Engineering	337,361,863	254,262,236	128,504,951	128,504,951	82,999,427	64,952,262	-	-	337,361,863	-	-
Task 3: Other Related Work Needed Prior to Start of Construction	189,425,982	83,009,008	31,453,400	31,453,400	54,218,974	15,449,931	52,100,000	-	189,425,982	-	-
Statewide Cost Allocation Plan (SWCAP)	677,872	677,872	677,872	677,872	-	-	-	-	677,872	-	-
Task 6: Program, Project and FCS Construction Management	362,774,537	177,469,725	172,499,637	172,499,637	185,314,512	21,023,566	-	-	362,774,537	-	139,400,000
Task 6: Real Property Acquisition and Environmental Mitigation	839,499,073	469,319,843	466,000,258	466,000,258	380,119,430	68,700,362	-	-	839,499,073	-	91,105,000
Task 7: Early Work Program	-	-	-	-	-	-	-	-	-	-	-
Task 8: Final Design and Construction Contract Work for the FCS	2,775,267,460	1,290,544,242	688,984,947	688,984,947	1,424,713,218	50,403,700	-	-	2,775,267,460	-	994,541,391
Task 9: Project Reserves	53,856,392	53,856,392	53,856,392	53,856,392	-	-	-	-	53,856,392	-	-
Task 10: Unallocated Contingency	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ 5,058,327,462</b>	<b>\$ 2,652,569,231</b>	<b>\$ 1,616,006,651</b>	<b>\$ 1,616,006,651</b>	<b>\$ 2,463,671,231</b>	<b>\$ 203,089,188</b>	<b>\$ 52,100,000</b>	<b>\$ -</b>	<b>\$ 5,058,327,462</b>	<b>\$ -</b>	<b>\$ 1,225,046,391</b>

FY 10 Grant # HSR-0118	Total Budgeted	Federal Budget	Federal Expended to Date <sup>1</sup>	Federal Outlays to Date <sup>2</sup>	State Budget	State Expended to Date	Local (Other) Budget	Local (Other) Expended to Date	Total Budgeted (Prior Quarter)	Delta (Total Budgeted vs. Prior Quarter)	Additional State Budget
Task 1: Environmental Review	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Task 2: Preliminary Engineering	-	-	-	-	-	-	-	-	-	-	-
Task 3: Other Related Work Needed Prior to Start of Construction	-	-	-	-	-	-	-	-	-	-	-
Task 4: Project Administration & Statewide Cost Allocation Plan (SWCAP)	-	-	-	-	-	-	-	-	-	-	-
Task 5: Program, Project and FCS Construction Management	56,462,530	44,500,002	-	-	11,962,478	-	-	-	56,462,530	-	-
Task 6: Real Property Acquisition and Environmental Mitigation	12,835,406	8,984,784	-	-	3,850,622	-	-	-	12,835,406	-	-
Task 7: Early Work Program	-	-	-	-	-	-	-	-	-	-	-
Task 8: Final Design and Construction Contract Work for the FCS	995,800,035	759,573,531	-	-	236,226,504	-	-	-	995,800,035	-	-
Task 9: Project Reserves	154,290,261	106,023,253	-	-	48,267,008	-	-	-	154,290,261	-	-
Task 10: Unallocated Contingency	68,046,668	8,538,380	-	-	59,508,288	-	-	-	68,046,668	-	-
<b>Total</b>	<b>\$ 1,288,455,000</b>	<b>\$ 928,630,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 359,805,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,288,455,000</b>	<b>\$ -</b>	<b>\$ -</b>

<sup>1</sup> Federal Expended to Date represents payments the FRA has made to the Authority as reported on the SF 425 and identified within draw 16-033.

<sup>2</sup> Federal Outlays to Date represents payments The Authority has made to their vendors.

<sup>3</sup> State Expended to Date represents draw 16-033.

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## Budget Summary

Combined Project Funding	Total Budgeted	Federal Budget	Federal Expended to Date	Federal Outlays to Date	State Budget	State Expended to Date	Local (Other) Budget	Local (Other) Expenditure to Date	Total Budgeted (Prior Quarter)	Delta Budgeted (Prior Quarter)	Additional State Budget
Task 1: Environmental Review	\$ 499,634,483	\$ 173,322,113	\$ 144,029,194	\$ 144,029,194	\$ 326,207,270	\$ 72,664,237	\$ -	\$ -	\$ 499,634,483	\$ -	\$ -
Task 2: Preliminary Engineering	337,381,663	244,362,236	126,604,961	126,604,961	82,999,437	64,962,362	-	-	337,381,663	-	-
Task 3: Other Related Work Needed Prior to Start of Construction	189,426,982	83,009,008	31,453,400	31,453,400	54,316,074	16,449,931	52,100,000	-	189,426,982	-	-
Task 4: Project Administration & Sideside Cost Allocation Plan (SWCAP)	677,872	677,872	677,872	677,872	-	-	-	-	677,872	-	-
Task 5: Program, Project and FCS Construction Management	419,227,067	221,959,777	172,499,637	172,499,637	197,267,200	21,022,606	-	-	419,227,067	-	\$ 139,400,000
Task 6: Real Property Acquisition and Environmental Mitigation	852,274,479	488,304,437	498,000,253	498,000,253	383,970,062	68,700,382	-	-	852,274,479	-	\$ 91,105,000
Task 7: Early Work Program	-	-	-	-	-	-	-	-	-	-	-
Task 8: Final Design and Construction Contract Work for the FCS	3,772,057,495	2,109,117,773	589,984,947	589,984,947	1,662,939,722	50,409,700	-	-	3,772,057,495	-	\$ 994,541,391
Task 9: Project Reserves	208,146,753	161,879,646	53,856,392	53,856,392	46,267,708	-	-	-	208,146,753	-	-
Task 10: Unallocated Contingency	68,046,668	8,638,380	-	-	59,608,288	-	-	-	68,046,668	-	-
<b>Total</b>	<b>\$ 6,346,752,492</b>	<b>\$ 3,481,176,231</b>	<b>\$ 1,819,006,651</b>	<b>\$ 1,819,006,651</b>	<b>\$ 2,813,476,231</b>	<b>\$ 293,089,188</b>	<b>\$ 52,100,000</b>	<b>\$ -</b>	<b>\$ 6,346,752,492</b>	<b>\$ -</b>	<b>\$ 1,226,046,391</b>

<sup>1</sup> Federal Expended to Date represents payments to the FRAs made to the Authority as reported on the SF 425 and identified within draw 16-033.

<sup>2</sup> Federal Outlays to Date represents payments to the Authority as made to their vendors.

<sup>3</sup> State Expended to Date represents draw 16-003.

## **Appendix C – Environmental Milestone and Permits Schedules (September 2016)**

The Government of Alberta, Canada

[illegible]

*DRAFT Prepared as of September 1, 2015*

Legend	Identify VV	Actual	Identify VV	Forecast
Notes				
1				
2				
3				
4				
5				
6				
7				
8				

Environmental Permits <sup>12</sup>

Section	Submit Biological Assessment	Obtain Biological Opinion	Submit Section 106 Report	Obtain Section 106 NOA	Submit Section 401 Permit Application	Obtain Section 401 Water QTY Certification	Submit Preliminary 408 Determination	Receive Preliminary 408 Determination	Submit Section 404 Permit Application	Obtain Section 404 Permit	Draft Compensatory Mitigation Plan	Final Compensatory Mitigation Plan	Submit CDFW 1602 Application	Obtain CDFW 1602 Permit	Submit CDFW 2081 Permit Application	Obtain CDFW 2081 Permit	Submit 405 Permit Application	Obtain 405 Permit
	Section 7		Section 106	Section 106	Section 401		408 Determination		Section 404		CMP		CDFW 1602		CDFW 2081		405 Permit	
Morrer - Fresno (M-F)	Dec-11	Mar-14	Sep-11	Aug-12	Apr-13	Apr-14	N/A	N/A	Jun-11	Mar-14	Mar-12	Mar-14	Apr-13	Mar-14	Mar-13	Mar-14	Mar-17	Sep-17
Fresno - Bakersfield (F-B)	Jul-12	Apr-14	Jun-13	May-14	Mar-14	Nov-16	Nov-13	Jun-14	Jun-14	Nov-16	Dec-13	Apr-15	Mar-15	Apr-16	Mar-15	Jun-15	Apr-17	Oct-17
San Francisco - San Jose (F-S)	Jun-17	Aug-17	Nov-16	Sep-17	Sep-17	Apr-18	N/A	N/A	Sep-17	Mar-18	Sep-17	May-18	Sep-17	Apr-18	Sep-17	May-18	May-18	Nov-18
San Jose - Merced (J-M)	Mar-17	Aug-17	Nov-16	Sep-17	Dec-17	Jun-18	Mar-17	Apr-17	Dec-17	Jun-18	Dec-17	Jun-18	Dec-17	Jun-18	Dec-17	Jun-18	May-18	Nov-18
Central Valley Wye (M-F) <sup>8</sup>	Mar-16	Jun-17	Dec-16	Sep-17	Sep-17	Jun-18	Jun-17	Nov-17	Oct-16	Apr-18	May-17	Nov-17	Sep-17	Feb-18	Sep-16	Jun-18	Jun-18	Dec-18
CV Electrical Interconnect (CVB)	Jul-16	Oct-16	Mar-17	May-17	N/A	N/A	Sep-16	N/A	Nov-16	Nov-16	Oct-17	Nov-17	N/A	N/A	Sep-16	Jun-18	N/A	N/A
Heavy Maintenance Facility (HMF)	Mar-16	Mar-17	Apr-16	Mar-17	Mar-17	Nov-17	N/A	N/A	Mar-17	Nov-17	Mar-17	Sep-17	Mar-17	Sep-17	Mar-17	Sep-17	N/A	N/A
Locally Generated Alternative (F-B) <sup>6</sup>	Mar-16	Sep-16	May-16	Sep-16	Jun-17	Aug-17	May-16	Aug-16	May-17	Sep-17	Feb-16	TBD	Aug-17	Oct-17	Apr-16	Oct-17	Nov-17	May-18
Bakersfield - Palmdale (B-P) <sup>3</sup>	May-17	Oct-17	Nov-16	Jun-17	Dec-17	Jun-18	N/A	N/A	Dec-17	Aug-18	May-17	Sep-17	Jul-17	Mar-18	Jul-17	May-18	Jun-18	Dec-18
Palmdale - Burbank (P-B) <sup>3,4</sup>	May-17	Oct-17	Mar-17	Oct-17	Dec-17	Mar-18	Jul-17	Aug-17	Dec-17	May-18	Jun-17	Feb-18	Dec-17	Mar-18	Aug-17	Jul-18	Jun-18	Dec-18
Burbank - Los Angeles (B-LA) <sup>5</sup>	Nov-16	Dec-17	Dec-16	Dec-17	Aug-17	Jun-18	N/A	N/A	Aug-17	Jun-18	Mar-17	Apr-17	Jul-17	Dec-17	Apr-17	Dec-17	Jun-18	Dec-18
Los Angeles - Anaheim (LAA) <sup>5</sup>	Nov-16	Dec-17	Dec-16	Dec-17	Aug-17	Jun-18	N/A	N/A	Aug-17	Jun-18	Mar-17	Apr-17	Jul-17	Dec-17	Apr-17	Dec-17	Jun-18	Dec-18

DR417 Prepared as of September 1, 2018

Schedule analysis is modified by information from preliminary engineering and estimates. For alignments currently under study or in development. Limits of the work represent discrete possible alternatives and are subject to change due to environmental review, funding and final design.

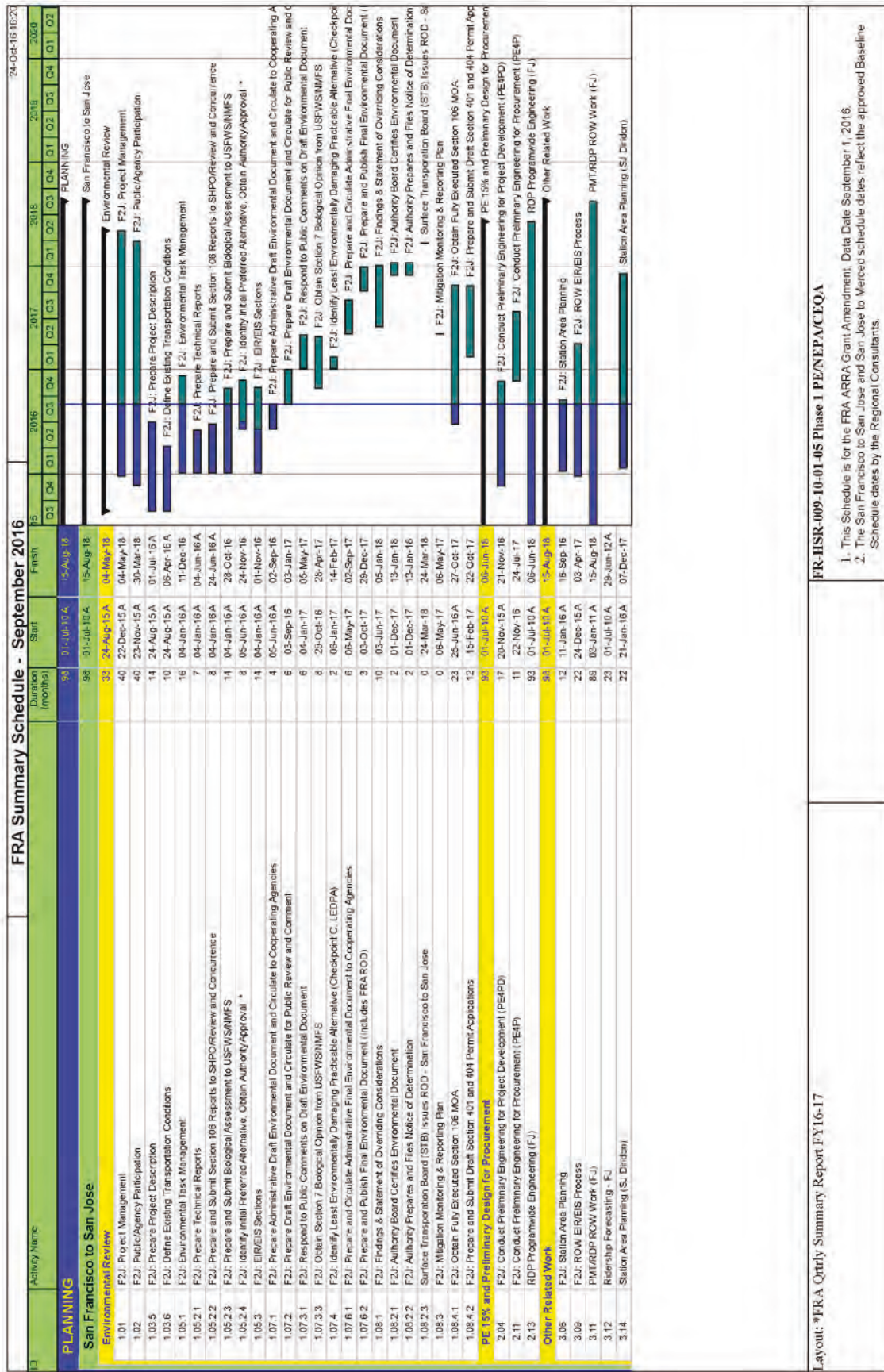
Legend: Minm-YY Actual

Notes:

- 1 The schedule assumes two cycles of concurrent Authority, Attorney General, and FRA review of technical documents. Cycle One in ten days, starting with the RC's initial submittal. Reviewers have five days for review before an RC/reviewer workshop to discuss comments, then five days to complete and submit comments to the Authority. The RC then has five days to revise and resubmit. Cycle Two is five days, starting with resubmittal and a RC/reviewer workshop. Reviewers complete discussions and submit back check revisions to the Authority within five days of the workshop. The RC then has five days to revise, produce, and submit a final version to the Authority.
- 2 Test identified in red indicates a change from the previous month.
- 3 Discussions ongoing with USFWS regarding Regional BO approach.
- 4 Consultation with USFWS ongoing regarding permitting approach (East Corridor Alternatives).
- 5 Represent forecast trends as a result of the deferred identification of the initial preferred alternative and additional effort to scope definition.
- 6 USFWS has indicated no need to reinitiate Section 7 consultation.
- 7 Filed with Submittal of Checkpoint C.
- 8 With Checkpoint C Concurrence.
- 9 6 months after FSA ROD is published.
- 10 6 months after 408 application submitted.

## **Appendix D – Summary Schedule (September 2016)**

















FRA Summary Schedule - September 2016																
IC	Activity Name	Duration (months)	Start	Finish	2016	2017	2018	2019	2020							
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
<b>PLANNING</b>																
<b>Heavy Maintenance Facility</b>																
1.01	HMF: Project Management	84	02-Feb-11 A	22-Jan-16												
1.01.1	HMF: PM Plan/Meetings/Coordination	116	02-Feb-11 A	22-Jan-16												
1.01.2	HMF: Quality Assurance/Quality Control/Safety/Risk	43	01-Jul-15 A	22-Jan-18												
1.01.3	HMF: Document Control	43	01-Jul-15 A	22-Jan-18												
1.01.4	HMF: Schedule, Budget & Progress Reporting	43	01-Jul-15 A	22-Jan-18												
1.02	HMF: Public/Agency Participation	31	01-Jul-15 A	10-May-17												
1.02.3	HMF: Maintain Stakeholder Database	31	01-Jul-15 A	10-May-17												
1.02.5	HMF: Stakeholder Meetings & Briefings	17	16-Oct-15 A	10-Oct-16												
1.03	HMF: Complete NCPA/QI, Scoping and Purpose & Need *	0	02-Feb-11 A													
1.03.5	HMF: Prepare Project Description	3	16-Oct-15 A	10-Dec-15 A												
1.05.1	HMF: Environmental Task Management	46	01-Jul-15 A	22-Jan-18												
1.05.2.1	HMF: Prepare Technical Reports	16	16-Oct-15 A	25-Sep-16												
1.05.2.2	HMF: Prepare and Submit Section 106 Reports to SHPO/Review and Concurrence	1	26-Sep-16	10-Oct-16												
1.05.2.3	HMF: Prepare and Submit Biological Assessment to USFWS/NMFS	16	16-Oct-15 A	26-Sep-16												
1.05.2.4	HMF: Identify Initial Preferred Alternative, Obtain Authority Approval *	1	01-Sep-16	12-Sep-16												
1.05.3	HMF: EIR/ES Sections	23	16-Oct-15 A	04-Mar-17												
1.07.1	HMF: Prepare Administrative Draft Environmental Document and Circulate to Cooperating Agencies	23	16-Oct-15 A	04-Mar-17												
1.07.2	HMF: Prepare Draft Environmental Document and Circulate for Public Review and Comment	0	05-Mar-17	11-Mar-17												
1.07.3.1	HMF: Respond to Public Comments on Draft Environmental Document	3	12-Mar-17	10-May-17												
1.07.3.2	HMF: Identify Preliminary Preferred Alternative *	3	11-May-17	09-Jul-17												
1.07.3.3	HMF: Obtain Section 7 Biological Opinion from USFWS/NMFS	3	22-Jun-17	21-Aug-17												
1.07.4	HMF: Identify Least Environmentally Damaging Practicable Alternative (Checkpoints C, LEDPA)	7	24-Mar-17	21-Aug-17												
1.07.5	HMF: Cal. Dept of Fish & Game (CDFG) Consistency Determination	0	21-Aug-17	02-Aug-17												
1.07.6.1	HMF: Prepare and Circulate Administrative Final Environmental Document to Cooperating Agencies (includes FRA ROD)	4	05-May-17	02-Aug-17												
1.07.6.2	HMF: Prepare and Publish Final Environmental Document (includes FRA ROD)	3	05-Aug-17	11-Oct-17												
1.08.1	HMF: Findings & Statement of Overriding Considerations	1	27-Sep-17	11-Oct-17												
1.08.2.1	HMF: Authority Board Certifies Environmental Document	1	27-Sep-17	11-Oct-17												
1.08.2.2	HMF: Authority Prepares and Files Notice of Determination	1	27-Sep-17	11-Oct-17												
1.08.2.3	HMF: Surface Transportation Board (STB) Issues ROD	2	12-Oct-17	20-Nov-17												
1.08.3	HMF: Mitigation Monitoring & Reporting Plan	2	21-Aug-17	11-Oct-17												
1.08.4.1	HMF: Obtain Fully Executed Section 106 MOA	3	22-Jun-17	21-Aug-17												
1.08.4.2	HMF: Prepare and Submit Draft Section 401 and 404 Permit Applications	3	22-Jun-17	21-Aug-17												
1.08.5	HMF: Administrative Record	43	01-Jul-15 A	22-Jan-18												
<b>PE 15% and Preliminary Design/Procurement</b>																
2.02	HMF: PE Program Management	15	01-Aug-15 A	11-Nov-16												
2.04	HMF: Conduct Preliminary Engineering for Project Development (PE/PO)	20	01-Aug-15 A	29-Sep-16												
2.11	HMF: Conduct Preliminary Engineering for Procurement (PE/PP)	20	01-Aug-15 A	01-Oct-16												
2.13	RDP Programwide Engineering (HMF)	17	01-Jul-15 A	29-Dec-16												
<b>Other Related Work</b>																
3.08	HMF: ROW EIR/ES Process	1	01-Oct-15 A	31-Oct-15 A												

Layout: \*FRA Qtrly Summary Report FY16-17

FR-HSR-009-10-01-05 Phase 1 PE/NE/PA/CEQA

1. This Schedule is for the FRA ARRA Grant Amendment. Data Date September 1 2016.  
 2. The San Francisco to San Jose and San Jose to Merced schedule dates reflect the approved Baseline Schedule dates by the Regional Consultants.











FRA Summary Schedule - September 2016									
ID	Activity Name	Duration (months)	Start	End	2016	2017	2018	2019	2020
<b>PLANNING</b>									
<b>Palmdale to Burbank</b>									
1.01	P2K Project Management	58	01-Jul-10A	18-Nov-18					
1.02	P2K Regional Consultant Public / Agency Participation	42	24-Apr-15A	19-Nov-18					
1.03	P2K Prepare Project Description	38	24-Apr-15A	20-Jun-18					
1.03.1	P2K Conduct Alternatives Analysis	54	24-Apr-15A	20-Jun-18					
1.03.2	P2K Define Existing Transportation Conditions	7	02-May-16A	14-Nov-16					
1.03.3	P2K Identify Range of Alternatives for Environmental Evaluation * (Checklist B)	0	01-Jun-15A	01-Jun-15A					
1.03.4	P2K Environmental Task Management	1	21-Dec-15A	28-Jan-16A					
1.03.5	P2K Prepare Technical Reports	38	24-Apr-15A	28-Jun-18					
1.03.6	P2K Submit Section 108 Reports to SHPO/Review and Concurrence	29	01-Jul-15A	10-Nov-17					
1.03.7	P2K Prepare and Submit Biological Assessment to USFWS/NMFS	23	01-Jul-15A	12-May-17					
1.03.8	P2K Identify Initial Preferred Alternative. Obtain Authority Approval *	2	15-Nov-16	13-Jan-17					
1.03.9	P2K EIR/EIS Analysis	24	24-Apr-15A	19-Apr-17					
1.04	P2K Perform Env. Studies and Obtain Permits for Geotech Investigations	10	01-Jul-15A	20-Apr-18A					
1.04.1	P2K Prepare Administrative Draft Environmental Document and Circulate to Cooperating Agencies **	6	15-Nov-16	23-May-17					
1.04.2	P2K Respond to Public Comments on Draft Environmental Document	6	04-Jan-17	11-Jul-17					
1.04.3	P2K Obtain Section 7 Biological Opinion from USFWS/NMFS **	1	24-Apr-17	31-May-17					
1.04.4	P2K Identify Least Environmentally Damaging Practicable Alternative (Checklist C, LEOPA)	5	15-May-17	10-Oct-17					
1.04.5	P2K Call Dept of Fish & Game (CDFG) Consistency Determination	5	15-May-17	05-Oct-17					
1.04.6	P2K Prepare and Circulate Administrative Final Environmental Document	4	21-Aug-17	19-Dec-17					
1.04.7	P2K Prepare and Publish Final Environmental Document (Includes FRA/ROD)	1	30-Nov-17	29-Dec-17					
1.04.8	P2K Findings & Statement of Overriding Considerations	4	21-Aug-17	19-Dec-17					
1.04.9	P2K Authority Board Certifies Environmental Document	0	09-Jan-18	11-Jan-18					
1.05	P2K Authority Files NOD	0	09-Jan-18	12-Jan-18					
1.05.1	Surface Transportation Board (STB) Issues ROD - Palmdale to Burbank	0	27-Dec-17	28-Dec-17					
1.05.2	P2K Mitigation Monitoring & Reporting Plan	4	21-Aug-17	19-Dec-17					
1.05.3	P2K Obtain Fully Executed Section 108 MOA	13	31-May-17	14-Jun-18					
1.05.4	P2K Prepare and Submit Draft Section 401 and 404 Permit Applications	12	04-Jan-17	01-Jan-18					
1.05.5	P2K Prepare and Submit Section 408 Application	23	04-Jan-17	19-Nov-18					
1.05.6	P2K Prepare and Submit Section 408 Application	12	04-Jan-17	01-Jan-18					
1.05.7	P2K Other Required Permits	8	04-Jan-17	21-Aug-17					
1.05.8	P2K Administrative Record (TBD)	0	01-Sep-16	01-Sep-16					
1.05.9	PE 15% and Preliminary Design for Procurement	55	01-Jul-10A	31-Aug-18					
2.04	P2K Preliminary Engineering (15%, PE4RD)	22	01-Jul-15A	21-Apr-17					
2.11	P2K Conduct PE4P	15	24-Mar-17	29-Jun-18					
2.13	RDP Programwide Engineering (P2K)	96	01-Jul-10A	31-Aug-18					
<b>Other Related Work</b>									
3.06	P2K Station Area Planning	2	30-Jun-15A	15-Aug-15A					
3.09	P2K ROW/BREIS Process	15	24-Nov-17	28-Jun-18					
3.11	PMTRDP ROW Work (P2K)	23	01-Sep-16	28-Aug-18					
3.12	Ridership Forecasting - P2K	23	01-Jul-10A	28-Jun-12A					
3.14	Station Area Planning (P2K)	46	01-Nov-13A	28-Sep-17					

Layout: \*FRA Qtrly Summary Report FY16-17

FR-HSR-009-10-01-05 Phase 1 PE/NEPA/CEQA

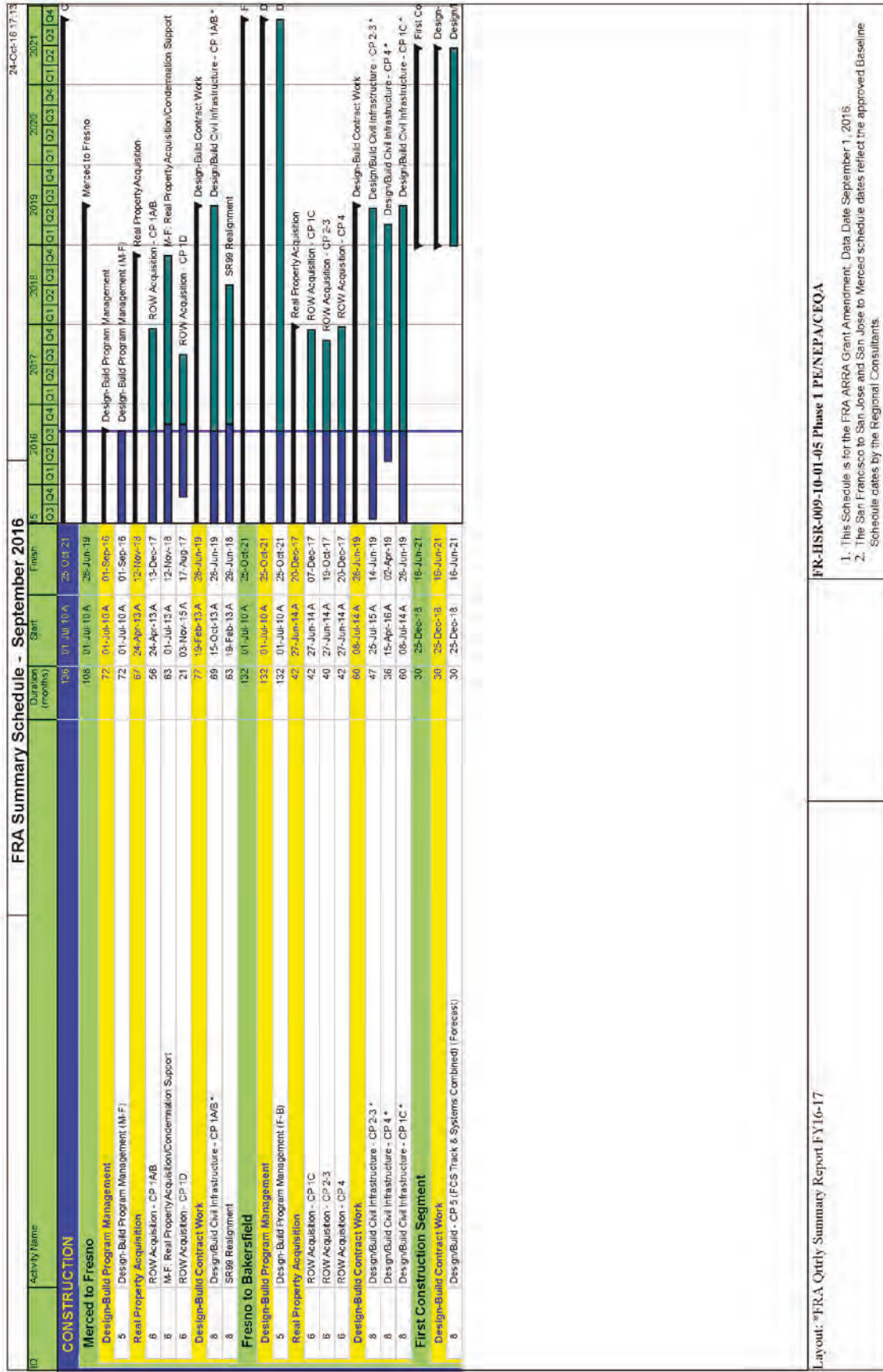
1. This Schedule is for the FRA ARRA Grant Amendment. Data Date September 1, 2016.  
 2. The San Francisco to San Jose and San Jose to Merced schedule dates reflect the approved Baseline.  
 Schedule dates by the Regional Consultants



FRA Summary Schedule - September 2016										24-Oct-16 17:01												
ID	Activity Name	Duration (months)	Start	Finish	2016				2017				2018				2019				2020	
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>PLANNING</b>																						
<b>Burbank to Los Angeles</b>																						
<b>Environmental Review</b>																						
1.01	K2L Project Management	35	01-Jul-10A	26-Oct-16																		
1.02	K2L Public Agency Participation	33	01-Apr-15A	29-Dec-17																		
1.03.1	K2L Conduct Alternatives Analysis	2	01-Apr-15A	29-Dec-17																		
1.03.2	K2L Identify Range of Alternatives for Environmental Evaluation	7	01-Feb-16A	14-Apr-16A																		
1.03.5	K2L Project Definition	5	01-Apr-16A	30-Aug-16A																		
1.03.6	K2L Define Existing Transportation Conditions	11	01-Jul-15A	01-Jun-16A																		
1.03.7	K2L NEPA/404 Integration (Checkpoint B) (TBD)	0	01-Sep-16	01-Sep-16																		
1.05.1	K2L Environmental Task Management	33	01-Apr-15A	29-Dec-17																		
1.05.2.1	K2L Prepare Technical Reports	26	01-Apr-15A	11-May-17																		
1.05.2.2	K2L Prepare & Submit Section 106 Reports to SHPO/Review and Concurrence	10	24-May-16A	27-May-17																		
1.05.2.3	K2L Prepare and Submit Biological Assessment to USFWS/NMFS	20	01-Sep-15A	11-May-17																		
1.05.2.4	K2L Identify Initial Preferred Alternative, Obtain Authority Approval	6	11-Aug-16A	08-Feb-17																		
1.05.3	K2L EIR/EIS Analysis	33	01-Apr-15A	29-Dec-17																		
1.07.1	K2L Prepare Administrative Draft EIR/EIS and Circulate to Cooperating Agencies	0	23-Feb-17	23-Feb-17																		
1.07.2	K2L Prepare Draft EIR/EIS & Circulate for Public Review/Comment & Public Review	6	01-Feb-17	24-Jul-17																		
1.07.3.1	K2L Respond to Public Comments on Draft EIR/EIS	7	31-Aug-17	05-Apr-18																		
1.07.3.2	K2L Identify Preliminary Preferred Alternative	5	27-Jan-17	16-Jun-17																		
1.07.3.3	K2L Obtain Section 7 Biological Opinion from USFWS/NMFS	14	02-Nov-16	20-Dec-17																		
1.07.4	K2L Identify LEDPA	5	27-Jan-17	16-Jun-17																		
1.07.6.1	K2L Prepare and Circulate Administrative Final EIR/EIS to Cooperating Agencies, includes FRA/ROD	3	16-Oct-17	20-Dec-17																		
1.07.6.2	K2L Prepare and Publish Final EIR/EIS, includes FRA/ROD	0	19-Dec-17	20-Dec-17																		
1.08.1	K2L Findings & Statement of Overriding Considerations	2	02-Nov-17	29-Dec-17																		
1.08.2.1	K2L Authority Board Certifies EIR	1	08-Jan-18	23-Jan-18																		
1.08.2.2	K2L Authority Prepares and Files Notice of Determination	1	29-Dec-17	24-Jan-18																		
1.08.2.3	Surface Transportation Board (STB) Issues ROD - Burbank to Los Angeles	2	10-Jan-18	26-Feb-18																		
1.08.3	K2L MRRP/NMMP	3	02-Nov-17	29-Jan-18																		
1.08.4.1	K2L Obtain Fully Executed Section 106 MOA	15	05-Dec-16	20-Feb-18																		
1.08.4.2	K2L Prepare and Submit Draft Section 401 and 404 Permit Apps	6	17-Mar-17	15-Sep-17																		
<b>PE 15% and Preliminary Design for Procurement</b>																						
2.04	K2L Conduct Preliminary Engineering for Project Development - PE/ROD	35	01-Jul-10A	31-Aug-18																		
2.11	K2L Preliminary Engineering for Procurement - PE/4P	18	01-Apr-15A	27-Sep-18																		
2.13	RDP Programwide Engineering (K2L)	22	03-Oct-16	22-Aug-18																		
<b>Other Related Work</b>																						
3.05	K2L Station Area Planning	57	01-Jul-10A	26-Oct-18																		
3.09	K2L ROW Preservation and Acquisition	15	01-Jul-15A	03-Oct-16																		
3.11	PM/IRDP ROW Work (K2L)	25	01-Jul-15A	18-Jul-17																		
3.12	Ridership Forecasting - K2L	23	01-Sep-16	26-Oct-18																		
3.14	Station Area Planning (K2L)	23	01-Jul-10A	29-Jun-12A																		
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<b>FR-HSR-009-10-01-05 Phase 1 PE/NEPA/CEQA</b>																						
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**Barnes, Juliana (FRA)**

---

**From:** Barnes, Juliana (FRA)  
**Sent:** Wednesday, January 18, 2017 1:22 PM  
**To:** 'Malone, Desiree@HSR'  
**Cc:** 'Gilliland, Barbara(PB)@HSR'; 'mlrule@transystems.com'; Everett, Lynn (FRA); rlzimmerer@transystems.com  
**Subject:** Initial Feedback: Q4-16 Deliverables  
**Attachments:** CONOPS FRA Review (01-17-17).docx; 2016-2017 AWP FRA Review (01-17-17).docx; 2016 CVPFP FRA Review (01-17-17).docx

Hi Desi,

FRA acknowledges receipt of the following deliverables transmitted on Dec 29, 2016:

- FCS Utilization Plan/CONOPS
- Annual Work Plan (AWP)
- Central Valley Financial Plan (CVFP)
- Phase 1 Program Financial Plan
- Program Management Plan
- CP 4 Baseline Schedule
- Q4\_16 Exhibit A Update

An initial review was conducted of the following submittals in the three attached documents: (1) FCS Utilization Plan/CONOPS, (2) Annual Work Plan, and (3) CV Financial Plan which contain initial comments. Please note FRA is returning those deliverables after initial review and requests resubmission after addressing the attached FRA initial comments for further development by Feb 2, 2017.

The remainder of the 4<sup>th</sup> Qtr deliverables are under review and FRA will provide comments prior to the end of the month.

Regards,

Juliana Barnes, PMP  
Project Manager  
Office of Program Delivery (RPD-15)  
Federal Railroad Administration  
801 I St., Suite 466  
Sacramento, CA 95814  
Cell: 916-215-9115



## Barnes, Juliana (FRA)

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**From:** Malone, Desiree@HSR <Desiree.Malone@hsr.ca.gov>  
**Sent:** Monday, January 23, 2017 2:17 PM  
**To:** Barnes, Juliana (FRA)  
**Cc:** Gilliland, Barbara(PB)@HSR; mlrule@transystems.com; Everett, Lynn (FRA); rlzimmerer@transystems.com; Malone, Desiree@HSR  
**Subject:** RE: Initial Feedback: Q4-16 Deliverables  
**Attachments:** AWP FY 16 REVISED Final.docx  
  
**Categories:** CHSRA

Hi Juliana,

The Authority acknowledges your comments and is revising the documents provided by the FRA.

This email returns a revised AWP for FRA comment purposes.

Please note that an extension to the Feb. 2 due date has been requested for the FCS/CONOPs due to being unable to discuss the document today as planned.

A revised CVFPF is in process and I will keep you informed on its status for timeliness to the revision due date of Feb 2.

Thank you - Desi

---

**From:** Barnes, Juliana (FRA) [mailto:juliana.barnes@dot.gov]  
**Sent:** Wednesday, January 18, 2017 1:22 PM  
**To:** Malone, Desiree@HSR  
**Cc:** Gilliland, Barbara(PB)@HSR; mlrule@transystems.com; Everett, Lynn (FRA); rlzimmerer@transystems.com  
**Subject:** Initial Feedback: Q4-16 Deliverables

Hi Desi,

FRA acknowledges receipt of the following deliverables transmitted on Dec 29, 2016:

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The remainder of the 4<sup>th</sup> Qtr deliverables are under review and FRA will provide comments prior to the end of the month.

J0069

Regards,

Juliana Barnes, PMP  
Project Manager  
Office of Program Delivery (RPD-15)  
Federal Railroad Administration  
801 I St., Suite 466  
Sacramento, CA 95814  
Cell: 916-215-9115



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CHSRA delivered Central Valley Project Financial Plan (CVPFP), dated June 2016, to FRA on 12/30/16. FRA's review comments follow.

- **Central Valley Project Financial Plan:**

- Required Components (ARRA Grant Amendment 6):
  - CHSRA will provide for FRA review and approval a Financial Plan for the FCS (FCS Financial Plan) that demonstrates CHSRA has secured firm commitments of all funding (other than that provided through the grant agreements) required to complete construction of the FCS. The financial plan will provide (in year-of-expenditure dollars) finalized annual projections for the sources and uses of all funds, during the development and construction phases of the FCS and a detailed assessment of financial risks facing the FCS during both the construction (including risks such as capital cost overruns, revenue shortfalls, and maintenance cost overruns), along with proposed actions for mitigating or accommodating such risks (including assessment of additional funding sources available to compensate for potential capital financing shortfalls). The FCS Financial Plan will discuss and incorporate the Interim Use Reserve.
- Key FRA Review Comments from Prior Review:
  - Develop a version that looks ahead, meets the requirements of ARRA Grant Amendment 6, and reflects the conclusions [from ARRA Grant Amendment 6] about schedule, cost/budget, and strategy for interim use.
  - The plan needs to cover the financial specifics of the FCS as a standalone part of the Silicon Valley to Central Valley IOS.
- Comments:
  - FRA does not accept the current version of the Central Valley Project Financial Plan, as the document does not address FRA's past review comments. CHSRA needs to develop the document by:
    - Taking into consideration the required components listed above per ARRA Grant Amendment 6, including a focus on the financial specifics of the FCS as a standalone part of the IOS.
    - In lieu of discussing and listing the requirements CHSRA has to meet, highlight how CHSRA prepares an FCP, a budget, etc. and what CHSRA takes into account when preparing an FCP, budget, etc. In other words, discuss how CHSRA meets all the necessary requirements.





# *Annual Work Plan FY16/17*

*October 2016*

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## Background

Established in 1996, the California High-Speed Rail Authority (Authority) is the state department responsible for planning, constructing and operating the 520-mile-long high-speed rail system in California connecting San Francisco to Los Angeles/Anaheim. The high-speed rail system is ultimately envisioned to extend to Sacramento and to San Diego.

The Authority is governed by a nine-member Board of Directors (five appointed by the Governor, two appointed by the Senate Committee on Rules, and two by the Speaker of the Assembly). There are elected Chair and Vice-Chair positions within the Board of Directors. The Authority is led by the Chief Executive Officer (CEO) who reports to the Board of Directors. The CEO works with the Board on the program's direction and a broad range of issues regarding the ongoing program, establishing program policies and goals, certifying environmental documents, and entering into agreements.

## Introduction

This document is the Authority's Annual Work Plan (AWP). The AWP is prepared annually for the Federal Railroad Administration and submitted in compliance with the federal American Recovery and Reinvestment Act of 2009 (ARRA) and Fiscal Year 10 (FY 10) grant agreements. The AWP is a requirement within Task 5 of Attachment 3, Statement of Work for the ARRA and FY 10 agreements which states:

*CHSRA will prepare for FRA's review and comment a detailed staffing plan and cost estimate for the Project. The AWP outlines the work necessary to establish and manage project control systems to maintain, manage, and monitor project schedule, budget, documentation, procurement, and tracking of deliverable so that implementation of the Project stays on schedule and within budget.*

The Authority receives federal funding through the two grants identified above. These funds contribute to the completion of environmental documentation and preliminary engineering for the Phase 1 system from San Francisco to Los Angeles/Anaheim, and construction of the First Construction Section (FCS) generally from Madera to Shafter as shown in Figure 1. The two grants fund activities that are broken out by tasks within the grant in Attachment 3, Statement of Work. The tasks include:

- Task 1: Environmental Review (San Francisco – Los Angeles/Anaheim)
- Task 2: Preliminary Engineering (San Francisco – Los Angeles/Anaheim)
- Task 3: Other Related Work Needed Prior to Construction
- Task 4: Project Administration and Statewide Cost Allocation Plan (SWCAP) (*now complete*)
- Task 5: Program, Project and FCS Construction Management
- Task 6: Real Property Acquisition and Environmental Mitigation
- Task 7: Early Work Program (*closed*)
- Task 8: Final Design and Construction Contract Work for the FCS
- Task 9: Interim Use Project Reserve
- Task 10: Unallocated Contingency

The ten tasks are broken down into sub-tasks as defined in the Task and Sub-Task Descriptions in Appendix A – Grant Tasks and Sub-Tasks.



Figure 1 - Phase 1 and First Construction Section

This AWP provides a programmatic overview followed by a summary of specific activities related to each grant task as outlined in Attachment 3, Statement of Work, and highlights planned milestones and key activities in fiscal year July 1, 2016 to June 30, 2017 (FY16/17). This AWP, complimented by the Program Management Plan, which outlines the procedures used to manage the scope, budget, schedule and risk for the program, provides a comprehensive overview of how the Authority manages its work.

### Staffing

The Authority's Board of Directors (Board) and Executive Management recognize the importance of a strong management structure and proper staffing to ensure the successful delivery of the high-speed rail program. The organizational model includes: Monitoring by multiple external agencies and federal grant funded oversight; an active Board of Directors to set policy and make environmental, contracting and financial decisions; a senior Executive management team with extensive project development experience; interagency support for many standard state administrative functions; and reliance on the private sector to deliver the project under contracts negotiated and managed by government employees and legal counsel.

The Authority Board sets direction and governs the organization through broad policies and objectives that outline the Authority's Business Plan. In addition to selecting the Chief Executive Officer (CEO), the board provides direct oversight of two key functions – internal audit and risk management.

The CEO has established an organization that provides direction and oversight for all aspects of developing and implementing the high-speed rail system. The Executive management team includes the CEO, chief counsel, chief financial officer, chief program manager and other senior management. Several key positions are specifically called out in statute [Section 185024 Public Utilities Code]. The staffing plan utilizes an integrated approach wherein the organization consists of both state employees and consultant staff from its rail delivery partner hired in 2015 and financial advisor hired in 2016.

The executive leadership team spans all functional areas to ensure consistency throughout the program, and has experienced staff at the regional level to enhance outreach and service delivery within local communities. It is responsible for selecting senior management staff, establishing management plans, identifying and monitoring risks, overseeing budgetary requirements and other organizational processes.

[Figure 2 - Authority Management Team](#) shows the key leadership positions, these include:

- Chief Executive Officer
- Chief Deputy Director
- Chief Administrative Officer
- Chief Counsel
- Chief of Communications
- Chief Financial Officer
- Chief Program Manager
- Regional Directors (Northern California, Central Valley, and Southern California)

The executive leadership and senior management staff oversee the architectural and engineering design professionals and the construction design-build teams including:

- Regional Consultants (RCs) – Environmental documentation and preliminary engineering deliverables
- Environmental and Engineering Consultants (EECs) – Environmental assessment, mitigation monitoring and engineering support after completion of environmental documents
- Right-of-Way (ROW) Consultants – Technical staff to support appraisal and acquisition of property
- Project and Construction Management (PCM) Consultants – Oversee the delivery of each construction package
- Design and Construction Contractors – Complete a civil construction package
- Operations and Maintenance – System operator to manage and maintain the system.

At the program and project levels, resource planning is divided into two categories: personnel resource planning, and resource planning for facilities, equipment, materials, etc. At the program level, each project's scope, schedule and budget are integrated into the program master schedule. The time needed to implement each project in the program master schedule is determined iteratively by balancing program need, available funding and program capabilities over time. At project initiation, it is the responsibility of the project manager to develop the preliminary scope, schedule and budget. The project-level schedule estimate informs the duration of the tasks and the estimated resources needed to complete it. The data from the schedule estimate enables the project budget to be developed.

Resource needs are evaluated at project initiation and the cost is included in the preliminary project budget. Resource needs are estimated from the bottom up using these steps:

- Identify the project scope and desired outcomes.
- Determine the tasks necessary to deliver the project scope and desired outcomes.
- Determine the timing and duration of each task.
- Identify the specific staff and their utilization for each task.
- Determine the human resource level/cost for each task.
- Determine potential additional resource needs for the project and estimate their cost.

Program staffing is based on the resource needs and timing of the needs outlined above. As needs are identified, the integrated organization determines if the position can be filled internally or if outside resource(s) are required to fill the vacancy. Staffing and resource needs are monitored to balance the program needs vs. availability of staff as the program needs change.

### Managing the Project

Recognizing that effective management of quality and performance accelerates program delivery, the Authority has instituted a program-wide quality policy that reflects the Authority's commitment to delivering the program on schedule and at the lowest possible cost with quality and safety that meets or exceeds acceptable industry and government standards. Through the integration and implementation of National Institute of Standards and Technology (NIST) criteria, ISO standards and FTA guidelines, a performance excellence framework was developed. This framework provides the elements essential to identifying and achieving goals and objectives, improving results and aligning requirements, roles,



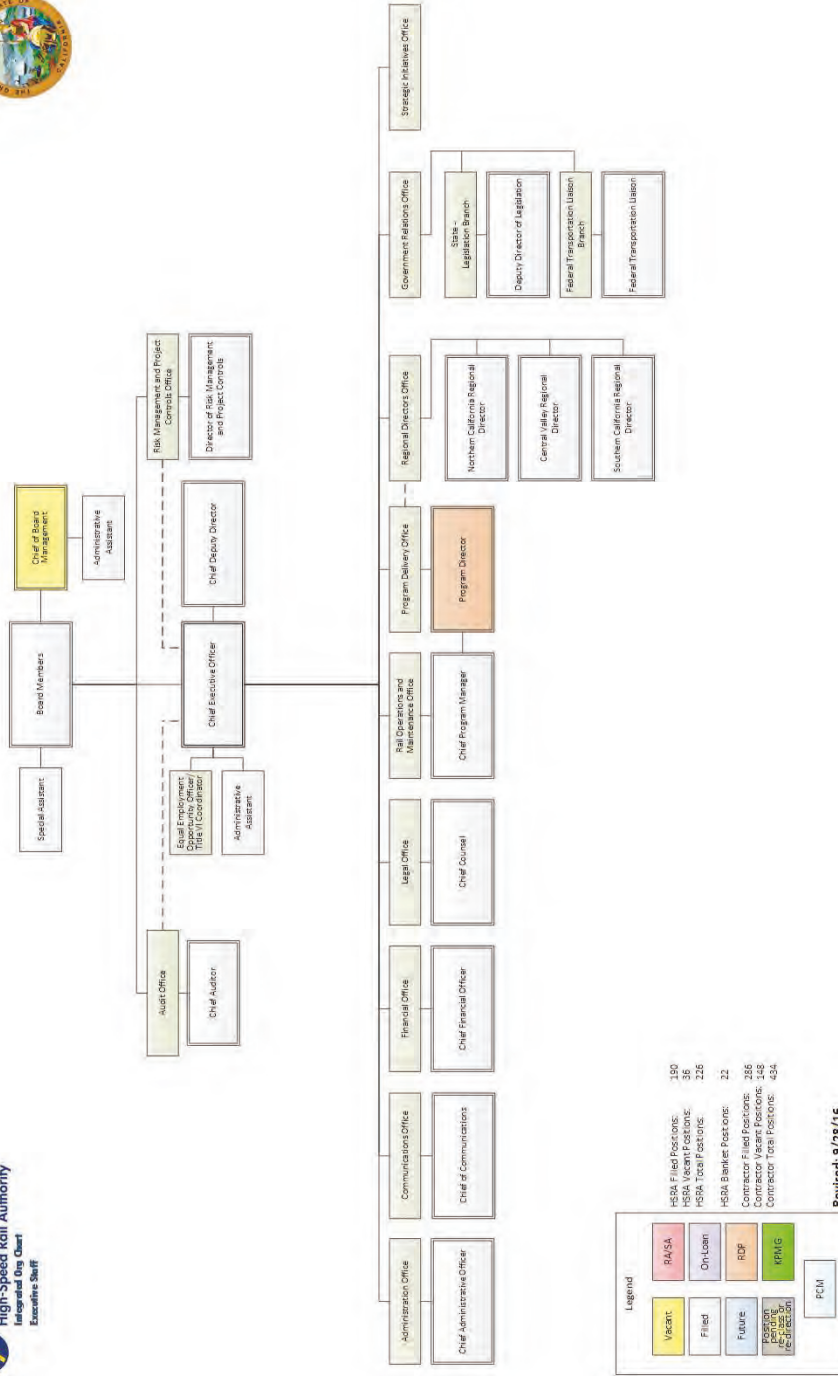


Figure 2 - Authority Management Team

responsibilities, processes, procedures, actions and results. This framework also provides the tools to examine the organization, including its quality management system and to improve processes and results. The diagram depicts the application of the integrated performance excellence framework for the high-speed rail program. A number of initiatives have been undertaken to institute a culture of continuous performance improvement, including:

- Internal process improvement for general process assessment and improvement.
- Lessons-learned process to implement the knowledge gained from improvement initiatives into the work processes and procedures.
- Brown bag lunches that highlight various program activities to inform, educate and connect internal customers.
- Meetings between the quality manager and organizational units to update the group on quality developments and to follow up on any action items from prior meetings.
- Integration team comprised of organizational unit leads, along with other entities, which convenes to review progress and make adjustments to optimize performance and customer satisfaction. The team uses the established plan's "do, learn, share and sustain" approach to accelerate improvements within each organizational unit and within the organization as a whole by identifying solutions that can be immediately applied.



In addition, the Authority has a formalized Risk Management system consisting of a set of processes, protocols and responsibilities providing a systematic approach to identify, evaluate, assess, document and manage risks that could jeopardize the success of the program. Potential areas of risk include engineering, environmental, planning, right-of-way, procurement, construction, organizational, stakeholder, budget and schedule risk. The risk management plan balances the competing demands of scope, budget, schedule, quality, resources and risk to minimize risks to the program. Risk is reduced even further by requiring operators, infrastructure providers and contractors to accept risk directly through their contract agreements with the Authority. Further, risk management specialists identify key potential risks and develop mitigation plans in advance of their possible occurrence. Risk-related items and actions are documented in the risk register for the program. Individual risk registers are reviewed and updated quarterly, though individual risks are updated as new information is developed. The registers are reviewed by management and response strategies and actions for individual risks, as well as for overall program risks, are integrated into a consolidated plan.

CALIFORNIA High-Speed Rail Authority		CHSRA Program Phase 1 Milestone Table																		
Data Date: October 1, 2016		Environmental/Engineering			Civil Infrastructure			Track and Systems			High-Speed Rail Trains			Testing and Commissioning				READY FOR SERVICE		
		FEA EIS	11B EIS	Complete EIS	Issue RFP	Issue NTP	Substantial Completion	Issue RFP	Issue NTP	Substantial Completion	Issue RFP	Issue NTP	Prototype Acceptance	Acceptance	Complete Static Testing	Complete Dynamic Testing	Complete Prototype Testing	Complete Static Testing	Complete Trial Run	
Silicon Valley to Central Valley Line (San Jose to Poplar Avenue)																				
San Jose to FCS																				
San Jose Approach						Nov-17	Jun-18	Jan-22												
San Jose to Pacheco Pass						Nov-17	Jun-18	Oct-21												
Pacheco Pass Tunnels		Dec-17	Mar-18	Nov-17	Nov-17	May-18	Oct-21													
Foothills to Carlucci Rd. & Wye Leg - Carlucci Rd. to FCS						Nov-17	Jun-18	Nov-21	Mar-17	Apr-18	Dec-22	Mar-17	Apr-18	Aug-23						
First Construction Segment (FCS)		Dec-17	Mar-18	Sep-17																
CP 1						Mar-12	Oct-13	Jun-19												
CP 2-3						Apr-14	Jul-15	Jun-19												
CP 4						May-15	Apr-16	Apr-19												
Silicon Valley to Central Valley Extensions (San Francisco to Bakersfield)																				
San Francisco to San Jose		Dec-17	Mar-18	Jul-17	Dec-17	Oct-18	May-21													
Merced to Ranch Rd. & Wye Leg West		Dec-17	Mar-18	Sep-17	Dec-17	Jun-18	Sep-21		Mar-17	Apr-18	Sep-22	Mar-17								
FCS to Bakersfield		Dec-17	Apr-17	Aug-18	Jun-17	Apr-18	Oct-21		Nov-17	Aug-18	Oct-22									
Merced to FCS & FCS to Burbank																				
Wye Leg East		Dec-17	Mar-18	Sep-17	Dec-18	Oct-19	Nov-23		Nov-21	Sep-22	Jun-25									
Bakersfield to Palmdale																				
SCP 1						Jan-19	Nov-19	Oct-24												
SCP 2						Nov-18	Sep-19	Jan-25												
SCP 3						Jan-18	Nov-18	Dec-24												
SCP 4		Dec-17	Apr-18	Jan-20	Sep-18	Jul-19	Sep-24													
SCP 5						May-19	Mar-20	Dec-24												
SCP 6						May-19	Mar-20	Apr-24												
Palmdale to Burbank																				
SCP 7						May-18	Mar-19	Jan-25												
SCP 8		Dec-17	Dec-17	Jun-18	May-18	Mar-19	Mar-25													
SCP 9						May-18	Mar-19	Jan-24												
Burbank to Anaheim Corridor Improvements																				
Burbank to Los Angeles		Dec-17	Feb-18	Aug-18	Sep-18	May-19	Jun-25		Nov-21	Sep-22	Dec-26									
Los Angeles to Anaheim		Dec-17	Mar-18	Aug-17	Jun-19	Apr-20	Apr-25													

Figure 3 – Authority Program Phase 1 Milestone Road Map

## Schedule

As defined in the 2016 Business Plan, the Authority is projecting passenger service to start on the initial project segment, from the Silicon Valley to the Central Valley, in 2025 and Phase 1 completion by 2029. The milestone schedule and phasing strategy to meet these goals is shown above in Figure 3. The milestones provide a high-level summary of the key activities necessary to guide resource planning, and project scheduling and construction. It also shows the overall progression of work and how the interim use of the FCS for operations testing fits within the overall schedule for the start of high-speed rail revenue service by January 2025.

In FY 16/17 the Authority is expected to finalize work on all Phase 1 environmental documents which are scheduled to be completed by December 2017 (see Task 1 summary). In addition, construction of the FCS through Construction Package's (CP) 1-4 will continue with key construction milestones summarized in Task 8. Finally, RFP's are projected to be released for track and systems, and high-speed rail trainsets in Spring 2017.

The Authority provides the FRA with quarterly schedule updates that contain more detailed information about the current status of each grant task. The September schedule update is included in Appendix D.

## Cost Estimate

The Authority updates the program cost estimate every two years as part of the business plan (a legislative statutory requirement). These costs were recently updated and included in the *Connecting and Transforming California, 2016 Business Plan* published on May 1, 2016. All cost estimates below are as of May 2016.

The updated costs to complete the environmental, preliminary engineering and planning efforts for the Phase 1 System from San Francisco to Anaheim are summarized below. The cost to complete has increased over previous budget projections due to a variety of reasons, including unanticipated additional environmental documentation and alignment variations to be studied. Project development costs are summarized in Table 1 and include spent-to-date and additional costs needed to complete work related to Tasks 1-4.

**Table 1 - Project Development Costs**

Project Development costs	Amount (\$ millions)
<b>Environmental/Planning Spent-to-Date</b>	\$ 643
<b>Phase 1 Environmental/Planning Cost to Complete</b>	\$ 403
<b>Total</b>	<b>\$1,046</b>

Task 8 covers civil infrastructure construction for the FCS. CP's 1-4 have been procured and contract amounts (including provisional sums) and contingency are summarized in Table 2 below. One additional contract remains to be released for final design and construction of FCS track work. It is anticipated that contract will be released within the FY 17/18.

Table 2 - Design Build Contract Costs

Section <sup>1</sup>	Contractor	Current Contract (\$ millions)	Contingency (\$ millions)
<b>SR 99</b>	Caltrans <sup>2</sup>	\$ 226	\$ 9
<b>CP 1</b>	Tutor-Perini/Zacary/Parsons (TPZP)	\$ 1,285	\$ 160
<b>CP 2-3</b>	Dragados/Flatiron	\$ 1,365	\$ 261
<b>CP 4</b>	California Rail Builders	\$ 444	\$ 62

<sup>1</sup> Contract amounts as of September 2016 Finance and Audit Report

<sup>2</sup> Using CMGC Delivery method, contingency split between Early Works and Main packages

A detailed capital cost estimate of all Phase I program costs can be found at [http://www.hsr.ca.gov/docs/about/business\\_plans/2016\\_Business\\_Plan\\_Basis\\_of\\_Estimate.pdf](http://www.hsr.ca.gov/docs/about/business_plans/2016_Business_Plan_Basis_of_Estimate.pdf)

### Budget Summary

Phase 1 planning and FCS construction are funded through federal grants, and state resources from Proposition (Prop) 1A and Cap and Trade. The state funds and some local resources contribute to the match required in the ARRA and FY 10 grants. Local match is allocated to station area planning work in cities along the Phase 1 system. Table 3 summarizes federal and state funding. The Authority realizes that additional state funds will be required to complete the full scope of the grant agreements. These funds are identified as additional resources to be expended as part of construction in Task 8. Appendix B – Detailed Grant Budget contains the grant Quarterly Budget Update, September 30, 2016.

Table 3 - Budget Summary

Task	Federal Budget	State Match	Total	Additional Resources
<b>1 Environmental</b>	\$173,327,113	\$326,207,370	\$499,534,483	
<b>2 Preliminary Engineering</b>	\$254,362,236	\$ 82,999,427	\$337,361,663	
<b>3 Other Related Work</b>	\$ 83,009,008	\$106,416,974 <sup>1</sup>	\$189,425,982	
<b>4 Project Administration</b>	\$ 677,872	-	\$ 677,872	
<b>5 Construction Management</b>	\$221,959,777	\$197,267,290	\$419,227,067	\$139,400,000
<b>6 Property Acquisition</b>	\$468,304,427	\$383,970,052	\$852,274,479	\$ 91,105,000
<b>7 Early Works</b>	-	-	-	
<b>8 Final Design &amp; Construction</b>	\$2,109,117,773	\$1,662,939,722	\$3,772,057,495	\$994,541,391
<b>9 Project Reserves</b>	\$161,879,645	\$ 46,267,108	\$208,146,753	
<b>10 Unallocated Contingency</b>	\$ 8,538,380	\$59,508,288	\$68,046,668	
<b>Total</b>	<b>\$3,481,176,231</b>	<b>\$2,865,576,231</b>	<b>\$6,346,752,462</b>	<b>\$1,225,046,391</b>

<sup>1</sup> Includes local funding

The following chapters outline the resources, plans and milestones for FY 16/17 for the tasks of the grant agreement except tasks 4, 7, 9 and 10 – Task 4 is complete; Task 7 was deleted; and use of Task 9 and 10 are detailed in separate reports (Interim Use Plan and the Unallocated Contingency Management Plan respectively).

### Procurement

The power to enter into contracts necessary to carry out the functions of the Authority is provided by the statutes that created the Authority. These statutes include:

- Public Utilities Code § 185033 which gives the Authority the contracting power to enter into contracts with private or public entities for the design, construction and operation of the high-speed rail Program. The contracts may be separated into individual tasks or segments or may include all tasks and segments, including a design-build or design-build-operate contract.
- Public Utilities Code 185036(a) which allows for architecture and engineering (A&E) and other professional service procurements. The Authority issues RFQs and RFPs respectively.
  - A&E procurements are consistent with the requirements of Government Code Section 4525, et seq., and California Code of Regulations Title 21, Division 6, Chapter 1, Article 1.
  - Other professional service procurements are consistent with the requirements of Public Contract Code Sections 10295 and 10335, et seq. For design-build (DB) procurements, the Authority is currently using a two-step process consisting of a request for qualifications followed by a request for proposals.

The overall procurement strategy has been developed through an ongoing process of industry engagement, including issuance of requests for expressions of interest, industry forums and one-on-one meetings. Design-build (DB), as well as other alternative delivery strategies, is under consideration for delivery of the Silicon Valley to Central Valley initial operating segment. Figure 3 (on page 7) highlights some of the major procurement milestones scheduled to deliver the program. In FY 16/17 the Authority expects to release several major procurement packages, including requests for track and systems and train sets.

## Deliverables

The Authority provides FRA with an update of key deliverables once a quarter including:

- Quarterly Progress Reports
- Quarterly Budget Update
- Funding Contribution Plan
- Right-of-Way Acquisition Plan
- Summary Schedule
- Contingency Plan Update
- SF 425 – Federal and State Match Expenditures

In addition, this past year the FRA and the Authority began conducting a quarterly review of all grant required deliverables' due dates and collaboratively revise the due dates as appropriate. Specific deliverables related to each task area are summarized in their respective task below.



## Task 1 Environmental

The environmental review process is conducted in accordance with the requirements of the National Environmental Policy Act (NEPA), the California Environmental Quality Act (CEQA), Section 106 of the National Historic Preservation Act (NHPA), Section 4(f) of the Department of Transportation Act (49 U.S.C. 303), and other applicable environmental laws and regulations (collectively NEPA/CEQA).

Environmental review includes the preparation of environmental documentation for each project section, development of resource agency agreements in support of the NEPA/CEQA process and the process to obtain regulatory agency approvals and environmental permits. A mitigation monitoring system has been established to ensure contractor compliance with the environmental documentation Record of Decision (ROD) mitigation and permit conditions. Should alignment changes be proposed that affect previous clearances, staff is included in change management decision making to ensure environmental requirements are considered and documented as outlined in the Design-Build Program Plan – Project Management Plan.

### Staffing

The environmental team is responsible for coordinating the activities required to environmentally clear and permit the high-speed rail projects to begin construction. They provide guidance on environmental strategies for project clearance, programmatic methodologies and assumptions to meet environmental commitments. The team directs permit activities and provides strategic guidance on permit approaches. In addition, the environmental team provides strategic guidance on the environmental approval process and serves as the liaison with the FRA, the attorney general's office and other federal, state, regional and local agencies, the regional consultants and environmental and engineering consultants, and other environmental consulting firms on environmental work products.

The environmental team also guides the regional consultants and the environmental and engineering consultants, and coordinates with them and other environmental consultants in preparing the environmental studies, documents and subsequent environmental approvals required for implementing high-speed rail construction and operation. The environmental team follows the quality procedures and reviews proposed environmental approach revisions and environmental deliverables submitted by the regional consultants, the environmental and engineering consultants and environmental teams.

The organizational chart shown in Figure 4 illustrates that the Director of Environmental Services provides direction and oversight of the preparation of environmental clearance documents prepared in each region by regional consultants managed by the regional directors. The team is also responsible for securing the permits necessary to begin construction and includes the following leadership positions:

- Director of Environmental Planning
- Deputy Director of Environmental Planning
- Supervising Environmental Planner
- Regional Environmental Manager – South
- Regional Environmental Manager – Central
- Regional Environmental Manager – North
- Special Projects Manager
- Permitting, Mitigation and Compliance Manager

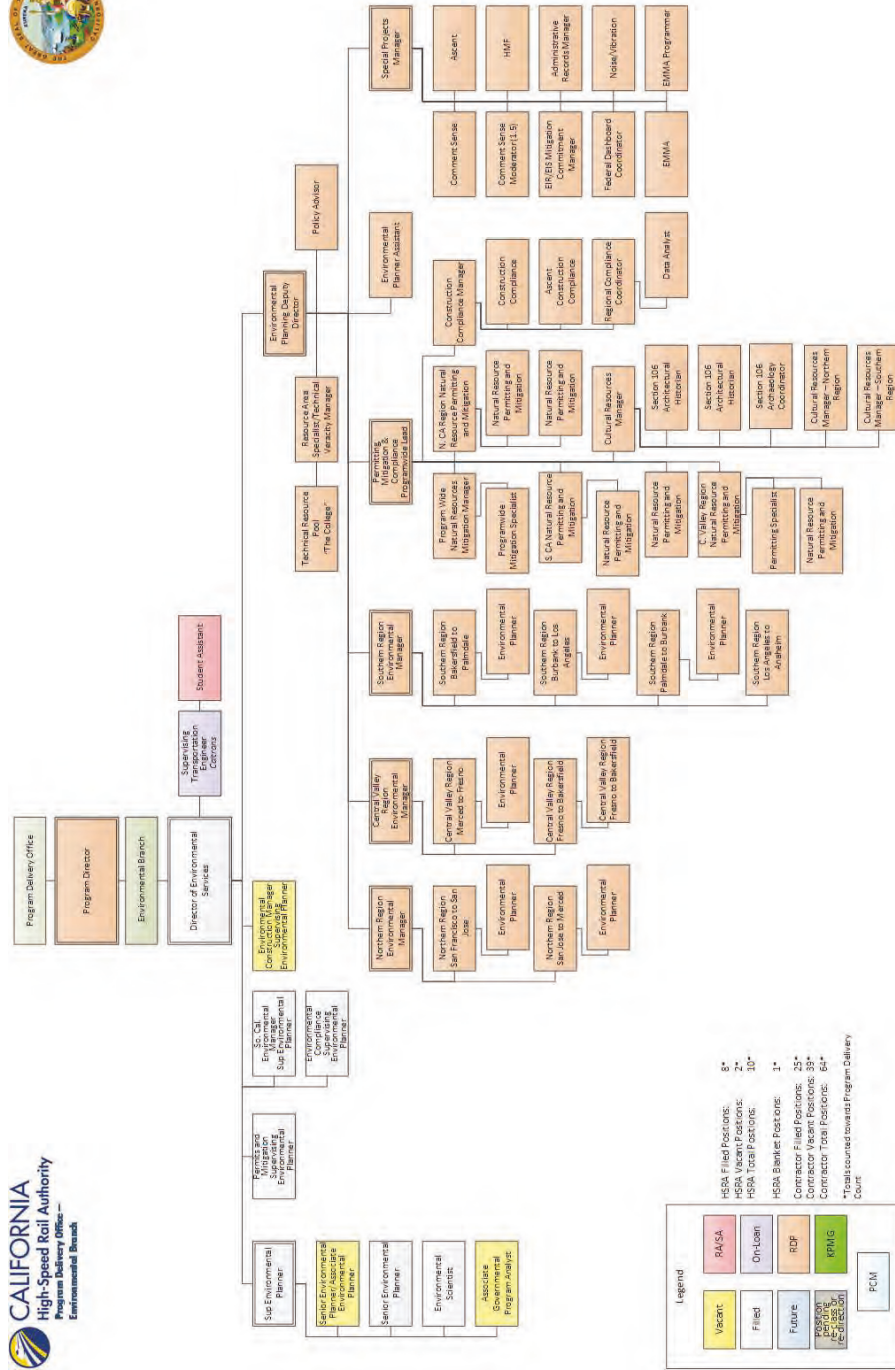


Figure 4 - Environmental and Permitting Organization

## Agency Coordination

The Authority and FRA have entered into a Memorandum of Understanding with the U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (USACE) to facilitate compliance with the National Environmental Policy Act (NEPA - 42 U.S.C. section 4321, et seq.), the Clean Water Act (CWA – section 404 [U.S.C. section 1344]), and the Rivers and Harbors Action section 14 (33 U.S.C section 408) processes for the project-level (Tier 2) EISs for the ten sections of the program. Three steps in the checkpoint process require concurrence from the EPA and USACE. These steps are integrated with the environmental approval process as noted below:

Checkpoint A – Purpose and need; integrated with the purpose and need definition;

Checkpoint B – Range of alternatives; integrated with the alternatives analysis that leads to the range of alternatives studied in the EIR/EISs; and,

Checkpoint C – Least environmentally damaging practicable alternative (LEDPA); integrated with the selection of the preferred alternative.

The Checkpoint A process has been completed for the Phase 1 sections. Because some sections will not require an individual Section 404 permit for project construction (e.g., San Francisco to San Jose, Burbank to Los Angeles and Los Angeles to Anaheim), it may not be necessary to submit Checkpoint B and C documentation for agency review and concurrence. An EPA and USACE agreement on this approach is anticipated later in 2016. For the remaining sections that will require Checkpoints B and C, work is underway with completion anticipated in FY16/17.

## Schedule

Phase 1 environmental clearances are expected to be completed by December 2017. Major milestones are shared with the Board on a monthly basis; in the Fall of 2016, major milestones will also be submitted to FRA to post to the Federal Permitting Dashboard. As dates change, the Authority will provide FRA with revised schedule information in order to update the dashboard. The Environmental Milestone Schedule and Permitting Milestone Schedules (September 2016) are included in Appendix C – Environmental Milestone and Permits Schedules.

## Budget

The Environmental Review budget is \$499,534,483 and summarized in Table 3 - Budget Summary (on page 7). All federal expenditures related to this task are from the ARRA grant. Each segment's project costs, schedules and status are contained in a monthly Operations Report. The Operations Report is reviewed by the Authority's Board of Directors Finance and Audit Committee on a monthly basis. The most recent Operations Report is located on the Board's Finance and Audit Committee website at [http://www.hsr.ca.gov/Board/monthly\\_fa\\_committee\\_meeting.html](http://www.hsr.ca.gov/Board/monthly_fa_committee_meeting.html)

The Quarterly Budget Update (Appendix B – Detailed Grant Budget) provides a summary of Task 1 by project section. Table 4 below summarizes the budget for each project section as identified in the detailed Quarterly Budget Update (updated September 30, 2016).

Table 4 - Task 1, Environmental Analysis, ARRA Grant Budget

Section <sup>1</sup>	Total
San Francisco – San Jose	\$ 66,007,861
San Jose – Merced	\$161,504,942
Merced – Fresno	\$ 35,339,004
Fresno – Bakersfield	\$ 45,858,851
Bakersfield – Palmdale	\$ 75,065,146
Palmdale – Los Angeles	\$ 86,328,516
Los Angeles – Anaheim	\$ 29,430,163
<b>Total</b>	<b>\$499,534,483</b>

<sup>1</sup> Quarterly Budget Update September 30, 2016

## Regulatory Documentation and Guidelines

Environmental documentation is governed by many laws and regulations. The Authority provides guidance to the regional consultants on preparation of the environmental documentation in order to ensure consistency across all environmental preparers. This guidance includes:

Project-Level Environmental Analysis Methodologies - Provides the methodological guidance for the preparation of technical reports and impact chapters of project-level environmental documents.

[https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Project\\_EIR-EIS\\_Environmental\\_Methodology\\_Guidelines-Version5.02.pdf](https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Project_EIR-EIS_Environmental_Methodology_Guidelines-Version5.02.pdf);

Additional Guidance for Evaluating Impacts under NEPA – Outlines the analytical approach for identifying, evaluating and documenting environmental impacts under NEPA.

<https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/NEPA%20Impact%20Guidance.pdf>;

Guidance for Preparing Environmental Reviews for Electrical Interconnections – Describes the analytical and documentation steps for evaluating project-related electrical interconnections required for obtaining electrical power for the system.

[https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Env\\_Review\\_for\\_Electrical\\_Interconnections.pdf](https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Env_Review_for_Electrical_Interconnections.pdf);

Refined Guidance on Project EIR/EIS and Technical Report Content – Clarifies the content to be included in technical reports prepared in support of the EIR/EIS.

[https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Technical\\_Report\\_Preparation\\_Guidance\\_2016.pdf](https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Technical_Report_Preparation_Guidance_2016.pdf);

Alternatives Analysis Methods for Project-Level Environmental Impact Reports and Environmental Impact Statements (EIR/EIS) – Provides guidance on conducting the alternatives analysis and documenting it in an alternatives analysis report.

<https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Alternatives%20Analysis%20Methods.pdf>;

Independent Utility/Logical Termini of HSR Sections – Outlines the requirement for establishing the logical termini for each of the HSR sections.

[https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Authority\\_Independent\\_Utility\\_Letter\\_02102009.pdf](https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Authority_Independent_Utility_Letter_02102009.pdf);

Multilingual Public Outreach Guidelines – Sets guidelines for public outreach to meet the Title VI requirements for multilingual outreach.

<https://chsra.pbid.com/pmt/Environmental/VL/07.%20Outreach%20and%20Participation%20Guidance/Guidance%20for%20Multi-lingual%20Public%20Outreach%20Ver%201.pdf>;

US Army Corp of Engineers Section 404/408 Memorandum of Understanding (MOU) – This document establishes the framework for integration of the Section 404/408 permit process with the environmental process.

[https://chsra.pbid.com/pmt/Environmental/VL/06.%20Regulatory%20Permits%20and%20Guidance/NEPA\\_Section%20404\\_Section\\_408%20MOU%20Ver%201.pdf](https://chsra.pbid.com/pmt/Environmental/VL/06.%20Regulatory%20Permits%20and%20Guidance/NEPA_Section%20404_Section_408%20MOU%20Ver%201.pdf);

Section 106 Programmatic Agreement for the National Historic Preservation Act Programmatic Agreement – Outlines the requirements and responsibilities for the approval process for the State Historic Preservation Officer (SHPO).

<https://chsra.pbid.com/pmt/Environmental/VL/05.%20Cultural%20Resources%20Guidance/Section%20106%20Programmatic%20Agreement%20Ver%201.pdf>;

Administrative Record Guidance – Describes the steps to organize, assemble and provide the administrative record in support of each individual EIR/EIS.

<https://chsra.pbid.com/pmt/Environmental/VL/03.%20Environmental%20Admin%20Record%20Guidance/20160105%20Revised%20Documentation%20Guidance-%20Admin%20Record%20FINAL.pdf>;

Environmental Compliance Program Manual – Details the key elements of the program and lists the set of standards and procedures. <https://chsra.pbid.com/pmt/Environmental/pa/compliance/Forms/AllItems.aspx>

Environmental Re-examination Guidance – Describes the evaluation and documentation process for design and other changes to the high-speed rail project following environmental approval.

[https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Env%20Re-Exam%20Guidance\\_Complete%20Doc%20\(April%202014\).pdf](https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Env%20Re-Exam%20Guidance_Complete%20Doc%20(April%202014).pdf)).

## Procurement

Procurement activities planned for FY 16/17 are minor contract amendments for budget and time to complete the environmental deliverables in process. No other major procurements are anticipated.

## Deliverables

The Authority provides the following deliverables to the FRA for each project section:

- Notice of Intent
- Scoping Report
- Agency Coordination Plan
- Purpose and Need Statement
- Alternative Analysis Report

- Administrative Draft EIR/EIS
- Draft EIR/EIS
- Administrative Final EIR/EIS
- Final EIR/EIS
- Record of Decision
- Mitigation and Monitoring Evaluation Plan (MMEP)
- Environmental Re-examinations (as necessary)

To date, the Authority has completed all Notices of Intent, Scoping Reports, Agency Coordination Plans, Purpose and Need Statements and Alternative Analysis Reports for all Phase 1 project sections. Two Final EIR/EIS documents (Merced – Fresno and Fresno – Bakersfield) and permitting activities for commencing project construction in accordance with the project’s Notice of Determination (NOD)/Record of Decision (ROD) have been completed to date. The Authority is in the process of completing supplemental documents on these completed documents.

Table 5 summarizes the deliverables expected to be completed in FY 16/17.

**Table 5 - FY 16/17 Environmental Deliverables**

<b>Deliverable/Section<sup>1</sup></b>	<b>Schedule</b>
<b>Administrative Draft EIR/EIS</b>	
San Francisco – San Jose	4 <sup>th</sup> Qtr 2016
San Jose – Merced	TBD
Bakersfield – Palmdale	TBD
Palmdale – Burbank	TBD
Burbank – Los Angeles	TBD
Los Angeles – Anaheim	TBD
<b>Supplemental Documents</b>	
Bakersfield F Street	4 <sup>th</sup> Qtr 2016
Central Valley Wye	4 <sup>th</sup> Qtr 2016
<b>Draft EIR/EIS</b>	
San Francisco – San Jose	TBD
San Jose – Merced	1 <sup>st</sup> Qtr 2017
Bakersfield – Palmdale	2 <sup>nd</sup> Qtr 2017
Palmdale – Burbank	2 <sup>nd</sup> Qtr 2017
Burbank – Los Angeles	3 <sup>rd</sup> Qtr 2017
Los Angeles – Anaheim	3 <sup>rd</sup> Qtr 2017
<b>Supplemental Documents</b>	
Bakersfield F Street	4 <sup>th</sup> Qtr 2016
Central Valley Wye	1 <sup>st</sup> Qtr 2017



<b>Administrative Final EIR/EIS</b>	
<i>Supplemental Documents</i>	
<b>Bakersfield F Street</b>	TBD
<b>Final EIR/EIS</b>	
<i>Supplemental Documents</i>	
<b>Bakersfield F Street</b>	TBD
<b>Draft Agency Decision Documents (NOD/ROD)</b>	
<i>Supplemental Documents</i>	
<b>Bakersfield F Street</b>	TBD
<b>MMEP</b>	
<i>Supplemental Documents</i>	
<b>Bakersfield F Street</b>	TBD

1 September 2016

The Authority will continue the permitting process, the acquisition and securing of off-site mitigation parcels, and compliance oversight of design-build work. Permitting milestones are summarized in Appendix C – Environmental Milestone and Permits Schedules. These are updated on a monthly basis and shared with FRA Environmental Management staff through standing agency briefings.

## Task 2 Preliminary Engineering

The Authority follows a standard design development process for each segment. Work has focused on the development of design standards, development of preliminary engineering to support environmental documentation and contract procurement and review of contractor submittals and requests for design variances and/or alternative technical concepts. The phases include:

- **Preliminary Engineering** – The Authority provides ongoing oversight of regional consultant developed plans for design consistency across the system. This work supports alternatives development of the various sections in the Phase 1 system.
- **Preliminary Engineering for Project Development (PE4PD) Design** – These plans support draft and final EIR/EIS alternatives, provides an itemized construction cost estimate and conforms with all requirements and commitments included in decision documents (FRA ROD; Authority Board Resolution, CEQA findings, and Mitigation Monitoring and Report Plan). The level of engineering detail in PE4PD design plans is sufficient to determine the required footprint for the high-speed rail program facilities and identify environmental impacts.
- **Preliminary Engineering for Procurement (PE4P) Design** – These plans support procurement of final design and construction services and provide a more detailed construction cost estimate.

The Authority updates the Design Criteria Manual with new information gathered during preliminary engineering on the various project sections as well as with new information identified through the design-builders. During this fiscal year, the design manual will be updated to include elements of design for stations as well as more refined criteria related to tunneling.

Engineering staff also support the review of various DB contractor proposals related to design refinements and/or variations. This work includes: final design submittal review, design variance requests, constructability reviews, and value engineering.

## Staffing

Planning and conceptual design supports the development of alternatives to be evaluated during the environmental review. Design development is based on the performance criteria contained in the legislation governing the high-speed rail program, and outlined in the business plan. As noted in Figure 5, the Chief Engineer provides direction and oversight of preliminary engineering policy and guidance for the development of plans associated with alignment development for environmental clearance documents. The plans are prepared in each region by regional consultants managed by the regional directors. The team consists of primarily RDP staff that prepares standards and oversees plans prepared by regional consultants and design-build teams for compliance with directed standards. Management roles cover the following engineering areas and include regional lead coordinators in Fresno:

- Infrastructure Manager
- Structures Manager
- Geotechnical Manager
- Tunneling Manager
- Underground Structures and Seismic Manager
- Civil/Drainage/Alignment/Track Manager

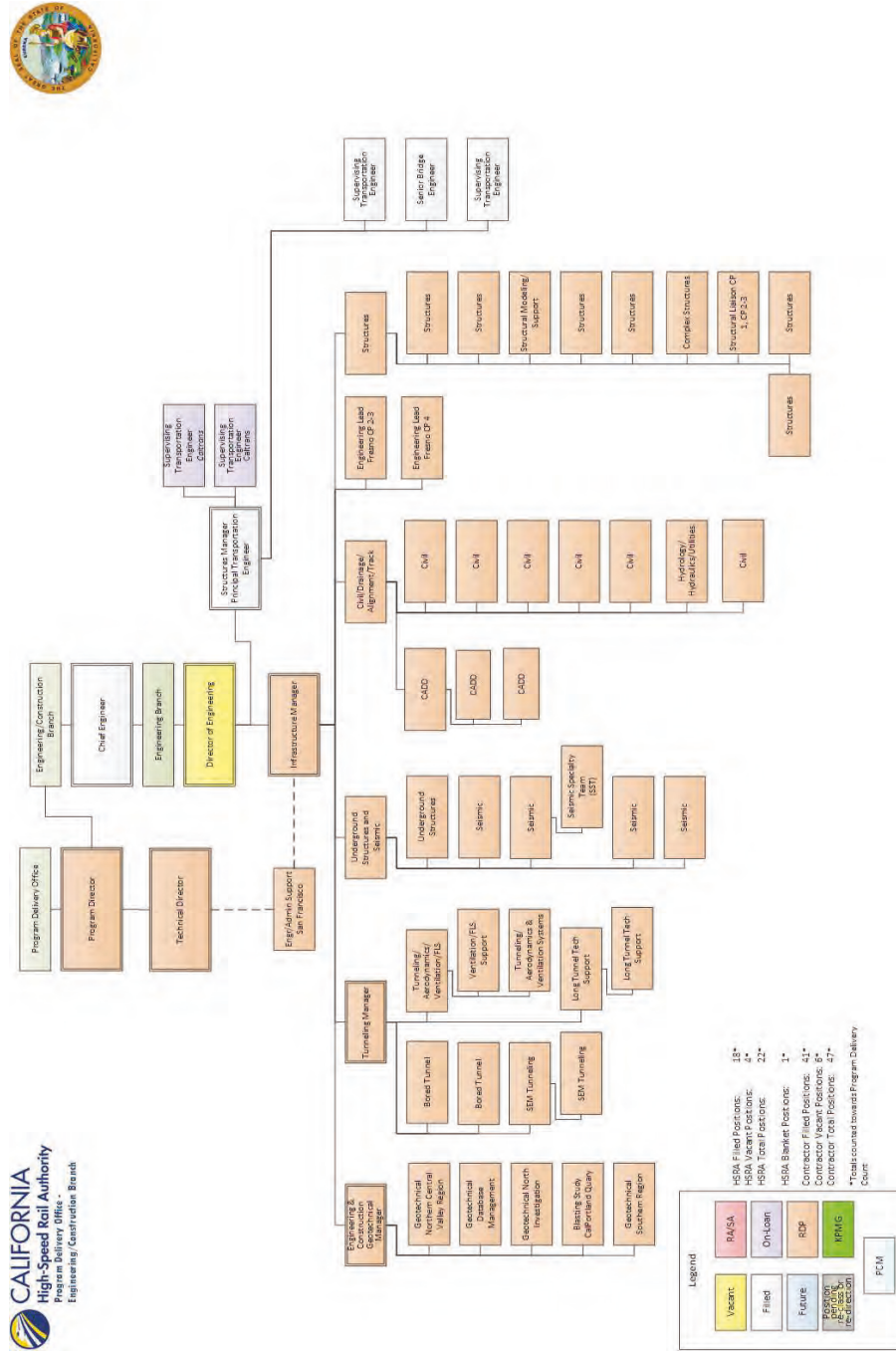


Figure 5 - Engineering Organization

## Schedule

Phase 1 preliminary engineering for environmental clearances is expected to be completed during FY 16/17. The Authority shares major milestones with the Board on a monthly basis and provides regular updates to FRA. The Environmental Milestone Schedule (September 2016) provided in Appendix B highlights when preliminary engineering for project definition, and preliminary engineering for procurement will be completed. This schedule is updated monthly and provided to FRA during monthly resource planning meetings.

## Budget

The preliminary engineering budget is \$337,361,663 and summarized in Table 6. All federal expenditures related to this task are from the ARRA grant. Each segment's project costs, schedules and status are included in the Operations Report, and reviewed by the Authority's Board of Directors Finance and Audit Committee monthly. These costs include preliminary engineering costs for project definition. The most recent Operations Report can be found on the Board's Finance and Audit Committee website at [http://www.hsr.ca.gov/Board/monthly\\_fa\\_committee\\_meeting.html](http://www.hsr.ca.gov/Board/monthly_fa_committee_meeting.html)

The Quarterly Budget Update (Appendix B – Detailed Grant Budget) provides a summary of Task 2 by project section. Table 6 below summarizes the budget for each project section as identified in the detailed Quarterly Budget Update.

**Table 6 - Task 2, Preliminary Engineering, ARRA Grant Budget**

Section <sup>1</sup>	Total
<b>San Francisco – San Jose</b>	\$26,484,517
<b>San Jose – Merced</b>	\$85,582,423
<b>Merced – Fresno</b>	\$16,090,509
<b>Fresno – Bakersfield</b>	\$43,482,519
<b>Bakersfield – Palmdale</b>	\$78,192,522
<b>Palmdale – Los Angeles</b>	\$66,485,509
<b>Los Angeles – Anaheim</b>	\$21,043,664
<b>Total</b>	<b>\$337,361,663</b>

<sup>1</sup> Quarterly Budget Update September 30, 2016

## Regulatory Documentation and Guidelines

The general performance requirements for the system are described in Technical Memorandum 0.3 - Basis of Design Policy, which is a foundation document for the development of design standards and criteria. The specific preliminary engineering design elements required to support environmental reviews are included in TM 0.1- Preliminary Engineering for Project Definition Guidelines. TM 0.1 presents design guidance for the minimum level of engineering required for project definition needed to support the project-specific EIR/EIS process. It further defines design elements, development level and engineering outputs with the objective of providing a consistent approach for developing preliminary engineering documents across project teams, while also ensuring compliance with federal, state and local regulations as well as the program-level design criteria.

There are now over 100 individual TMs. In order to make the TM's more useful to the regional and environmental and engineering consultants, an effort is underway to update, consolidate and organize all TMs into a policy and procedures manual. The technical memorandum defines the major components and performance objectives that support the development of the engineering and regulatory basis for the high-speed rail program, including its components, objectives, processes, requirements and assumptions which are governed by the Authority. The Authority's policies that determine the processes, standards, and subsystems of the high-speed rail system are generally divided to address:

- Program implementation
- Performance requirements
- Infrastructure
- Systems (electrification, train controls and communications)
- Rolling stock
- Maintenance
- Operations

Conceptual engineering in support of programmatic environmental studies was developed based on a review and compilation of existing high-speed rail standards. The standards and criteria reflected the best practices at the time of the program-level studies and serve to support the development of conceptual alternatives applicable to the California environment and terrain.

Through the alignment and station screening evaluation process, a number of alignment and station options were identified, evaluated and defined for further study in the programmatic EIR/EIS. These alignment and station options are developed based on engineering criteria and parameters established for the screening evaluation. The regional teams complete the definition of the alignment and station options and provide the definitions to the environmental teams as the basis of their analyses.

**Technical Memorandum 0.1** - Preliminary Engineering for Project Definition Guidelines: Presents design guidance for a minimum level of engineering, referred to as preliminary engineering for project definition (PEPD), required to support the project-specific environmental impact report/environmental impact statement process. It defines design elements, development level and engineering outputs with the objective of providing a consistent approach in developing preliminary engineering documents to a level that supports the identification of an inclusive environmental envelope.

[http://www.hsr.ca.gov/docs/programs/eir\\_memos/Proj\\_Guidelines\\_TM0\\_1\\_PE\\_for\\_Project\\_Def\\_Guidelines\\_R4\\_021815.pdf](http://www.hsr.ca.gov/docs/programs/eir_memos/Proj_Guidelines_TM0_1_PE_for_Project_Def_Guidelines_R4_021815.pdf)

**Technical Memorandum 0.3** - Basis of Design: Defines the major components and performance objectives of the high-speed rail system as envisioned by the Authority, outlining the objectives, requirements, and assumptions for the continuing development of the high-speed rail system. Specifically, it focuses on components, objectives, processes, requirements, and assumptions, which are governed by Authority policy. The policies are divided into program implementation, performance requirements, infrastructure, systems (electrification, train controls and communications), rolling stock and operations.

[http://www.hsr.ca.gov/docs/programs/eir\\_memos/TM%200.3%20Basis%20of%20Design%20R3%20120222%20no%20sig.pdf](http://www.hsr.ca.gov/docs/programs/eir_memos/TM%200.3%20Basis%20of%20Design%20R3%20120222%20no%20sig.pdf)

**Design Criteria Manual** – Compilation of all the technical memorandum for individual elements of design.

[http://www.hsr.ca.gov/docs/programs/construction/CP23\\_executed/P13\\_57\\_EX\\_III.A\\_01\\_Design\\_Criteria\\_Manual.pdf](http://www.hsr.ca.gov/docs/programs/construction/CP23_executed/P13_57_EX_III.A_01_Design_Criteria_Manual.pdf)

**Technical Memorandum 0.1.1 Preliminary Engineering for Procurement (PE4P)** – provides guidance on elements of design and process to inform bidders on construction packages.

[http://hsr.ca.gov/docs/programs/eir\\_memos/Proj\\_Guidelines\\_TM\\_01\\_1\\_Preliminary\\_Engineering\\_for\\_Procurement\\_Scope\\_R3\\_131224\\_no\\_sigs.pdf](http://hsr.ca.gov/docs/programs/eir_memos/Proj_Guidelines_TM_01_1_Preliminary_Engineering_for_Procurement_Scope_R3_131224_no_sigs.pdf)

**Technical Memorandum 100.07 Value Engineering Implementation Plan -**

<https://chsra.pbid.com/pmt/eng/SitePages/hs-tm.aspx?View={90E58D02-D2C4-4D7E-B64B-7C8176BB6023}&FilterField1=LinkTitle&FilterValue1=TM%20100%2E07%20Value%20Engineering%20Implementation%20Plan>

**Design Variance Request Policy -**

[http://www.hsr.ca.gov/docs/programs/construction/CP23\\_executed/P13\\_57\\_05\\_IVE\\_02\\_Design\\_Variance\\_Request\\_Procedure.pdf](http://www.hsr.ca.gov/docs/programs/construction/CP23_executed/P13_57_05_IVE_02_Design_Variance_Request_Procedure.pdf)

## Procurement

Procurement activities planned for FY 16/17 are minor contract amendments for budget and time to complete environmental deliverables in process. No other major procurements are anticipated.

## Deliverables

The Authority provides the following deliverables to the FRA related to Task 2:

- PE to Support Environmental Review
- Design Manual (Technical Memorandums)
- CONOPS for the FCS
- Rolling Stock Performance Specifications
- System Safety and Security Management Plan (SSMP)

To date, two Final EIR/EIS documents (Merced – Fresno and Fresno – Bakersfield) and have been completed. In addition, in progress drafts of the Design Manual, FCS CONOPS Plan, Rolling Stock Performance Specifications and SSMP have been provided. The Authority will complete preliminary engineering and update all plans in FY 16/17.

Table 7 - FY 16/17 Engineering Deliverables

Deliverable/Section <sup>1</sup>	Schedule
<b>PE to Support Environmental Review</b>	
San Francisco – San Jose	1 <sup>st</sup> Qtr 2017
San Jose – Merced	2 <sup>nd</sup> Qtr 2017
Bakersfield – Palmdale	2 <sup>nd</sup> Qtr 2017
Palmdale – Burbank	2 <sup>nd</sup> Qtr 2017
Burbank – Los Angeles	3 <sup>rd</sup> Qtr 2017
Los Angeles – Anaheim	3 <sup>rd</sup> Qtr 2017
<i>Supplemental Documents</i>	



<b>Bakersfield F Street</b>	4 <sup>th</sup> Qtr 2016
<b>Central Valley Wye</b>	1 <sup>st</sup> Qtr 2017
<b>Design Manual Update</b>	4 <sup>th</sup> Qtr 2016
<b>CONOPS for the FCS and any other operating segments</b>	4 <sup>th</sup> Qtr 2016 (update)
<b>Rolling Stock Performance Specifications</b>	3 <sup>rd</sup> Qtr 2016
<b>Systems Safety and Security Management Plan (SSMP)</b>	3 <sup>rd</sup> Qtr 2016

## Task 3 Other Related Work

The Authority performs additional work required prior to the start of construction for each section. The areas covered under this task include:

- **Station Area Planning** – Work completed by the RC’s to support the environmental documentation phase as well as support to local jurisdictions to evaluate land use and access planning around stations
- **Right-of-Way (ROW) Work** – Work to support the identification of properties for environmental evaluation that establishes the footprint for environmental analysis and identification of the acquisition and relocation plan
- **Ridership Forecasting** – Updates to ridership forecasts to support financial planning and operational development needs related to concessionaire planning
- **LAUS/SoCal Investments** – ROW preservation

### Staffing

**Station Area Planning:** Over the past year, planning staff has put a substantial emphasis on executing its station area planning contracts and developing working relationships with Phase 1 station cities. This work ensures coordinated infrastructure planning for the future high-speed rail stations. The Authority is working with stakeholders on station design and station area plans, access planning, land use changes, creating community hubs, defining the environmental footprint and massing, and mitigations. The Authority’s planning team has provided technical assistance to the station cities helping with procurements, public involvement, and district scale planning (coordinating infrastructure investments, high-speed rail’s high-performance station design criteria, and access planning at the station with the station area). Civic Spark Fellows (an AmeriCorps program) are also being provided as additional support to station cities. The Director of Planning and Integration reports to the Chief Program Manager and is made up of a mix of Authority and RDP staff. The staff develop policies and procedures for station planning, design standards for stations and coordinates with station cities on station area planning. Management roles cover the following primary areas:

- Transportation Planning and Local Support
- Station Development and Design
- Sustainability

**Right-of-Way:** To construct the various segments of California’s high-speed rail system in the Central Valley, the Authority must acquire nearly 1,200 properties and land parcels. Accordingly, the Authority has a standard government transportation ROW function to conduct land surveys, prepare maps, prepare deeds, appraise property, acquire property, plan for utility relocation, and provide relocation assistance to homeowners and businesses. The right-of-way function also provides other property-related services such as managing encroachments, addressing damage to private property, coordinating permits, and providing escrow and title services. Efforts related to this task are focused on support for the environmental documentation phase. For more detailed information related to the ROW program staffing see Chapter 5, Real Property Acquisition and Environmental Mitigation.

**Ridership Forecasting:** The ridership forecasting team is part of the Financial Office, Commercial Division. It is led by the Deputy Director Commercial and focuses on modeling to support the Authority’s financial planning efforts. The work is primarily overseen by RDP staff and conducted by Cambridge

Systematics, an RDP sub-consultant. As the construction progresses, the program management team will continue to monitor the schedules for critical high-speed rail business plan milestone years (including the first leg of the initial operating segment [Silicon Valley to Central Valley] and passenger operations) which include testing, commissioning and start of service activities. This involves the integrated plans and schedules for bringing into service the track and systems elements as well as operations and maintenance facilities thereby completing the system commissioning milestone.

**LAUS ROW Preservation:** ARRA funding has been identified to purchase ROW in and adjacent to LAUS, including dedicated platforms and tracks within LAUS, and land to accommodate up to ten run-through tracks for future use. Since February 2011, staff is working closely with Metro on planning, environmental, and preliminary engineering activities in order to accommodate these purchases. This effort is managed by the Southern California Regional Director.

### Schedule

Appendix D – Summary Schedule (September 2016) provides an overview of the Task 4 activities. The next year will focus on the completion of station area planning in Phase 1 station cities and completion of the LAUS ROW procurement.

**Station Area Planning:** Although the Authority has actively engaged with station cities advance station area planning activities within the ARRA expenditure period, the station cities have taken and/or needed more time than anticipated to procure contractors and initiate their station area planning activities. The station cities could not reach the projected ARRA budget level or timeline to fully expend this line-item allocation. Therefore, on October 28, 2016, the Authority submitted a GARF to transfer \$2,800,000 of the Station Area Planning allocation to construction activities (Task 8). The schedule for each station area plan can be found on the Summary Schedule Update under Task 3 for each project section.

**Right-of-Way:** In order to accelerate ROW purchases, FRA has granted the Authority the use of a Working Capital Advance (WCA). This has helped accelerate the purchase of high value properties. Specific properties are identified and the Authority provides the FRA an update on the status of expenditures on a monthly basis. The Authority will continue with the WCA process throughout FY 16/17. In addition to the Quarterly Schedule Update identified above, the Authority also provides FRA with a quarterly ROW acquisition update. The latest update can be found at <https://chsra.pbid.com/pmt/gm/Deliverables/Forms/AllItems.aspx> by sorting on the deliverables pull down menu for ROW Acquisition Plan.

**Ridership Forecasting:** Work over FY 16/17 the model will support the efforts of the environmental team to complete the Phase 1 documentation. The model will also be evaluated for possible updates to support financial modeling needs. No major updates are planned this FY.

**LAUS ROW Preservation:** The Quarterly Schedule update includes the schedules for the Burbank-LA and LA-Anaheim project sections which will incorporate improvements at Los Angeles Union Station (LAUS). The Authority is actively coordinating with LA Metro to incorporate high-speed rail into the LAUS. As LA Metro advances plans and environmental clearance, the Authority is reviewing technical and engineering concepts as LA Metro identifies a preferred alternative and publishes the draft EIR/EIS for LinkUS. All grant-associated LAUS ROW acquisitions are expected to be finalized by the Spring of 2017.

## Budget

The budget for Task 3 Other Related Work is \$189,425,982 summarized in Table 8 below. All federal expenditures related to this task are from the ARRA grant. The Quarterly Budget Update (Appendix B – Detailed Grant Budget) provides a summary of Task 3 by project section. Table 8 below summarizes the budget for each project section as identified in the detailed Quarterly Budget Update. This task also includes other local funding as part of the anticipated state match for the station area planning and LAUS sub-tasks. In addition, a separate sub-task has also been created for pre-construction planning and legal services related to pre-construction efforts.

Table 8 - Task 3, Other Related Work, ARRA Grant Budget

Section <sup>1</sup>	ARRA	State	Local	Total
<b>3.1 Station Area Planning (RC)</b>	\$4,681,420	\$4,856,623		\$9,538,043
<b>3.2 ROW Work (RC)</b>	\$5,719,426	\$5,933,475		\$11,652,901
<b>3.3 ROW Work (RDP)</b>	\$237,231	\$246,109		\$483,340
<b>3.4 Ridership Forecasting</b>	\$1,662,521	\$1,724,741		\$3,387,262
<b>3.5 Construction Planning/ Procurement Support</b>	\$2,009,773	\$2,084,989		\$4,094,762
<b>3.6 Station Area Planning<sup>2</sup></b>	\$2,700,000	\$4,200,000	\$4,100,000	\$11,000,000
<b>3.7 LAUS/SoCal Investments<sup>2</sup></b>	\$32,000,000		\$48,000,000	\$80,000,000
<b>3.8 Legal Services – pre construction</b>	\$33,998,637	\$35,271,037		\$69,269,674
<b>Total</b>	<b>\$83,009,008</b>	<b>\$54,316,974</b>	<b>\$52,100,000</b>	<b>\$189,425,982</b>

<sup>1</sup> Quarterly Budget Update September 30, 2016

<sup>2</sup> Includes local funding

## Regulatory Documentation and Guidelines

**Station Area Planning:** The Authority works with stakeholders on station design and station area plans. This work begins with siting and defining the environmental footprint and sizing of the station. In addition, staff is also working collaboratively with each Phase 1 station city to address transportation access planning, identify land use changes, and developing community transportation hubs.

The station cities are key stakeholders for the program. Federal and state funding is allocated toward the development of station areas. The funding is dedicated to support station area planning and local land use decisions related to transit-oriented development, joint development and other transit-supportive enhancement opportunities. Interagency agreements have been executed with all but one station city (Millbrae). The agreements outline the station access and development plan partnership between the city and the Authority.

The Authority has developed a variety of guidelines, plans and procedures for use by designers, local jurisdictions and other stakeholders in initiating and carrying out this process:

- High-Speed Train Station Area Development: General Principles and Guidelines – Outline of the Authority’s general principles and guidelines for station area development.  
[https://chsra.pbid.com/sites/ao/pm\\_pub/pf/POLI-PLAN-01%20HST\\_Station\\_Area\\_Development\\_General\\_Principles\\_and\\_Guidelines.pdf](https://chsra.pbid.com/sites/ao/pm_pub/pf/POLI-PLAN-01%20HST_Station_Area_Development_General_Principles_and_Guidelines.pdf)
- California High-Speed Train Project: Urban Design Guidelines – A comprehensive planning guide that provides domestic and international examples of station area design, urban design and transit-

oriented development. This guide includes simple diagrams that analyze and explain successful public places and how each promotes livability and transit use. Urban design implemented around high-speed rail stations can encourage destination stations and enhance the value of the surrounding community. The report is intended to be used by cities and communities throughout the state as they work with their stakeholders and residents to create a vision for their high-speed rail station areas.

[http://www.hsr.ca.gov/docs/programs/green\\_practices/sustainability/Urban%20Design%20Guidelines.pdf](http://www.hsr.ca.gov/docs/programs/green_practices/sustainability/Urban%20Design%20Guidelines.pdf)

- Station Deliverables for PEPD and Environmental Documents Memorandum - Defines station planning deliverables for use in preliminary engineering for project definition deliverables and project-level draft environmental documents. This memorandum clarifies how to develop conceptual station plans.  
<https://chsr.pbid.com/pmt/pln/plndocs/Station%20Deliverable%20Memo%2005.27.16.pdf>
- Project Design Criteria Manual Chapter 14 Stations – Presents station design principles and goals as well as space requirements, passenger amenities, station performance, circulation, connections and safety and security for high-speed rail preliminary and final station design. The intended use of this chapter relates to high-speed rail dedicated stations as well as facilities shared in existing stations with other transportation agencies, owners and operators. Because high-speed rail station ridership is expected to increase over time, not all functions referenced in this document will be included in all initial station programs; instead, construction will occur in a staged or phased manner as the high-speed rail system expands.  
[https://chsr.pbid.com/pmt/pln/plndocs/Des%20Crit%20Manual%20Chap14%20Stations%20%2031Mar2016\\_Submittal%20Issued.pdf](https://chsr.pbid.com/pmt/pln/plndocs/Des%20Crit%20Manual%20Chap14%20Stations%20%2031Mar2016_Submittal%20Issued.pdf)
- Station Area Parking Guidance Technical Memorandum – Defines appropriate station area parking to be evaluated for the draft project-level environmental documents. As such, this technical memorandum defines the maximum possible footprint without taking into account how changes in local land use and transit connectivity can influence parking demand. This technical memorandum explains the desired parking approach, including cost and layout, along with the process for implementation including Authority, local and private-sector responsibilities.  
<https://chsr.pbid.com/pmt/pln/plndocs/Revised%20Station%20Area%20Parking%20Guidance%20with%20signatures.pdf>

Vision California – An effort to explore the critical role of land use and transportation investments in meeting the environmental, fiscal and public health challenges facing California today and in the future. New modeling tools are applied to formulate and compare scenarios for how California can accommodate growth based on policy decisions and development patterns.

[http://www.hsr.ca.gov/Programs/Green\\_Practices/sustainability.html](http://www.hsr.ca.gov/Programs/Green_Practices/sustainability.html)

- UC Berkeley Research on the Potential for Transit-Oriented Development in the Central Valley - These reports, prepared with the support of the Authority, examine the potential for transit-oriented development around high-speed rail stations in the Central Valley. They focus on proposed stations sites in the cities of Stockton, Merced, and Fresno and presents planning approaches and design concepts for land use, urban design and multimodal access and circulation in and around the proposed high-speed rail station areas. [http://www.hsr.ca.gov/Programs/Green\\_Practices/sustainability.html](http://www.hsr.ca.gov/Programs/Green_Practices/sustainability.html)

**Right-of-Way:** For more detailed information related to the ROW program see Task 6, Real Property Acquisition and Environmental Mitigation.

**Ridership Forecasting:** Documentation related to the development of the Authority's ridership and revenue forecasting can be found on the Authority's website at [http://www.hsr.ca.gov/About/ridership\\_and\\_revenue.html](http://www.hsr.ca.gov/About/ridership_and_revenue.html). Information can be found on the California



High-Speed Rail Ridership and Revenue Model, Version 3 Model Documentation completed by Cambridge Systematics, February 17, 2016. In addition, reports from the Authority's Ridership Technical Advisory Panel can also be found.

### Procurement

Procurement activities planned for FY 16/17 are minor contract amendments for budget and time to complete station area planning or ROW planning activities. No other major procurements are anticipated.

### Deliverables

The following deliverables scheduled for FY16/17 are below. To date, in progress drafts of the ROW Procedures Manual and FCS Contingency Plan have been provided to FRA. ROW Acquisition Plans for the FCS are provided quarterly.

**Table 9 - FY 16/17 Other Related Work Deliverables**

Deliverable <sup>1</sup>	Schedule
<b>Station Area plans</b>	2 <sup>nd</sup> Qtr 2017
<b>ROW Procedures Manual</b>	2 <sup>nd</sup> Qtr 2017
<b>ROW Acquisition Plan for the FCS</b>	Quarterly
<b>FCS Contingency Plan (Update)</b>	4 <sup>th</sup> Qtr 2016

<sup>1</sup> September 2016

## Task 5 Program, Project and FCS Construction Management

This task focuses on the overall management of the program and construction oversight of the design-builders. Deliverables in this area focus on the overall program and project management and construction oversight provided by the Project Construction Managers (PCM).

### Staffing

Together, the Authority and RDP form an integrated organization. The Authority provides overarching program oversight and policy direction, and the RDP manages, monitors and oversees the program's operations and progress. The organization is broken down into four primary areas which include:

**Program Management:** Program management is overseen by the Director of Program Operations and a Program Controls Manager. They are responsible to provide recommendations and support related to program delivery approach and master program planning such as oversight of program controls including program scope, cost, and schedule.

**Program Delivery:** This area is overseen by Program Director who oversees both Program and Project Delivery to ensure coordination between Program technical expertise as well as individual construction project support. This area is supported by Regional Directors responsible for project and community coordination and delivery in the Northern, Southern and Central Valley regions. On-site functional teams are assigned responsibility for program delivery. Each team oversees and monitors the performance of associated work packages under their assigned disciplines (environmental, engineering, ROW, and etc.) Part of program delivery includes providing the specialized technical resources which may include, but not be limited to, tunneling, seismic design, high-speed rail systems (track electrification, train control, signaling, and communications), trainsets, track work, heavy maintenance facilities, high-speed rail system testing and commissioning, and facility operations and maintenance.

**Project Delivery:** Project Delivery includes the overall planning, coordination, and control of construction. The Program Director and Chief Engineer have overall responsibility for the execution of the construction work program. The construction project manager is responsible for managing both the construction team and the functional resources needed for the construction project, including the DB contractor. Assigning the project manager the responsibility of managing both the personnel and resources required for a specific project results in creating a single point of contact and accountability for each project as well as program wide consistency across each of the projects comprising the high-speed rail program. For more information on the construction organization see Task 8, Final Design and Construction Contract Work.

**Project & Construction Management:** The Chief Engineer and Construction Branch Manager oversee the overall organization with support from Authority construction contract managers and the PCM's. The Authority has also retained the services of specialty project and construction management (PCM) firms to provide on-site management expertise and staff to oversee the DB contracts. The PCM oversees and directs field inspectors, and work closely with the design-builder to assist in coordination with agencies and utility companies. PCM's also assist the design-builder in making field decisions to address conditions and/or activities that could impact budget or schedule. The PCM's for each construction project are:

- CP 1 – PGH Wong Engineering
- CP 2-3 – ARCADIS U.S. Inc.
- CP 4 – HNTB Corporation

The Authority primarily manages oversight activities from its headquarters program offices in Sacramento; project managers, project staff, the PCM and the DB are located in local construction project offices. This co-location enhances communication between all parties, expedites the DB approach and provides onsite oversight and coordination.

### Schedule

Appendix D – Summary Schedule (September 2016) provides an overview of the PCM schedule for each construction project. All other activities and deliverables related to this task will be performed over the ARRA and FY10 period of performance as required.

### Budget

The Task 5 budget is \$419,227,067 and is summarized in Table 10 below. Expenditures related to Program Management and Legal Services are covered only in the ARRA and State funds budget. The budget below reflects the executed amounts for PCM contracts for CP 1 through CP 4.

**Table 10 - Task 5, Program, Project and FCS Construction Management Budget**

Sub Task <sup>1</sup>	ARRA	State	FY10	State	Total	Additional State
<b>5.1 Program Management</b>	\$126,599,146	\$132,202,936	0	0	\$258,802,082	\$139,400,000
<b>5.2 Project Construction Management (PCM)</b>	\$48,748,955	\$50,906,782	\$44,500,052	\$11,952,478	\$156,108,267	
<b>5.3 Legal Services</b>	\$2,111,624	\$2,205,094	0	0	\$4,316,718	
<b>Total</b>	<b>\$177,459,725</b>	<b>\$185,314,812</b>	<b>\$44,500,052</b>	<b>\$11,952,478</b>	<b>\$419,227,067</b>	

<sup>1</sup> Quarterly Budget Update September 30, 2016

### Regulatory Documentation and Guidelines

**Management and Program/Project Controls:** Program management policies, procedures and tools are utilized to manage and control the delivery of the scope, budget and schedule commitments of the overall program. The program controls plan provides a functional overview of the control processes for managing the scope, budget and schedule at the program-level, whereas the regional project management plans address the specific control processes for managing scope, budget and schedule for each project. More detailed information is included in the Chapter 5, Management and Program/Project Controls of the Program Management Plan.

**Project Construction Management Manual (PCMM):** Establishes uniform guidelines and procedures in contract management and administration and design and construction oversight for each design-build contract. The PCMM addresses responsibilities subsequent to the award of contracts. It also presents, interprets and clarifies established general policies and practices applicable to the work, dealing with

various situations that may arise. The PCMM can be found on the Authority's web site at:

[https://www.hsr.ca.gov/docs/programs/construction/PCM\\_Manual\\_Rev\\_0.pdf](https://www.hsr.ca.gov/docs/programs/construction/PCM_Manual_Rev_0.pdf). Various procedures and policies provide a framework for:

- Program structure and organization
- Contract administration
- Communication/documentation/reports
- DB contract submittals
- Verification, validation and self-certification
- Interface management and coordination
- Quality management
- Safety and security
- Schedule control
- Changes and claims
- Right-of-way
- Public involvement
- Completion and closeout

**Design-Build Program Plan:** The design-build program plan (DBPP) outlines the Authority's approach to project delivery and identifies the project implementation procedures and methods established by the Authority to achieve successful design-build project delivery. FRA approved the final plan in April 2016 and it is located on the FRA sharepoint site at: <https://chsra.pbid.com/pmt/gm/Deliverables/DBPP-PMP%20FCS%20CHSRA%20Final%20042016.pdf>

## Procurement

No significant procurements to complete the deliverables associated with this Task are anticipated.

## Deliverables

The following deliverables are scheduled for FY16/17.

Table 11 - FY 16/17 Program, Project, and FCS Construction Management Deliverables

Deliverable <sup>1</sup>	Schedule
Annual Work Plan	4 <sup>th</sup> Qtr 2016
Program Management Plan	4 <sup>th</sup> Qtr 2016
Central Valley Project Financial Plan	4 <sup>th</sup> Qtr 2016
Phase 1 Program Financial Plan	4 <sup>th</sup> Qtr 2016
RFP's/NTP's for Design/Construction Services	
CP 5 RFP	4 <sup>th</sup> Qtr 2016
Network Integration Plan	3 <sup>rd</sup> Qtr 2016
Updated Service Development Plan	2 <sup>nd</sup> Qtr 2017
Infrastructure Maintenance Plan (update)	2 <sup>nd</sup> Qtr 2017
Rolling Stock Maintenance plan (update)	2 <sup>nd</sup> Qtr 2017

<sup>1</sup> September 2016

## Task 6 Real Property Acquisition and Environmental Mitigation

Task 6 focuses on ROW delivery for construction and property associated with environmental mitigation. The ROW team maps, appraises, and acquires parcels and provides relocation assistance (associated with ROW) needed for CP1, CP2-3 and CP4. Emphasis in FY 16/17 is to continue to acquire property for construction and begin to focus on future property management activities. ROW schedules and costs are reported on a quarterly basis.

### Staffing

ROW is managed by the Director of Real Property and reports to the Program Director. The Director is supported by a manager of ROW information, and a Deputy Director of Real Property that oversees Authority agents who oversee the work of ROW consultants. The Authority's ROW division managers are located in the Sacramento headquarters office, in the Central Valley regional office in Fresno, the Southern California regional office in Los Angeles and the Northern California regional office in San Jose. The organization is shown on [Figure 6](#). ROW consultants are responsible for performing ROW appraisal and acquisition services, including:

- Issuing initial letters to the property owners (Notice of Determination to Appraise [NODA])
- Conducting appraisals
- Issuing the first written offers
- Conducting negotiations
- Preparing the administrative settlement memo
- Issuing revised offers
- Establishing and providing relocation benefits and educating affected property owners about the benefits
- Preparing the acquisition quality checklist
- Preparing the memorandum of appraisal updates, the declaration of value and close escrow and the resolutions of necessity (RONs) needed for the condemnation process

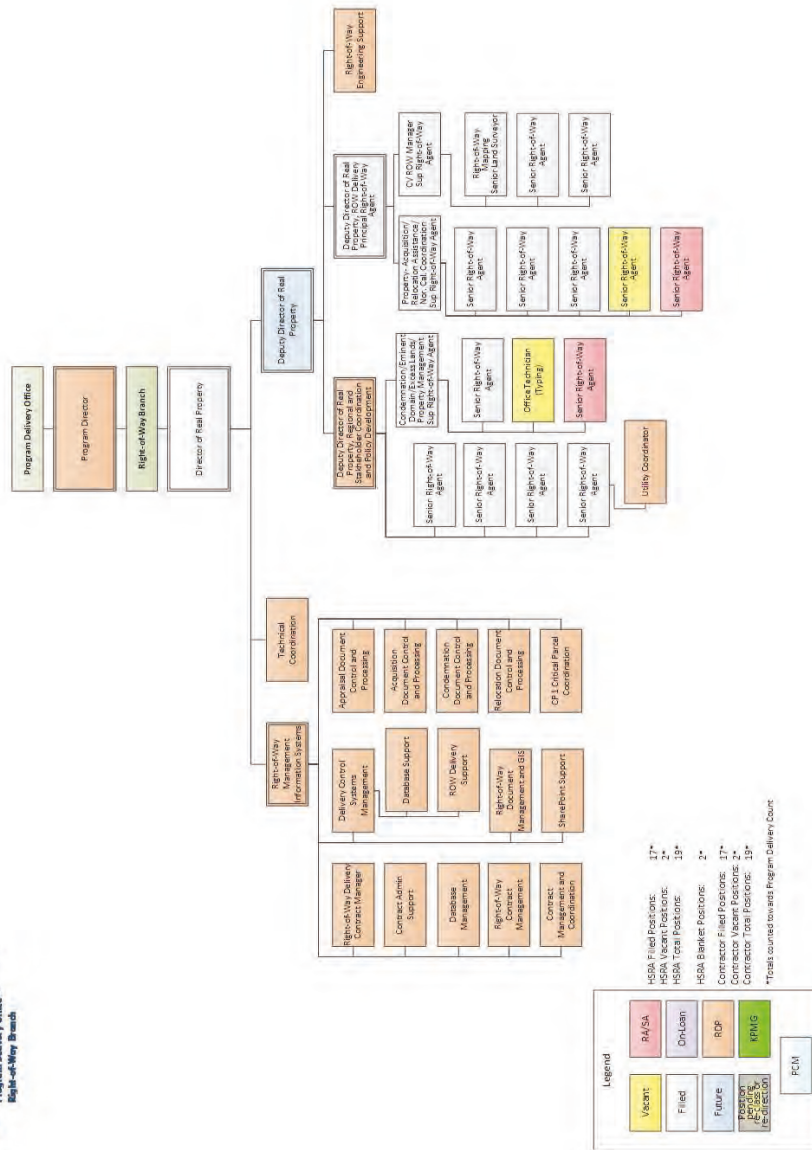
### Agency Coordination

The ROW process involves extensive coordination with other agencies which include:

- California State Public Works Board (PWB): This independent agency of the state was created to oversee fiscal matters associated with construction of projects for state agencies. Under the California Property Acquisition Law, the PWB is authorized to approve real estate transactions. Before an offer of just compensation is approved, the PWB reviews the project and its budget and makes an initial determination that the state has the legal authority to purchase the property in question.
- California Department of General Services (DGS): The Real Property Services Section (RPSS) reviews and approves each parcel appraisal for just compensation prior to a written offer for acquisition. Upon execution of the parcel's ROW contract, the Real Property Services Section reviews and recommends approval.
- California Department of Finance (DOF): The Capital Program Branch reviews and executes ROW agreements for compliance with budgetary and project authority for the parcel acquisition.

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- California Department of Transportation: The Legal Division provides legal review and representation for ROW contracts, and performs legal services for cases of eminent domain through the Effective Order of Possession.

### Schedule

The Authority shares major milestones and the current status of ROW procurement with the Board on a monthly basis and provides quarterly updates to FRA. This information about the work in progress is shared in a monthly operations report. The most updated version can be found on the Board's Finance and Audit Committee website at [http://www.hsr.ca.gov/Board/monthly\\_fa\\_committee\\_meeting.html](http://www.hsr.ca.gov/Board/monthly_fa_committee_meeting.html)

Information is also shared quarterly with FRA. The latest update can be found at <https://chsra.pbid.com/pmt/gm/Deliverables/Forms/AllItems.aspx> by sorting on the deliverables pull down menu for ROW Acq Plan.

In July 2016, the FRA approved the Authority's request for the use of a \$60,000,000 working capital advance (WCA). Access to the WCA allowed the Authority to expedite several critical-path property acquisitions in CP 1 and CP 2-3. The Authority fully expended the initial \$60,000,000 WCA by the September 28, 2016 due date. In October 2015, the Authority requested a second WCA of \$65,000,000 to expedite the ROW acquisition process and correlative construction activities.

### Budget

The Task 6 budget is \$852,274,479 and is summarized in Table 12. Currently ARRA federal funding for preliminary ROW and environmental mitigation is through the ARRA grant. These activities will continue beyond the ARRA September 2017 performance period, with future funding covered by state resources.

The Authority executed a WCA in August 2016 and fully expended the initial \$60 million requested within August-September. The second WCA request of \$65,000,000 (approval pending at the time of this report) will enable an expedited ROW acquisition process and completion.

Table 12 - Task 6, Real Property Acquisition and Environmental Mitigation Budget

Sub Task <sup>1</sup>	ARRA	State	FY10	State	Total	Additional State
<b>6.1 Real Property – Preliminary ROW</b>	\$13,311,325	\$11,016,061	0	0	\$24,327,386	
<b>6.2 Real Property – ROW Services and Relocation</b>	\$93,438,986	\$77,327,358	\$3,092,482	\$3,850,622	\$177,709,448	\$ 9,987,112
<b>6.3 Real Property – Environmental Mitigation</b>	\$29,489,968	\$24,405,032	0	0	\$53,895,000	\$46,313,298
<b>6.4 Real Property – ROW Acquisition</b>	\$323,079,364	\$267,370,979	\$5,892,302	0	\$596,342,645	\$34,804,590
<b>Total</b>	<b>\$459,319,643</b>	<b>\$380,119,430</b>	<b>\$8,984,784</b>	<b>\$3,850,622</b>	<b>\$852,274,479</b>	<b>\$91,105,000</b>

<sup>1</sup> Quarterly Budget Update September 30, 2016

## Regulatory Documentation and Guidelines

In support of the high-speed rail program and in compliance with federal and state mandates required by the California Property Acquisition Law and the Federal Uniform Relocation Assistance and Real Estate Property Acquisition for Federal and Federally Funded Policies Act of 1970, the Authority has developed policies and procedures for the appraisal, acquisition and management of real property.

**ROW Manual:** The Authority developed the program's right-of-way manual, which includes policies and procedures for acquiring and managing property rights through purchase, easement, lease or other legal instruments including, when necessary, condemnation. These policies and procedures are being utilized consistently throughout the program.

**Right-Of-Way Acquisition Plan:** The Authority prepares a right-of-way acquisition plan for each project (divided into construction packages) once a preferred alignment has been identified and preliminary design has been completed. The acquisition plan gives priority to parcels needed for long-lead construction activities and parcels that may have complicated relocation management matters. The acquisition plan is supported by a right-of-way cost estimate based on preliminary engineering plans. Land values, improvements and damages for each property are considered in the development of the right-of-way estimate, which includes costs for temporary and permanent easements, utility easements and fee acquisitions along with a contingency for condemnation increments and settlements. Relocation expenses are also included in the estimate for those acquisitions involving displacements and/or personal property moves. Assumptions for business displacements and relocation payments are based on the right-of-way relocation plan.

**Property Management Plan:** Maintenance and protection of property interests acquired in the name of the State of California are provided by the property acquisition agent until control of the property is transferred to the contractor. The property acquisition agent is required to maintain an inventory of real property and improvements acquired for the project. Additional responsibilities assigned to the property acquisition agent include protecting the property from vandalism, encroachment or other misuse prior to turnover to the contractor.

**Right-of-Way Data Exchange System (ROWDES):** In addition to the right-of-way manual, the Authority uses this internal reporting system to track right-of-way acquisition and management. This database is used to manage every parcel acquired by the Authority. ROWDES contains modules for each step of the acquisition/management process, including appraisals, acquisition, condemnation, costs, etc. The data generated by ROWDES enables the generation of weekly reports on ROW status and is used to produce the Board monthly and FRA Quarterly reports.

## Procurement

In FY16/17 the Authority expects to award two additional contracts. The additional contracts include:

- ROW Services: Work related to environmental assessments, appraisals, acquisition and relocation services. (Anticipate awarding multiple contracts.)
- ROW Engineering: Work related to boundary surveys, appraisal maps, legal descriptions, title research for the San Jose to Madera section. (Expect to award up to four contracts.)
- ROW Property Management Services: Management of parcels once acquired, transfer to the DB for construction and final overall disposition of excess properties. (Will award up to four contracts.)

In addition, minor contract amendments may also be necessary to existing contracts to ensure the timely delivery of ROW for construction.

### **Deliverables**

The Authority provides FRA an update on ROW acquisition as part of its quarterly reporting. In addition, monthly reports will continue related to WCA ROW activities and expenditures. The latest acquisition update can be found by sorting on the deliverables pull down menu for ROW Acq Plan at the following link: <https://chsra.pbid.com/pmt/gm/Deliverables/Forms/AllItems.aspx>

## Task 8 Final Design and Construction Contract Work

The First Construction Segment (FCS) is approximately 118 miles traversing the Central Valley from northern Madera County to Shafter. The alignment is broken into four civil construction packages and one track work construction package (Figure 7). The five construction packages include:

- **SR 99 – Civil Infrastructure** – Caltrans is designing and constructing roadway improvements to support the high speed train infrastructure from Ashlan Avenue to Clinton Avenue in Fresno
- **CP 1 – Civil Infrastructure** – Avenue 19 (Madera) to East American Avenue (Fresno), 31 miles
- **CP 2-3 – Civil Infrastructure** – East American Ave (Fresno) to one mile north of Tulare/Kern County line, 65 miles
- **CP 4 – Civil Infrastructure** – One mile north of Tulare/Kern County line to Poplar Avenue north of Bakersfield, 22 miles
- **CP 5 – Track** (also known as Rail Infrastructure, RII) – including systems, communications, signaling, and overhead power for CP1, CP2-3 and CP4

The following contractors have been procured to date:

- CP 1 was awarded to Tutor Perini/Zachry/Parsons (TPZP) Joint Venture in 2013
- CP 2-3 was awarded to the Dragados/Flatiron Joint Venture in 2015
- CP 4 was awarded to California Rail Builders: Ferrovial Agroman US Corp in 2016

### Staffing

Chapter 3 of the DBPP outlines the roles and responsibilities of the Authority and the various contractors and consultant resources used to manage the DB construction. The plan was approved by FRA in April 2016 and can be found at <https://chsra.pbid.com/pmt/gm/Deliverables/DBPP-PMP%20FCS%20CHSRA%20Final%20042016.pdf>

The project director leads each construction section and has the overall responsibility for all construction elements including design, construction, ROW, third parties, project delivery, etc. The project director is supported by a project manager whose primary responsibility is to coordinate all the external and third party elements. A design and construction manager is the contract manager for each DB and PCM contract (Figure 8). They ensure effective coordination between the project team and the DB contractor. The project director is the Authority's lead representative for each construction project and the design and construction manager is the lead representative for DB and PCM contract issues.

The Authority has hired Project and Construction Management (PCM) firms (discussed in Task 5, Program, Project and FCS Construction Management) to oversee DB contract compliance. These firms provide on-site project and construction management services covering areas such as project pre-planning and programming; procurement, design and construction support; commissioning; testing; claims; and post construction services.

- Wong+Harris provides on-site oversight for CP 1
- Arcadis was procured for CP 2-3
- HNTB was procured for CP 4

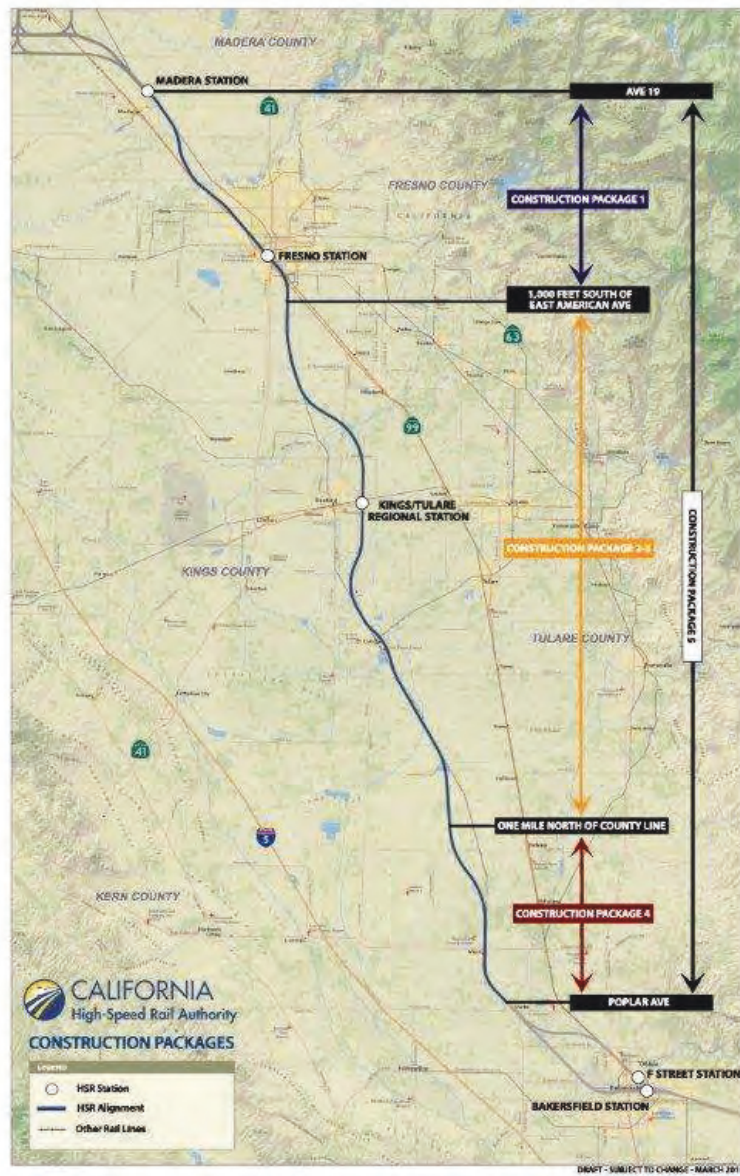


Figure 7 - First Construction Section



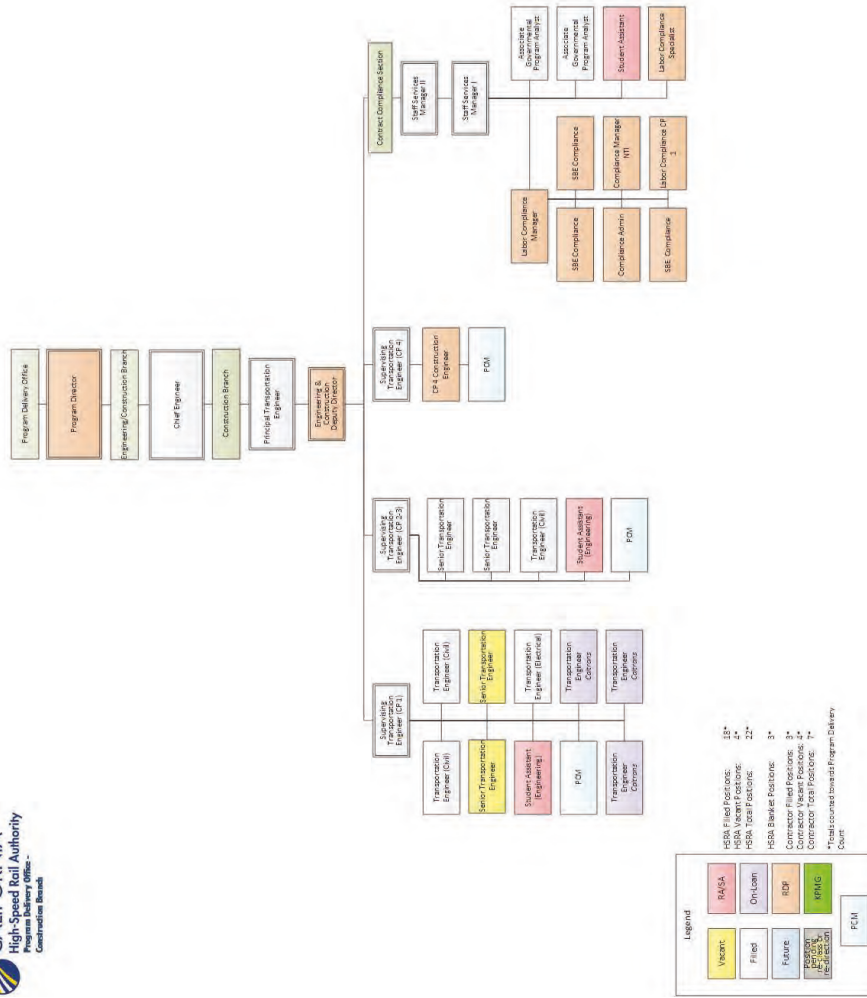


Figure 8 - Program Delivery Organization

## Schedule

Appendix D – Summary Schedule (September 2016) provides an overview of the construction schedules for each construction project. In addition, FRA is provided the baseline schedules for each construction project as they are approved by the Authority. Baseline schedules have been provided for CP1 and CP 2-3. The CP 4 baseline schedule will be available 4<sup>th</sup> Quarter 2016.

## Budget

The Task 8 budget is summarized in Table 13. It reflects the grant agreement budget of \$3,772,057,495 for civil and track construction of the FCS. It also identifies the additional resources required of \$660,294,844 to complete the project as outlined in Attachment 3, Statement of Work of the grant agreements. Currently, funding for SR 99 is through the ARRA grant. The FCS Track Work Construction is currently under development. A budget will be identified prior to any proposal being released and the budget below will reflect only the federally funded portion of track work for the FCS.

**Table 13 - Task 8, Final Design and FCS Construction Budget**

Sub Task <sup>1</sup>	ARRA	State	FY10	State	Total
<b>8.1 SR 99</b>	\$101,889,294	\$124,010,706	0	0	\$ 225,900,000
<b>8.2 Civil Construction Package 1 (CP 1)</b>	\$479,871,360	\$367,440,832	\$541,762,788	\$58,956,469	\$1,448,031,449
<b>8.3 Civil Construction Package 2 (CP 2-3)</b>	\$706,738,379	\$857,745,697	\$93,048,378	\$138,235,436	\$1,795,767,890
<b>8.4 Civil Construction Package 4 (CP 4)</b>	\$62,045,209	\$75,515,983	\$123,762,365	\$41,034,599	\$302,358,156
<b>8.5 FCS Track Work Construction (CP 5)</b>	0	0	0	0	0
<b>Total</b>	<b>\$1,350,544,242</b>	<b>\$1,424,713,218</b>	<b>\$758,573,531</b>	<b>\$238,226,504</b>	<b>\$3,772,057,495</b>

<sup>1</sup> Quarterly Budget Update September 30, 2016

**Table 14 - Task 8, Additional Resources Budget**

Sub Task <sup>1</sup>	Additional Resources
<b>8.1 SR 99</b>	\$ 35,000,000
<b>8.2 Civil Construction Package 1 (CP 1)</b>	\$ 235,246,547
<b>8.3 Civil Construction Package 2 (CP 2-3)</b>	\$ 27,000,000
<b>8.4 Civil Construction Package 4 (CP 4)</b>	\$ 251,198,844
<b>8.5 FCS Track Work Construction (CP 5)</b>	\$ 446,096,000
<b>Total</b>	<b>\$ 994,541,391</b>

<sup>1</sup> Quarterly Budget Update September 30, 2016

## Regulatory Documentation and Guidelines

**Design-Build Program Plan (DBPP):** This plan outlines the Authority’s approach to project delivery for the initial operating segment and identifies the project implementation procedures and methods established by the Authority to achieve successful design-build project delivery.

**Project and Construction Management Manual (PCMM):** This manual describes how the Authority will execute the design-build projects through an integrated staffing approach that uses Authority staff, PCM, RDP and other consultants. The PCMM establishes uniform guidelines and procedures in contract management and administration and design and construction oversight for each design-build contract. The PCMM addresses responsibilities subsequent to the award of contracts. It also presents, interprets and clarifies established general policies and practices applicable to the work in dealing with various situations that may arise.

## Procurement

Several procurements are expected in FY16/17. These include:

- Procurement of rail infrastructure CP 5, also known as Rail Infrastructure 1 (RI 1)
- Rolling Stock

Other procurements under discussion include small traditional design-bid-build contracts for specific upfront work including small civil construction packages or contracts for such activities as utility relocations, hazardous materials removal/remediation, site demolition, and clearing and grubbing.

## Deliverables

The deliverables identified in the grant agreement are noted below. The next fiscal year will see a dramatic increase in construction progress now that the three primary civil DB contracts have been executed. The following are some of the general activities that will occur:

### SR 99

- Complete the Early Works package and begin Main package construction
- Complete remaining UPRR easements and eminent domain parcel acquisitions

### CP 1

- Tuolumne Street overcrossing will be completed and Stanislaus bridge demolition will begin
- Work will continue on several structures including
  - Fresno River Viaduct
  - Cottonwood Creek Bridge
  - San Joaquin River Bridge
  - Fresno Trench and intrusion barrier construction
  - SR 180 undercrossing
  - Cedar Viaduct
- Work will begin in the following locations
  - Avenue 8 Bridge overpass
  - Avenue 12 overpass and road widening
  - American Avenue, Avenue 15 and Avenue 15 ½ overpasses

## CP 2-3

- North nine miles and south six miles complete clearing and grubbing, begin utility relocation, relocation of irrigation crossings and construction of floodplain crossings
- Begin BNSF relocations at Bowles and Monmouth
- Begin grade separations at Adams, Floral, Elkhorn, Kent, Kansas and Nevada avenues and at Avenue 56

## CP 4

- Complete environmental re-examinations
- Begin clearing and grubbing activities where ROW is available
- Complete utility agreements and final designs
- Prepare type selection reports and begin final design

The following deliverables are scheduled for FY16/17. The date noted below represents the last date a deliverable of that type is expected and that phase would be complete.

Table 15 - FY 16/17 Final Design and Construction Contract Deliverables

Deliverable <sup>1</sup>	Schedule
<b>Construction Package 1</b>	
Type Selection Reports	4 <sup>th</sup> Qtr 2016
60 % Design	4 <sup>th</sup> Qtr 2016
90% Design	1 <sup>st</sup> Qtr 2017
Ready for Construction Design	2 <sup>nd</sup> Qtr 2017
<b>Construction Package 2-3</b>	
Type Selection Reports	2 <sup>nd</sup> Qtr 2017
<b>Construction Package 4</b>	
Detailed Baseline Schedule	4 <sup>th</sup> Qtr 2016

<sup>1</sup> September 2016

## Appendix A – Grant Tasks and Sub-Tasks (Grant Work Breakdown Structure)

### Task 1: Environmental Review

- Task 1.1. Regional Consultant Project Management (RC): Development of RC Project Management Plan.
- Task 1.2. Regional Consultant Public/Agency Participation (RC): Developing and implementing a public involvement program focused on identifying regional and local issues and concerns of the potential impacts of HST system and for proposing necessary mitigation measures.
- Task 1.3. Alternatives Analysis (RC): Project Definition including a segment-by-segment alignment description of the HST design options to be investigated in the Project EIR/EIS process(s).
- Task 1.4. EIR/EIS Analysis (RC): Technical studies necessary to evaluate and assess impacts of the HST Alternatives and No Project Alternative as part of the EIR/EIS process(s), addressing both alignments and proposed station locations.
- Task 1.5. Draft and Final EIR/EIS (RC): Preparation of the Draft EIR/EIS document(s) and Final EIR/EIS document(s), including necessary administrative review versions. The site-specific EIR/EIS document(s) must satisfy all the requirements of CEQA and NEPA.
- Task 1.6. Certification of EIR/EIS and ROD (RC): Preparation of other related environmental documents that are required as part of the certification of the Project EIR/EIS document(s), including Findings and a Statement of Overriding Considerations, the Record of Decision/Notice of Determination, and the Mitigation Monitoring and Reporting Plan.
- Task 1.7. Program Management (RDP): Project Management, Controls and communication related to environmental review and permitting for Rail Delivery Partners Team and Regional Consultants toward the goal of the Notice of Determination and Record of Decision.
- Task 1.8 Non-federal Resource and Other Agencies for Environmental Review (Multiple agencies): State agencies support of environmental permitting processes.

### Task 2: Preliminary Engineering (PE)

- Task 2.1. Regional Consultant PE (RC): Development of HST design concepts at a sufficient level of detail to develop accurate capital cost estimates, right-of-way requirements, construction staging, traffic and environmental impacts to satisfy CEQA and NEPA requirements.
- Task 2.2. Program Management (RDP): Project Management, controls and communication related to preliminary engineering for Rail Delivery Partner Team and Regional Consultants.
- Task 2.3. RDP Engineering (RDP): Engineering support to establish master standards for the project and establish procedures and systems to provide compliance and coordination between all sections.

### Task 3: Other Related Work Needed Prior to Start of Construction

- Task 3.1. Regional Consultant Station Area Planning (RC): RC-supported work with the local jurisdictions and public in developing HST station area plans.
- Task 3.2. Regional Consultant ROW Work (RC): Conduct assessments to identify segments at risk of imminent development or other changes in use that could significantly increase implementation costs and difficulty.

- Task 3.3. RDP ROW Work (RDP): Development of a Right-of-Way assessment and acquisition program.
- Task 3.4. Ridership Forecasting (RDP): Ridership work, ridership & revenue forecasts and station boarding's to support HST System phases of development.
- Task 3.5. Construction Planning / Procurement Support (RDP): Services to procure other services, equipment and construction for the total project implementation. Including possible staging options to best serve the project.
- Task 3.6. Station Area Planning: Development of a station area plan or equivalent incorporating a transit-oriented development (TOD) development code and/or specific plan (or equivalent) to the local comprehensive plan.
- Task 3.7. LAUS/So California Investments: Preservation and acquisition of property, rights-of way, and the related environmental clearances and engineering activities that will enable HST to operate at Los Angeles Union Station (LAUS).
- Task 3.8. Legal Services – Pre-construction: Legal assistance in negotiations pertaining to federal and state laws with freight and passenger rail companies that may be impacted by the HSR project.

#### **Task 4: Project Administration and Statewide Cost Allocation Plan (SWCAP, Complete)**

#### **Task 5: Program, Project and FCS Construction Management**

- Task 5.1. Program Management (RDP): Program Management activities may include program and project management and controls, engineering due diligence reviews, commercial and procurement support, program wide planning, implementation planning, system electrification and testing and commissioning, design/build support (as applicable), network integration and system assurance.
- Task 5.2 Project Construction Management (PCM): FCS project construction management activities may include contract administration, submittal review, quality assurance oversight inspection for work in place and materials, management of claims and change orders, and review and approval of progress payment requests and final acceptance of the work.
- Task 5.3 Legal Services – Construction: Legal assistance for issues that impact construction.

#### **Task 6: Real Property Acquisition and Environmental Mitigation**

- Task 6.1. Real Property – Preliminary ROW: Work performed in preparation for procurement up to, but not including, the first written offer to purchase
- Task 6.2. Real Property – ROW Services & Relocation: On-the-ground real property activities which may include parcel identification, survey and mapping, appraisals, offers of just compensation, negotiations and relocation benefits.
- Task 6.3 Real Property - Environmental Mitigation: Grantee-implemented environmental mitigation.
- Task 6.4 Real Property – ROW Acquisition: Capital costs of obtaining any real property interest necessary for the FCS. And, with FRA prior written approval, outside of the FCS.

#### **Task 7: Early Work Program (Deleted)**



**Task 8: Final Design and Construction Contract Work for the FCS**

- Task 8.1: SR-99: Final design and construction for highway relocations (State Route-99) as well as interface reviews and civil infrastructure. This work will be completed by Caltrans working as a contractor to CHSRA.
- Task 8.2: Civil Infrastructure Construction Package 1 (CP1): Civil and structural infrastructure from approximately Avenue 19 in Madera County to approximately East American Avenue in Fresno County.
- Task 8.3: Civil Infrastructure Construction Package 2-3 (CP2-3): Civil and structural infrastructure between approximately East American Avenue in Fresno County to approximately one mile north of the Tulare-Kern County Line.
- Task 8.4: Civil Infrastructure Construction Package 4 (CP4): Final design and construction of civil and structural infrastructure from one mile north of the Tulare-Kern County Line southward to North of Bakersfield, currently near Poplar Ave.
- Task 8.5: FCS Track Work Construction (CP5): Final design and construction of track work for the civil and structural infrastructure construction in Construction Packages 1 through 4.

**Task 9: Interim Use Project Reserve**

- Task 9.1 Project Reserves: Funds over and above the Unallocated Contingency that have been budgeted but not yet allocated to specific tasks.
- Task 9.2 Interim Use Reserve: Infrastructure necessary to initiate independent utility on the FCS funded under this Agreement which may include track, signal and communications elements, stations, and a limited maintenance facility.

**Task 10: Unallocated Contingency** – Contingency that is not allocated to a specific task or sub-task.

## **Appendix B – Detailed Grant Budget (September 2016)**



## Budget Summary

ARRA Grant # HSR-0008	Total Budgeted	Federal Budget	Federal Expended	Federal Outlay to Date *	State Budget	State Expended to Date *	Local (Other) Budget	Local (Other) Expended to Date	Total Budgeted	Total Expended to Date	Delta	Additional State Budget
Task 1: Environmental Review	\$ 489,534,483	\$ 173,827,133	\$ 144,028,194	\$ 144,028,194	\$ 320,207,350	\$ 72,554,239	\$ -	\$ -	\$ 489,534,483	\$ 489,534,483	\$ -	\$ -
Task 2: Preliminary Engineering	337,811,663	254,892,236	128,504,961	128,504,961	53,890,477	64,952,392	-	-	337,811,663	337,811,663	-	-
Task 3: Other Related Work Needed	-	-	-	-	-	-	-	-	-	-	-	-
Task 4: Start of Construction	139,455,892	83,009,008	31,453,400	31,453,400	54,216,874	16,448,931	53,100,000	-	139,455,892	139,455,892	-	-
Task 5: Real Property Acquisition Plan	-	-	-	-	-	-	-	-	-	-	-	-
Task 6: Real Property Acquisition and Construction Management	677,872	677,872	677,872	677,872	-	-	-	-	677,872	677,872	-	-
Task 7: Program, Project and FCS Construction Management	382,774,537	177,498,725	172,498,837	172,498,837	195,314,812	21,022,596	-	-	382,774,537	382,774,537	-	139,400,000
Task 8: Real Property Acquisition and Construction Management	839,459,073	489,319,640	489,000,268	489,000,268	380,119,450	88,700,268	-	-	839,459,073	839,459,073	-	91,106,000
Task 9: Real Property Acquisition and Construction Management	-	-	-	-	-	-	-	-	-	-	-	-
Task 10: Real Property Acquisition and Construction Contract Work in the FCS	2,775,257,460	1,390,644,240	688,884,947	688,884,947	1,834,713,218	50,408,700	-	-	2,775,257,460	2,775,257,460	-	894,541,381
Task 11: Project Reserves	53,856,392	53,856,392	53,856,392	53,856,392	-	-	-	-	53,856,392	53,856,392	-	-
Task 12: Unallocated Contingency	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ 5,958,327,462</b>	<b>\$ 2,659,656,431</b>	<b>\$ 1,818,006,661</b>	<b>\$ 1,818,006,661</b>	<b>\$ 2,453,871,231</b>	<b>\$ 240,839,139</b>	<b>\$ 53,100,000</b>	<b>\$ -</b>	<b>\$ 5,958,327,462</b>	<b>\$ 5,958,327,462</b>	<b>\$ -</b>	<b>\$ 1,224,046,381</b>

\* Federal Expended to Date represents payments the FDOT has made to the Authority as reported on the SF 425 and identified within draw 16-003.

\* Federal Outlays to Date represents payments the Authority has made to their vendors.

\* State Expended to Date represents draw 16-032.

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## Budget Summary

Combined Project Funding	Total Budgeted	Federal Budget	Federal Expended to Date	Federal Outlay to Date	State Budget	State Expended to Date	Local (Other) Budget	Local (Other) Expended to Date	Total Budgeted (Prior Quarter)	Delta Total Budgeted vs. Prior Quarter	Additional State Budget
Task 1: Environmental Review	\$ 492,624,483	\$ 172,327,113	\$ 154,032,184	\$ 154,032,184	\$ 326,297,370	\$ 72,654,737	\$ -	\$ -	\$ 492,624,483	\$ -	\$ -
Task 2: Preliminary Engineering	\$ 337,461,063	\$ 245,309,238	\$ 128,504,961	\$ 128,504,961	\$ 89,956,497	\$ 64,956,292	\$ -	\$ -	\$ 337,461,063	\$ -	\$ -
Task 3: Other Related Work Needed	\$ 380,465,862	\$ 33,000,000	\$ 31,453,300	\$ 31,453,300	\$ 543,16,074	\$ 16,449,031	\$ 52,100,000	\$ -	\$ 189,425,862	\$ -	\$ -
Task 4: Project Administration & Sizable Cost Allocation Plan	\$ 677,872	\$ 677,872	\$ 677,872	\$ 677,872	\$ -	\$ -	\$ -	\$ -	\$ 677,872	\$ -	\$ -
Task 5: Program, Project and FCS	\$ 419,221,067	\$ 221,959,771	\$ 172,469,837	\$ 172,469,837	\$ 197,262,240	\$ 21,032,599	\$ -	\$ -	\$ 419,221,067	\$ -	\$ 139,400,000
Task 6: Real Property Acquisition and Environmental Mitigation	\$ 852,274,479	\$ 468,304,427	\$ 468,000,268	\$ 468,000,268	\$ 383,970,042	\$ 69,700,292	\$ -	\$ -	\$ 852,274,479	\$ -	\$ 31,105,000
Task 7: Early Work Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Task 8: Final Design and Construction Contract Work for the	\$ 3,772,057,465	\$ 2,100,117,772	\$ 698,064,047	\$ 698,064,047	\$ 1,842,939,772	\$ 60,408,700	\$ -	\$ -	\$ 3,772,057,465	\$ -	\$ 994,541,391
Task 9: Project Business	\$ 208,156,763	\$ 161,879,144	\$ 53,956,307	\$ 53,956,307	\$ 49,207,188	\$ -	\$ -	\$ -	\$ 208,156,763	\$ -	\$ -
Task 10: Unallocated Contingency	\$ 189,040,603	\$ 6,638,930	\$ -	\$ -	\$ 69,508,238	\$ -	\$ -	\$ -	\$ 189,040,603	\$ -	\$ -
Total	\$ 6,346,752,462	\$ 3,481,176,631	\$ 1,616,006,051	\$ 1,616,006,051	\$ 2,813,476,231	\$ 290,099,188	\$ 52,100,000	\$ -	\$ 6,346,752,462	\$ -	\$ 1,729,046,381

\* Federal Expended to Date represents payments the FR has made to the Authority as reported on the SF 425 and identified within draw 16-032.

\* Federal Outlays to Date represents payments the Authority has made to their vendors.

\* State Expended to Date represents draw 16-032.

Draft Quarterly Budget for the period end September 30, 2016 V3.5

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**Appendix C – Environmental Milestone and Permits Schedules  
(September 2016)**

Environmental Milestone Schedule<sup>12</sup>

*DRAFT Prepared as of September 1, 2016*  
Schedule analysis as modified by information from preliminary engineering and estimates for alignments currently under study or in development. Limits of the work for recent design possible alternatives and are subject to change due to environmental review, funding and final design.

Legend	Shims XV	Actual	Shims XV	Forecast
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Environmental Permits<sup>1,2</sup>

Section	Submit Biological Assessment	Obtain Biological Opinion	Submit Section 106 Report	Obtain Section 106 MDA	Submit Section 106 Application	Obtain Section 401 Water QTY Certification	Submit Preliminary and Final Determination <sup>4</sup>	Receive Preliminary and Final Determination <sup>4</sup>	Submit Section 404 Permit Application	Obtain Section 404 Permit	Final Comprehensive Mitigation Plan	Final Comprehensive Mitigation Plan	Submit CDPS 1602 Application <sup>5</sup>	Obtain CDPS 1602 Permit	Submit CDPS 2081 Application <sup>6</sup>	Obtain CDPS 2081 Permit	Submit 408 Permit Application <sup>7</sup>	Obtain 408 Permit <sup>8</sup>
	Section 7	Section 7	Section 106	Section 106	Section 106	Section 401	408 Determination	Section 404	Section 404	Section 404	CDP	CDP	CDPS 1602	CDPS 1602	CDPS 2081	CDPS 2081	408 Permit	408 Permit
Merced - Fresno (M-F)	Dec-11	Mar-14	Sep-11	Aug-12	Apr-13	Apr-14	N/A	N/A	Jun-13	Mar-14	Mar-12	Mar-14	Apr-13	Mar-14	Mar-13	Mar-14	Mar-17	Sep-17
Fresno - Bakersfield (F-B)	Jul-12	Apr-14	Jun-13	May-14	May-14	Nov-16	Nov-13	Nov-14	Jun-14	Nov-16	Dec-13	Dec-13	Mar-15	Mar-15	Mar-15	Jun-15	Apr-17	Oct-17
San Francisco - San Jose (F-S)	Jun-17	Aug-17	Nov-16	Sep-17	Sep-17	Apr-18	N/A	N/A	Sep-17	Mar-18	Sep-17	May-18	Sep-17	Sep-17	Sep-17	May-18	May-18	Nov-18
San Jose - Merced (J-M)	Mar-17	Aug-17	Nov-16	Sep-17	Sep-17	Jun-18	Mar-17	Apr-17	Dec-17	Jun-18	Dec-17	Jun-18	Dec-17	Dec-17	Dec-17	Jun-18	May-18	Nov-18
Central Valley Wye (M-P) <sup>3</sup>	Mar-16	Jun-17	Dec-16	Sep-17	Sep-17	Jun-17	Jun-17	Nov-17	Oct-16	Apr-18	May-17	Nov-17	Sep-17	Sep-16	Sep-16	Jun-18	Jun-18	Dec-18
CV Electrical Interconnect (CVI)	Jul-16	Oct-16	Mar-17	May-17	May-17	N/A	Sep-16	N/A	Nov-16	Nov-16	Oct-17	Nov-17	N/A	N/A	Sep-16	Jun-18	N/A	N/A
Heavy Maintenance Facility (HMF)	Mar-16	Mar-17	Apr-16	Mar-17	Mar-17	Nov-17	N/A	N/A	Mar-17	Nov-17	Mar-17	Sep-17	Mar-17	Sep-17	Mar-17	Sep-17	N/A	N/A
Locally Generated Alternative (F-B) <sup>4</sup>	Mar-16	Sep-16	May-16	Sep-16	Sep-16	Aug-17	May-16	Aug-16	May-17	Sep-17	Feb-16	Feb-16	Aug-17	Oct-17	Apr-16	Oct-17	Nov-17	May-18
Bakersfield - Palmdale (B-P) <sup>5</sup>	Mar-17	Oct-17	Nov-16	Jun-17	Dec-17	Jun-18	N/A	N/A	Dec-17	Aug-18	May-17	May-17	Jun-17	Mar-18	Jul-17	May-18	Jun-18	Dec-18
Palmdale - Burbank (P-B) <sup>6,4</sup>	May-17	Oct-17	Mar-17	Oct-17	Oct-17	Mar-18	Jul-17	Aug-17	Dec-17	May-18	Feb-18	Feb-18	Dec-17	Mar-18	Aug-17	Jul-18	Jun-18	Dec-18
Burbank - Los Angeles (B-LA) <sup>5</sup>	Nov-16	Dec-17	Dec-16	Dec-17	Dec-17	Jun-18	N/A	N/A	Aug-17	Jun-18	Mar-17	Apr-17	Jul-17	Dec-17	Apr-17	Dec-17	Jun-18	Dec-18
Los Angeles - Anaheim (LAA) <sup>5</sup>	Nov-16	Dec-17	Dec-16	Dec-17	Dec-17	Jun-18	N/A	N/A	Aug-17	Jun-18	Mar-17	Apr-17	Jul-17	Dec-17	Apr-17	Dec-17	Jun-18	Dec-18

DB-177 Prepared as of September 1, 2016

Schedule analysis is modified by information from preliminary engineering and estimates of construction costs. The schedule is subject to change due to various factors, including but not limited to, the availability of funding and final design.

Legend:

Notes:

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Legend:

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## **Appendix D – Summary Schedule (September 2016)**

ID	Activity Name	Start	Finish	Duration (months)	2016	2017	2018	2019	2020
FRA Summary Schedule - September 2016									
PLANNING									
San Francisco to San Jose									
1.01	Environmental Review	08	15-Aug-16	98	01-Jul-16A	15-Aug-16			
1.02	Project Management	36	01-Jul-16A	36	01-Jul-16A	15-Aug-16			
1.03	F2J: Public/Agency Participation	40	24-Aug-15A	40	24-Aug-15A	04-Sep-15			
1.03.5	F2J: Prepare Project Description	14	23-Nov-15A	14	23-Nov-15A	30-Mar-16			
1.03.8	F2J: Define Existing Transportation Conditions	10	24-Aug-15A	10	24-Aug-15A	01-Jul-16A			
1.05.1	F2J: Environmental Task Management	16	04-Jan-16A	16	04-Jan-16A	11-Dec-16			
1.05.2.1	F2J: Prepare Technical Reports	7	04-Jan-16A	7	04-Jan-16A	24-Jun-16A			
1.05.2.2	F2J: Prepare and Submit Section 108 Reports to SHPO/Review and Concurrence	8	04-Jan-16A	8	04-Jan-16A	28-Oct-16			
1.05.2.3	F2J: Prepare and Submit Biological Assessment to USFWS/NMFS	14	04-Jan-16A	14	04-Jan-16A	23-Oct-16			
1.05.2.4	F2J: Identify Initial Preferred Alternative, Obtain Authority/Approval *	8	05-Jun-16A	8	05-Jun-16A	24-Nov-16			
1.05.3	F2J: EIR/EIS Sections	14	04-Jan-16A	14	04-Jan-16A	01-Nov-16			
1.07.1	F2J: Prepare Administrative Draft Environmental Document and Circulate to Cooperating Agencies	4	05-Jun-16A	4	05-Jun-16A	02-Sep-16			
1.07.2	F2J: Prepare Draft Environmental Document and Circulate for Public Review and Comment	6	03-Sep-16	6	03-Sep-16	02-Sep-16			
1.07.3.1	F2J: Respond to Public Comments on Draft Environmental Document	6	04-Jan-17	6	04-Jan-17	05-May-17			
1.07.3.3	F2J: Obtain Section 7 Biological Opinion from USFWS/NMFS	9	29-Oct-16	9	29-Oct-16	28-Apr-17			
1.07.6.1	F2J: Prepare and Circulate Administrative Final Environmental Document to Cooperating Agencies	6	06-May-17	6	06-May-17	05-Sep-17			
1.07.6.2	F2J: Prepare and Publish Final Environmental Document (Includes FRA/ROD)	3	03-Oct-17	3	03-Oct-17	29-Dec-17			
1.08.1	F2J: Findings & Statement of Overriding Considerations	10	03-Jun-17	10	03-Jun-17	05-Jun-18			
1.08.2.1	F2J: Authority Board Certifies Environmental Document	2	01-Dec-17	2	01-Dec-17	13-Jan-18			
1.08.2.2	Surface Transportation Board (STB) Issues ROD - San Francisco to San Jose	0	01-Dec-17	0	01-Dec-17	13-Jan-18			
1.08.3	F2J: Mitigation Monitoring & Reporting Plan	2	04-Mar-18	2	04-Mar-18	24-Mar-18			
1.08.4.1	F2J: Obtain Fully Executed Section 108 MOA	0	06-May-17	0	06-May-17	06-May-17			
1.08.4.2	F2J: Prepare and Submit Draft Section 401 and 404 Permit Applications	23	25-Jun-16A	23	25-Jun-16A	27-Oct-17			
PE 15% and Preliminary Design for Procurement									
2.04	F2J: Conduct Preliminary Engineering for Project Development (PE/PD)	93	01-Jul-10A	93	01-Jul-10A	05-Jun-18			
2.11	F2J: Conduct Preliminary Engineering for Project Development (PE/PD)	11	20-Nov-16	11	20-Nov-16	21-Nov-16			
2.13	RDP Programwide Engineering (FJ)	98	01-Jul-10A	98	01-Jul-10A	06-Jun-18			
Other Related Work									
3.08	F2J: Station Area Planning	93	01-Jul-10A	93	01-Jul-10A	15-Aug-18			
3.09	F2J: ROW EIR/EIS Process	12	14-Jan-16A	12	14-Jan-16A	16-Sep-16			
3.11	PMT/RDP ROW Work (FJ)	89	03-Jan-11A	89	03-Jan-11A	15-Aug-18			
3.12	Ridership Forecasting - FJ	23	01-Jul-10A	23	01-Jul-10A	29-Jun-12A			
3.14	Station Area Planning (SJ Driden)	22	21-Jan-16A	22	21-Jan-16A	07-Dec-17			
San Francisco to San Jose									
Environmental Review									
1.01	Project Management	36	01-Jul-16A	36	01-Jul-16A	15-Aug-16			
1.02	F2J: Public/Agency Participation	40	24-Aug-15A	40	24-Aug-15A	04-Sep-15			
1.03	F2J: Prepare Project Description	14	23-Nov-15A	14	23-Nov-15A	30-Mar-16			
1.03.5	F2J: Define Existing Transportation Conditions	10	24-Aug-15A	10	24-Aug-15A	01-Jul-16A			
1.03.8	F2J: Environmental Task Management	16	04-Jan-16A	16	04-Jan-16A	11-Dec-16			
1.05.1	F2J: Prepare Technical Reports	7	04-Jan-16A	7	04-Jan-16A	24-Jun-16A			
1.05.2.1	F2J: Prepare and Submit Section 108 Reports to SHPO/Review and Concurrence	8	04-Jan-16A	8	04-Jan-16A	28-Oct-16			
1.05.2.2	F2J: Prepare and Submit Biological Assessment to USFWS/NMFS	14	04-Jan-16A	14	04-Jan-16A	23-Oct-16			
1.05.2.3	F2J: Identify Initial Preferred Alternative, Obtain Authority/Approval *	8	05-Jun-16A	8	05-Jun-16A	24-Nov-16			
1.05.2.4	F2J: EIR/EIS Sections	14	04-Jan-16A	14	04-Jan-16A	01-Nov-16			
1.07.1	F2J: Prepare Administrative Draft Environmental Document and Circulate to Cooperating Agencies	4	05-Jun-16A	4	05-Jun-16A	02-Sep-16			
1.07.2	F2J: Prepare Draft Environmental Document and Circulate for Public Review and Comment	6	03-Sep-16	6	03-Sep-16	02-Sep-16			
1.07.3.1	F2J: Respond to Public Comments on Draft Environmental Document	6	04-Jan-17	6	04-Jan-17	05-May-17			
1.07.3.3	F2J: Obtain Section 7 Biological Opinion from USFWS/NMFS	9	29-Oct-16	9	29-Oct-16	28-Apr-17			
1.07.6.1	F2J: Prepare and Circulate Administrative Final Environmental Document to Cooperating Agencies	6	06-May-17	6	06-May-17	05-Sep-17			
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1.08.1	F2J: Findings & Statement of Overriding Considerations	10	03-Jun-17	10	03-Jun-17	05-Jun-18			
1.08.2.1	F2J: Authority Board Certifies Environmental Document	2	01-Dec-17	2	01-Dec-17	13-Jan-18			
1.08.2.2	Surface Transportation Board (STB) Issues ROD - San Francisco to San Jose	0	01-Dec-17	0	01-Dec-17	13-Jan-18			
1.08.3	F2J: Mitigation Monitoring & Reporting Plan	2	04-Mar-18	2	04-Mar-18	24-Mar-18			
1.08.4.1	F2J: Obtain Fully Executed Section 108 MOA	0	06-May-17	0	06-May-17	06-May-17			
1.08.4.2	F2J: Prepare and Submit Draft Section 401 and 404 Permit Applications	23	25-Jun-16A	23	25-Jun-16A	27-Oct-17			
PE 15% and Preliminary Design for Procurement									
2.04	F2J: Conduct Preliminary Engineering for Project Development (PE/PD)	93	01-Jul-10A	93	01-Jul-10A	05-Jun-18			
2.11	F2J: Conduct Preliminary Engineering for Project Development (PE/PD)	11	20-Nov-16	11	20-Nov-16	21-Nov-16			
2.13	RDP Programwide Engineering (FJ)	98	01-Jul-10A	98	01-Jul-10A	06-Jun-18			
Other Related Work									
3.08	F2J: Station Area Planning	93	01-Jul-10A	93	01-Jul-10A	15-Aug-18			
3.09	F2J: ROW EIR/EIS Process	12	14-Jan-16A	12	14-Jan-16A	16-Sep-16			
3.11	PMT/RDP ROW Work (FJ)	89	03-Jan-11A	89	03-Jan-11A	15-Aug-18			
3.12	Ridership Forecasting - FJ	23	01-Jul-10A	23	01-Jul-10A	29-Jun-12A			
3.14	Station Area Planning (SJ Driden)	22	21-Jan-16A	22	21-Jan-16A	07-Dec-17			
San Francisco to San Jose									
Environmental Review									
1.01	Project Management	36	01-Jul-16A	36	01-Jul-16A	15-Aug-16			
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1.05.1	F2J: Prepare Technical Reports	7	04-Jan-16A	7	04-Jan-16A	24-Jun-16A			
1.05.2.1	F2J: Prepare and Submit Section 108 Reports to SHPO/Review and Concurrence	8	04-Jan-16A	8	04-Jan-16A	28-Oct-16			
1.05.2.2	F2J: Prepare and Submit Biological Assessment to USFWS/NMFS	14	04-Jan-16A	14	04-Jan-16A	23-Oct-16			
1.05.2.3	F2J: Identify Initial Preferred Alternative, Obtain Authority/Approval *	8	05-Jun-16A	8	05-Jun-16A	24-Nov-16			
1.05.2.4	F2J: EIR/EIS Sections	14	04-Jan-16A	14	04-Jan-16A	01-Nov-16			
1.07.1	F2J: Prepare Administrative Draft Environmental Document and Circulate to Cooperating Agencies	4	05-Jun-16A	4	05-Jun-16A	02-Sep-16			
1.07.2	F2J: Prepare Draft Environmental Document and Circulate for Public Review and Comment	6	03-Sep-16	6	03-Sep-16	02-Sep-16			
1.07.3.1	F2J: Respond to Public Comments on Draft Environmental Document	6	04-Jan-17	6	04-Jan-17	05-May-17			
1.07.3.3	F2J: Obtain Section 7 Biological Opinion from USFWS/NMFS	9	29-Oct-16	9	29-Oct-16	28-Apr-17			
1.07.6.1	F2J: Prepare and Circulate Administrative Final Environmental Document to Cooperating Agencies	6	06-May-17	6	06-May-17	05-Sep-17			
1.07.6.2	F2J: Prepare and Publish Final Environmental Document (Includes FRA/ROD)	3	03-Oct-17	3	03-Oct-17	29-Dec-17			
1.08.1	F2J: Findings & Statement of Overriding Considerations	10	03-Jun-17	10	03-Jun-17	05-Jun-18			
1.08.2.1	F2J: Authority Board Certifies Environmental Document	2	01-Dec-17	2	01-Dec-17	13-Jan-18			
1.08.2.2	Surface Transportation Board (STB) Issues ROD - San Francisco to San Jose	0	01-Dec-17	0	01-Dec-17	13-Jan-18			
1.08.3	F2J: Mitigation Monitoring & Reporting Plan	2	04-Mar-18	2	04-Mar-18	24-Mar-18			
1.08.4.1	F2J: Obtain Fully Executed Section 108 MOA	0	06-May-17	0	06-May-17	06-May-17			
1.08.4.2	F2J: Prepare and Submit Draft Section 401 and 404 Permit Applications	23	25-Jun-16A	23	25-Jun-16A	27-Oct-17			
PE 15% and Preliminary Design for Procurement									
2.04	F2J: Conduct Preliminary Engineering for Project Development (PE/PD)	93	01-Jul-10A	93	01-Jul-10A	05-Jun-18			
2.11	F2J: Conduct Preliminary Engineering for Project Development (PE/PD)	11	20-Nov-16	11	20-Nov-16	21-Nov-16			
2.13	RDP Programwide Engineering (FJ)	98	01-Jul-10A	98	01-Jul-10A	06-Jun-18			
Other Related Work									
3.08	F2J: Station Area Planning	93	01-Jul-10A	93	01-Jul-10A	15-Aug-18			
3.09	F2J: ROW EIR/EIS Process	12	14-Jan-16A	12	14-Jan-16A	16-Sep-16			
3.11	PMT/RDP ROW Work (FJ)	89	03-Jan-11A	89	03-Jan-11A	15-Aug-18			
3.12	Ridership Forecasting - FJ	23	01-Jul-10A	23	01-Jul-10A	29-Jun-12A			
3.14	Station Area Planning (SJ Driden)	22	21-Jan-16A	22	21-Jan-16A	07-Dec-17			
San Francisco to San Jose									
Environmental Review									
1.01	Project Management	36	01-Jul-16A	36	01-Jul-16A	15-Aug-16			
1.02	F2J: Public/Agency Participation	40	24-Aug-15A	40	24-Aug-15A	04-Sep-15			
1.03	F2J: Prepare Project Description	14	23-Nov-15A	14	23-Nov-15A	30-Mar-16			
1.03.5	F2J: Define Existing Transportation Conditions	10	24-Aug-15A	10	24-Aug-15A	01-Jul-16A			
1.03.8	F2J: Environmental Task Management	16	04-Jan-16A	16	04-Jan-16A	11-Dec-16			
1.05.1	F2J: Prepare Technical Reports	7	04-Jan-16A	7	04-Jan-16A	24-Jun-16A			
1.05.2.1	F2J: Prepare and Submit Section 108 Reports to SHPO/Review and Concurrence	8	04-Jan-16A	8	04-Jan-16A	28-Oct-16			
1.05.2.2	F2J: Prepare and Submit Biological Assessment to USFWS/NMFS	14	04-Jan-16A	14	04-Jan-16A	23-Oct-16			
1.05.2.3	F2J: Identify Initial Preferred Alternative, Obtain Authority/Approval *	8	05-Jun-16A	8	05-Jun-16A	24-Nov-16			
1.05.2.4	F2J: EIR/EIS Sections	14	04-Jan-16A	14	04-Jan-16A	01-Nov-16			
1.07.1	F2J: Prepare Administrative Draft Environmental Document and Circulate to Cooperating Agencies	4	05-Jun-16A	4	05-Jun-16A	02-Sep-16			
1.07.2	F2J: Prepare Draft Environmental Document and Circulate for Public Review and Comment	6	03-Sep-16	6	03-Sep-16	02-Sep-16			
1.07.3.1	F2J: Respond to Public Comments on Draft Environmental Document	6	04-Jan-17	6	04-Jan-17	05-May-17			
1.07.3.3	F2J: Obtain Section 7 Biological Opinion from USFWS/NMFS	9	29-Oct-16	9	29-Oct-16	28-Apr-17			
1.07.6.1	F2J: Prepare and Circulate Administrative Final Environmental Document to Cooperating Agencies	6	06-May-17	6	06-May-17	05-Sep-17			
1.07.6.2	F2J: Prepare and Publish Final Environmental Document (Includes FRA/ROD)	3	03-Oct-17	3	03-Oct-17	29-Dec-17			
1.08.1	F2J: Findings & Statement of Overriding Considerations	10	03-Jun-17	10	03-Jun-17	05-Jun-18			
1.08.2.1	F2J: Authority Board Certifies Environmental Document	2	01-Dec-17	2	01-Dec-17	13-Jan-18			
1.08.2.2	Surface Transportation Board (STB) Issues ROD - San Francisco to San Jose	0	01-Dec-17	0	01-Dec-17	13-Jan-18			
1.08.3	F2J: Mitigation Monitoring & Reporting Plan	2	04-Mar-18	2	04-Mar-18	24-Mar-18			
1.08.4.1	F2J: Obtain Fully Executed Section 108 MOA	0	06-May-17	0	06-May-17	06-May-17			
1.08.4.2	F2J: Prepare and Submit Draft Section 401 and 404 Permit Applications	23	25-Jun-16A	23	25-Jun-16A	27-Oct-17			
PE 15% and Preliminary Design for Procurement									
2.04	F2J: Conduct Preliminary Engineering for Project Development (PE/PD)	93	01-Jul-10A	93	01-Jul-10A	05-Jun-18			
2.11	F2J: Conduct Preliminary Engineering for Project Development (PE/PD)	11	20-Nov-16	11	20-Nov-16	21-Nov-16			
2.13	RDP Programwide Engineering (FJ)	98	01-Jul-10A	98	01-Jul-10A	06-Jun-18			
Other Related Work									
3.08	F2J: Station Area Planning	93	01-Jul-10A	93	01-Jul-10A	15-Aug-18			
3.09	F2J: ROW EIR/EIS Process	12	14-Jan-16A	12	14-Jan-16A	16-Sep-16			
3.11	PMT/RDP ROW Work (FJ)	89	03-Jan-11A	89	03-Jan-11A	15-Aug-18			
3.12	Ridership Forecasting - FJ	23	01-Jul-10A	23	01-Jul-10A	29-Jun-12A			
3.14	Station Area Planning (SJ Driden)	22	21-Jan-16A	22	21-Jan-16A	07-Dec-17			
San Francisco to San Jose									
Environmental Review									
1.01	Project Management	36	01-Jul-16A	36	01-Jul-16A	15-Aug-16			
1.02	F2J: Public/Agency Participation	40	24-Aug-15A	40	24-Aug-15A	04-Sep-15			
1.03	F2J: Prepare Project Description	14	23-Nov-15A	14	23-Nov-15A	30-Mar-16			
1.03.5	F2J: Define Existing Transportation Conditions	10	24-Aug-15A	10	24-Aug-15A	01-Jul-16A			
1.03.8	F2J: Environmental Task Management	16	04-Jan-16A	16	04-Jan-16A	11-Dec-16			
1.05.1	F2J: Prepare Technical Reports	7	04-Jan-16A	7	04-Jan-16A	24-Jun-16A			
1.05.2.1	F2J: Prepare and Submit Section 108 Reports to SHPO/Review and Concurrence	8	04-Jan-16A	8	04-Jan-16A	28-Oct-16			
1.05.2.2	F2J: Prepare and Submit Biological Assessment to USFWS/NMFS	14	04-Jan-16A	14	04-Jan-16A	23-Oct-16			
1.05.2.3	F2J: Identify Initial Preferred Alternative, Obtain Authority/Approval *	8	05-Jun-16A	8	05-Jun-16A	24-Nov-16			
1.05.2.4	F2J: EIR/EIS Sections	14	04-Jan-16A	14	04-Jan-16A	01-Nov-16			
1.07.1	F2J: Prepare Administrative Draft Environmental Document and Circulate to Cooperating Agencies	4	05-Jun-16A	4	05-Jun-16A	02-Sep-16			

FRA Summary Schedule - September 2016		24-Oct-16 15:30								
ID	Activity Name	Duration (months)	Start	Finish	15	16	17	18	19	20
PLANNING										
San Jose to Central Valley Wye										
Environmental Review										
1.01	J2Y: Project Management	39	01-Jul-16 A	15-Aug-18						
1.02	J2Y: Public/Agency Participation	42	23-Sep-14 A	08-Mar-18						
1.03.5	J2Y: Prepare Project Description	39	23-Nov-16 A	08-Mar-18						
1.03.6	J2Y: Define Existing Transportation Conditions	43	20-Aug-16 A	08-Mar-18						
1.03.7	J2Y: NEPA/04 Integration (Checkpoint B)	0	23-Sep-14 A	23-Sep-14 A						
1.05.1	J2Y: Environmental Task Management	3	01-Jan-16 A	08-Mar-16 A						
1.05.2.1	J2Y: Prepare Technical Reports	15	01-Jul-16 A	26-May-17						
1.05.2.2	J2Y: Prepare and Submit Section 105 Reports to SHPO/Review and Concurrence	6	01-Jul-16 A	07-Nov-16						
1.05.2.3	J2Y: Prepare and Submit Biological Assessment to USFWS/NMFS	1	01-Jul-16 A	29-Jul-16 A						
1.05.2.4	J2Y: Identify Initial Preferred Alternative, Obtain Authority Approval *	15	01-Jul-16 A	26-May-17						
1.05.3	J2Y: EIR/ES Sections	12	01-Jul-16 A	12-Mar-17						
1.07.1	J2Y: Prepare Administrative Draft Environmental Document and Circulate to Cooperating Agencies	6	01-Jul-16 A	07-Nov-16						
1.07.2	J2Y: Prepare Draft Environmental Document and Circulate for Public Review and Comment	4	08-Nov-16	05-Feb-17						
1.07.3.1	J2Y: Respond to Public Comments on Draft Environmental Document	1	06-Feb-17	01-Mar-17						
1.07.3.2	J2Y: Obtain Section 7 Biological Opinion from USFWS/NMFS	5	02-Mar-17	24-Jun-17						
1.07.4	J2Y: Identify Least Environmentally Damaging Practical Alternative (Checkpoint C, LEDPA)	6	27-May-17	02-Jun-17						
1.07.5	J2Y: Prepare and Circulate Administrative Final EIR/ES in Cooperating Agencies	3	25-Jun-17	07-Sep-17						
1.07.6.1	J2Y: Prepare and Publish Final EIR/ES (includes FRA ROD)	2	17-Oct-17	26-Dec-17						
1.08.1	J2Y: Findings & Statement of Overriding Considerations	2	25-Jul-17	07-Sep-17						
1.08.2.1	J2Y: Authority Board Certifies Environmental Document	2	07-Jan-18	16-Feb-18						
1.08.2.2	J2Y: Authority Prepares and Files Notice of Determination	0	12-Jan-18	17-Jan-18						
1.08.3	J2Y: Mitigation Monitoring & Reporting Plan	11	25-Jun-17	20-Feb-18						
1.08.4.1	J2Y: Obtain Fully Executed Section 105 MOA	10	13-Mar-17	06-Oct-17						
1.08.4.2	J2Y: Prepare and Submit Draft Section 401 and 404 Permit Applications	12	27-May-17	10-Feb-18						
PE 15% and Preliminary Design for Procurement										
2.04	J2Y: Conduct Preliminary Engineering for Project Development (PE/EPD)	53	01-Jul-16 A	05-Jun-18						
2.11	J2Y: Conduct Preliminary Engineering for Procurement (PE/EP)	23	20-Nov-16 A	24-May-17						
2.13	RDP Programwide Engineering (F & J & J2Y)	93	01-Jul-16 A	05-Jun-18						
Other Related Work										
3.08	J2Y: Station Area Planning	35	01-Jul-16 A	15-Aug-18						
3.09	J2Y: ROW EIR/ES Process	15	10-Jul-16 A	24-May-17						
3.11	PM/RDP ROW Work (JM & J2Y)	89	03-Jun-17 A	05-Nov-17						
3.12	Roadside Forecasting - J2Y	23	01-Jul-16 A	29-Jun-12 A						

Layout: \*FRA Qtrly Summary Report FY16-17

1. This Schedule is for the FRA ARRA Grant Amendment, Data Date September 1, 2016.

2. The San Francisco to San Jose and San Jose to Merced schedule dates reflect the approved Baseline Schedule dates by the Regional Consultants.



ID	Activity Name	Duration (months)	Start	Finish	2015	2016	2017	2018	2019	2020
					Q3	Q4	Q1	Q2	Q3	Q4
<b>FRA Summary Schedule - September 2016</b>										
<b>PLANNING</b>										
<b>Central Valley WYE</b>										
<b>Environmental Review</b>										
1.01	CWV: Project Management	66	02-May-11 A	24-Aug-16						
1.02	CWV: Public Participation Program	80	02-May-11 A	24-Aug-16						
1.05.1	CWV: Environmental Task Management	80	02-May-11 A	23-Feb-16						
1.05.2	CWV: Prepare Technical Reports	55	02-Jul-12 A	28-Feb-17						
1.05.2.1	CWV: Prepare and Submit Section 108 Reports to SHPO/Review and Concurrence	46	24-Sep-12 A	29-Aug-16 A						
1.05.2.2	CWV: Prepare and Submit Biological Assessment to USFWS/NMFS	45	22-Sep-12 A	27-Jul-16 A						
1.05.2.3	CWV: Identify Initial Preferred Alternative, Obtain Authority Approval	13	02-Jan-15 A	16-Feb-16 A						
1.06.1	CWV: SHPO/USFWS Sections Consultations	3	02-Jun-15 A	17-Oct-16 A						
1.07.1	CWV: Prepare Draft EIR/ES and Circulate for Public Review and Comment	31	14-Nov-16	10-Feb-17						
1.07.2	CWV: Respond to Public Comments on Draft EIR/ES	3	27-Apr-17	25-May-17						
1.07.3.1	CWV: Identify Preliminary Preferred Alternative *	15	17-May-16 A	31-Aug-17						
1.07.3.2	CWV: Obtain Section 7 Biological Option from USFWS/NMFS	35	05-Jan-15 A	15-Dec-17						
1.07.4	CWV: Identify Least Environmentally Damaging Practicable Alternative (LEDA)	11	21-Mar-17	19-Feb-18						
1.07.5	CWV: Cal. Dept of Fish & Wildlife (CDFW) Consistency Determination	4	01-Sep-17	29-Dec-17						
1.07.6.1	CWV: Prepare and Circulate Administrative Final EIR/ES to Cooperating Agencies	5	26-Apr-17	14-Nov-17						
1.07.6.2	CWV: Prepare and Publish Final EIR/ES (includes FRA/ROD)	2	06-Sep-17	29-Dec-17						
1.08.1	CWV: Findings & Statement of Overriding Considerations	1	30-Nov-17	29-Dec-17						
1.08.2.1	CWV: Authority Board Certifies EIR/Authority Board Certifies EIR	5	27-Sep-17	14-Feb-18						
1.08.2.2	CWV: Authority Prepares and Files Notice of Determination	15	01-Jan-18	02-Mar-18						
1.08.2.3	CWV: Authority Prepares and Files Notice of Determination	15	01-Jan-18	02-Mar-18						
1.08.3	CWV: Obtain Fully Excluded Section 108 MOA	17	24-Jun-17	14-Dec-17						
1.08.4.1	CWV: Obtain Fully Excluded Section 108 MOA	5	16-Feb-17	10-Jul-17						
1.08.4.2	CWV: Prepare and Submit Draft Section 401 and 404 Permit Applications	11	05-Feb-17	03-Jun-17						
1.08.4.3	CWV: Prepare and Submit Section 408 Application	28	05-Oct-15 A	19-Feb-18						
1.08.4.4	CWV: Other Required Permits	62	10-Dec-12 A	01-Feb-18						
<b>PE 15% and Preliminary Design for Procurement</b>										
2.04	CWV: Conduct Preliminary Engineering for Project Development (PE4RD)	31	10-Dec-12 A	03-Aug-15 A						
2.11	CWV: Complete 15% Design	56	10-Dec-12 A	25-Sep-17						
2.11	CWV: Complete Preliminary Engineering for Procurement (PE4P)	11	03-Oct-16	09-Sep-17						
2.13	RDP Programwide Engineering (CV Wye)	4	18-Sep-17	01-Feb-18						

Layout: FRA Qtrly Summary Report FY16-17

IR-HSR-009-10-01-05 Phase 1 PE/NEPA/CTQA

This schedule is for the FRA ARRA Grant Amendment. Data Date September 1, 2016.

The San Francisco to San Jose and San Jose to Merced schedule dates reflect the approved Baseline Schedule dates by the Regional Consultants.

24-Oct-16 16 17 18 19 20

Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2

PLANNING

Central Valley WYE

CWV: Project Management

CWV: Public Participation Program

CWV: Environmental Task Management

CWV: Prepare Technical Reports

CWV: Prepare and Submit Section 108 Reports to SHPO/Review and Concurrence

CWV: Prepare and Submit Biological Assessment to USFWS/NMFS

CWV: Identify Initial Preferred Alternative, Obtain Authority Approval

CWV: SHPO/USFWS Sections Consultations

CWV: Prepare Draft EIR/ES and Circulate for Public Review and Comment

CWV: Respond to Public Comments on Draft EIR/ES

CWV: Identify Preliminary Preferred Alternative \*

CWV: Obtain Section 7 Biological Option from USFWS/NMFS

CWV: Identify Least Environmentally Damaging Practicable Alternative (LEDA)

CWV: Cal. Dept of Fish & Wildlife (CDFW) Consistency Determination

CWV: Prepare and Circulate Administrative Final EIR/ES to Cooperating Agencies

CWV: Prepare and Publish Final EIR/ES (includes FRA/ROD)

CWV: Findings & Statement of Overriding Considerations

CWV: Authority Board Certifies EIR/Authority Board Certifies EIR

CWV: Authority Prepares and Files Notice of Determination

CWV: Authority Prepares and Files Notice of Determination

CWV: Obtain Fully Excluded Section 108 MOA

CWV: Obtain Fully Excluded Section 108 MOA

CWV: Prepare and Submit Draft Section 401 and 404 Permit Applications

CWV: Prepare and Submit Section 408 Application

CWV: Other Required Permits

CWV: Complete 15% Design

CWV: Complete Preliminary Engineering for Procurement (PE4P)

RDP Programwide Engineering (CV Wye)

FRA Summary Schedule - September 2016		24-Oct-16 16:22											
ID	Activity Name	IS	Start	Finish	Duration (months)	2016	2017	2018	2019	2020			
						Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
<b>PLANNING</b>													
<b>Merced to Fresno</b>													
1.02	M-F Regional Consultant Public Agency Participation_SUMMARY	94	01-Jul-19 A	05-Jul-17	94								
1.07.1	M-F Administrative Draft EIR/ES_SUMMARY	67	01-Jul-19 A	26-Jun-13 A	67								
1.07.2	M-F DEIR/ES Public Comment Period_SUMMARY	4	06-May-11 A	25-Jul-11 A	4								
1.07.6	M-F FEIR/ES_SUMMARY	3	15-Aug-11 A	13-Oct-11 A	3								
1.08	M-F Certification of EIR/ES and NOD/ROD_SUMMARY	9	14-Oct-11 A	27-Apr-12 A	9								
3.11	PMTRDP ROW Work (MF)	11	27-Feb-12 A	11-Oct-12 A	11								
3.12	Ridership Forecasting - MF	75	31-Jan-11 A	05-Jul-17	75								
3.14	Station Area Planning - MF	23	01-Jul-10 A	29-Jun-12 A	23								
		68	01-Mar-11 A	30-Dec-16	68								
Merced to Fresno													
Fresno to Merced													
Other Related Work													
PMTRDP ROW Work (MF)													
Station Area Planning - MF													

Layout: \*FRA Qtrly Summary Report FY16-17

FR HSR 009 10 01 05 Phase 1 PE/NEPA/CEQA

1. This Schedule is for the FRA ARRA Grant Amendment. Data Date: September 1, 2016.
2. The San Francisco to San Jose and San Jose to Merced schedule dates reflect the approved Baseline Schedule dates by the Regional Consultants.



FRA Summary Schedule - September 2016

24-Oct-16 16:16

2020

2019

2018

2017

2016

2015

Q3

Q4

Q1

Q2

Q3

Q4

Q1

Q2

Q3

Q4

Q1

Q2

Q3

Q4

Q1

Q2

Q3

Q4

PLANNING

Fresno to Bakersfield

Environmental Review

1.02 F-B Regional Consultant Public Agency Participation

1.07.1 F-B Administrative Draft EIR/IS SUMMARY

1.07.2 F-B DEIR/IS Approval Process SUMMARY

1.07.2 F-B DEIR/IS Public Review Period SUMMARY

Other Related Work

3.11 PM/ROD ROW Work (FB)

3.12 Ridership Forecasting - FB

3.14 Station Area Planning - FB

Duration (Months)

107

84

84

35

35

4

95

78

23

55

Start

07-Jun-09 A

07-Jul-09 A

29-Jan-10 A

30-Sep-10 A

20-Jul-12 A

01-Jun-19 A

18-Jan-12 A

07-Jul-10 A

02-Dec-13 A

Finish

31-Aug-18

31-Aug-18

30-Jun-14 A

29-Feb-12 A

19-Oct-12 A

31-Aug-18

31-Aug-18

29-Jun-12 A

31-Aug-18

PLANNING

Fresno to Bakersfield

Environmental Review

1.02 F-B Regional Consultant Public Agency Participation

1.07.1 F-B Administrative Draft EIR/IS SUMMARY

1.07.2 F-B DEIR/IS Approval Process SUMMARY

1.07.2 F-B DEIR/IS Public Review Period SUMMARY

Other Related Work

3.11 PM/ROD ROW Work (FB)

3.12 Ridership Forecasting - FB

3.14 Station Area Planning - FB

Duration (Months)

107

84

84

35

35

4

95

78

23

55

Start

07-Jun-09 A

07-Jul-09 A

29-Jan-10 A

30-Sep-10 A

20-Jul-12 A

01-Jun-19 A

18-Jan-12 A

07-Jul-10 A

02-Dec-13 A

Finish

31-Aug-18

31-Aug-18

30-Jun-14 A

29-Feb-12 A

19-Oct-12 A

31-Aug-18

31-Aug-18

29-Jun-12 A

31-Aug-18

PLANNING

Fresno to Bakersfield

Environmental Review

1.02 F-B Regional Consultant Public Agency Participation

1.07.1 F-B Administrative Draft EIR/IS SUMMARY

1.07.2 F-B DEIR/IS Approval Process SUMMARY

1.07.2 F-B DEIR/IS Public Review Period SUMMARY

Other Related Work

3.11 PM/ROD ROW Work (FB)

3.12 Ridership Forecasting - FB

3.14 Station Area Planning - FB

Duration (Months)

107

84

84

35

35

4

95

78

23

55

Start

07-Jun-09 A

07-Jul-09 A

29-Jan-10 A

30-Sep-10 A

20-Jul-12 A

01-Jun-19 A

18-Jan-12 A

07-Jul-10 A

02-Dec-13 A

Finish

31-Aug-18

31-Aug-18

30-Jun-14 A

29-Feb-12 A

19-Oct-12 A

31-Aug-18

31-Aug-18

29-Jun-12 A

31-Aug-18

PLANNING

Fresno to Bakersfield

Environmental Review

1.02 F-B Regional Consultant Public Agency Participation

1.07.1 F-B Administrative Draft EIR/IS SUMMARY

1.07.2 F-B DEIR/IS Approval Process SUMMARY

1.07.2 F-B DEIR/IS Public Review Period SUMMARY

Other Related Work

3.11 PM/ROD ROW Work (FB)

3.12 Ridership Forecasting - FB

3.14 Station Area Planning - FB

Duration (Months)

107

84

84

35

35

4

95

78

23

55

Start

07-Jun-09 A

07-Jul-09 A

29-Jan-10 A

30-Sep-10 A

20-Jul-12 A

01-Jun-19 A

18-Jan-12 A

07-Jul-10 A

02-Dec-13 A

Finish

31-Aug-18

31-Aug-18

30-Jun-14 A

29-Feb-12 A

19-Oct-12 A

31-Aug-18

31-Aug-18

29-Jun-12 A

31-Aug-18

PLANNING

Fresno to Bakersfield

Environmental Review

1.02 F-B Regional Consultant Public Agency Participation

1.07.1 F-B Administrative Draft EIR/IS SUMMARY

1.07.2 F-B DEIR/IS Approval Process SUMMARY

1.07.2 F-B DEIR/IS Public Review Period SUMMARY

Other Related Work

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3.14 Station Area Planning - FB

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PLANNING

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ID		FRA Summary Schedule - September 2016												24-Oct-16 16:24											
		Activity Name	Duration (months)	Start	Finish	15	2016			2017			2018			2019			2020						
							Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
		<b>PLANNING</b>	84	02-Feb-11 A	22-Jan-18																				
		<b>Heavy Maintenance Facility</b>																							
		<b>Environmental Review</b>																							
1.01		HMF: Project Management	44	02-Feb-11 A	22-Jan-18																				
1.01.1		HMF: PM Plan/Meetings/Coordination	113	02-Feb-11 A	22-Jan-18																				
1.01.2		HMF: Quality Assurance/Quality Control/Safety/Risk	5	01-Jul-15 A	22-Jan-18																				
1.01.3		HMF: Document Control	5	01-Jul-15 A	22-Jan-18																				
1.01.4		HMF: Schedule, Budget & Progress Reporting	5	01-Jul-15 A	22-Jan-18																				
1.02		HMF: Public/Agency Participation	31	01-Jul-15 A	10-May-17																				
1.02.3		HMF: Maintain Stakeholder Database	31	01-Jul-15 A	10-May-17																				
1.02.5		HMF: Stakeholder Meetings & Briefings	17	16-Oct-15 A	10-Oct-16																				
1.03		HMF: Complete NOP/NOI, Scoping and Purpose & Need *	0	16-Oct-15 A	10-Oct-16																				
1.03.5		HMF: Prepare Project Description	43	01-Jul-15 A	25-Sep-16																				
1.05.1		HMF: Prepare Technical Reports	16	16-Oct-15 A	10-Oct-16																				
1.05.2.1		HMF: Prepare and Submit Section 106 Reports to SHPO/Review and Concurrence	16	16-Oct-15 A	10-Oct-16																				
1.05.2.3		HMF: Prepare and Submit Biological Assessment to USFWS/NMFS	16	16-Oct-15 A	26-Sep-16																				
1.05.2.4		HMF: Identify Initial Preferred Alternative, Obtain Authority Approval *	1	01-Sep-16	12-Sep-16																				
1.05.3		HMF: EIR/EIS Sections	23	16-Oct-15 A	04-Mar-17																				
1.07.1		HMF: Prepare Administrative Draft Environmental Document and Circulate to Cooperating Agencies	23	16-Oct-15 A	04-Mar-17																				
1.07.2		HMF: Prepare Draft Environmental Document and Circulate for Public Review and Comment	0	05-Mar-17	11-Mar-17																				
1.07.3.1		HMF: Respond to Public Comments on Draft Environmental Document	3	12-Mar-17	10-May-17																				
1.07.3.2		HMF: Identify Preliminary Preferred Alternative *	3	11-May-17	09-Jul-17																				
1.07.3.3		HMF: Obtain Section 7 Biological Opinion from USFWS/NMFS	3	22-Jun-17	21-Aug-17																				
1.07.4		HMF: Identify Least Environmentally Damaging Practicable Alternative (Checkpoint C, LEDPA)	7	24-Mar-17	21-Aug-17																				
1.07.5		HMF: Call Dept of Fish & Game (CDFG) Consistency Determination	0	21-Aug-17	21-Aug-17																				
1.07.6.1		HMF: Prepare and Circulate Administrative Final Environmental Document (includes FRA/ROD)	4	09-May-17	02-Aug-17																				
1.07.6.2		HMF: Prepare and Publish Final Environmental Document (includes FRA/ROD)	3	03-Aug-17	11-Oct-17																				
1.08.1		HMF: Findings & Statement of Overriding Considerations	1	27-Sep-17	11-Oct-17																				
1.08.2.1		HMF: Authority Board Certifies Environmental Document	1	27-Sep-17	11-Oct-17																				
1.08.2.3		HMF: Authority Prepares and Files Notice of Determination	1	27-Sep-17	11-Oct-17																				
1.08.2.4		HMF: Surface Transportation Board (STB) Issues ROD	2	12-Oct-17	30-Nov-17																				
1.08.3		HMF: Migration Monitoring & Reporting Plan	2	21-Aug-17	11-Oct-17																				
1.08.4.1		HMF: Clean Ferry Excavated Section 106 MOA	3	22-Jun-17	21-Aug-17																				
1.08.4.2		HMF: Prepare and Submit Draft Section 401 and 404 Permit Applications	3	22-Jun-17	21-Aug-17																				
1.08.5		HMF: Administrative Record	43	01-Jul-15 A	22-Jan-18																				
		<b>PE 15% and Preliminary Design for Procurement</b>																							
2.02		HMF: PE Program Management	18	01-Jul-16 A	25-Dec-16																				
2.04		HMF: Conduct Preliminary Engineering for Project Development (PE/PD)	20	01-Aug-15 A	11-Nov-16																				
2.11		HMF: Conduct Preliminary Engineering for Procurement (PE/P)	20	01-Aug-15 A	29-Sep-16																				
2.13		RDP Programwide Engineering (HMF)	17	01-Jul-15 A	29-Dec-16																				
		<b>Other Resource Work</b>																							
3.09		HMF: ROW EIR/EIS Process	1	01-Oct-15 A	31-Oct-15 A																				

FR HSR 009-10-01-05 Phase 1 PE/NEPA/CFQA

FR Schedule is for the FRA ARRA Grant Amendment, Data Date September 1, 2016.

2. The Schedule is for the FRA ARRA Grant Amendment, Data Date September 1, 2016.

Schedule reflects the Beneficial Consents.

Layout: \*FRA Qtrly Summary Report FY16-17

FR HSR 009 10 01 05 Phase 1 PE/NEPA/CEQA

- This Schedule is for the FRA ARRA Grant Amendment. Data Date: September 1, 2016.
- The San Francisco to San Jose and San Jose to Merced schedule dates reflect the approved Baseline Schedule dates by the Regional Consultants.

FRA Summary Schedule - September 2016										24-Oct-16 15:41																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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ID	Activity Name	FRA Summary Schedule - September 2016												24-Oct-16 15:16											
		Duration (months)	Start	Finish	15	2016			2017			2018			2019			2020							
						Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4						
<b>PLANNING</b>																									
<b>Bakersfield to Palmdale</b>																									
<b>Environmental Review</b>																									
1.01	BEP: Project Management	115	01-Jul-16 A	06-May-20																					
1.02	BEP: Public Agency Participation	115	01-Jul-16 A	06-May-20																					
1.03.1	BEP: Conduct Alternative Analysis	25	20-Feb-14 A	06-Jun-20																					
1.03.4.2	BEP: Identify Range of Alternatives for EE-Alternative Analysis	49	01-Mar-14 A	24-May-18																					
1.03.4.2	BEP: Identify Range of Alternatives for EE-Alternative Analysis	30	07-May-14 A	01-Dec-16																					
1.03.5	BEP: Prepare Project Description	30	07-May-14 A	01-Dec-16																					
1.03.6	BEP: Define Existing Transportation Conditions	11	15-Jul-15 A	27-Jun-16 A																					
1.03.7	BEP: NEPA/04 Integration (Checkpoint B)	5	02-Mar-15 A	31-Jul-16 A																					
1.03.7	BEP: NEPA/04 Integration (Checkpoint B)	19	08-Sep-15 A	01-May-17																					
1.05.1	BEP: Environmental Task Management	35	05-May-14 A	17-May-17																					
1.05.2.1	BEP: Prepare Technical Reports	17	17-Dec-15 A	29-Dec-16																					
1.05.2.2	BEP: Prepare and Submit Section 106 Reports to SHPO/Review and Concurrence	21	30-May-14 A	29-Dec-16																					
1.05.2.3	BEP: Prepare and Submit Biological Assessments to USFWS/NMFS	17	17-Dec-15 A	17-May-17																					
1.05.2.4	BEP: Identify Initial Preferred Alternative, Obtain Authority Approval	5	30-Dec-16	19-Jun-17																					
1.05.3	BEP: EIR/EIS Sections	15	24-Aug-15 A	18-Nov-16																					
1.05.4	BEP: Perform Env Studies and Obtain Permits for Geotechnical Investigation	19	17-Feb-15 A	10-Oct-16																					
1.07.1	BEP: Prepare Admin Draft Environmental Document and Circulate to Cooperating Agencies	12	26-Jan-16 A	05-May-17																					
1.07.2	BEP: Prepare Draft Environmental Document and Circulate for Public Review and Comment - Draft EIR - Public Agency Review	3	03-Oct-16	23-Oct-17																					
1.07.3.1	BEP: Respond to Public Comments on Draft EIS	7	17-Aug-17	23-Oct-17																					
1.07.3.2	BEP: Identify Preliminary Preferred Alternative	2	17-Aug-17	23-Oct-17																					
1.07.3.3	BEP: Obtain Section 7 BO from USFWS/NMFS	11	18-May-17	26-Apr-18																					
1.07.4	BEP: Identify Least Environmentally Damaging Practicable Alternative (Checkpoint C, LEDPA)	11	03-Oct-16	11-Sep-17																					
1.07.5	BEP: CA Dept of Fish & Game (CDFG) Consistency Determination	8	19-May-17	31-Jan-18																					
1.07.6.1	BEP: Prepare and Circulate Admin Final Environ Doc to Cooperating Agencies (includes FRA/ROD) Final EIR/EIS Pref A/R/O/D	4	05-Dec-17	29-Dec-17																					
1.07.6.2	BEP: Prepare and Publish Final EIS (includes FRA/ROD)	4	18-Aug-17	29-Dec-17																					
1.08.1	BEP: Findings & Statement of Overriding Considerations	2	20-Sep-17	07-Nov-17																					
1.08.2.1	BEP: Authority Board Certifies Environmental Document	2	20-Sep-17	07-Nov-17																					
1.08.2.2	BEP: Authority Prepares and Files Notice of Determination	3	25-Oct-17	17-Jan-18																					
1.08.2.3	Surface Transportation Board (STB) Issues ROD - Bakersfield to Palmdale	0	05-Apr-18	05-Apr-18																					
1.08.3	BEP: Mitigation Monitoring & Reporting Plan	22	30-Dec-15 A	28-Nov-17																					
1.08.4.1	BEP: Obtain Fully Executed Section 106 MOA	5	20-Mar-17	10-Aug-17																					
1.08.4.2	BEP: Prepare and Submit Section 401 and 404 Permit Applications	11	24-Aug-17	02-Aug-18																					
1.08.4.3	BEP: Prepare and Submit Section 402 Applications (TBD)	30	01-Dec-16	05-Jun-20																					
1.08.4.4	BEP: Prepare and Submit Section 403 Applications (TBD)	0	01-Sep-16	01-Sep-16																					
1.08.5	BEP: Other Required Permits	0	18-May-17	07-Jun-17																					
1.08.5	BEP: Administrative Record	2	29-Dec-17	07-Mar-18																					
1.08.5	BEP: Administrative Record	115	01-Jul-16 A	03-May-20																					
2.04	BEP: Conduct PEAP - BP	18	02-Dec-15 A	17-Apr-17																					
2.11	BEP: Conduct PEAP - BP	24	29-Dec-17	08-Jan-20																					
2.13	ROP Programwide Engineering (BP)	115	01-Jul-10 A	06-May-20																					
<b>Other Related Work</b>																									
3.06	BEP: Station Area Planning	38	01-Jul-10 A	16-Nov-18																					
3.09	BEP: ROW EIR/EIS Process	31	01-Apr-16 A	16-Nov-18																					
3.11	PM/ROP ROW Work (BP)	90	03-Jan-11 A	04-Sep-18																					
3.12	Roadside Forecasting - BP	23	01-Jul-10 A	29-Jun-12 A																					

Layout: \*FRA Quarterly Summary Report FV16-17

FR HSR 009 10 01 05 Phase 1 PE/NEPA/CEQA

1. This Schedule is for the FRA ARRA Grant Amendment, Data Date September 1, 2016.

2. The San Francisco to San Jose to Merced schedule dates reflect the approved Baseline Schedule dates by the Regional Consultants.

ID	Activity Name	Duration (months)	Start	Finish	FRA Summary Schedule - September 2016												25-Oct-16 08:28																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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Layout: \*FRA Qtrly Summary Report FY16-17

FR HSR 009 10 01 05 Phase 1 PEN/PACE/QA

- This Schedule is for the FRA AREA Grant Amendment. Data Date: September 1, 2016.
- The San Francisco to San Jose and San Jose to Merced schedule dates reflect the approved Baseline Schedule dates by the Regional Consultants.

ID	Activity Name	FRA Summary Schedule - September 2016												24-Oct-16 17:01																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3</



ID		Activity Name	FRA Summary Schedule - September 2016												24-Oct-16 17:07											
			Duration (months)	Start	Finish	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
		PLANNING																								
		Los Angeles to Anaheim																								
		Environmental Review																								
1.01	LAA Project Management	95	01-Jul-16 A	31-Aug-18																						
1.02	LAA Public/Agency Participation	35	01-Apr-15 A	29-Dec-17																						
1.03.1	LAA Conduct Alternatives Analysis	32	01-Apr-15 A	29-Dec-17																						
1.03.2	LAA Identify Range of Alternatives for Environmental Evaluation	7	01-Feb-16 A	30-Aug-16 A																						
1.03.3	LAA Project Definition	5	01-Apr-16 A	11-Nov-16																						
1.03.4	LAA Define Existing Transportation Conditions	7	01-Apr-16 A	30-Aug-16 A																						
1.03.5	LAA Environmental Task Management	11	01-Jul-15 A	01-Jun-16 A																						
1.05.1	LAA Prepare Technical Reports	32	01-Apr-15 A	29-Dec-17																						
1.05.2.1	LAA Prepare and Submit Section 106 Reports to SHPO/Review and Concurrence	22	01-Apr-15 A	22-Feb-17																						
1.05.2.2	LAA Prepare and Submit Biological Assessment to USFWS/NMFS	18	01-Sep-15 A	27-Mar-17																						
1.05.2.3	LAA Identify Initial Preferred Alternative, Obtain Authority Approval	7	05-Sep-16	21-Apr-17																						
1.05.2.4	LAA EIR/IS Analysis	32	01-Apr-15 A	29-Dec-17																						
1.07.1	LAA Prepare Administrative Draft EIR/IS and Circulate to Cooperating Agencies	6	16-Dec-16	14-Jun-17																						
1.07.2	LAA Prepare Draft EIR/IS & Circulate for Public Review/Comment & Public Review	5	01-Mar-17	24-Jul-17																						
1.07.3.1	LAA Respond to Public Comments on Draft EIR/IS	2	30-Nov-17	30-Jun-18																						
1.07.3.2	LAA Identify Preliminary Preferred Alternative	4	24-Feb-17	16-Jun-17																						
1.07.3.3	LAA Obtain Section 7 Biological Opinion from USFWS/NMFS	9	28-Mar-17	29-Dec-17																						
1.07.4	LAA Identify LEDPA	4	24-Feb-17	16-Jun-17																						
1.07.5.1	LAA Prepare and Circulate Administrative Final EIR/IS to Cooperating Agencies, Includes FRA ROD	1	16-Nov-17	04-Dec-17																						
1.07.5.2	LAA Prepare and Publish Final EIR/IS, Includes FRA ROD	1	20-Nov-17	26-Dec-17																						
1.08.1	LAA Findings & Statement of Overriding Considerations	0	01-Dec-17	29-Dec-17																						
1.08.2.1	LAA Authority Board Confirms EIR	0	16-Jan-18	24-Jan-18																						
1.08.2.2	LAA Authority Prepares and Files Notice of Determination	0	16-Jan-18	24-Jan-18																						
1.08.2.3	Surface Transportation Board (STB) Issues ROD - Los Angeles to Anaheim	1	27-Feb-18	28-Jan-18																						
1.08.3	LAA MRP/MPMEP	2	01-Dec-17	29-Jun-18																						
1.08.4.1	LAA Obtain Fully Executed Section 106 MOA	14	02-Nov-18	03-Jan-18																						
1.08.4.2	LAA Prepare and Submit Draft Section 401 and 404 Permit Apps	0	12-Oct-17	12-Oct-17																						
PE 15% and Preliminary Design for Procurement		95	01-Jul-16 A	31-Aug-18																						
2.04	LAA Conduct Preliminary Engineering for Project Development - PE4PD	15	01-Jul-15 A	30-Sep-16 A																						
2.11	LAA Preliminary Engineering for Project Development - PE4P	10	03-Oct-16	10-Aug-17																						
2.13	ROP Programwide Engineering (LO)	95	01-Jul-16 A	31-Aug-18																						
Other Related Work																										
3.08	LAA Station Area Planning	15	01-Jul-15 A	03-Oct-16																						
3.09	LAA ROW Preservation and Acquisition	24	01-Jul-15 A	18-Jul-17																						
3.11	PMTRDP ROW Work (LO)	84	01-Jul-11 A	31-Aug-18																						
3.12	Ridership Forecasting - LO	23	01-Jul-10 A	29-Jun-12 A																						
3.14	Southern California Improvements (LAUS)	0	03-Oct-16	03-Oct-16																						

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1. This Schedule is for the FRA ARPA Grant Amendment. Data Date September 1, 2016

2. The San Francisco to San Jose and San Jose to Merced schedule dates reflect the approved Baseline Schedule dates by the Regional Consultants.

Layout: \*FRA Qtrly Summary Report FY16-17

FR HSR 009 10 01 05 Phase 1 PE/NEPA/CEQA

- This Schedule is for the FRA ARRA Grant Amendment, Data Date September 1, 2016.
- The San Francisco to San Jose and San Jose to Merced schedule dates reflect the approved Baseline Schedule dates by the Regional Consultants.

ID		Activity Name	FRA Summary Schedule - September 2016												24-Oct-16 17:13											
			Duration (months)	Start	Finish	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4
		<b>CONSTRUCTION</b>																								
		<b>Merced to Fresno</b>																								
		Design-Build Program Management	136	01-Jul-19A	25-Oct-21																					
		Design-Build Program Management (M&F)	72	01-Jul-19A	01-Sep-18																					
		Real Property Acquisition	72	01-Jul-19A	01-Sep-18																					
		ROW Acquisition - CP 1AB	66	24-Apr-13A	13-Nov-18																					
		M&F: Real Property Acquisition/Condemnation Support	66	24-Apr-13A	13-Nov-18																					
		ROW Acquisition - CP 1D	21	03-Nov-15A	17-Aug-17																					
		Design-Build Contract Work	77	13-Feb-13A	28-Jun-19																					
		Design-Build Civil Infrastructure - CP 1AB *	8	15-Oct-13A	28-Jun-19																					
		SR99 Realignment	63	19-Feb-13A	28-Jun-19																					
		Design-Build Program Management	132	01-Jul-19A	25-Oct-21																					
		Design-Build Program Management (F-B)	132	01-Jul-19A	25-Oct-21																					
		Real Property Acquisition	42	27-Jun-14A	26-Dec-17																					
		ROW Acquisition - CP 1C	42	27-Jun-14A	26-Dec-17																					
		ROW Acquisition - CP 2,3	40	27-Jun-14A	15-Oct-17																					
		ROW Acquisition - CP 4	40	27-Jun-14A	20-Dec-17																					
		Design-Build Contract Work	60	09-Jun-14A	28-Jun-19																					
		Design-Build Civil Infrastructure - CP 2,3 *	47	25-Jul-15A	14-Jun-19																					
		Design-Build Civil Infrastructure - CP 4 *	36	15-Apr-16A	02-Apr-19																					
		Design-Build Civil Infrastructure - CP 1C *	60	08-Jul-14A	28-Jun-19																					
		Design-Build Civil Infrastructure - CP 1C *	30	25-Dec-18	18-Jun-21																					
		Design-Build Contract Work	30	25-Dec-18	18-Jun-21																					
		Design-Build - CP 5 (FCS Track & Systems Combined) (Forecast)	30	25-Dec-18	18-Jun-21																					
		<b>Fresno to Bakersfield</b>																								
		Design-Build Program Management	132	01-Jul-19A	25-Oct-21																					
		Design-Build Program Management (F-B)	132	01-Jul-19A	25-Oct-21																					
		Real Property Acquisition	42	27-Jun-14A	26-Dec-17																					
		ROW Acquisition - CP 1C	42	27-Jun-14A	26-Dec-17																					
		ROW Acquisition - CP 2,3	40	27-Jun-14A	15-Oct-17																					
		ROW Acquisition - CP 4	40	27-Jun-14A	20-Dec-17																					
		Design-Build Contract Work	60	09-Jun-14A	28-Jun-19																					
		Design-Build Civil Infrastructure - CP 2,3 *	47	25-Jul-15A	14-Jun-19																					
		Design-Build Civil Infrastructure - CP 4 *	36	15-Apr-16A	02-Apr-19																					
		Design-Build Civil Infrastructure - CP 1C *	60	08-Jul-14A	28-Jun-19																					
		Design-Build Civil Infrastructure - CP 1C *	30	25-Dec-18	18-Jun-21																					
		Design-Build Contract Work	30	25-Dec-18	18-Jun-21																					
		Design-Build - CP 5 (FCS Track & Systems Combined) (Forecast)	30	25-Dec-18	18-Jun-21																					
		<b>First Construction Segment</b>																								
		Design-Build Contract Work	30	25-Dec-18	18-Jun-21																					
		Design-Build - CP 5 (FCS Track & Systems Combined) (Forecast)	30	25-Dec-18	18-Jun-21																					
		<b>Merced to Fresno</b>																								
		Design-Build Program Management	136	01-Jul-19A	25-Oct-21																					
		Design-Build Program Management (M&F)	72	01-Jul-19A	01-Sep-18																					
		Real Property Acquisition	72	01-Jul-19A	01-Sep-18																					
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		Design-Build Contract Work	77	13-Feb-13A	28-Jun-19																					
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		Real Property Acquisition	42	27-Jun-14A	26-Dec-17																					
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		Design-Build Civil Infrastructure - CP 4 *	36	15-Apr-16A	02-Apr-19																					
		Design-Build Civil Infrastructure - CP 1C *	60	08-Jul-14A	28-Jun-19																					
		Design-Build Civil Infrastructure - CP 1C *	30	25-Dec-18	18-Jun-21																					
		Design-Build Contract Work	30	25-Dec-18	18-Jun-21																					
		Design-Build - CP 5 (FCS Track & Systems Combined) (Forecast)	30	25-Dec-18	18-Jun-21																					

Layout: #FRA Query Summary Report FY16-17

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1. This Schedule is for the FRA ARRA Grant Amendment, Data Date September 1, 2016.
2. Schedule dates by the Regional Consultants.

**From:** [Barnes, Juliana \(FRA\)](#)  
**To:** ["Malone, Desiree@HSR"; Gilliland, Barbara\(PB\)@HSR](#)  
**Cc:** ["rlzimmerer@transystems.com"; "mlrule@transystems.com"](#)  
**Subject:** RE: Feedback: Q4-16 Deliverables (Revised Annual Work Plan)  
**Date:** Wednesday, March 29, 2017 12:57:00 PM  
**Attachments:** [2015\\_4\\_30\\_DRAFT\\_Gilroy\\_Workplan.docx](#)  
[AWP FY 16 REVISED Final\\_FRA Comments \(as of Mar 17\).docx](#)

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Hi Desi,

FRA acknowledges receipt of CHSRA's Revised Annual Work Plan (AWP) on January 23, 2017.

Please see the following feedback below and attached (AWP FY 16 Revised Final \_FRA Comments) after review of the revised 2016-2017 AWP:

- In its revisions, CHSRA attempts to address FRA's review comments by tying the AWP and the Program Management Plan together; in other words, by making them one. FRA understands that everything CHSRA does ultimately ties together. However, the grants' Statements of Work prescribe different contents/subjects for the AWP versus the Program Management Plan; they are two distinctive deliverables/documents with different purposes even though they relate to one another.
- The primary purpose of the Program Management Plan is explaining how CHSRA manages scope, budget, schedule, and risk over the life of the program while the primary purpose of the AWP is explaining what CHSRA is doing this year to stay on target with scope, budget, schedule, and risk.
- The AWP should provide specific milestones or deliverables (even if partial/iterative) CHSRA is going to meet or provide to FRA during the timeframe covered in the document as well as the number of people/resources and costs associated with achieving specific milestones or deliverables. For example, if the Program Management Plan indicates that CHSRA is going to finish a given task in say five years, then the AWP would indicate what CHSRA is doing this year (expressed by describing the number/type of people involved and/or the cost) to make sure iterative tasks are progressing as necessary to reach project completion at the end of the five years.

In recent years, FRA understood the need to keep the AWP broad given that the period of performance of the grants was fast-approaching. Now that FRA and CHSRA have extended the grants' period of performance, the AWP needs to be specific.

Attached is an example of a good work plan (in a table format) that CHSRA could use as a reference and an FRA mark-up on the Revised AWP (pg 24 – 28, on Task 3). Those comments, while contained to Task 3, offer insight into how FRA viewed each section and the plan as a whole. FRA hopes CHSRA will address those comments in future submissions of the AWP and other annual deliverables/"plans" as a similar thought process was applied to their review.

Please focus on revising Task 3 of the Annual Work Plan to address FRA's review comments as a standalone document for receipt by April 21<sup>st</sup>. As previously shared with CHSRA on January 18, 2017 keeping in mind that one of the primary benefits of a good AWP is allowing FRA to know what is

“coming down the pipeline.” One piece of feedback CHSRA provides on an ongoing basis to FRA is that CHSRA appreciates quick reviews/turnarounds; thus, letting FRA know what specifically is coming well in advance in the form of the AWP would help FRA better address this valuable feedback.

Thank you,

Juliana Barnes, PMP  
Project Manager  
Office of Program Delivery (RPD-15)  
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---

**From:** Malone, Desiree@HSR [mailto:Desiree.Malone@hsr.ca.gov]  
**Sent:** Monday, January 23, 2017 2:17 PM  
**To:** Barnes, Juliana (FRA) <juliana.barnes@dot.gov>  
**Cc:** Gilliland, Barbara(PB)@HSR <barbara.gilliland@hsr.ca.gov>; mlrule@transystems.com; Everett, Lynn (FRA) <lynn.everett@dot.gov>; rlzimmerer@transystems.com; Malone, Desiree@HSR <Desiree.Malone@hsr.ca.gov>  
**Subject:** RE: Initial Feedback: Q4-16 Deliverables

Hi Juliana,

The Authority acknowledges your comments and is revising the documents provided by the FRA.

This email returns a revised AWP for FRA comment purposes.

Please note that an extension to the Feb. 2 due date has been requested for the FCS/CONOPs due to being unable to discuss the document today as planned.

A revised CVPFP is in process and I will keep you informed on its status for timeliness to the revision due date of Feb 2.

Thank you - Desi

---

**From:** Barnes, Juliana (FRA) [mailto:[juliana.barnes@dot.gov](mailto:juliana.barnes@dot.gov)]  
**Sent:** Wednesday, January 18, 2017 1:22 PM  
**To:** Malone, Desiree@HSR  
**Cc:** Gilliland, Barbara(PB)@HSR; [mlrule@transystems.com](mailto:mlrule@transystems.com); Everett, Lynn (FRA); [rlzimmerer@transystems.com](mailto:rlzimmerer@transystems.com)  
**Subject:** Initial Feedback: Q4-16 Deliverables

Hi Desi,

FRA acknowledges receipt of the following deliverables transmitted on Dec 29, 2016:

- FCS Utilization Plan/CONOPs
- Annual Work Plan (AWP)
- Central Valley Financial Plan (CVFP)
- Phase 1 Program Financial Plan
- Program Management Plan
- CP 4 Baseline Schedule
- Q4\_16 Exhibit A Update

An initial review was conducted of the following submittals in the three attached documents: (1) FCS Utilization Plan/CONOPS, (2) Annual Work Plan, and (3) CV Financial Plan which contain initial comments. Please note FRA is returning those deliverables after initial review and requests resubmission after addressing the attached FRA initial comments for further development by Feb 2, 2017.

The remainder of the 4<sup>th</sup> Qtr deliverables are under review and FRA will provide comments prior to the end of the month.

Regards,

Juliana Barnes, PMP  
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**Gilroy Inter-Agency Partnership  
Sustainable Communities and HSR Planning  
DRAFT Two-Year Work Plan, 4/30/15**

**Partners:** Gilroy, CA HSR Authority, CA Strategic Growth Council, Caltrans, HUD, FTA, FRA, EPA

**Table 1: Tasks Ready for Action**

	Focus Area	Actions	Resources	Milestone/Date <i>(Need Gilroy to estimate dates)</i>	Leads
1.1	<b>Equity</b> – Gilroy concerned with equity; existing east-west economic and racial divide could be worsened by HSR; challenges gaining and maintaining input from Hispanic community	<p>EPA-funded Building Blocks workshop on equity</p> <p>EPA convene experts to explore opportunities for strengthening community participation</p> <p>FTA share info from National Transit Institute EJ course</p> <p>HUD scan the city's Affirmatively Furthering Fair Housing (AFFH) plan – identify opportunities &amp; challenges to pursue</p> <p>HUD connect city with Equity Collaborative Leadership, resources (Bay Area Prosperity Plan)</p>	<p>EPA - staff time and Building Blocks Workshop (\$12-15K)</p> <p>FTA – staff time</p> <p>HUD - Fair Housing &amp; Equal Opportunity (FHEO) subject matter experts/one-on-one consultation; Community-wide FHEO workshops</p> <p>HUD - Equity Collaborative: community-based partners, funders</p>	<p>Building Blocks Workshop (Date?)</p> <p>Equity addressed in Gilroy X planning document (Date?)</p> <p>Community-wide FHEO workshops (Fall 2016?)</p> <p>HUD – Meeting with Equity Collaborative (Fall 2016?)</p>	<p>EPA: Debbie Lowe Liang, Sarah Dale</p> <p>FTA: Eric Eidlin, Faith Hall</p> <p>HUD: Marie Mazwi, Musibau Arogundade</p> <p>Partner with: CHSRA: Ben Lichty and SGC: Suzanne Hague</p>
1.2	<b>Brownfields</b> – Downtown brownfields hinder infill development	<p>Targeted Brownfields Assessment (longer term, potentially Brownfields Community Wide Assessment and/or Cleanup Grant)</p>	<p>EPA staff time</p> <p>Brownfields TBA funding</p>	<p>Gilroy submit request for funding (Date?)</p> <p>Assessment kickoff (Date?)</p>	<p>EPA: Nova Blazej</p>
1.3	<b>Smart Growth</b> – Gilroy wants economic revitalization, walkable, infill, sustainable downtown and is looking for guidance on how to use HSR to achieve goals.	<p>EPA Smart Growth Implementation Assistance to support contractor for downtown smart growth market analysis, finding barriers/solutions</p> <p>HUD-DOT-EPA comment on Gilroy's planning documents when requested</p> <p>FTA will provide examples of best practices for Gilroy from U.S. and Europe</p>	<p>EPA staff time</p> <p>EPA Smart Growth Implementation Assistance (up to \$60k)</p> <p>FTA staff time</p> <p>HUD staff time</p>	<p>Prepare Smart Growth Implementation Assistance proposal by May 1</p> <p>Smart Growth Implementation Assistance project kickoff (Spring 2016?)</p>	<p>EPA: Carolyn Mulvihill</p> <p>FTA: Eric Eidlin &amp; Faith Hall</p> <p>HUD ongoing grants management: Musibau Arogundade, Cynthia Abbott</p>



		<p>EPA &amp; SGC provide best practices from SC2 Fresno</p> <p>HUD - Ensure highest &amp; best use of Federal Housing Programs i.e. CDBG, HOME. Determine TA eligibility</p> <p>HUD - Connect city with peer cities, communities that have relevant best practices to insure jobs/housing balance</p>	HUD Exchange TA; National Resource Network (potential)	<p>HUD - On-going grants management; TA support (Fall 2016?)</p> <p>HUD Exchange TA (Fall 2016?)</p>	<p>HUD Exchange TA: Josh Geyer, Dwayne Marsh</p> <p>Partner with – CHSRA: Ben Lichty SGC: Suzanne Hague FRA: Sue Herre</p>
1.4	<b>Transit</b> – Need to plan for transit connectivity to HSR	<p>Convene partners to assist Gilroy in planning for transit connectivity and applying for appropriate grants</p> <p>FTA review Gilroy's proposals and be available to Gilroy staff and consultants for questions</p> <p>FTA identify best practices for rail projects that go through communities</p> <p>TBD white paper on integration of transit services and facilities among transit providers (Building on Henry Servin's San Jose experiences)</p>	<p>FTA staff time</p> <p>EPA staff time</p>	<p>Meeting to explore issue (Summer 2015?)</p> <p>FTA to review Gilroy's plans (as needed)</p> <p>Transit connectivity fully addressed in draft Station Area Plan (Date?)</p>	<p>FTA: Faith Hall, Eric Eidlin</p> <p>FRA: Sue Herre</p> <p>Partner with – EPA: Carolyn Mulvihill, CHSRA: Ben Lichty, SGC: Suzanne Hague, HUD: Marie Mazwi</p>
1.5	<b>Homelessness</b> – High levels of homelessness in downtown area	<p>Provide best practices and recommendations to assist Gilroy in incorporating low income housing downtown</p> <p>HUD scan of city's participation in the Santa Clara Continuum of Care i.e. financial awards from HUD's homeless assistance programs</p> <p>HUD provide ideas, review Gilroy's housing proposals, and be available to staff and consultants for questions</p>	HUD homeless subject matter experts/one-on-one consultations; possible TA	Homelessness fully addressed in TBD Gilroy planning document (Date?)	<p>HUD: Marie Mazwi, Musibau Arogundade, Cynthia Abbott</p> <p>Partner with – EPA: Debbie Lowe Liang, CHSRA: Ben Lichty SGC: Suzanne Hague</p>

**Table 2: Tasks Under Development**

	Focus Area	Actions	Resources	Milestone/Date (Need Gilroy to estimate dates)	Leads
2.1	<b>Renewable Energy</b> – Gilroy is interested in RE on lands formerly used to treat wastewater (~250 acres) and potentially downtown	EPA work with Gilroy to define goals, convene partners and to leverage TBD technical assistance	EPA staff time  EPA (or partner agency) technical assistance TBD	EPA – Gilroy RE information sharing call (May 2015?)  Gilroy RE strategy? (Summer 2016?)	EPA: Trina Martynowicz, Cara Gillen  Partner with: CHSRA: Ben Lichty
2.2	<b>Infill / Historic Preservation</b> – Unreinforced masonry (URM) buildings downtown hinder infill and harm downtown productivity	EPA will look for partners interested in protecting historic buildings who may be able to assist  FTA will share best practices for integrating historic buildings into TOD	EPA staff time  FTA staff time	Meeting with partners to assist Gilroy in developing strategy (Date?)	EPA: Carolyn Mulvihill  FTA: Eric Eidlin  Partner with – SGC: Suzanne Hague CHSRA: Ben Lichty
2.3	<b>Air Quality</b> – HSR induced traffic could harm air quality near roadways.  City used to have air monitoring station and would like to have one again	Assist Gilroy in developing traffic access routes to station that minimize impacts to human health  EPA to review and comment on planning documents from an air quality / health perspective as requested by Gilroy  EPA will look into reason for removal of Gilroy air monitoring station and process for acquiring one	EPA staff time	As requested by Gilroy	EPA: Debbie Lowe Liang, Shelley Rosenblum
2.4	<b>Water Efficiency, Recycling and Treatment Plant</b> – Expected growth in Gilroy will increase water demands and CA facing projected water shortages	Assist Gilroy in exploring options to improve water system, including water recycling  Promote EPA's WaterSense program  Convene partners to explore opportunities for water efficiency	EPA technical assistance TBD  EPA staff time for WaterSense	Convene meeting with Gilroy to better define needs and goals for water recycling and treatment plant (May 4, 2015)  EPA provide guidance on WaterSense (Date?)	EPA: Sarvy Mahdavi

**Table 3: Tasks Discussed with No Actions Currently Planned**

	Focus Area	Actions	Resources	Milestone/Date	Leads
3.1	<b>Safety Training</b> – Gilroy is interested in using green space at urban edge as a regional emergency response training center	Potential for Gilroy to meet with EPA Emergency Response for guidance			EPA: Debbie Lowe Liang
3.2	<b>Jobs and Housing</b> – Existing jobs / housing imbalance and strong need for more jobs downtown.	Apply lessons on attracting anchor institutions downtown from Fresno; Reach out to Social Security Administration in Gilroy and GSA about potential to relocate downtown  Coordinate with SPUR and use their Prosperity Plan findings (MTC grant) to inform Gilroy options			EPA: Carolyn Mulvihill  Partner with – SGC
3.3	<b>Grant Capacity</b> – Gilroy would like guidance on preparing applications for specific grants (not grant writing in general)  Gilroy is interested in Tiger grants, among others				EPA: Debbie Lowe Liang  Partner with – HUD
3.4	<b>Parking</b> – Gilroy would like assistance planning for parking (beyond what will be addressed in HSR Station Area Plan Grant)				
3.5	<b>GHG Goals</b> – Gilroy would like assistance is exploring SB 743 and meeting GHG goals				



**CALIFORNIA**  
High-Speed Rail Authority

# *Annual Work Plan FY16/17*

*October 2016*



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## Background

Established in 1996, the California High-Speed Rail Authority (Authority) is the state department responsible for planning, constructing and operating the 520-mile-long high-speed rail system in California connecting San Francisco to Los Angeles/Anaheim. The high-speed rail system is ultimately envisioned to extend to Sacramento and to San Diego.

The Authority is governed by a nine-member Board of Directors (five appointed by the Governor, two appointed by the Senate Committee on Rules, and two by the Speaker of the Assembly). There are elected Chair and Vice-Chair positions within the Board of Directors. The Authority is led by the Chief Executive Officer (CEO) who reports to the Board of Directors. The CEO works with the Board on the program's direction and a broad range of issues regarding the ongoing program, establishing program policies and goals, certifying environmental documents, and entering into agreements.

## Introduction

This document is the Authority's Annual Work Plan (AWP). The AWP is prepared annually for the Federal Railroad Administration and submitted in compliance with the federal American Recovery and Reinvestment Act of 2009 (ARRA) and Fiscal Year 10 (FY 10) grant agreements. The AWP is a requirement within Task 5 of Attachment 3, Statement of Work for the ARRA and FY 10 agreements which states:

*CHSRA will prepare for FRA's review and comment a detailed staffing plan and cost estimate for the Project. The AWP outlines the work necessary to establish and manage project control systems to maintain, manage, and monitor project schedule, budget, documentation, procurement, and tracking of deliverable so that implementation of the Project stays on schedule and within budget.*

The Authority receives federal funding through the two grants identified above. These funds contribute to the completion of environmental documentation and preliminary engineering for the Phase 1 system from San Francisco to Los Angeles/Anaheim, and construction of the First Construction Section (FCS) generally from Madera to Shafter as shown in Figure 1. The two grants fund activities that are broken out by tasks within the grant in Attachment 3, Statement of Work. The tasks include:

- Task 1: Environmental Review (San Francisco – Los Angeles/Anaheim)
- Task 2: Preliminary Engineering (San Francisco – Los Angeles/Anaheim)
- Task 3: Other Related Work Needed Prior to Construction
- Task 4: Project Administration and Statewide Cost Allocation Plan (SWCAP) (*now complete*)
- Task 5: Program, Project and FCS Construction Management
- Task 6: Real Property Acquisition and Environmental Mitigation
- Task 7: Early Work Program (*closed*)
- Task 8: Final Design and Construction Contract Work for the FCS
- Task 9: Interim Use Project Reserve
- Task 10: Unallocated Contingency

The ten tasks are broken down into sub-tasks as defined in the Task and Sub-Task Descriptions in Appendix A – Grant Tasks and Sub-Tasks.



Figure 1 - Phase 1 and First Construction Section

This AWP provides a programmatic overview followed by a summary of specific activities related to each grant task as outlined in Attachment 3, Statement of Work, and highlights planned milestones and key activities in fiscal year July 1, 2016 to June 30, 2017 (FY16/17). This AWP, complimented by the Program Management Plan, which outlines the procedures used to manage the scope, budget, schedule and risk for the program, provides a comprehensive overview of how the Authority manages its work.

## Staffing

The Authority's Board of Directors (Board) and Executive Management recognize the importance of a strong management structure and proper staffing to ensure the successful delivery of the high-speed rail program. The organizational model includes: Monitoring by multiple external agencies and federal grant funded oversight; an active Board of Directors to set policy and make environmental, contracting and financial decisions; a senior Executive management team with extensive project development experience; interagency support for many standard state administrative functions; and reliance on the private sector to deliver the project under contracts negotiated and managed by government employees and legal counsel.

The Authority Board sets direction and governs the organization through broad policies and objectives that outline the Authority's Business Plan. In addition to selecting the Chief Executive Officer (CEO), the board provides direct oversight of two key functions – internal audit and risk management.

The CEO has established an organization that provides direction and oversight for all aspects of developing and implementing the high-speed rail system. The Executive management team includes the CEO, chief counsel, chief financial officer, chief program manager and other senior management. Several key positions are specifically called out in statute [Section 185024 Public Utilities Code]. The staffing plan utilizes an integrated approach wherein the organization consists of both state employees and consultant staff from its rail delivery partner hired in 2015 and financial advisor hired in 2016.

The executive leadership team spans all functional areas to ensure consistency throughout the program, and has experienced staff at the regional level to enhance outreach and service delivery within local communities. It is responsible for selecting senior management staff, establishing management plans, identifying and monitoring risks, overseeing budgetary requirements and other organizational processes.

Figure 2 - Authority Management Team shows the key leadership positions, these include:

- Chief Executive Officer
- Chief Deputy Director
- Chief Administrative Officer
- Chief Counsel
- Chief of Communications
- Chief Financial Officer
- Chief Program Manager
- Regional Directors (Northern California, Central Valley, and Southern California)

The executive leadership and senior management staff oversee the architectural and engineering design professionals and the construction design-build teams including:

- Regional Consultants (RCs) – Environmental documentation and preliminary engineering deliverables
- Environmental and Engineering Consultants (EECs) – Environmental assessment, mitigation monitoring and engineering support after completion of environmental documents
- Right-of-Way (ROW) Consultants – Technical staff to support appraisal and acquisition of property
- Project and Construction Management (PCM) Consultants – Oversee the delivery of each construction package
- Design and Construction Contractors – Complete a civil construction package
- Operations and Maintenance – System operator to manage and maintain the system.

At the program and project levels, resource planning is divided into two categories: personnel resource planning, and resource planning for facilities, equipment, materials, etc. At the program level, each project's scope, schedule and budget are integrated into the program master schedule. The time needed to implement each project in the program master schedule is determined iteratively by balancing program need, available funding and program capabilities over time. At project initiation, it is the responsibility of the project manager to develop the preliminary scope, schedule and budget. The project-level schedule estimate informs the duration of the tasks and the estimated resources needed to complete it. The data from the schedule estimate enables the project budget to be developed.

Resource needs are evaluated at project initiation and the cost is included in the preliminary project budget. Resource needs are estimated from the bottom up using these steps:

- Identify the project scope and desired outcomes.
- Determine the tasks necessary to deliver the project scope and desired outcomes.
- Determine the timing and duration of each task.
- Identify the specific staff and their utilization for each task.
- Determine the human resource level/cost for each task.
- Determine potential additional resource needs for the project and estimate their cost.

Program staffing is based on the resource needs and timing of the needs outlined above. As needs are identified, the integrated organization determines if the position can be filled internally or if outside resource(s) are required to fill the vacancy. Staffing and resource needs are monitored to balance the program needs vs. availability of staff as the program needs change.

## Managing the Project

Recognizing that effective management of quality and performance accelerates program delivery, the Authority has instituted a program-wide quality policy that reflects the Authority's commitment to delivering the program on schedule and at the lowest possible cost with quality and safety that meets or exceeds acceptable industry and government standards. Through the integration and implementation of National Institute of Standards and Technology (NIST) criteria, ISO standards and FTA guidelines, a performance excellence framework was developed. This framework provides the elements essential to identifying and achieving goals and objectives, improving results and aligning requirements, roles,

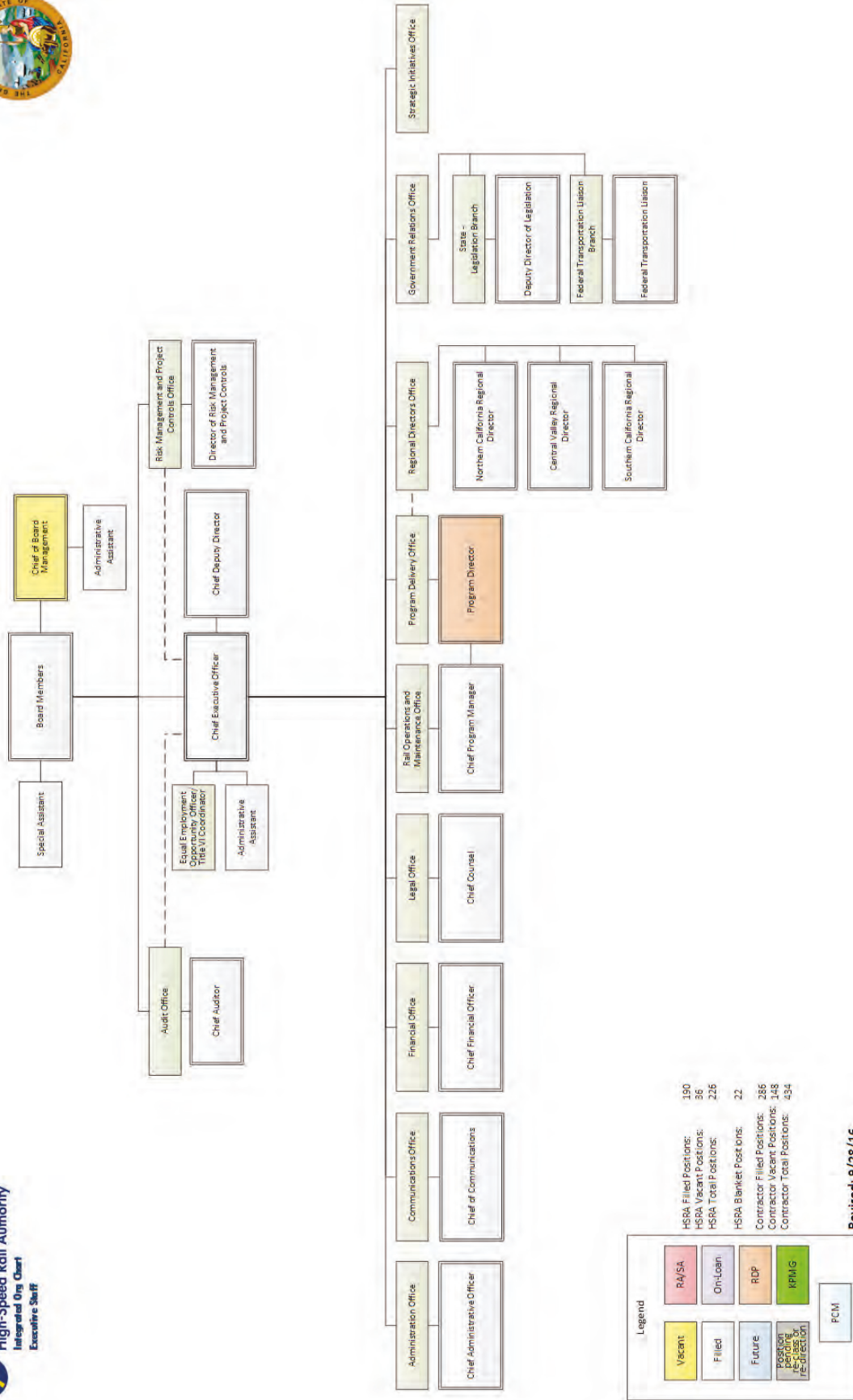


Figure 2 - Authority Management Team



responsibilities, processes, procedures, actions and results. This framework also provides the tools to examine the organization, including its quality management system and to improve processes and results. The diagram depicts the application of the integrated performance excellence framework for the high-speed rail program. A number of initiatives have been undertaken to institute a culture of continuous performance improvement, including:

- Internal process improvement for general process assessment and improvement,.
- Lessons-learned process to implement the knowledge gained from improvement initiatives into the work processes and procedures.
- Brown bag lunches that highlight various program activities to inform, educate and connect internal customers.
- Meetings between the quality manager and organizational units to update the group on quality developments and to follow up on any action items from prior meetings.
- Integration team comprised of organizational unit leads, along with other entities, which convenes to review progress and make adjustments to optimize performance and customer satisfaction. The team uses the established plan's "do, learn, share and sustain" approach to accelerate improvements within each organizational unit and within the organization as a whole by identifying solutions that can be immediately applied.



In addition, the Authority has a formalized Risk Management system consisting of a set of processes, protocols and responsibilities providing a systematic approach to identify, evaluate, assess, document and manage risks that could jeopardize the success of the program. Potential areas of risk include engineering, environmental, planning, right-of-way, procurement, construction, organizational, stakeholder, budget and schedule risk. The risk management plan balances the competing demands of scope, budget, schedule, quality, resources and risk to minimize risks to the program. Risk is reduced even further by requiring operators, infrastructure providers and contractors to accept risk directly through their contract agreements with the Authority. Further, risk management specialists identify key potential risks and develop mitigation plans in advance of their possible occurrence. Risk-related items and actions are documented in the risk register for the program. Individual risk registers are reviewed and updated quarterly, though individual risks are updated as new information is developed. The registers are reviewed by management and response strategies and actions for individual risks, as well as for overall program risks, are integrated into a consolidated plan.

CALIFORNIA High-Speed Rail Authority			CHSRA Program Phase 1 Milestone Table															
Data Date: October 1, 2016			Environmental/Engineering		Civil Infrastructure			Track and Systems			High-Speed Rail Trains			Testing and Commissioning				READY FOR REVENUE SERVICE
			FEA ROD	STB ROD	Complete PEAP	Issue RFP	Issue NTP	Substantial Completion	Issue RFP	Issue NTP	Substantial Completion	Issue RFP	Issue NTP	Prototype Acceptance	Fleet 1 (Valley to Valley)	Complete Static Testing	Complete Dynamic Testing	
Silicon Valley to Central Valley Line (San Jose to Poplar Avenue)																		
San Jose to FCS																		
San Jose Approach						Nov-17	Jun-18	Jan-22										
San Jose to Pacheco Pass						Nov-17	Jun-18	Oct-21										
Pacheco Pass Tunnels			Dec-17	Mar-18	Nov-17	Nov-17	May-18	Oct-21			Dec-22							
Foothills to Carlucci Rd. & Wye Leg - Carlucci Rd. to FCS			Dec-17	Mar-18	Sep-17	Nov-17	Jun-18	Nov-21	Mar-17	Apr-18		Mar-17	Apr-18	Aug-23		Dec-23	Dec-24	
First Construction Segment (FCS)																		
CP 1			Complete			Mar-12	Oct-13	Jun-19										
CP 2-3						Apr-14	Jul-15	Jun-19			Dec-20							
CP 4						May-15	Apr-16	Apr-19					Aug-21		Dec-21	Jun-21	Jan-25	
Silicon Valley to Central Valley Extensions (San Francisco to Merced & San Francisco to Bakersfield)																		
San Francisco to San Jose			Dec-17	Mar-18	Jul-17	Dec-17	Oct-18	May-21										
Merced to Ranch Rd. & Wye Leg West			Dec-17	Mar-18	Sep-17	Dec-17	Jun-18	Sep-21	Mar-17	Apr-18	Sep-22	Mar-17				Jun-23	Dec-24	
FCS to Bakersfield			Dec-17	Apr-17	Aug-18	Jun-17	Apr-18	Oct-21	Nov-17	Aug-18	Oct-22					Jun-23	Jan-25	
Merced to FCS & FCS to Burbank																		
Wye Leg East			Dec-17	Mar-18	Sep-17	Dec-18	Oct-19	Nov-23	Nov-21	Sep-22	Jun-25							
Bakersfield to Palmdale																		
SCP 1						Jan-19	Nov-19	Oct-24										
SCP 2						Nov-18	Sep-19	Jan-25										
SCP 3						Jan-18	Nov-18	Dec-24										
SCP 4	Dec-17	Apr-18	Jan-20	Sep-18	Jul-19	Sep-24												
SCP 5				May-19	Mar-20	Dec-24			Nov-21	Sep-22	Sep-26							
SCP 6				May-19	Mar-20	Apr-24											Jan-29	
Palmdale to Burbank																		
SCP 7						May-18	Mar-19	Jan-25										
SCP 8	Dec-17	Dec-17	Jun-18	May-18	Mar-19	Mar-25										Dec-27	Dec-28	
SCP 9				May-18	Mar-19	Jan-24										Jun-27	Jan-29	
Burbank to Anaheim Corridor Improvements																		
Burbank to Los Angeles			Dec-17	Feb-18	Aug-18	Sep-18	May-19	Jun-25	Nov-21	Sep-22	Dec-26							
Los Angeles to Anaheim			Dec-17	Mar-18	Aug-17	Jun-19	Apr-20	Apr-25										

Figure 3 - Authority Program Phase 1 Milestone Road Map

## Schedule

As defined in the 2016 Business Plan, the Authority is projecting passenger service to start on the initial project segment, from the Silicon Valley to the Central Valley, in 2025 and Phase 1 completion by 2029. The milestone schedule and phasing strategy to meet these goals is shown above in Figure 3. The milestones provide a high-level summary of the key activities necessary to guide resource planning, and project scheduling and construction. It also shows the overall progression of work and how the interim use of the FCS for operations testing fits within the overall schedule for the start of high-speed rail revenue service by January 2025.

In FY 16/17 the Authority is expected to finalize work on all Phase 1 environmental documents which are scheduled to be completed by December 2017 (see Task 1 summary). In addition, construction of the FCS through Construction Package's (CP) 1-4 will continue with key construction milestones summarized in Task 8. Finally, RFP's are projected to be released for track and systems, and high-speed rail trainsets in Spring 2017.

The Authority provides the FRA with quarterly schedule updates that contain more detailed information about the current status of each grant task. The September schedule update is included in Appendix D.

## Cost Estimate

The Authority updates the program cost estimate every two years as part of the business plan (a legislative statutory requirement). These costs were recently updated and included in the *Connecting and Transforming California, 2016 Business Plan* published on May 1, 2016. All cost estimates below are as of May 2016.

The updated costs to complete the environmental, preliminary engineering and planning efforts for the Phase 1 System from San Francisco to Anaheim are summarized below. The cost to complete has increased over previous budget projections due to a variety of reasons, including unanticipated additional environmental documentation and alignment variations to be studied. Project development costs are summarized in Table 1 and include spent-to-date and additional costs needed to complete work related to Tasks 1-4.

**Table 1 - Project Development Costs**

Project Development costs	Amount (\$ millions)
Environmental/Planning Spent-to-Date	\$ 643
Phase 1 Environmental/Planning Cost to Complete	\$ 403
<b>Total</b>	<b>\$1,046</b>

Task 8 covers civil infrastructure construction for the FCS. CP's 1-4 have been procured and contract amounts (including provisional sums) and contingency are summarized in Table 2 below. One additional contract remains to be released for final design and construction of FCS track work. It is anticipated that contract will be released within the FY 17/18.

**Table 2 - Design Build Contract Costs**

Section <sup>1</sup>	Contractor	Current Contract (\$ millions)	Contingency (\$ millions)
<b>SR 99</b>	Caltrans <sup>2</sup>	\$ 226	\$ 9
<b>CP 1</b>	Tutor-Perini/Zacary/Parsons (TPZP)	\$ 1,285	\$ 160
<b>CP 2-3</b>	Dragados/Flatiron	\$ 1,365	\$ 261
<b>CP 4</b>	California Rail Builders	\$ 444	\$ 62

<sup>1</sup> Contract amounts as of September 2016 Finance and Audit Report

<sup>2</sup> Using CMGC Delivery method, contingency split between Early Works and Main packages

A detailed capital cost estimate of all Phase I program costs can be found at

[http://www.hsr.ca.gov/docs/about/business\\_plans/2016\\_Business\\_Plan\\_Basis\\_of\\_Estimate.pdf](http://www.hsr.ca.gov/docs/about/business_plans/2016_Business_Plan_Basis_of_Estimate.pdf)

## Budget Summary

Phase 1 planning and FCS construction are funded through federal grants, and state resources from Proposition (Prop) 1A and Cap and Trade. The state funds and some local resources contribute to the match required in the ARRA and FY 10 grants. Local match is allocated to station area planning work in cities along the Phase 1 system. Table 3 summarizes federal and state funding. The Authority realizes that additional state funds will be required to complete the full scope of the grant agreements. These funds are identified as additional resources to be expended as part of construction in Task 8. Appendix B – Detailed Grant Budget contains the grant Quarterly Budget Update, September 30, 2016.

**Table 3 - Budget Summary**

Task	Federal Budget	State Match	Total	Additional Resources
<b>1 Environmental</b>	\$173,327,113	\$326,207,370	\$499,534,483	
<b>2 Preliminary Engineering</b>	\$254,362,236	\$ 82,999,427	\$337,361,663	
<b>3 Other Related Work</b>	\$ 83,009,008	\$106,416,974 <sup>1</sup>	\$189,425,982	
<b>4 Project Administration</b>	\$ 677,872	-	\$ 677,872	
<b>5 Construction Management</b>	\$221,959,777	\$197,267,290	\$419,227,067	\$139,400,000
<b>6 Property Acquisition</b>	\$468,304,427	\$383,970,052	\$852,274,479	\$ 91,105,000
<b>7 Early Works</b>	-	-	-	
<b>8 Final Design &amp; Construction</b>	\$2,109,117,773	\$1,662,939,722	\$3,772,057,495	\$994,541,391
<b>9 Project Reserves</b>	\$161,879,645	\$ 46,267,108	\$208,146,753	
<b>10 Unallocated Contingency</b>	\$ 8,538,380	\$59,508,288	\$68,046,668	
<b>Total</b>	<b>\$3,481,176,231</b>	<b>\$2,865,576,231</b>	<b>\$6,346,752,462</b>	<b>\$1,225,046,391</b>

<sup>1</sup> Includes local funding

The following chapters outline the resources, plans and milestones for FY 16/17 for the tasks of the grant agreement except tasks 4, 7, 9 and 10 – Task 4 is complete; Task 7 was deleted; and use of Task 9 and 10 are detailed in separate reports (Interim Use Plan and the Unallocated Contingency Management Plan respectively).

## Procurement

The power to enter into contracts necessary to carry out the functions of the Authority is provided by the statutes that created the Authority. These statutes include:

- Public Utilities Code § 185033 which gives the Authority the contracting power to enter into contracts with private or public entities for the design, construction and operation of the high-speed rail Program. The contracts may be separated into individual tasks or segments or may include all tasks and segments, including a design-build or design-build-operate contract.
- Public Utilities Code 185036(a) which allows for architecture and engineering (A&E) and other professional service procurements. The Authority issues RFQs and RFPs respectively.
  - A&E procurements are consistent with the requirements of Government Code Section 4525, et seq., and California Code of Regulations Title 21, Division 6, Chapter 1, Article 1.
  - Other professional service procurements are consistent with the requirements of Public Contract Code Sections 10295 and 10335, et seq. For design-build (DB) procurements, the Authority is currently using a two-step process consisting of a request for qualifications followed by a request for proposals.

The overall procurement strategy has been developed through an ongoing process of industry engagement, including issuance of requests for expressions of interest, industry forums and one-on-one meetings. Design-build (DB), as well as other alternative delivery strategies, is under consideration for delivery of the Silicon Valley to Central Valley initial operating segment. Figure 3 (on page 7) highlights some of the major procurement milestones scheduled to deliver the program. In FY 16/17 the Authority expects to release several major procurement packages, including requests for track and systems and train sets.

## Deliverables

The Authority provides FRA with an update of key deliverables once a quarter including:

- Quarterly Progress Reports
- Quarterly Budget Update
- Funding Contribution Plan
- Right-of-Way Acquisition Plan
- Summary Schedule
- Contingency Plan Update
- SF 425 – Federal and State Match Expenditures

In addition, this past year the FRA and the Authority began conducting a quarterly review of all grant required deliverables' due dates and collaboratively revise the due dates as appropriate. Specific deliverables related to each task area are summarized in their respective task below.

## Task 1 Environmental

The environmental review process is conducted in accordance with the requirements of the National Environmental Policy Act (NEPA), the California Environmental Quality Act (CEQA), Section 106 of the National Historic Preservation Act (NHPA), Section 4(f) of the Department of Transportation Act (49 U.S.C. 303), and other applicable environmental laws and regulations (collectively NEPA/CEQA).

Environmental review includes the preparation of environmental documentation for each project section, development of resource agency agreements in support of the NEPA/CEQA process and the process to obtain regulatory agency approvals and environmental permits. A mitigation monitoring system has been established to ensure contractor compliance with the environmental documentation Record of Decision (ROD) mitigation and permit conditions. Should alignment changes be proposed that affect previous clearances, staff is included in change management decision making to ensure environmental requirements are considered and documented as outlined in the Design-Build Program Plan – Project Management Plan.

### Staffing

The environmental team is responsible for coordinating the activities required to environmentally clear and permit the high-speed rail projects to begin construction. They provide guidance on environmental strategies for project clearance, programmatic methodologies and assumptions to meet environmental commitments. The team directs permit activities and provides strategic guidance on permit approaches. In addition, the environmental team provides strategic guidance on the environmental approval process and serves as the liaison with the FRA, the attorney general's office and other federal, state, regional and local agencies, the regional consultants and environmental and engineering consultants, and other environmental consulting firms on environmental work products.

The environmental team also guides the regional consultants and the environmental and engineering consultants, and coordinates with them and other environmental consultants in preparing the environmental studies, documents and subsequent environmental approvals required for implementing high-speed rail construction and operation. The environmental team follows the quality procedures and reviews proposed environmental approach revisions and environmental deliverables submitted by the regional consultants, the environmental and engineering consultants and environmental teams.

The organizational chart shown in Figure 4 illustrates that the Director of Environmental Services provides direction and oversight of the preparation of environmental clearance documents prepared in each region by regional consultants managed by the regional directors. The team is also responsible for securing the permits necessary to begin construction and includes the following leadership positions:

- Director of Environmental Planning
- Deputy Director of Environmental Planning
- Supervising Environmental Planner
- Regional Environmental Manager – South
- Regional Environmental Manager – Central
- Regional Environmental Manager – North
- Special Projects Manager
- Permitting, Mitigation and Compliance Manager





## Agency Coordination

The Authority and FRA have entered into a Memorandum of Understanding with the U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (USACE) to facilitate compliance with the National Environmental Policy Act (NEPA - 42 U.S.C. section 4321, et seq.), the Clean Water Act (CWA – section 404 [U.S.C. section 1344]), and the Rivers and Harbors Action section 14 (33 U.S.C section 408) processes for the project-level (Tier 2) EISs for the ten sections of the program. Three steps in the checkpoint process require concurrence from the EPA and USACE. These steps are integrated with the environmental approval process as noted below:

Checkpoint A – Purpose and need; integrated with the purpose and need definition;

Checkpoint B – Range of alternatives; integrated with the alternatives analysis that leads to the range of alternatives studied in the EIR/EISs; and,

Checkpoint C – Least environmentally damaging practicable alternative (LEDPA); integrated with the selection of the preferred alternative.

The Checkpoint A process has been completed for the Phase 1 sections. Because some sections will not require an individual Section 404 permit for project construction (e.g., San Francisco to San Jose, Burbank to Los Angeles and Los Angeles to Anaheim), it may not be necessary to submit Checkpoint B and C documentation for agency review and concurrence. An EPA and USACE agreement on this approach is anticipated later in 2016. For the remaining sections that will require Checkpoints B and C, work is underway with completion anticipated in FY16/17.

## Schedule

Phase 1 environmental clearances are expected to be completed by December 2017. Major milestones are shared with the Board on a monthly basis; in the Fall of 2016, major milestones will also be submitted to FRA to post to the Federal Permitting Dashboard. As dates change, the Authority will provide FRA with revised schedule information in order to update the dashboard. The Environmental Milestone Schedule and Permitting Milestone Schedules (September 2016) are included in Appendix C – Environmental Milestone and Permits Schedules.

## Budget

The Environmental Review budget is \$499,534,483 and summarized in Table 3 - Budget Summary (on page 7). All federal expenditures related to this task are from the ARRA grant. Each segment's project costs, schedules and status are contained in a monthly Operations Report. The Operations Report is reviewed by the Authority's Board of Directors Finance and Audit Committee on a monthly basis. The most recent Operations Report is located on the Board's Finance and Audit Committee website at [http://www.hsr.ca.gov/Board/monthly\\_fa\\_committee\\_meeting.html](http://www.hsr.ca.gov/Board/monthly_fa_committee_meeting.html)

The Quarterly Budget Update (Appendix B – Detailed Grant Budget) provides a summary of Task 1 by project section. Table 4 below summarizes the budget for each project section as identified in the detailed Quarterly Budget Update (updated September 30, 2016).

Table 4 - Task 1, Environmental Analysis, ARRA Grant Budget

Section <sup>1</sup>	Total
<b>San Francisco – San Jose</b>	\$ 66,007,861
<b>San Jose – Merced</b>	\$161,504,942
<b>Merced – Fresno</b>	\$ 35,339,004
<b>Fresno – Bakersfield</b>	\$ 45,858,851
<b>Bakersfield – Palmdale</b>	\$ 75,065,146
<b>Palmdale – Los Angeles</b>	\$ 86,328,516
<b>Los Angeles – Anaheim</b>	\$ 29,430,163
<b>Total</b>	<b>\$499,534,483</b>

<sup>1</sup> Quarterly Budget Update September 30, 2016

## Regulatory Documentation and Guidelines

Environmental documentation is governed by many laws and regulations. The Authority provides guidance to the regional consultants on preparation of the environmental documentation in order to ensure consistency across all environmental preparers. This guidance includes:

Project-Level Environmental Analysis Methodologies - Provides the methodological guidance for the preparation of technical reports and impact chapters of project-level environmental documents.

[https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Project EIR-EIS Environmental Methodology Guidelines-Version5.02.pdf](https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Project%20EIR-EIS%20Environmental%20Methodology%20Guidelines-Version5.02.pdf);

Additional Guidance for Evaluating Impacts under NEPA – Outlines the analytical approach for identifying, evaluating and documenting environmental impacts under NEPA.

<https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/NEPA%20Impact%20Guidance.pdf>;

Guidance for Preparing Environmental Reviews for Electrical Interconnections – Describes the analytical and documentation steps for evaluating project-related electrical interconnections required for obtaining electrical power for the system.

[https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Env Review for Electrical Interconnections.pdf](https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Env%20Review%20for%20Electrical%20Interconnections.pdf);

Refined Guidance on Project EIR/EIS and Technical Report Content – Clarifies the content to be included in technical reports prepared in support of the EIR/EIS.

[https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Technical Report Preparation Guidance 2016.pdf](https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Technical%20Report%20Preparation%20Guidance%202016.pdf);

Alternatives Analysis Methods for Project-Level Environmental Impact Reports and Environmental Impact Statements (EIR/EIS) – Provides guidance on conducting the alternatives analysis and documenting it in an alternatives analysis report.

<https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Alternatives%20Analysis%20Methods.pdf>;

Independent Utility/Logical Termini of HSR Sections – Outlines the requirement for establishing the logical termini for each of the HSR sections.

[https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Authority Independent Utility Letter 02102009.pdf](https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Authority%20Independent%20Utility%20Letter%20102009.pdf);

Multilingual Public Outreach Guidelines – Sets guidelines for public outreach to meet the Title VI requirements for multilingual outreach.

<https://chsra.pbid.com/pmt/Environmental/VL/07.%20Outreach%20and%20Participation%20Guidance/Guidance%20for%20Multi-lingual%20Public%20Outreach%20Ver%201.pdf>;

US Army Corp of Engineers Section 404/408 Memorandum of Understanding (MOU) – This document establishes the framework for integration of the Section 404/408 permit process with the environmental process.

[https://chsra.pbid.com/pmt/Environmental/VL/06.%20Regulatory%20Permits%20and%20Guidance/NEPA Section%20404 Section 408%20MOU%20Ver%201.pdf](https://chsra.pbid.com/pmt/Environmental/VL/06.%20Regulatory%20Permits%20and%20Guidance/NEPA%20Section%20404%20Section%20408%20MOU%20Ver%201.pdf);

Section 106 Programmatic Agreement for the National Historic Preservation Act Programmatic Agreement – Outlines the requirements and responsibilities for the approval process for the State Historic Preservation Officer (SHPO).

<https://chsra.pbid.com/pmt/Environmental/VL/05.%20Cultural%20Resources%20Guidance/Section%20106%20Programmatic%20Agreement%20Ver%201.pdf>);

Administrative Record Guidance – Describes the steps to organize, assemble and provide the administrative record in support of each individual EIR/EIS.

<https://chsra.pbid.com/pmt/Environmental/VL/03.%20Environmental%20Admin%20Record%20Guidance/20160105%20Revised%20Documentation%20Guidance-%20Admin%20Record%20FINAL.pdf>);

Environmental Compliance Program Manual – Details the key elements of the program and lists the set of standards and procedures. <https://chsra.pbid.com/pmt/Environmental/pa/compliance/Forms/AllItems.aspx>

Environmental Re-examination Guidance – Describes the evaluation and documentation process for design and other changes to the high-speed rail project following environmental approval.

[https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Env%20Re-Exam%20Guidance Complete%20Doc%20\(April%202014\).pdf](https://chsra.pbid.com/pmt/Environmental/VL/01.%20Environmental%20Methods/Env%20Re-Exam%20Guidance%20Complete%20Doc%20(April%202014).pdf)).

## Procurement

Procurement activities planned for FY 16/17 are minor contract amendments for budget and time to complete the environmental deliverables in process. No other major procurements are anticipated.

## Deliverables

The Authority provides the following deliverables to the FRA for each project section:

- Notice of Intent
- Scoping Report
- Agency Coordination Plan
- Purpose and Need Statement
- Alternative Analysis Report

- Administrative Draft EIR/EIS
- Draft EIR/EIS
- Administrative Final EIR/EIS
- Final EIR/EIS
- Record of Decision
- Mitigation and Monitoring Evaluation Plan (MMEP)
- Environmental Re-examinations (as necessary)

To date, the Authority has completed all Notices of Intent, Scoping Reports, Agency Coordination Plans, Purpose and Need Statements and Alternative Analysis Reports for all Phase 1 project sections. Two Final EIR/EIS documents (Merced – Fresno and Fresno – Bakersfield) and permitting activities for commencing project construction in accordance with the project’s Notice of Determination (NOD)/Record of Decision (ROD) have been completed to date. The Authority is in the process of completing supplemental documents on these completed documents.

Table 5 summarizes the deliverables expected to be completed in FY 16/17.

**Table 5 - FY 16/17 Environmental Deliverables**

<b>Deliverable/Section<sup>1</sup></b>	<b>Schedule</b>
<b>Administrative Draft EIR/EIS</b>	
San Francisco – San Jose	4 <sup>th</sup> Qtr 2016
San Jose – Merced	TBD
Bakersfield – Palmdale	TBD
Palmdale – Burbank	TBD
Burbank – Los Angeles	TBD
Los Angeles – Anaheim	TBD
<b>Supplemental Documents</b>	
Bakersfield F Street	4 <sup>th</sup> Qtr 2016
Central Valley Wye	4 <sup>th</sup> Qtr 2016
<b>Draft EIR/EIS</b>	
San Francisco – San Jose	TBD
San Jose – Merced	1 <sup>st</sup> Qtr 2017
Bakersfield – Palmdale	2 <sup>nd</sup> Qtr 2017
Palmdale – Burbank	2 <sup>nd</sup> Qtr 2017
Burbank – Los Angeles	3 <sup>rd</sup> Qtr 2017
Los Angeles – Anaheim	3 <sup>rd</sup> Qtr 2017
<b>Supplemental Documents</b>	
Bakersfield F Street	4 <sup>th</sup> Qtr 2016
Central Valley Wye	1 <sup>st</sup> Qtr 2017

<b>Administrative Final EIR/EIS</b>	
<i>Supplemental Documents</i>	
<b>Bakersfield F Street</b>	TBD
<b>Final EIR/EIS</b>	
<i>Supplemental Documents</i>	
<b>Bakersfield F Street</b>	TBD
<b>Draft Agency Decision Documents (NOD/ROD)</b>	
<i>Supplemental Documents</i>	
<b>Bakersfield F Street</b>	TBD
<b>MMEP</b>	
<i>Supplemental Documents</i>	
<b>Bakersfield F Street</b>	TBD

1 September 2016

The Authority will continue the permitting process, the acquisition and securing of off-site mitigation parcels, and compliance oversight of design-build work. Permitting milestones are summarized in Appendix C – Environmental Milestone and Permits Schedules. These are updated on a monthly basis and shared with FRA Environmental Management staff through standing agency briefings.



## Task 2 Preliminary Engineering

The Authority follows a standard design development process for each segment. Work has focused on the development of design standards, development of preliminary engineering to support environmental documentation and contract procurement and review of contractor submittals and requests for design variances and/or alternative technical concepts. The phases include:

- **Preliminary Engineering** – The Authority provides ongoing oversight of regional consultant developed plans for design consistency across the system. This work supports alternatives development of the various sections in the Phase 1 system.
- **Preliminary Engineering for Project Development (PE4PD) Design** – These plans support draft and final EIR/EIS alternatives, provides an itemized construction cost estimate and conforms with all requirements and commitments included in decision documents (FRA ROD; Authority Board Resolution, CEQA findings, and Mitigation Monitoring and Report Plan). The level of engineering detail in PE4PD design plans is sufficient to determine the required footprint for the high-speed rail program facilities and identify environmental impacts.
- **Preliminary Engineering for Procurement (PE4P) Design** – These plans support procurement of final design and construction services and provide a more detailed construction cost estimate.

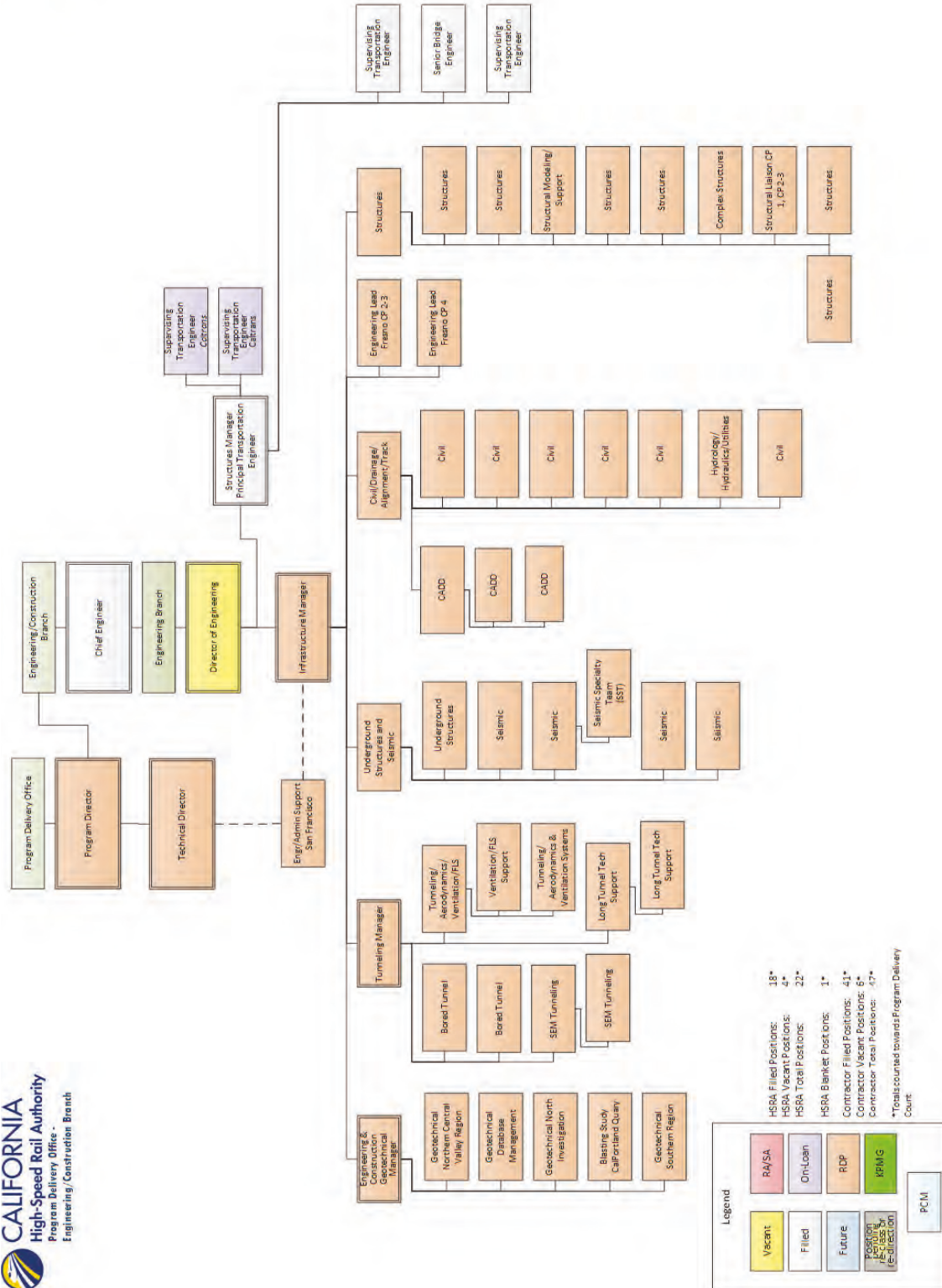
The Authority updates the Design Criteria Manual with new information gathered during preliminary engineering on the various project sections as well as with new information identified through the design-builders. During this fiscal year, the design manual will be updated to include elements of design for stations as well as more refined criteria related to tunneling.

Engineering staff also support the review of various DB contractor proposals related to design refinements and/or variations. This work includes: final design submittal review, design variance requests, constructability reviews, and value engineering.

### Staffing

Planning and conceptual design supports the development of alternatives to be evaluated during the environmental review. Design development is based on the performance criteria contained in the legislation governing the high-speed rail program, and outlined in the business plan. As noted in Figure 5, the Chief Engineer provides direction and oversight of preliminary engineering policy and guidance for the development of plans associated with alignment development for environmental clearance documents. The plans are prepared in each region by regional consultants managed by the regional directors. The team consists of primarily RDP staff that prepares standards and oversees plans prepared by regional consultants and design-build teams for compliance with directed standards. Management roles cover the following engineering areas and include regional lead coordinators in Fresno:

- Infrastructure Manager
- Structures Manager
- Geotechnical Manager
- Tunneling Manager
- Underground Structures and Seismic Manager
- Civil/Drainage/Alignment/Track Manager



### Figure 5 - Engineering Organization

## Schedule

Phase 1 preliminary engineering for environmental clearances is expected to be completed during FY 16/17. The Authority shares major milestones with the Board on a monthly basis and provides regular updates to FRA. The Environmental Milestone Schedule (September 2016) provided in Appendix B highlights when preliminary engineering for project definition, and preliminary engineering for procurement will be completed. This schedule is updated monthly and provided to FRA during monthly resource planning meetings.

## Budget

The preliminary engineering budget is \$337,361,663 and summarized in Table 6. All federal expenditures related to this task are from the ARRA grant. Each segment's project costs, schedules and status are included in the Operations Report, and reviewed by the Authority's Board of Directors Finance and Audit Committee monthly. These costs include preliminary engineering costs for project definition. The most recent Operations Report can be found on the Board's Finance and Audit Committee website at [http://www.hsr.ca.gov/Board/monthly\\_fa\\_committee\\_meeting.html](http://www.hsr.ca.gov/Board/monthly_fa_committee_meeting.html)

The Quarterly Budget Update (Appendix B – Detailed Grant Budget) provides a summary of Task 2 by project section. Table 6 below summarizes the budget for each project section as identified in the detailed Quarterly Budget Update.

**Table 6 - Task 2, Preliminary Engineering, ARRA Grant Budget**

Section <sup>1</sup>	Total
<b>San Francisco – San Jose</b>	\$26,484,517
<b>San Jose – Merced</b>	\$85,582,423
<b>Merced – Fresno</b>	\$16,090,509
<b>Fresno – Bakersfield</b>	\$43,482,519
<b>Bakersfield – Palmdale</b>	\$78,192,522
<b>Palmdale – Los Angeles</b>	\$66,485,509
<b>Los Angeles – Anaheim</b>	\$21,043,664
<b>Total</b>	<b>\$337,361,663</b>

<sup>1</sup> Quarterly Budget Update September 30, 2016

## Regulatory Documentation and Guidelines

The general performance requirements for the system are described in Technical Memorandum 0.3 - Basis of Design Policy, which is a foundation document for the development of design standards and criteria. The specific preliminary engineering design elements required to support environmental reviews are included in TM 0.1- Preliminary Engineering for Project Definition Guidelines. TM 0.1 presents design guidance for the minimum level of engineering required for project definition needed to support the project-specific EIR/EIS process. It further defines design elements, development level and engineering outputs with the objective of providing a consistent approach for developing preliminary engineering documents across project teams, while also ensuring compliance with federal, state and local regulations as well as the program-level design criteria.

There are now over 100 individual TMs. In order to make the TM's more useful to the regional and environmental and engineering consultants, an effort is underway to update, consolidate and organize all TMs into a policy and procedures manual. The technical memorandum defines the major components and performance objectives that support the development of the engineering and regulatory basis for the high-speed rail program, including its components, objectives, processes, requirements and assumptions which are governed by the Authority. The Authority's policies that determine the processes, standards, and subsystems of the high-speed rail system are generally divided to address:

- Program implementation
- Performance requirements
- Infrastructure
- Systems (electrification, train controls and communications)
- Rolling stock
- Maintenance
- Operations

Conceptual engineering in support of programmatic environmental studies was developed based on a review and compilation of existing high-speed rail standards. The standards and criteria reflected the best practices at the time of the program-level studies and serve to support the development of conceptual alternatives applicable to the California environment and terrain.

Through the alignment and station screening evaluation process, a number of alignment and station options were identified, evaluated and defined for further study in the programmatic EIR/EIS. These alignment and station options are developed based on engineering criteria and parameters established for the screening evaluation. The regional teams complete the definition of the alignment and station options and provide the definitions to the environmental teams as the basis of their analyses.

**Technical Memorandum 0.1 - Preliminary Engineering for Project Definition Guidelines:** Presents design guidance for a minimum level of engineering, referred to as preliminary engineering for project definition (PEPD), required to support the project-specific environmental impact report/environmental impact statement process. It defines design elements, development level and engineering outputs with the objective of providing a consistent approach in developing preliminary engineering documents to a level that supports the identification of an inclusive environmental envelope.

[http://www.hsr.ca.gov/docs/programs/eir\\_memos/Proj\\_Guidelines\\_TM0\\_1\\_PE\\_for\\_Project\\_Def\\_Guidelines\\_R4\\_021815.pdf](http://www.hsr.ca.gov/docs/programs/eir_memos/Proj_Guidelines_TM0_1_PE_for_Project_Def_Guidelines_R4_021815.pdf)

**Technical Memorandum 0.3 - Basis of Design:** Defines the major components and performance objectives of the high-speed rail system as envisioned by the Authority, outlining the objectives, requirements, and assumptions for the continuing development of the high-speed rail system. Specifically, it focuses on components, objectives, processes, requirements, and assumptions, which are governed by Authority policy. The policies are divided into program implementation, performance requirements, infrastructure, systems (electrification, train controls and communications), rolling stock and operations.

[http://www.hsr.ca.gov/docs/programs/eir\\_memos/TM%200.3%20Basis%20of%20Design%20R3%20120222%20no%20sigs.pdf](http://www.hsr.ca.gov/docs/programs/eir_memos/TM%200.3%20Basis%20of%20Design%20R3%20120222%20no%20sigs.pdf)

**Design Criteria Manual** – Compilation of all the technical memorandum for individual elements of design.

[http://www.hsr.ca.gov/docs/programs/construction/CP23\\_executed/P13\\_57\\_EX\\_IIIA\\_01\\_Design\\_Criteria\\_Manual.pdf](http://www.hsr.ca.gov/docs/programs/construction/CP23_executed/P13_57_EX_IIIA_01_Design_Criteria_Manual.pdf)

**Technical Memorandum 0.1.1 Preliminary Engineering for Procurement (PE4P)** – provides guidance on elements of design and process to inform bidders on construction packages.

[http://hsr.ca.gov/docs/programs/eir\\_memos/Proj\\_Guidelines\\_TM\\_01\\_1\\_Preliminary\\_Engineering\\_for\\_Procurement\\_Scope\\_R3\\_131224\\_no\\_sigs.pdf](http://hsr.ca.gov/docs/programs/eir_memos/Proj_Guidelines_TM_01_1_Preliminary_Engineering_for_Procurement_Scope_R3_131224_no_sigs.pdf)

**Technical Memorandum 100.07 Value Engineering Implementation Plan -**

<https://chsra.pbid.com/pmt/eng/SitePages/hs-tm.aspx?View={90E58D02-D2C4-4D7E-B64B-7C8176BB6023}&FilterField1=LinkTitle&FilterValue1=TM%20100%2E07%20Value%20Engineering%20Implementation%20Plan>

**Design Variance Request Policy -**

[http://www.hsr.ca.gov/docs/programs/construction/CP23\\_executed/P13\\_57\\_05\\_IVE\\_02\\_Design\\_Variance\\_Request\\_Procedure.pdf](http://www.hsr.ca.gov/docs/programs/construction/CP23_executed/P13_57_05_IVE_02_Design_Variance_Request_Procedure.pdf)

## Procurement

Procurement activities planned for FY 16/17 are minor contract amendments for budget and time to complete environmental deliverables in process. No other major procurements are anticipated.

## Deliverables

The Authority provides the following deliverables to the FRA related to Task 2:

- PE to Support Environmental Review
- Design Manual (Technical Memorandums)
- CONOPS for the FCS
- Rolling Stock Performance Specifications
- System Safety and Security Management Plan (SSMP)

To date, two Final EIR/EIS documents (Merced – Fresno and Fresno – Bakersfield) and have been completed. In addition, in progress drafts of the Design Manual, FCS CONOPS Plan, Rolling Stock Performance Specifications and SSMP have been provided. The Authority will complete preliminary engineering and update all plans in FY 16/17.

**Table 7 - FY 16/17 Engineering Deliverables**

Deliverable/Section <sup>1</sup>	Schedule
<b>PE to Support Environmental Review</b>	
San Francisco – San Jose	1 <sup>st</sup> Qtr 2017
San Jose – Merced	2 <sup>nd</sup> Qtr 2017
Bakersfield – Palmdale	2 <sup>nd</sup> Qtr 2017
Palmdale – Burbank	2 <sup>nd</sup> Qtr 2017
Burbank – Los Angeles	3 <sup>rd</sup> Qtr 2017
Los Angeles – Anaheim	3 <sup>rd</sup> Qtr 2017
<i>Supplemental Documents</i>	

<b>Bakersfield F Street</b>	4 <sup>th</sup> Qtr 2016
<b>Central Valley Wye</b>	1 <sup>st</sup> Qtr 2017
<b>Design Manual Update</b>	4 <sup>th</sup> Qtr 2016
<b>CONOPS for the FCS and any other operating segments</b>	4 <sup>th</sup> Qtr 2016 (update)
<b>Rolling Stock Performance Specifications</b>	3 <sup>rd</sup> Qtr 2016
<b>Systems Safety and Security Management Plan (SSMP)</b>	3 <sup>rd</sup> Qtr 2016



## Task 3 Other Related Work

The Authority performs additional work required prior to the start of construction for each section. The areas covered under this task include:

- **Station Area Planning** – Work completed by the RC’s to support the environmental documentation phase as well as support to local jurisdictions to evaluate land use and access planning around stations
- **Right-of-Way (ROW) Work** – Work to support the identification of properties for environmental evaluation that establishes the footprint for environmental analysis and identification of the acquisition and relocation plan
- **Ridership Forecasting** – Updates to ridership forecasts to support financial planning and operational development needs related to concessionaire planning
- **LAUS/SoCal Investments** – ROW preservation

### Staffing

**Station Area Planning:** Over the past year, planning staff has put a substantial emphasis on executing its station area planning contracts and developing working relationships with Phase 1 station cities. This work ensures coordinated infrastructure planning for the future high-speed rail stations. The Authority is working with stakeholders on station design and station area plans, access planning, land use changes, creating community hubs, defining the environmental footprint and massing, and mitigations. The Authority’s planning team has provided technical assistance to the station cities helping with procurements, public involvement, and district scale planning (coordinating infrastructure investments, high-speed rail’s high-performance station design criteria, and access planning at the station with the station area). Civic Spark Fellows (an AmeriCorps program) are also being provided as additional support to station cities. The Director of Planning and Integration reports to the Chief Program Manager and is made up of a mix of Authority and RDP staff. The staff develop policies and procedures for station planning, design standards for stations and coordinates with station cities on station area planning. Management roles cover the following primary areas:

- Transportation Planning and Local Support
- Station Development and Design
- Sustainability

**Right-of-Way:** To construct the various segments of California’s high-speed rail system in the Central Valley, the Authority must acquire nearly 1,200 properties and land parcels. Accordingly, the Authority has a standard government transportation ROW function to conduct land surveys, prepare maps, prepare deeds, appraise property, acquire property, plan for utility relocation, and provide relocation assistance to homeowners and businesses. The right-of-way function also provides other property-related services such as managing encroachments, addressing damage to private property, coordinating permits, and providing escrow and title services. Efforts related to this task are focused on support for the environmental documentation phase. For more detailed information related to the ROW program staffing see Chapter 5, Real Property Acquisition and Environmental Mitigation.

**Ridership Forecasting:** The ridership forecasting team is part of the Financial Office, Commercial Division. It is led by the Deputy Director Commercial and focuses on modeling to support the Authority’s financial planning efforts. The work is primarily overseen by RDP staff and conducted by Cambridge

Systematics, an RDP sub-consultant. As the construction progresses, the program management team will continue to monitor the schedules for critical high-speed rail business plan milestone years (including the first leg of the initial operating segment [Silicon Valley to Central Valley] and passenger operations) which include testing, commissioning and start of service activities. This involves the integrated plans and schedules for bringing into service the track and systems elements as well as operations and maintenance facilities thereby completing the system commissioning milestone.

**LAUS ROW Preservation:** ARRA funding has been identified to purchase ROW in and adjacent to LAUS, including dedicated platforms and tracks within LAUS, and land to accommodate up to ten run-through tracks for future use. Since February 2011, staff is working closely with Metro on planning, environmental, and preliminary engineering activities in order to accommodate these purchases. This effort is managed by the Southern California Regional Director.

## Schedule

Appendix D – Summary Schedule (September 2016) provides an overview of the Task 4 activities. The next year will focus on the completion of station area planning in Phase 1 station cities and completion of the LAUS ROW procurement.

**Station Area Planning:** Although the Authority has actively engaged with station cities advance station area planning activities within the ARRA expenditure period, the station cities have taken and/or needed more time than anticipated to procure contractors and initiate their station area planning activities. The station cities could not reach the projected ARRA budget level or timeline to fully expend this line-item allocation. Therefore, on October 28, 2016, the Authority submitted a GARF to transfer \$2,800,000 of the Station Area Planning allocation to construction activities (Task 8). The schedule for each station area plan can be found on the Summary Schedule Update under Task 3 for each project section.

**Right-of-Way:** In order to accelerate ROW purchases, FRA has granted the Authority the use of a Working Capital Advance (WCA). This has helped accelerate the purchase of high value properties. Specific properties are identified and the Authority provides the FRA an update on the status of expenditures on a monthly basis. The Authority will continue with the WCA process throughout FY 16/17. In addition to the Quarterly Schedule Update identified above, the Authority also provides FRA with a quarterly ROW acquisition update. The latest update can be found at <https://chsra.pbid.com/pmt/gm/Deliverables/Forms/AllItems.aspx> by sorting on the deliverables pull down menu for ROW Acquisition Plan.

**Ridership Forecasting:** Work over FY 16/17 the model will support the efforts of the environmental team to complete the Phase 1 documentation. The model will also be evaluated for possible updates to support financial modeling needs. No major updates are planned this FY.

**LAUS ROW Preservation:** The Quarterly Schedule update includes the schedules for the Burbank-LA and LA-Anaheim project sections which will incorporate improvements at Los Angeles Union Station (LAUS). The Authority is actively coordinating with LA Metro to incorporate high-speed rail into the LAUS. As LA Metro advances plans and environmental clearance, the Authority is reviewing technical and engineering concepts as LA Metro identifies a preferred alternative and publishes the draft EIR/EIS for LinkUS. All grant-associated LAUS ROW acquisitions are expected to be finalized by the Spring of 2017.

## Budget

The budget for Task 3 Other Related Work is \$189,425,982 summarized in Table 8 below. All federal expenditures related to this task are from the ARRA grant. The Quarterly Budget Update (Appendix B – Detailed Grant Budget) provides a summary of Task 3 by project section. Table 8 below summarizes the budget for each project section as identified in the detailed Quarterly Budget Update. This task also includes other local funding as part of the anticipated state match for the station area planning and LAUS sub-tasks. In addition, a separate sub-task has also been created for pre-construction planning and legal services related to pre-construction efforts.

**Table 8 - Task 3, Other Related Work, ARRA Grant Budget**

Section <sup>1</sup>	ARRA	State	Local	Total
<b>3.1 Station Area Planning (RC)</b>	\$4,681,420	\$4,856,623		\$9,538,043
<b>3.2 ROW Work (RC)</b>	\$5,719,426	\$5,933,475		\$11,652,901
<b>3.3 ROW Work (RDP)</b>	\$237,231	\$246,109		\$483,340
<b>3.4 Ridership Forecasting</b>	\$1,662,521	\$1,724,741		\$3,387,262
<b>3.5 Construction Planning/ Procurement Support</b>	\$2,009,773	\$2,084,989		\$4,094,762
<b>3.6 Station Area Planning<sup>2</sup></b>	\$2,700,000	\$4,200,000	\$4,100,000	\$11,000,000
<b>3.7 LAUS/SoCal Investments<sup>2</sup></b>	\$32,000,000		\$48,000,000	\$80,000,000
<b>3.8 Legal Services – pre construction</b>	\$33,998,637	\$35,271,037		\$69,269,674
<b>Total</b>	<b>\$83,009,008</b>	<b>\$54,316,974</b>	<b>\$52,100,000</b>	<b>\$189,425,982</b>

<sup>1</sup> Quarterly Budget Update September 30, 2016

<sup>2</sup> Includes local funding

## Regulatory Documentation and Guidelines

**Station Area Planning:** The Authority works with stakeholders on station design and station area plans. This work begins with siting and defining the environmental footprint and sizing of the station. In addition, staff is also working collaboratively with each Phase 1 station city to address transportation access planning, identify land use changes, and developing community transportation hubs.

The station cities are key stakeholders for the program. Federal and state funding is allocated toward the development of station areas. The funding is dedicated to support station area planning and local land use decisions related to transit-oriented development, joint development and other transit-supportive enhancement opportunities. Interagency agreements have been executed with all but one station city (Millbrae). The agreements outline the station access and development plan partnership between the city and the Authority.

The Authority has developed a variety of guidelines, plans and procedures for use by designers, local jurisdictions and other stakeholders in initiating and carrying out this process:

- High-Speed Train Station Area Development: General Principles and Guidelines – Outline of the Authority’s general principles and guidelines for station area development.  
[https://chsra.pbid.com/sites/ao/pm/pub/pf/POLI-PLAN-01%20HST Station Area Development General Principles and Guidelines.pdf](https://chsra.pbid.com/sites/ao/pm/pub/pf/POLI-PLAN-01%20HST%20Station%20Area%20Development%20General%20Principles%20and%20Guidelines.pdf)
- California High-Speed Train Project: Urban Design Guidelines – A comprehensive planning guide that provides domestic and international examples of station area design, urban design and transit-

oriented development. This guide includes simple diagrams that analyze and explain successful public places and how each promotes livability and transit use. Urban design implemented around high-speed rail stations can encourage destination stations and enhance the value of the surrounding community. The report is intended to be used by cities and communities throughout the state as they work with their stakeholders and residents to create a vision for their high-speed rail station areas.

[http://www.hsr.ca.gov/docs/programs/green\\_practices/sustainability/Urban%20Design%20Guidelines.pdf](http://www.hsr.ca.gov/docs/programs/green_practices/sustainability/Urban%20Design%20Guidelines.pdf)

- Station Deliverables for PEPD and Environmental Documents Memorandum - Defines station planning deliverables for use in preliminary engineering for project definition deliverables and project-level draft environmental documents. This memorandum clarifies how to develop conceptual station plans.  
<https://chsra.pbid.com/pmt/pln/plndocs/Station%20Deliverable%20Memo%2005.27.16.pdf>
- Project Design Criteria Manual Chapter 14 Stations – Presents station design principles and goals as well as space requirements, passenger amenities, station performance, circulation, connections and safety and security for high-speed rail preliminary and final station design. The intended use of this chapter relates to high-speed rail dedicated stations as well as facilities shared in existing stations with other transportation agencies, owners and operators. Because high-speed rail station ridership is expected to increase over time, not all functions referenced in this document will be included in all initial station programs; instead, construction will occur in a staged or phased manner as the high-speed rail system expands.  
[https://chsra.pbid.com/pmt/pln/plndocs/Des%20Crit%20Manual%20Chap14%20Stations%20%2031Mar2016\\_Submittal%20Issued.pdf](https://chsra.pbid.com/pmt/pln/plndocs/Des%20Crit%20Manual%20Chap14%20Stations%20%2031Mar2016_Submittal%20Issued.pdf)
- Station Area Parking Guidance Technical Memorandum – Defines appropriate station area parking to be evaluated for the draft project-level environmental documents. As such, this technical memorandum defines the maximum possible footprint without taking into account how changes in local land use and transit connectivity can influence parking demand. This technical memorandum explains the desired parking approach, including cost and layout, along with the process for implementation including Authority, local and private-sector responsibilities.  
<https://chsra.pbid.com/pmt/pln/plndocs/Revised%20Station%20Area%20Parking%20Guidance%20with%20signatures.pdf>

Vision California – An effort to explore the critical role of land use and transportation investments in meeting the environmental, fiscal and public health challenges facing California today and in the future. New modeling tools are applied to formulate and compare scenarios for how California can accommodate growth based on policy decisions and development patterns.

[http://www.hsr.ca.gov/Programs/Green\\_Practices/sustainability.html](http://www.hsr.ca.gov/Programs/Green_Practices/sustainability.html)

- UC Berkeley Research on the Potential for Transit-Oriented Development in the Central Valley - These reports, prepared with the support of the Authority, examine the potential for transit-oriented development around high-speed rail stations in the Central Valley. They focus on proposed stations sites in the cities of Stockton, Merced, and Fresno and presents planning approaches and design concepts for land use, urban design and multimodal access and circulation in and around the proposed high-speed rail station areas. [http://www.hsr.ca.gov/Programs/Green\\_Practices/sustainability.html](http://www.hsr.ca.gov/Programs/Green_Practices/sustainability.html)

**Right-of-Way:** For more detailed information related to the ROW program see Task 6, Real Property Acquisition and Environmental Mitigation.

**Ridership Forecasting:** Documentation related to the development of the Authority's ridership and revenue forecasting can be found on the Authority's website at

[http://www.hsr.ca.gov/About/ridership\\_and\\_revenue.html](http://www.hsr.ca.gov/About/ridership_and_revenue.html). Information can be found on the California

High-Speed Rail Ridership and Revenue Model, Version 3 Model Documentation completed by Cambridge Systematics, February 17, 2016. In addition, reports from the Authority's Ridership Technical Advisory Panel can also be found.

## Procurement

Procurement activities planned for FY 16/17 are minor contract amendments for budget and time to complete station area planning or ROW planning activities. No other major procurements are anticipated.

## Deliverables

The following deliverables scheduled for FY16/17 are below. To date, in progress drafts of the ROW Procedures Manual and FCS Contingency Plan have been provided to FRA. ROW Acquisition Plans for the FCS are provided quarterly.

**Table 9 - FY 16/17 Other Related Work Deliverables**

<b>Deliverable<sup>1</sup></b>	<b>Schedule</b>
<b>Station Area plans</b>	2 <sup>nd</sup> Qtr 2017
<b>ROW Procedures Manual</b>	2 <sup>nd</sup> Qtr 2017
<b>ROW Acquisition Plan for the FCS</b>	Quarterly
<b>FCS Contingency Plan (Update)</b>	4 <sup>th</sup> Qtr 2016

<sup>1</sup> September 2016

## Task 5 Program, Project and FCS Construction Management

This task focuses on the overall management of the program and construction oversight of the design-builders. Deliverables in this area focus on the overall program and project management and construction oversight provided by the Project Construction Managers (PCM).

### Staffing

Together, the Authority and RDP form an integrated organization. The Authority provides overarching program oversight and policy direction, and the RDP manages, monitors and oversees the program's operations and progress. The organization is broken down into four primary areas which include:

**Program Management:** Program management is overseen by the Director of Program Operations and a Program Controls Manager. They are responsible to provide recommendations and support related to program delivery approach and master program planning such as oversight of program controls including program scope, cost, and schedule.

**Program Delivery:** This area is overseen by Program Director who oversees both Program and Project Delivery to ensure coordination between Program technical expertise as well as individual construction project support. This area is supported by Regional Directors responsible for project and community coordination and delivery in the Northern, Southern and Central Valley regions. On-site functional teams are assigned responsibility for program delivery. Each team oversees and monitors the performance of associated work packages under their assigned disciplines (environmental, engineering, ROW, and etc.) Part of program delivery includes providing the specialized technical resources which may include, but not be limited to, tunneling, seismic design, high-speed rail systems (track electrification, train control, signaling, and communications), trainsets, track work, heavy maintenance facilities, high-speed rail system testing and commissioning, and facility operations and maintenance.

**Project Delivery:** Project Delivery includes the overall planning, coordination, and control of construction. The Program Director and Chief Engineer have overall responsibility for the execution of the construction work program. The construction project manager is responsible for managing both the construction team and the functional resources needed for the construction project, including the DB contractor. Assigning the project manager the responsibility of managing both the personnel and resources required for a specific project results in creating a single point of contact and accountability for each project as well as program wide consistency across each of the projects comprising the high-speed rail program. For more information on the construction organization see Task 8, Final Design and Construction Contract Work.

**Project & Construction Management:** The Chief Engineer and Construction Branch Manager oversee the overall organization with support from Authority construction contract managers and the PCM's. The Authority has also retained the services of specialty project and construction management (PCM) firms to provide on-site management expertise and staff to oversee the DB contracts. The PCM oversees and directs field inspectors, and work closely with the design-builder to assist in coordination with agencies and utility companies. PCM's also assist the design-builder in making field decisions to address conditions and/or activities that could impact budget or schedule. The PCM's for each construction project are:



- CP 1 – PGH Wong Engineering
- CP 2-3 – ARCADIS U.S. Inc.
- CP 4 – HNTB Corporation

The Authority primarily manages oversight activities from its headquarters program offices in Sacramento; project managers, project staff, the PCM and the DB are located in local construction project offices. This co-location enhances communication between all parties, expedites the DB approach and provides onsite oversight and coordination.

## Schedule

Appendix D – Summary Schedule (September 2016) provides an overview of the PCM schedule for each construction project. All other activities and deliverables related to this task will be performed over the ARRA and FY10 period of performance as required.

## Budget

The Task 5 budget is \$419,227,067 and is summarized in Table 10 below. Expenditures related to Program Management and Legal Services are covered only in the ARRA and State funds budget. The budget below reflects the executed amounts for PCM contracts for CP 1 through CP 4.

**Table 10 - Task 5, Program, Project and FCS Construction Management Budget**

Sub Task <sup>1</sup>	ARRA	State	FY10	State	Total	Additional State
<b>5.1 Program Management</b>	\$126,599,146	\$132,202,936	0	0	\$258,802,082	\$139,400,000
<b>5.2 Project Construction Management (PCM)</b>	\$48,748,955	\$50,906,782	\$44,500,052	\$11,952,478	\$156,108,267	
<b>5.3 Legal Services</b>	\$2,111,624	\$2,205,094	0	0	\$4,316,718	
<b>Total</b>	<b>\$177,459,725</b>	<b>\$185,314,812</b>	<b>\$44,500,052</b>	<b>\$11,952,478</b>	<b>\$419,227,067</b>	

<sup>1</sup> Quarterly Budget Update September 30, 2016

## Regulatory Documentation and Guidelines

**Management and Program/Project Controls:** Program management policies, procedures and tools are utilized to manage and control the delivery of the scope, budget and schedule commitments of the overall program. The program controls plan provides a functional overview of the control processes for managing the scope, budget and schedule at the program-level, whereas the regional project management plans address the specific control processes for managing scope, budget and schedule for each project. More detailed information is included in the Chapter 5, Management and Program/Project Controls of the Program Management Plan.

**Project Construction Management Manual (PCMM):** Establishes uniform guidelines and procedures in contract management and administration and design and construction oversight for each design-build contract. The PCMM addresses responsibilities subsequent to the award of contracts. It also presents, interprets and clarifies established general policies and practices applicable to the work, dealing with

various situations that may arise. The PCMM can be found on the Authority's web site at: [https://www.hsr.ca.gov/docs/programs/construction/PCM\\_Manual\\_Rev\\_0.pdf](https://www.hsr.ca.gov/docs/programs/construction/PCM_Manual_Rev_0.pdf). Various procedures and policies provide a framework for:

- Program structure and organization
- Contract administration
- Communication/documentation/reports
- DB contract submittals
- Verification, validation and self-certification
- Interface management and coordination
- Quality management
- Safety and security
- Schedule control
- Changes and claims
- Right-of-way
- Public involvement
- Completion and closeout

**Design-Build Program Plan:** The design-build program plan (DBPP) outlines the Authority's approach to project delivery and identifies the project implementation procedures and methods established by the Authority to achieve successful design-build project delivery. FRA approved the final plan in April 2016 and it is located on the FRA sharepoint site at: <https://chsra.pbid.com/pmt/gm/Deliverables/DBPP-PMP%20FCS%20CHSRA%20Final%20042016.pdf>

## Procurement

No significant procurements to complete the deliverables associated with this Task are anticipated.

## Deliverables

The following deliverables are scheduled for FY16/17.

**Table 11 - FY 16/17 Program, Project, and FCS Construction Management Deliverables**

Deliverable <sup>1</sup>	Schedule
<b>Annual Work Plan</b>	4 <sup>th</sup> Qtr 2016
<b>Program Management Plan</b>	4 <sup>th</sup> Qtr 2016
<b>Central Valley Project Financial Plan</b>	4 <sup>th</sup> Qtr 2016
<b>Phase 1 Program Financial Plan</b>	4 <sup>th</sup> Qtr 2016
<b>RFP's/NTP's for Design/Construction Services</b>	
<b>CP 5 RFP</b>	4 <sup>th</sup> Qtr 2016
<b>Network Integration Plan</b>	3 <sup>rd</sup> Qtr 2016
<b>Updated Service Development Plan</b>	2 <sup>nd</sup> Qtr 2017
<b>Infrastructure Maintenance Plan (update)</b>	2 <sup>nd</sup> Qtr 2017
<b>Rolling Stock Maintenance plan (update)</b>	2 <sup>nd</sup> Qtr 2017

<sup>1</sup> September 2016

## Task 6 Real Property Acquisition and Environmental Mitigation

Task 6 focuses on ROW delivery for construction and property associated with environmental mitigation. The ROW team maps, appraises, and acquires parcels and provides relocation assistance (associated with ROW) needed for CP1, CP2-3 and CP4. Emphasis in FY 16/17 is to continue to acquire property for construction and begin to focus on future property management activities. ROW schedules and costs are reported on a quarterly basis.

### Staffing

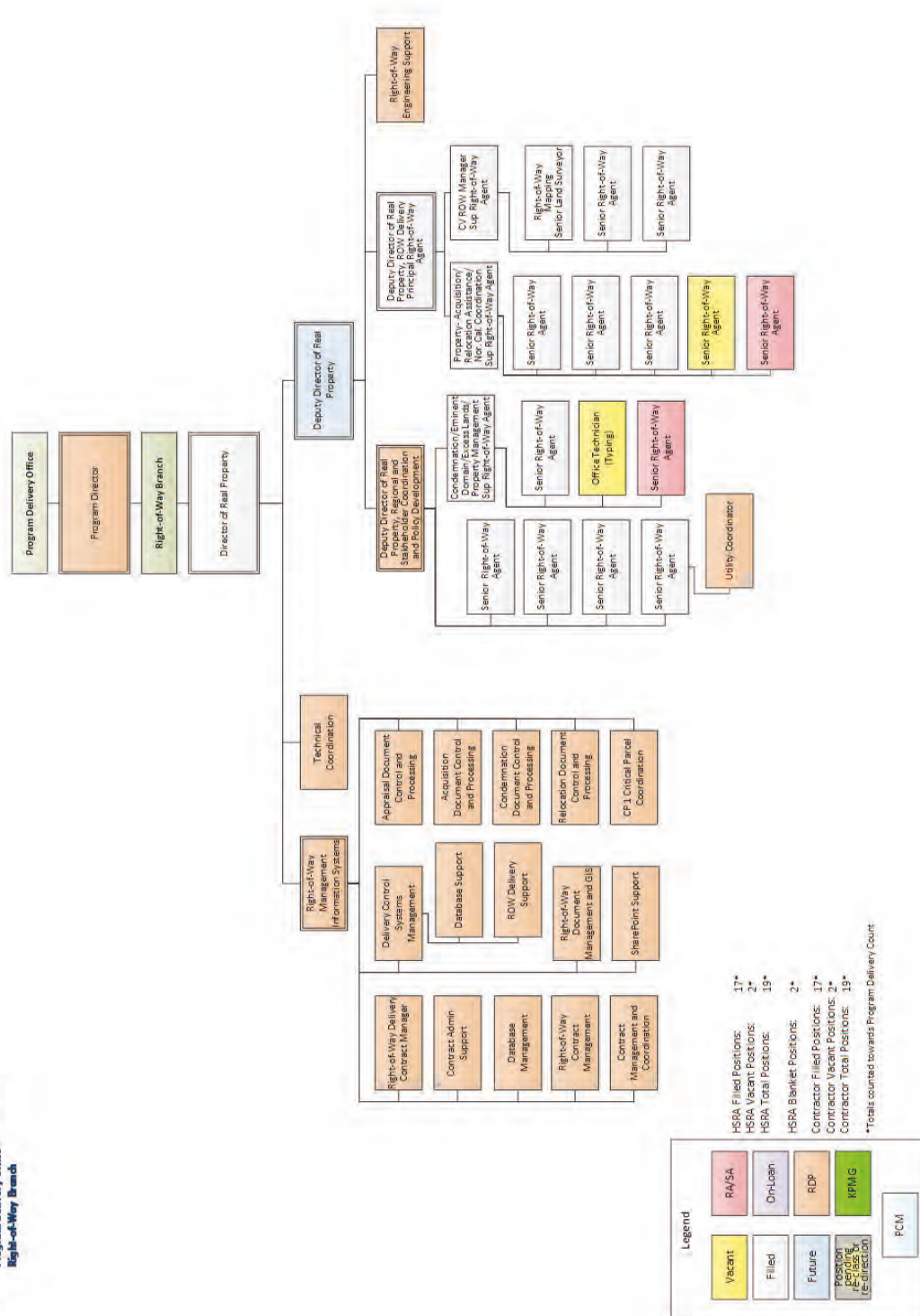
ROW is managed by the Director of Real Property and reports to the Program Director. The Director is supported by a manager of ROW information, and a Deputy Director of Real Property that oversees Authority agents who oversee the work of ROW consultants. The Authority's ROW division managers are located in the Sacramento headquarters office, in the Central Valley regional office in Fresno, the Southern California regional office in Los Angeles and the Northern California regional office in San Jose. The organization is shown on Figure 6. ROW consultants are responsible for performing ROW appraisal and acquisition services, including:

- Issuing initial letters to the property owners (Notice of Determination to Appraise [NODA])
- Conducting appraisals
- Issuing the first written offers
- Conducting negotiations
- Preparing the administrative settlement memo
- Issuing revised offers
- Establishing and providing relocation benefits and educating affected property owners about the benefits
- Preparing the acquisition quality checklist
- Preparing the memorandum of appraisal updates, the declaration of value and close escrow and the resolutions of necessity (RONs) needed for the condemnation process

### Agency Coordination

The ROW process involves extensive coordination with other agencies which include:

- California State Public Works Board (PWB): This independent agency of the state was created to oversee fiscal matters associated with construction of projects for state agencies. Under the California Property Acquisition Law, the PWB is authorized to approve real estate transactions. Before an offer of just compensation is approved, the PWB reviews the project and its budget and makes an initial determination that the state has the legal authority to purchase the property in question.
- California Department of General Services (DGS): The Real Property Services Section (RPSS) reviews and approves each parcel appraisal for just compensation prior to a written offer for acquisition. Upon execution of the parcel's ROW contract, the Real Property Services Section reviews and recommends approval.
- California Department of Finance (DOF): The Capital Program Branch reviews and executes ROW agreements for compliance with budgetary and project authority for the parcel acquisition.



### Figure 6 - Right-of-Way Organization

- California Department of Transportation: The Legal Division provides legal review and representation for ROW contracts, and performs legal services for cases of eminent domain through the Effective Order of Possession.

## Schedule

The Authority shares major milestones and the current status of ROW procurement with the Board on a monthly basis and provides quarterly updates to FRA. This information about the work in progress is shared in a monthly operations report. The most updated version can be found on the Board's Finance and Audit Committee website at [http://www.hsr.ca.gov/Board/monthly\\_fa\\_committee\\_meeting.html](http://www.hsr.ca.gov/Board/monthly_fa_committee_meeting.html)

Information is also shared quarterly with FRA. The latest update can be found at <https://chsra.pbid.com/pmt/gm/Deliverables/Forms/AllItems.aspx> by sorting on the deliverables pull down menu for ROW Acq Plan.

In July 2016, the FRA approved the Authority's request for the use of a \$60,000,000 working capital advance (WCA). Access to the WCA allowed the Authority to expedite several critical-path property acquisitions in CP 1 and CP 2-3. The Authority fully expended the initial \$60,000,000 WCA by the September 28, 2016 due date. In October 2015, the Authority requested a second WCA of \$65,000,000 to expedite the ROW acquisition process and correlative construction activities.

## Budget

The Task 6 budget is \$852,274,479 and is summarized in Table 12. Currently ARRA federal funding for preliminary ROW and environmental mitigation is through the ARRA grant. These activities will continue beyond the ARRA September 2017 performance period, with future funding covered by state resources.

The Authority executed a WCA in August 2016 and fully expended the initial \$60 million requested within August-September. The second WCA request of \$65,000,000 (approval pending at the time of this report) will enable an expedited ROW acquisition process and completion.

**Table 12 - Task 6, Real Property Acquisition and Environmental Mitigation Budget**

Sub Task <sup>1</sup>	ARRA	State	FY10	State	Total	Additional State
<b>6.1 Real Property – Preliminary ROW</b>	\$13,311,325	\$11,016,061	0	0	\$24,327,386	
<b>6.2 Real Property – ROW Services and Relocation</b>	\$93,438,986	\$77,327,358	\$3,092,482	\$3,850,622	\$177,709,448	\$ 9,987,112
<b>6.3 Real Property – Environmental Mitigation</b>	\$29,489,968	\$24,405,032	0	0	\$53,895,000	\$46,313,298
<b>6.4 Real Property – ROW Acquisition</b>	\$323,079,364	\$267,370,979	\$5,892,302	0	\$596,342,645	\$34,804,590
<b>Total</b>	<b>\$459,319,643</b>	<b>\$380,119,430</b>	<b>\$8,984,784</b>	<b>\$3,850,622</b>	<b>\$852,274,479</b>	<b>\$91,105,000</b>

<sup>1</sup> Quarterly Budget Update September 30, 2016

## Regulatory Documentation and Guidelines

In support of the high-speed rail program and in compliance with federal and state mandates required by the California Property Acquisition Law and the Federal Uniform Relocation Assistance and Real Estate Property Acquisition for Federal and Federally Funded Policies Act of 1970, the Authority has developed policies and procedures for the appraisal, acquisition and management of real property.

**ROW Manual:** The Authority developed the program's right-of-way manual, which includes policies and procedures for acquiring and managing property rights through purchase, easement, lease or other legal instruments including, when necessary, condemnation. These policies and procedures are being utilized consistently throughout the program.

**Right-Of-Way Acquisition Plan:** The Authority prepares a right-of-way acquisition plan for each project (divided into construction packages) once a preferred alignment has been identified and preliminary design has been completed. The acquisition plan gives priority to parcels needed for long-lead construction activities and parcels that may have complicated relocation management matters. The acquisition plan is supported by a right-of-way cost estimate based on preliminary engineering plans. Land values, improvements and damages for each property are considered in the development of the right-of-way estimate, which includes costs for temporary and permanent easements, utility easements and fee acquisitions along with a contingency for condemnation increments and settlements. Relocation expenses are also included in the estimate for those acquisitions involving displacements and/or personal property moves. Assumptions for business displacements and relocation payments are based on the right-of-way relocation plan.

**Property Management Plan:** Maintenance and protection of property interests acquired in the name of the State of California are provided by the property acquisition agent until control of the property is transferred to the contractor. The property acquisition agent is required to maintain an inventory of real property and improvements acquired for the project. Additional responsibilities assigned to the property acquisition agent include protecting the property from vandalism, encroachment or other misuse prior to turnover to the contractor.

**Right-of-Way Data Exchange System (ROWDES):** In addition to the right-of-way manual, the Authority uses this internal reporting system to track right-of-way acquisition and management. This database is used to manage every parcel acquired by the Authority. ROWDES contains modules for each step of the acquisition/management process, including appraisals, acquisition, condemnation, costs, etc. The data generated by ROWDES enables the generation of weekly reports on ROW status and is used to produce the Board monthly and FRA Quarterly reports.

## Procurement

In FY16/17 the Authority expects to award two additional contracts. The additional contracts include:

- ROW Services: Work related to environmental assessments, appraisals, acquisition and relocation services. (Anticipate awarding multiple contracts.)
- ROW Engineering: Work related to boundary surveys, appraisal maps, legal descriptions, title research for the San Jose to Madera section. (Expect to award up to four contracts.)
- ROW Property Management Services: Management of parcels once acquired, transfer to the DB for construction and final overall disposition of excess properties. (Will award up to four contracts.)



In addition, minor contract amendments may also be necessary to existing contracts to ensure the timely delivery of ROW for construction.

### **Deliverables**

The Authority provides FRA an update on ROW acquisition as part of its quarterly reporting. In addition, monthly reports will continue related to WCA ROW activities and expenditures. The latest acquisition update can be found by sorting on the deliverables pull down menu for ROW Acq Plan at the following link: <https://chsra.pbid.com/pmt/gm/Deliverables/Forms/AllItems.aspx>

## Task 8 Final Design and Construction Contract Work

The First Construction Segment (FCS) is approximately 118 miles traversing the Central Valley from northern Madera County to Shafter. The alignment is broken into four civil construction packages and one track work construction package (Figure 7). The five construction packages include:

- **SR 99 – Civil Infrastructure** – Caltrans is designing and constructing roadway improvements to support the high speed train infrastructure from Ashlan Avenue to Clinton Avenue in Fresno
- **CP 1 – Civil Infrastructure** – Avenue 19 (Madera) to East American Avenue (Fresno), 31 miles
- **CP 2-3 – Civil Infrastructure** – East American Ave (Fresno) to one mile north of Tulare/Kern County line, 65 miles
- **CP 4 – Civil Infrastructure** – One mile north of Tulare/Kern County line to Poplar Avenue north of Bakersfield, 22 miles
- **CP 5 – Track** (also known as Rail Infrastructure, RI1) – including systems, communications, signaling, and overhead power for CP1, CP2-3 and CP4

The following contractors have been procured to date:

- CP 1 was awarded to Tutor Perini/Zachry/Parsons (TPZP) Joint Venture in 2013
- CP 2-3 was awarded to the Dragados/Flatiron Joint Venture in 2015
- CP 4 was awarded to California Rail Builders: Farrovial Agroman US Corp in 2016

### Staffing

Chapter 3 of the DBPP outlines the roles and responsibilities of the Authority and the various contractors and consultant resources used to manage the DB construction. The plan was approved by FRA in April 2016 and can be found at <https://chsra.pbid.com/pmt/gm/Deliverables/DBPP-PMP%20FCS%20CHSRA%20Final%20042016.pdf>

The project director leads each construction section and has the overall responsibility for all construction elements including design, construction, ROW, third parties, project delivery, etc. The project director is supported by a project manager whose primary responsibility is to coordinate all the external and third party elements. A design and construction manager is the contract manager for each DB and PCM contract (Figure 8). They ensure effective coordination between the project team and the DB contractor. The project director is the Authority's lead representative for each construction project and the design and construction manager is the lead representative for DB and PCM contract issues.

The Authority has hired Project and Construction Management (PCM) firms (discussed in Task 5, Program, Project and FCS Construction Management) to oversee DB contract compliance. These firms provide on-site project and construction management services covering areas such as project pre-planning and programming; procurement, design and construction support; commissioning; testing; claims; and post construction services.

- Wong+Harris provides on-site oversight for CP 1
- Arcadis was procured for CP 2-3
- HNTB was procured for CP 4

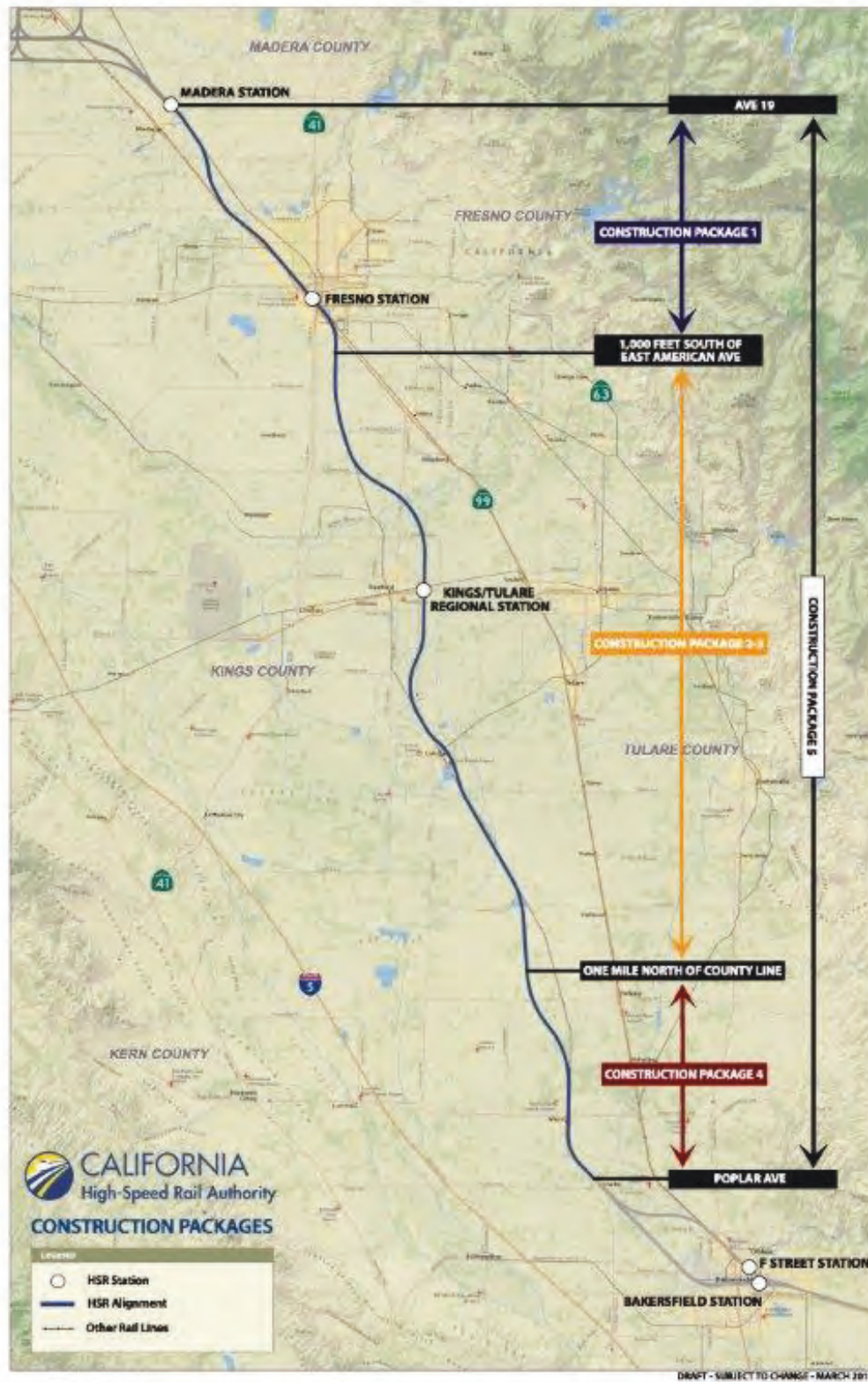
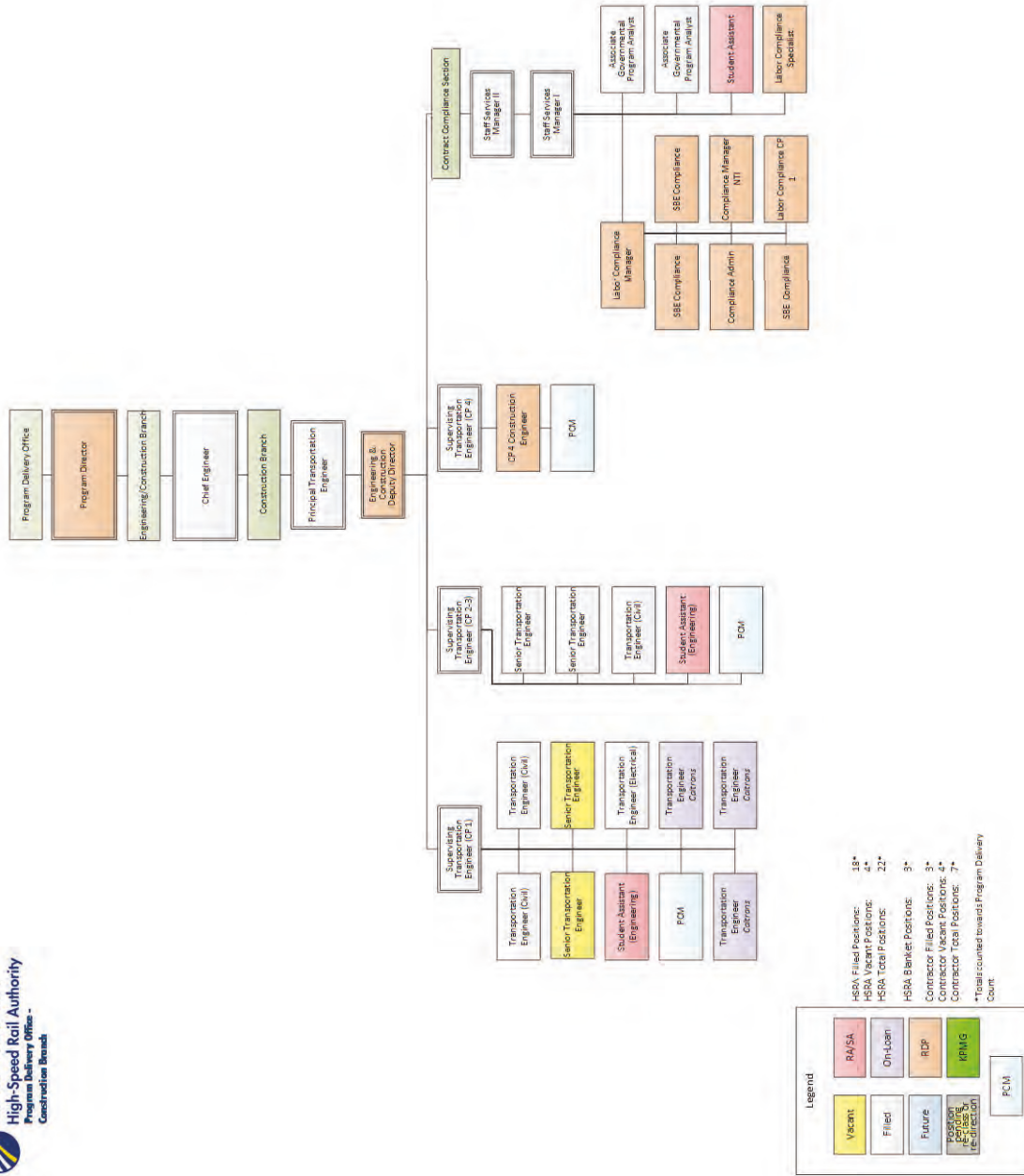


Figure 7 - First Construction Section



Annual Work Plan FY16/17 Update

## Schedule

Appendix D – Summary Schedule (September 2016) provides an overview of the construction schedules for each construction project. In addition, FRA is provided the baseline schedules for each construction project as they are approved by the Authority. Baseline schedules have been provided for CP1 and CP 2-3. The CP 4 baseline schedule will be available 4<sup>th</sup> Quarter 2016.

## Budget

The Task 8 budget is summarized in Table 13. It reflects the grant agreement budget of \$3,772,057,495 for civil and track construction of the FCS. It also identifies the additional resources required of \$660,294,844 to complete the project as outlined in Attachment 3, Statement of Work of the grant agreements. Currently, funding for SR 99 is through the ARRA grant. The FCS Track Work Construction is currently under development. A budget will be identified prior to any proposal being released and the budget below will reflect only the federally funded portion of track work for the FCS.

**Table 13 - Task 8, Final Design and FCS Construction Budget**

Sub Task <sup>1</sup>	ARRA	State	FY10	State	Total
<b>8.1 SR 99</b>	\$101,889,294	\$124,010,706	0	0	\$ 225,900,000
<b>8.2 Civil Construction Package 1 (CP 1)</b>	\$479,871,360	\$367,440,832	\$541,762,788	\$58,956,469	\$1,448,031,449
<b>8.3 Civil Construction Package 2 (CP 2-3)</b>	\$706,738,379	\$857,745,697	\$93,048,378	\$138,235,436	\$1,795,767,890
<b>8.4 Civil Construction Package 4 (CP 4)</b>	\$62,045,209	\$75,515,983	\$123,762,365	\$41,034,599	\$302,358,156
<b>8.5 FCS Track Work Construction (CP 5)</b>	0	0	0	0	0
<b>Total</b>	<b>\$1,350,544,242</b>	<b>\$1,424,713,218</b>	<b>\$758,573,531</b>	<b>\$238,226,504</b>	<b>\$3,772,057,495</b>

<sup>1</sup> Quarterly Budget Update September 30, 2016

**Table 14 - Task 8, Additional Resources Budget**

Sub Task <sup>1</sup>	Additional Resources
<b>8.1 SR 99</b>	\$ 35,000,000
<b>8.2 Civil Construction Package 1 (CP 1)</b>	\$ 235,246,547
<b>8.3 Civil Construction Package 2 (CP 2-3)</b>	\$ 27,000,000
<b>8.4 Civil Construction Package 4 (CP 4)</b>	\$ 251,198,844
<b>8.5 FCS Track Work Construction (CP 5)</b>	\$ 446,096,000
<b>Total</b>	<b>\$ 994,541,391</b>

<sup>1</sup> Quarterly Budget Update September 30, 2016

## Regulatory Documentation and Guidelines

**Design-Build Program Plan (DBPP):** This plan outlines the Authority's approach to project delivery for the initial operating segment and identifies the project implementation procedures and methods established by the Authority to achieve successful design-build project delivery.

**Project and Construction Management Manual (PCMM):** This manual describes how the Authority will execute the design-build projects through an integrated staffing approach that uses Authority staff, PCM, RDP and other consultants. The PCMM establishes uniform guidelines and procedures in contract management and administration and design and construction oversight for each design-build contract. The PCMM addresses responsibilities subsequent to the award of contracts. It also presents, interprets and clarifies established general policies and practices applicable to the work in dealing with various situations that may arise.

## Procurement

Several procurements are expected in FY16/17. These include:

- Procurement of rail infrastructure CP 5, also known as Rail Infrastructure 1 (RI 1)
- Rolling Stock

Other procurements under discussion include small traditional design-bid-build contracts for specific upfront work including small civil construction packages or contracts for such activities as utility relocations, hazardous materials removal/remediation, site demolition, and clearing and grubbing.

## Deliverables

The deliverables identified in the grant agreement are noted below. The next fiscal year will see a dramatic increase in construction progress now that the three primary civil DB contracts have been executed. The following are some of the general activities that will occur:

### SR 99

- Complete the Early Works package and begin Main package construction
- Complete remaining UPRR easements and eminent domain parcel acquisitions

### CP 1

- Tuolumne Street overcrossing will be completed and Stanislaus bridge demolition will begin
- Work will continue on several structures including
  - Fresno River Viaduct
  - Cottonwood Creek Bridge
  - San Joaquin River Bridge
  - Fresno Trench and intrusion barrier construction
  - SR 180 undercrossing
  - Cedar Viaduct
- Work will begin in the following locations
  - Avenue 8 Bridge overpass
  - Avenue 12 overpass and road widening
  - American Avenue, Avenue 15 and Avenue 15 ½ overpasses



## CP 2-3

- North nine miles and south six miles complete clearing and grubbing, begin utility relocation, relocation of irrigation crossings and construction of floodplain crossings
- Begin BNSF relocations at Bowles and Monmouth
- Begin grade separations at Adams, Floral, Elkhorn, Kent, Kansas and Nevada avenues and at Avenue 56

## CP 4

- Complete environmental re-examinations
- Begin clearing and grubbing activities where ROW is available
- Complete utility agreements and final designs
- Prepare type selection reports and begin final design

The following deliverables are scheduled for FY16/17. The date noted below represents the last date a deliverable of that type is expected and that phase would be complete.

**Table 15 - FY 16/17 Final Design and Construction Contract Deliverables**

<b>Deliverable<sup>1</sup></b>	<b>Schedule</b>
<b>Construction Package 1</b>	
<b>Type Selection Reports</b>	4 <sup>th</sup> Qtr 2016
<b>60 % Design</b>	4 <sup>th</sup> Qtr 2016
<b>90% Design</b>	1 <sup>st</sup> Qtr 2017
<b>Ready for Construction Design</b>	2 <sup>nd</sup> Qtr 2017
<b>Construction Package 2-3</b>	
<b>Type Selection Reports</b>	2 <sup>nd</sup> Qtr 2017
<b>Construction Package 4</b>	
<b>Detailed Baseline Schedule</b>	4 <sup>th</sup> Qtr 2016

<sup>1</sup> September 2016

## Appendix A – Grant Tasks and Sub-Tasks (Grant Work Breakdown Structure)

### Task 1: Environmental Review

- Task 1.1. Regional Consultant Project Management (RC): Development of RC Project Management Plan.
- Task 1.2. Regional Consultant Public/Agency Participation (RC): Developing and implementing a public involvement program focused on identifying regional and local issues and concerns of the potential impacts of HST system and for proposing necessary mitigation measures.
- Task 1.3. Alternatives Analysis (RC): Project Definition including a segment-by-segment alignment description of the HST design options to be investigated in the Project EIR/EIS process(s).
- Task 1.4. EIR/EIS Analysis (RC): Technical studies necessary to evaluate and assess impacts of the HST Alternatives and No Project Alternative as part of the EIR/EIS process(s), addressing both alignments and proposed station locations.
- Task 1.5. Draft and Final EIR/EIS (RC): Preparation of the Draft EIR/EIS document(s) and Final EIR/EIS document(s), including necessary administrative review versions. The site-specific EIR/EIS document(s) must satisfy all the requirements of CEQA and NEPA.
- Task 1.6. Certification of EIR/EIS and ROD (RC): Preparation of other related environmental documents that are required as part of the certification of the Project EIR/EIS document(s), including Findings and a Statement of Overriding Considerations, the Record of Decision/Notice of Determination, and the Mitigation Monitoring and Reporting Plan.
- Task 1.7. Program Management (RDP): Project Management, Controls and communication related to environmental review and permitting for Rail Delivery Partners Team and Regional Consultants toward the goal of the Notice of Determination and Record of Decision.
- Task 1.8 Non-federal Resource and Other Agencies for Environmental Review (Multiple agencies): State agencies support of environmental permitting processes.

### Task 2: Preliminary Engineering (PE)

- Task 2.1. Regional Consultant PE (RC): Development of HST design concepts at a sufficient level of detail to develop accurate capital cost estimates, right-of-way requirements, construction staging, traffic and environmental impacts to satisfy CEQA and NEPA requirements.
- Task 2.2. Program Management (RDP): Project Management, controls and communication related to preliminary engineering for Rail Delivery Partner Team and Regional Consultants.
- Task 2.3. RDP Engineering (RDP): Engineering support to establish master standards for the project and establish procedures and systems to provide compliance and coordination between all sections.

### Task 3: Other Related Work Needed Prior to Start of Construction

- Task 3.1. Regional Consultant Station Area Planning (RC): RC-supported work with the local jurisdictions and public in developing HST station area plans.
- Task 3.2. Regional Consultant ROW Work (RC): Conduct assessments to identify segments at risk of imminent development or other changes in use that could significantly increase implementation costs and difficulty.

- Task 3.3. RDP ROW Work (RDP): Development of a Right-of-Way assessment and acquisition program.
- Task 3.4. Ridership Forecasting (RDP): Ridership work, ridership & revenue forecasts and station boarding's to support HST System phases of development.
- Task 3.5. Construction Planning / Procurement Support (RDP): Services to procure other services, equipment and construction for the total project implementation. Including possible staging options to best serve the project.
- Task 3.6. Station Area Planning: Development of a station area plan or equivalent incorporating a transit-oriented development (TOD) development code and/or specific plan (or equivalent) to the local comprehensive plan.
- Task 3.7. LAUS/So California Investments: Preservation and acquisition of property, rights-of way, and the related environmental clearances and engineering activities that will enable HST to operate at Los Angeles Union Station (LAUS).
- Task 3.8. Legal Services – Pre-construction: Legal assistance in negotiations pertaining to federal and state laws with freight and passenger rail companies that may be impacted by the HSR project.

#### **Task 4: Project Administration and Statewide Cost Allocation Plan (SWCAP, Complete)**

#### **Task 5: Program, Project and FCS Construction Management**

- Task 5.1. Program Management (RDP): Program Management activities may include program and project management and controls, engineering due diligence reviews, commercial and procurement support, program wide planning, implementation planning, system electrification and testing and commissioning, design/build support (as applicable), network integration and system assurance.
- Task 5.2 Project Construction Management (PCM): FCS project construction management activities may include contract administration, submittal review, quality assurance oversight inspection for work in place and materials, management of claims and change orders, and review and approval of progress payment requests and final acceptance of the work.
- Task 5.3 Legal Services – Construction: Legal assistance for issues that impact construction.

#### **Task 6: Real Property Acquisition and Environmental Mitigation**

- Task 6.1. Real Property – Preliminary ROW: Work performed in preparation for procurement up to, but not including, the first written offer to purchase
- Task 6.2. Real Property – ROW Services & Relocation: On-the-ground real property activities which may include parcel identification, survey and mapping, appraisals, offers of just compensation, negotiations and relocation benefits.
- Task 6.3 Real Property - Environmental Mitigation: Grantee-implemented environmental mitigation.
- Task 6.4 Real Property – ROW Acquisition: Capital costs of obtaining any real property interest necessary for the FCS. And, with FRA prior written approval, outside of the FCS.

#### **Task 7: Early Work Program (Deleted)**

### **Task 8: Final Design and Construction Contract Work for the FCS**

- Task 8.1: SR-99: Final design and construction for highway relocations (State Route-99) as well as interface reviews and civil infrastructure. This work will be completed by Caltrans working as a contractor to CHSRA.
- Task 8.2: Civil Infrastructure Construction Package 1 (CP1): Civil and structural infrastructure from approximately Avenue 19 in Madera County to approximately East American Avenue in Fresno County.
- Task 8.3: Civil Infrastructure Construction Package 2-3 (CP2-3): Civil and structural infrastructure between approximately East American Avenue in Fresno County to approximately one mile north of the Tulare-Kern County Line.
- Task 8.4: Civil Infrastructure Construction Package 4 (CP4): Final design and construction of civil and structural infrastructure from one mile north of the Tulare-Kern County Line southward to North of Bakersfield, currently near Poplar Ave.
- Task 8.5: FCS Track Work Construction (CP5): Final design and construction of track work for the civil and structural infrastructure construction in Construction Packages 1 through 4.

### **Task 9: Interim Use Project Reserve**

- Task 9.1 Project Reserves: Funds over and above the Unallocated Contingency that have been budgeted but not yet allocated to specific tasks.
- Task 9.2 Interim Use Reserve: Infrastructure necessary to initiate independent utility on the FCS funded under this Agreement which may include track, signal and communications elements, stations, and a limited maintenance facility.

**Task 10: Unallocated Contingency** – Contingency that is not allocated to a specific task or sub-task.

## **Appendix B – Detailed Grant Budget (September 2016)**



## Budget Summary

ARRA Grant # HSR-0009	Total Budgeted	Federal Budget	Federal Expended to Date <sup>1</sup>	Federal Outlays to Date <sup>2</sup>	State Budget	State Expended to Date <sup>3</sup>	Local (Other) Budget	Local (Other) Expended to Date	Total Budgeted (Prior Quarter)	Delta (Total Budgeted vs. Prior Quarter)	Additional State Budget
Task 1: Environmental Review	\$ 499,534,483	\$ 173,327,113	\$ 144,029,194	\$ 144,029,194	\$ 326,207,370	\$ 72,554,237	\$ -	\$ -	\$ 499,534,483	\$ -	\$ -
Task 2: Preliminary Engineering	337,361,863	254,262,236	128,504,951	128,504,951	82,999,927	64,952,362	-	-	337,361,863	-	-
Task 3: Other Related Work Needed Prior to Start of Construction	189,425,982	83,009,008	31,453,400	31,453,400	54,218,974	15,449,931	52,100,000	-	189,425,982	-	-
Statewide Cost Allocation Plan (SWCAP)	677,872	677,872	677,872	677,872	-	-	-	-	677,872	-	-
Task 6: Program, Project and FCS Construction Management	362,774,537	177,469,725	172,499,637	172,499,637	185,314,512	21,023,566	-	-	362,774,537	-	139,400,000
Task 6: Real Property Acquisition and Environmental Mitigation	839,499,073	469,319,843	466,000,258	466,000,258	380,119,430	68,700,362	-	-	839,499,073	-	91,105,000
Task 7: Early Work Program	-	-	-	-	-	-	-	-	-	-	-
Task 8: Final Design and Construction Contract Work for the FCS	2,775,257,460	1,290,544,242	688,984,947	688,984,947	1,424,713,218	50,403,700	-	-	2,775,257,460	-	994,541,391
Task 9: Project Reserves	53,856,392	53,856,392	53,856,392	53,856,392	-	-	-	-	53,856,392	-	-
Task 10: Unallocated Contingency	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ 5,058,327,462</b>	<b>\$ 2,552,559,231</b>	<b>\$ 1,616,006,651</b>	<b>\$ 1,616,006,651</b>	<b>\$ 2,463,671,231</b>	<b>\$ 203,089,188</b>	<b>\$ 52,100,000</b>	<b>\$ -</b>	<b>\$ 5,058,327,462</b>	<b>\$ -</b>	<b>\$ 1,225,046,391</b>

FY 10 Grant # HSR-0118	Total Budgeted	Federal Budget	Federal Expended to Date <sup>1</sup>	Federal Outlays to Date <sup>2</sup>	State Budget	State Expended to Date	Local (Other) Budget	Local (Other) Expended to Date	Total Budgeted (Prior Quarter)	Delta (Total Budgeted vs. Prior Quarter)	Additional State Budget
Task 1: Environmental Review	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Task 2: Preliminary Engineering	-	-	-	-	-	-	-	-	-	-	-
Task 3: Other Related Work Needed Prior to Start of Construction	-	-	-	-	-	-	-	-	-	-	-
Task 4: Project Administration & Statewide Cost Allocation Plan (SWCAP)	-	-	-	-	-	-	-	-	-	-	-
Task 5: Program, Project and FCS Construction Management	56,452,530	44,500,002	-	-	11,952,478	-	-	-	56,452,530	-	-
Task 6: Real Property Acquisition and Environmental Mitigation	12,835,406	8,984,784	-	-	3,850,622	-	-	-	12,835,406	-	-
Task 7: Early Work Program	-	-	-	-	-	-	-	-	-	-	-
Task 8: Final Design and Construction Contract Work for the FCS	995,800,035	758,573,531	-	-	238,226,504	-	-	-	995,800,035	-	-
Task 9: Project Reserves	154,290,261	106,023,253	-	-	48,267,008	-	-	-	154,290,261	-	-
Task 10: Unallocated Contingency	68,046,668	8,538,380	-	-	59,508,288	-	-	-	68,046,668	-	-
<b>Total</b>	<b>\$ 1,288,455,000</b>	<b>\$ 928,630,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 359,805,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,288,455,000</b>	<b>\$ -</b>	<b>\$ -</b>

<sup>1</sup> Federal Expended to Date represents payments the FRA has made to the Authority as reported on the SF 425 and identified within draw 16-033.

<sup>2</sup> Federal Outlays to Date represents payments The Authority has made to their vendors.

<sup>3</sup> State Expended to Date represents draw 16-033.

Draft Quarterly Budget for the period end September 30, 2016 v3.6

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## Budget Summary

Combined Project Funding	Total Budgeted	Federal Budget	Federal Expended to Date	Federal Outlays to Date	State Budget	State Expended to Date	Local (Other) Budget	Local (Other) Expended to Date	Total Budgeted (Prior Quarter)	Delta Budget dvs. Prior Quarter	Additional State Budget
Task 1: Environmental Review	\$ 499,634,483	\$ 173,322,113	\$ 144,039,194	\$ 144,039,194	\$ 326,207,270	\$ 72,664,237	\$ -	\$ -	\$ 499,634,483	\$ -	\$ -
Task 2: Preliminary Engineering	337,381,663	244,362,236	126,504,951	126,504,951	82,999,437	64,952,392	-	-	337,381,663	-	-
Task 3: Other Related Work Needed Prior to Start of Construction	189,425,982	83,009,008	31,453,400	31,453,400	54,316,074	16,449,931	52,100,000	-	189,425,982	-	-
Task 4: Project Administration & Sideside Cost Allocation Plan (SWCAP)	677,872	677,872	677,872	677,872	-	-	-	-	677,872	-	-
Task 5: Program, Project and FCS Construction Management	419,227,067	221,959,777	172,499,637	172,499,637	197,267,200	21,022,506	-	-	419,227,067	-	\$ 139,400,000
Task 6: Real Property Acquisition and Environmental Mitigation	852,274,479	488,304,437	498,000,253	498,000,253	383,970,062	68,700,392	-	-	852,274,479	-	\$ 91,105,000
Task 7: Early Work Program	-	-	-	-	-	-	-	-	-	-	-
Task 8: Final Design and Construction Contract Work for the FCS	3,772,057,495	2,109,117,773	589,984,947	589,984,947	1,662,939,722	50,409,700	-	-	3,772,057,495	-	\$ 994,541,391
Task 9: Project Reserves	208,146,753	161,879,646	53,856,392	53,856,392	46,267,708	-	-	-	208,146,753	-	-
Task 10: Unallocated Contingency	68,046,668	8,638,380	-	-	59,608,288	-	-	-	68,046,668	-	-
<b>Total</b>	<b>\$ 6,346,752,492</b>	<b>\$ 3,481,176,231</b>	<b>\$ 1,819,006,651</b>	<b>\$ 1,819,006,651</b>	<b>\$ 2,813,476,231</b>	<b>\$ 293,089,188</b>	<b>\$ 52,100,000</b>	<b>\$ -</b>	<b>\$ 6,346,752,492</b>	<b>\$ -</b>	<b>\$ 1,225,046,391</b>

<sup>1</sup> Federal Expended to Date represents payments the FR has made to the Authority as reported on the SF 425 and identified within draw 16-033.

<sup>2</sup> Federal Outlays to Date represents payments the Authority has made to their vendors.

<sup>3</sup> State Expended to Date represents draw 16-033.

## **Appendix C – Environmental Milestone and Permits Schedules (September 2016)**

[illegible]

\* Schedule analysis is modified by information from preliminary engineering and estimates for alignments currently under study or in development. Limits of the work represent discrete possible alternatives and are subject to change due to environmental review, funding and final design.

*DRAFT Prepared as of September 1, 2016*

	Legend	Mmm.YY	Actual	Mmm.YY	Forecast
Note:	The schedule assumes two cycles of concurrent Authority, Attorney General, and EPA review of technical documents. Cycle One is two days, starting with the EIS initial submittal and reviewers have five days for review before an EIS overview meeting. At the overview meeting, final five days to complete and submit comments to the Authority. The EIS team has five days to review all comments. Days 6-9 are five days following workshop and EIS Development workshop. Between complete documents and submit back track revision to the Authority within five days of the workshop. Day 10 then has five days to review, produce, and submit a final version to the Authority.				
1	Two identified as red indicated change from the previous month.				
2	For REIS, authors need an Individual Section slot payment, staff time will require compliance with NEPA/Section 404/802 Interpretation MOU for EPA and USACE consentance for project approval and need Regional Solicitors slot payment. Identification of Preliminary LEAPAs. Reference to NEPA/Section 404/802 Interpretation may also be needed for Council of Environmental Quality (CEQ) National Policy Statement requirements.				
3	Project Purpose and Need, Range of Alternatives, and Identification of Preliminary LEAPAs.				
4	POE will perform design and construction improvement request for existing alignments, transmission lines and other equipment. For new utility improvement, the authority will perform final design and construct them. The schedule reflect master plan (for siting and commissioning of the REIS train). Dates subject to change pending Authority decision on the type of environmental documentation needed.				
5	The schedule is being revised to incorporate continuing discussions on the selection of a preferred alternative that would be the predecessor to LEAPA. The addition of the Ranch Road to Merced re-examination, the changes in CVT, limit from Ave 170 to Ave 150, resolution of the presentation of the NEPA analysis to the environmental agency, reworking the document format to adjust the BNO's guidelines to recognize the EIS document is a supplemental EIS, and the prior EIS materials into the current ASES.				
6	Due to ongoing additional/scoping coordination, selection of the initial preferred alternative has been deferred to occur after completion of the Final EIR/EIS.				
7	Discussions ongoing with USFWS regarding Regional EO approach.				
8	Consultations with USFS ongoing regarding permitting approach (East Corridor Alternatives).				

Environmental Permits <sup>12</sup>

Section	Submit Biological Assessment Section 7	Obtain Biological Opinion	Submit Section 106 Report	Obtain Executed Section 106 MOA	Submit Section 401 Permit Application	Obtain Section 401 Water Qty Certification	Submit Preliminary 408 Determination	Receive Preliminary 408 Determination	Submit Section 404 Permit Application	Obtain section 404 Permit	Draft Compensatory Mitigation Plan	Final Compensatory Mitigation Plan	Submit CDFW 1602 Application	Obtain CDFW 1602 Permit	Submit CDFW 2081 Permit Application	Obtain CDFW 2081 Permit	Submit 408 Permit Application	Obtain 408 Permit <sup>a</sup>
Merced - Fresno (M-F)	Dec-11	Mar-14	Sep-11	Aug-12	Apr-13	Apr-14	NA	NA	Jun-13	Mar-14	Mar-12	Mar-14	Apr-13	Mar-14	Mar-13	Mar-14	Mar-17	Sep-17
Fresno - Bakersfield (F-B)	Jul-12	Apr-14	Jun-13	May-14	Mar-14	Nov-16	Nov-13	Jan-14	Jun-14	Nov-16	Dec-13	Apr-15	Mar-15	Apr-16	Mar-15	Jun-15	Apr-17	Oct-17
San Francisco - San Jose (F-J)	Jan-17	Aug-17	Nov-16	Sep-17	Sep-17	Apr-18	N/A	N/A	Sep-17	Mar-18	Sep-17	May-18	Sep-17	Apr-18	Sep-17	May-18	May-18	Nov-18
San Jose - Merced (J-M)	Mar-17	Aug-17	Nov-16	Sep-17	Dec-17	Jun-18	Mar-17	Apr-17	Dec-17	Jun-18	Dec-17	Jun-18	Dec-17	Jun-18	Dec-17	Jun-18	May-18	Nov-18
Central Valley Wye (M-F) <sup>a</sup>	Mar-16	Jun-17	Dec-16	Sep-17	Sep-17	Jun-18	Jun-17	Nov-17	Oct-16	Apr-18	May-17	Nov-17	Sep-17	Feb-18	Sep-16	Jun-18	Jun-18	Dec-18
CV Electrical Interconnect (CVD)	Jul-16	Oct-16	Mar-17	May-17	N/A	N/A	Sep-16	N/A	Nov-16	Nov-16	Oct-17	Nov-17	N/A	N/A	Sep-16	Jun-18	N/A	N/A
Heavy Maintenance Facility (HMF)	Mar-16	Mar-17	Apr-16	Mar-17	Mar-17	Nov-17	N/A	N/A	Mar-17	Nov-17	Mar-17	Sep-17	Mar-17	Sep-17	Mar-17	Sep-17	N/A	N/A
Locally Generated Alternative (F-B) <sup>a</sup>	Mar-16	Sep-16	May-16	Sep-16	Jun-17	Aug-17	May-16	Aug-16	May-17	Sep-17	Feb-16	TBD	Aug-17	Oct-17	Apr-16	Oct-17	Nov-17	May-18
Bakersfield - Palmdale (B-P) <sup>3</sup>	May-17	Oct-17	Nov-16	Jun-17	Dec-17	Jun-18	N/A	N/A	Dec-17	Aug-18	May-17	Sep-17	Jul-17	Mar-18	Jul-17	May-18	Jun-18	Dec-18
Palmdale - Burbank (P-B) <sup>3,4</sup>	May-17	Oct-17	Mar-17	Oct-17	Dec-17	Mar-18	Jul-17	Aug-17	Dec-17	May-18	Jun-17	Feb-18	Dec-17	Mar-18	Aug-17	Jul-18	Jun-18	Dec-18
Burbank - Los Angeles (B-LA) <sup>3</sup>	Nov-16	Dec-17	Dec-16	Dec-17	Aug-17	Jan-18	N/A	N/A	Aug-17	Jan-18	Mar-17	Apr-17	Jul-17	Dec-17	Apr-17	Dec-17	Jun-18	Dec-18
Los Angeles - Anaheim (LAA) <sup>3</sup>	Nov-16	Dec-17	Dec-16	Dec-17	Aug-17	Jan-18	N/A	N/A	Aug-17	Jan-18	Mar-17	Apr-17	Jul-17	Dec-17	Apr-17	Dec-17	Jun-18	Dec-18

DRAFT Prepared as of September 1, 2016

Schedule analysis as modified by information from preliminary engineering and estimates for alignments currently under study or in development. Limits of the work represent discrete possible alternatives and are subject to change due to environmental review, funding and final design.

## Legend:

Mmm-YY Actual

Mmm-YY Forecast

## Notes:

- 1 The schedule assumes two cycles of concurrent Authority, Attorney General, and FRA review of technical documents. Cycle One is ten days, starting with the RC's initial submittal. Reviewers have five days for review before an RC/reviewer workshop to discuss comments, then five days to complete and submit comments to the Authority. The RC then has five days to revise and resubmit. Cycle Two is five days, starting with resubmittal and a RC/reviewer workshop. Reviewers complete discussions and submit back check revisions to the Authority within five days of the workshop. The RC then has five days to revise, produce, and submit a final version to the Authority.
- 2 Text identified in red indicates a change from the previous month.
- 3 Discussions ongoing with USFWS regarding Regional BO approach.
- 4 Consultation with USFS ongoing regarding permitting approach (East Corridor Alternatives).
- 5 Represent forecast trends as a result of the deferred identification of the initial preferred alternative and additional effort in scope definition.
- 6 USFWS has indicated no need to reinitiate Section 7 consultation.
- 7 Filed with Submittal of Checkpoint C
- 8 With Checkpoint C Concurrence
- 9 6 months after FRA ROD is published
- 10 6 months after 408 application submitted

## **Appendix D – Summary Schedule (September 2016)**

ID		Activity Name	Duration (months)	FRA Summary Schedule - September 2016												24-Oct-16 16:27											
				5	03	04	01	02	03	04	01	02	03	04	01	02	03	04	01	02	03	04	01	02			
PLANNING																											
San Francisco to San Jose																											
Environmental Review																											
1.01	F2J: Project Management	98	01-Jul-10A	15-Aug-18	PLANNING																						
1.02	F2J: Public/Agency Participation	33	24-Aug-15A	04-May-18	San Francisco to San Jose																						
1.03.5	F2J: Prepare Project Description	40	23-Nov-15A	30-Mar-18	Environmental Review																						
1.03.6	F2J: Define Existing Transportation Conditions	14	24-Aug-15A	01-Jul-16A	F2J: Project Management																						
1.03.7	F2J: Environmental Task Management	10	24-Aug-15A	05-Apr-16A	F2J: Public/Agency Participation																						
1.05.2.1	F2J: Prepare Technical Reports	16	04-Jan-16A	11-Dec-16																							
1.05.2.2	F2J: Prepare and Submit Section 106 Reports to SHPO/Review and Concurrence	7	04-Jan-16A	04-Jun-16A																							
1.05.2.3	F2J: Prepare and Submit Biological Assessment to USFWS/NMFS	8	04-Jan-16A	24-Jun-16A																							
1.05.2.4	F2J: Identify Initial Preferred Alternative, Obtain Authority Approval *	14	05-Jun-16A	24-Nov-16																							
1.05.3	F2J: EIR/EIS Sections	14	04-Jan-16A	01-Nov-16																							
1.07.1	F2J: Prepare Administrative Draft Environmental Document and Circulate to Cooperating Agencies	4	05-Jun-16A	02-Sep-16																							
1.07.2	F2J: Prepare Draft Environmental Document and Circulate for Public Review and Comment	6	03-Sep-16	03-Jan-17																							
1.07.3.1	F2J: Respond to Public Comments on Draft Environmental Document	6	04-Jan-17	05-May-17																							
1.07.3.3	F2J: Obtain Section 7 Biological Opinion from USFWS/NMFS	8	29-Oct-16	28-Apr-17																							
1.07.4	F2J: Identify Least Environmentally Damaging Practicable Alternative (Checkpoint C, LEDPA)	2	06-Jan-17	14-Feb-17																							
1.07.6.1	F2J: Prepare and Circulate Administrative Final Environmental Document to Cooperating Agencies	6	06-May-17	02-Sep-17																							
1.07.6.2	F2J: Prepare and Publish Final Environmental Document (Includes FRA ROD)	3	03-Oct-17	29-Dec-17																							
1.08.1	F2J: Findings & Statement of Overriding Considerations	10	03-Jun-17	05-Jan-18																							
1.08.2.1	F2J: Authority Board Certifies Environmental Document	2	01-Dec-17	13-Jan-18																							
1.08.2.2	F2J: Authority Prepares and Files Notice of Determination	2	01-Dec-17	13-Jan-18																							
1.08.2.3	Surface Transportation Board (STB) Issues ROD - San Francisco to San Jose	0	24-Mar-18	24-Mar-18																							
1.08.3	F2J: Mitigation Monitoring & Reporting Plan	0	06-May-17	06-May-17																							
1.08.4.1	F2J: Obtain Fully Executed Section 106 MOA	23	25-Jun-16A	27-Oct-17																							
1.08.4.2	F2J: Prepare and Submit Draft Section 401 and 404 Permit Applications	12	15-Feb-17	22-Oct-17																							
PE 15% and Preliminary Design for Procurement																											
2.04	F2J: Conduct Preliminary Engineering for Project Development (PE4PD)	93	01-Jul-10A	05-Jun-18																							
2.11	F2J: Conduct Preliminary Engineering for Procurement (PE4P)	17	20-Nov-15A	21-Nov-16																							
2.13	RDP Programwide Engineering (FJ)	93	01-Jul-10A	06-Jun-18																							
Other Related Work																											
3.06	F2J: Station Area Planning	98	01-Jul-10A	15-Aug-18																							
3.09	F2J: ROW EIR/EIS Process	12	11-Jan-16A	16-Sep-16																							
3.11	PMTRDP ROW Work (FJ)	22	24-Dec-15A	03-Apr-17																							
3.12	Ridership Forecasting - FJ	89	03-Jan-11A	15-Aug-18																							
3.14	Station Area Planning (SJ Diridon)	23	01-Jul-10A	28-Jun-12A																							
		22	21-Jan-16A	07-Dec-17																							
				Station Area Planning (SJ Diridon)																							

Layout: \*FRA Qtrly Summary Report FY16-17

FR-ISR-009-10-01-05 Phase 1 PE/NEPA/CEQA

1. This Schedule is for the FRA ARRA Grant Amendment, Data Date September 1, 2016.
2. The San Francisco to San Jose to Merced schedule dates reflect the approved Baseline Schedule dates by the Regional Consultants.



FRA Summary Schedule - September 2016											
ID	Activity Name	Duration (months)	Start	Finish	2015	2016	2017	2018	2019	2020	24-Oct-16 15:30
<b>PLANNING</b>											
<b>San Jose to Central Valley Wye</b>											
<b>Environmental Review</b>											
1.01	J2Y: Project Management	98	01-Jul-10 A	16-Aug-18							
1.02	J2Y: Public/Agency Participation	39	23-Sep-14 A	08-Mar-18							
1.03.5	J2Y: Prepare Project Description	43	20-Nov-15 A	08-Mar-18							
1.03.6	J2Y: Define Existing Transportation Conditions	0	23-Sep-14 A	23-Sep-14 A							
1.03.7	J2Y: NEPA/404 Integration (Checkpoint B)	3	01-Jan-16 A	08-Mar-16 A							
1.05.1	J2Y: Environmental Task Management	15	01-Jul-16 A	26-May-17							
1.05.2.1	J2Y: Prepare Technical Reports	6	01-Jul-16 A	07-Nov-16							
1.05.2.2	J2Y: Prepare and Submit Section 106 Reports to SHPO/Review and Concurrence	1	01-Jul-16 A	29-Jul-16 A							
1.05.2.3	J2Y: Prepare and Submit Biological Assessment to USFWS/NMFS	15	01-Jul-16 A	26-May-17							
1.05.2.4	J2Y: Identify Initial Preferred Alternative, Obtain Authority Approval *	12	01-Jul-16 A	12-Mar-17							
1.05.3	J2Y: EIR/EIS Sections	6	01-Jul-16 A	07-Nov-16							
1.07.1	J2Y: Prepare Administrative Draft Environmental Document and Circulate to Cooperating Agencies	4	08-Nov-16	05-Feb-17							
1.07.2	J2Y: Prepare Draft Environmental Document and Circulate for Public Review and Comment	1	06-Feb-17	01-Mar-17							
1.07.3.1	J2Y: Respond to Public Comments on Draft Environmental Document	5	02-Mar-17	23-Sep-17							
1.07.3.3	J2Y: Obtain Section 7 Biological Opinion from USFWS/NMFS	6	27-May-17	02-Jun-17							
1.07.4	J2Y: Identify Least Environmentally Damaging Practicable Alternative (Checkpoint C, LEDPA)	2	01-May-17	07-Sep-17							
1.07.6.1	J2Y: Prepare and Circulate Administrative Final EIR/EIS to Cooperating Agencies	3	25-Jun-17	28-Dec-17							
1.07.6.2	J2Y: Prepare & Publish Final EIR/EIS (Includes FRA ROD)	2	17-Oct-17	07-Sep-17							
1.08.1	J2Y: Findings & Statement of Overriding Considerations	2	25-Jul-17	16-Feb-18							
1.08.2.1	J2Y: Authority Board Certifies Environmental Document	0	07-Jan-18	17-Jan-18							
1.08.2.2	J2Y: Authority Prepares and Files Notice of Determination	11	25-Jun-17	20-Feb-18							
1.08.3	J2Y: Mitigation Monitoring & Reporting Plan	10	13-Mar-17	06-Oct-17							
1.08.4.1	J2Y: Obtain Fully Executed Section 106 MOA	12	27-May-17	10-Feb-18							
1.08.4.2	J2Y: Prepare and Submit Draft Section 401 and 404 Permit Applications	93	01-Jul-10 A	06-Jun-18							
<b>PE 15% and Preliminary Design for Procurement</b>											
2.04	J2Y: Conduct Preliminary Engineering for Project Development (PE/PPD)	26	20-Nov-15 A	24-May-17							
2.11	J2Y: Conduct Preliminary Engineering for Procurement (PE4P)	23	01-Jul-16 A	07-Nov-17							
2.13	RDP Programwide Engineering (FJ & J2Y)	93	01-Jul-10 A	06-Jun-18							
<b>Other Related Work</b>											
3.06	J2Y: Station Area Planning	95	01-Jul-10 A	16-Aug-18							
3.09	J2Y: ROW EIR/EIS Process	15	10-Jul-16 A	24-May-17							
3.11	PMT/RDP ROW Work (JM & J2Y)	23	01-Jul-16 A	05-Nov-17							
3.12	Ridership Forecasting - J2Y	23	01-Jul-10 A	29-Jun-12 A							
Layout: *FRA Qtrly Summary Report FY16-17			FR-HSR-009-10-01-05 Phase 1 PE/NEPA/CEQA			1. This Schedule is for the FRA AREA Grant Amendment, Data Date September 1, 2016. 2. The San Francisco to San Jose to Merced schedule dates reflect the approved Baseline Schedule dates by the Regional Consultants.					

ID		Activity Name	Duration (months)	Start	Finish	FRA Summary Schedule - September 2016												24-Oct-16 16:34					
						15	16	17	18	19	20												
						03	04	01	02	03	04	01	02	03	04	01	02	03	04	01	02		
PLANNING																							
Central Valley WYE																							
Environmental Review																							
1.01	CWW: Project Management	88	02-May-11 A	24-Aug-18																			
1.02	CWW: Public Participation Program	80	02-May-11 A	23-Feb-18																			
1.05.1	CWW: Environmental Task Management	55	02-May-11 A	23-Feb-18																			
1.05.2.1	CWW: Prepare Technical Reports	46	02-Jul-12 A	28-Feb-17																			
1.05.2.2	CWW: Prepare and Submit Section 106 Reports to SHPO/Review and Concurrence	2	24-Sep-12 A	29-Aug-16 A																			
1.05.2.3	CWW: Prepare and Submit Biological Assessment to USFWS/NMFS	45	22-Sep-12 A	27-Jul-16 A																			
1.05.2.4	CWW: Identify Initial Preferred Alternative, Obtain Authority Approval	13	05-Jan-15 A	16-Feb-16 A																			
1.05.3	CWW: SER/SEIS Sections/Chapters	47	02-Jul-12 A	19-Jul-16 A																			
1.07.1	CWW: Prepare Administrative Draft EIR/EIS and Circulate to Cooperating Agencies	3	18-Jul-16 A	17-Oct-16																			
1.07.2	CWW: Prepare Draft EIR/EIS and Circulate for Public Review and Comment	3	14-Nov-16	10-Feb-17																			
1.07.3.1	CWW: Respond to Public Comments on Draft EIR/EIS	3	23-Feb-17	01-Jun-17																			
1.07.3.2	CWW: Identify Preliminary Preferred Alternative *	1	27-Apr-17	25-May-17																			
1.07.3.3	CWW: Obtain Section 7 Biological Opinion from USFWS/NMFS	15	17-May-16 A	31-Aug-17																			
1.07.4	CWW: Identify Least Environmentally Damaging Practicable Alternative (LEDA)	35	05-Jan-15 A	15-Dec-17																			
1.07.5	CWW: Cal. Dept of Fish & Wildlife (CDFW) Consistency Determination	11	21-Mar-17	19-Feb-18																			
1.07.6.1	CWW: Prepare and Circulate Administrative Final EIR/EIS to Cooperating Agencies	5	26-Apr-17	28-Sep-17																			
1.07.6.2	CWW: Prepare and Publish Final EIR/EIS (includes FRAROD)	4	01-Sep-17	28-Dec-17																			
1.08.1	CWW: Findings & Statement of Overriding Considerations	2	06-Sep-17	14-Nov-17																			
1.08.2.1	CWW: Authority Board Certifies EIR/Authority Board Certifies EIR	1	30-Nov-17	28-Dec-17																			
1.08.2.2	CWW: Authority Prepares and Files Notice of Determination	5	27-Sep-17	14-Feb-18																			
1.08.2.3	Surface Transportation Board (STB) Issues ROD - CV Wye	2	01-Jan-18	02-Mar-18																			
1.08.3	CWW: Mitigation Monitoring and Reporting Plan	15	18-May-17	24-Aug-18																			
1.08.4.1	CWW: Obtain Fully Executed Section 106 MOA	17	24-Jun-16 A	14-Dec-17																			
1.08.4.2	CWW: Prepare and Submit Draft Section 401 and 404 Permit Applications	5	16-Feb-17	10-Jul-17																			
1.08.4.3	CWW: Prepare and Submit 2081 and 1602 Applications	6	16-Feb-17	29-Aug-17																			
1.08.4.4	CWW: Prepare and Submit Section 408 Application	11	05-Feb-16 A	03-Jan-17																			
1.08.4.5	CWW: Other Required Permits	28	05-Oct-15 A	19-Feb-18																			
PE 15% and Preliminary Design for Procurement		62	10-Dec-12 A	01-Feb-18																			
2.04	CWW: Conduct Preliminary Engineering for Project Development (PEAPD)	31	10-Dec-12 A	03-Aug-15 A																			
2.11	CWW: Complete 15% Design	56	10-Dec-12 A	25-Sep-17																			
2.11	CWW: Complete Preliminary Engineering for Procurement (PE4P)	11	03-Oct-16	08-Sep-17																			
2.13	RDP Programwide Engineering (CV Wye)	4	18-Sep-17	01-Feb-18																			
FR-HSR-009-10-01-05 Phase 1 PE/NEPA/CEQA																							
Layout: *FRA Qtrly Summary Report FY16-17																							
1. This Schedule is for the FRA ARRA Grant Amendment, Data Date September 1, 2016. 2. The San Francisco to San Jose and San Jose to Merced schedule dates reflect the approved Baseline Schedule dates by the Regional Consultants.																							

[illegible]

		FRA Summary Schedule - September 2016												24-Oct-16 16:23			
ID	Activity Name	Duration (months)	Start	Finish	15	16	17	18	19	20							
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
PLANNING																	
Fresno to Bakersfield																	
Environmental Review																	
1.02	F-B: Regional Consultant Public / Agency Participation	107	07-Jul-09 A	31-Aug-18													
1.07.1	F-B: Administrative Draft EIR/EIS SUMMARY	84	07-Jul-09 A	30-Jun-14 A													
1.07.2	F-B: DEIR/EIS Approval Process SUMMARY	35	29-Jan-10 A	29-Feb-12 A													
1.07.2	F-B: DEIR/EIS Public Review Period SUMMARY	4	30-Sep-10 A	19-Oct-12 A													
Other Related Work																	
3.11	PMT/RDP ROW Work (FB)	95	07-Jul-10 A	31-Aug-18													
3.12	Ridership Forecasting - FB	78	19-Jan-12 A	31-Aug-18													
3.14	Station Area Planning - FB	23	01-Jul-10 A	29-Jun-12 A													
		55	02-Dec-13 A	31-Aug-18													
Fresno to Bakersfield																	
PLANNING																	
Fresno to Bakersfield																	
Other Related Work																	
PMT/RDP ROW Work (FB)																	
Station Area Planning - FB																	

Layout: \*FRA Qtrly Summary Report FY16-17

FR-HSR-009-10-01-05 Phase 1 PE/NEPA/CEQA

1. This Schedule is for the FRA ARRA Grant Amendment, Data Date September 1, 2016.

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ID		Activity Name	FRA Summary Schedule - September 2016															24-Oct-16 16:16				
			Duration (months)	Start	Finish	15	16	17	18	19	20											
						03	04	01	02	03	04	01	02	03	04	01	02	03	04	01	02	
PLANNING																						
Heavy Maintenance Facility																						
Environmental Review																						
1.01	HMF: Project Management		84	02-Feb-11 A	22-Jan-18																	
1.01.1	HMF: PM Plan/Meetings/Coordination		118	02-Feb-11 A	22-Jan-18																	
1.01.2	HMF: Quality Assurance/Quality Control/Safety/Risk		43	01-Jul-15 A	22-Jan-18																	
1.01.3	HMF: Document Control		5	01-Jul-15 A	14-Oct-15 A																	
1.01.4	HMF: Schedule, Budget & Progress Reporting		43	01-Jul-15 A	22-Jan-18																	
1.02	HMF: Public/Agency Participation		31	01-Jul-15 A	10-May-17																	
1.02.3	HMF: Maintain Stakeholder Database		31	01-Jul-15 A	10-May-17																	
1.02.5	HMF: Stakeholder Meetings & Briefings		17	16-Oct-15 A	10-Oct-16																	
1.03	HMF: Complete NOP/NOI, Scoping and Purpose & Need *		0		02-Feb-11 A																	
1.03.5	HMF: Prepare Project Description		3	16-Oct-15 A	10-Dec-15 A																	
1.05.1	HMF: Environmental Task Management		43	01-Jul-15 A	22-Jan-18																	
1.05.2.1	HMF: Prepare Technical Reports		16	16-Oct-15 A	25-Sep-16																	
1.05.2.2	HMF: Prepare and Submit Section 106 Reports to SHPO/Review and Concurrence		1	26-Sep-16	10-Oct-16																	
1.05.2.3	HMF: Prepare and Submit Biological Assessment to USFWS/NMFS		16	16-Oct-15 A	26-Sep-16																	
1.05.2.4	HMF: Identify Initial Preferred Alternative, Obtain Authority Approval *		1	01-Sep-16	12-Sep-16																	
1.05.3	HMF: EIR/EIS Sections		23	16-Oct-15 A	04-Mar-17																	
1.07.1	HMF: Prepare Administrative Draft Environmental Document and Circulate to Cooperating Agencies		23	16-Oct-15 A	04-Mar-17																	
1.07.2	HMF: Prepare Draft Environmental Document and Circulate for Public Review and Comment		0	05-Mar-17	11-Mar-17																	
1.07.3.1	HMF: Respond to Public Comments on Draft Environmental Document		3	12-Mar-17	10-May-17																	
1.07.3.2	HMF: Identify Preliminary Preferred Alternative *		3	11-May-17	09-Jul-17																	
1.07.3.3	HMF: Obtain Section 7 Biological Opinion from USFWS/NMFS		3	22-Jun-17	21-Aug-17																	
1.07.4	HMF: Identify Least Environmentally Damaging Practicable Alternative (Checkpoint C, LEDPA)		7	24-Mar-17	21-Aug-17																	
1.07.5	HMF: Cal. Dept of Fish & Game (CDFG) Consistency Determination		0	21-Aug-17	21-Aug-17																	
1.07.6.1	HMF: Prepare and Circulate Administrative Final Environmental Document to Cooperating Agencies (includes FRA ROD)		4	09-May-17	02-Aug-17																	
1.07.6.2	HMF: Prepare and Publish Final Environmental Document (includes FRA ROD)		3	03-Aug-17	11-Oct-17																	
1.08.1	HMF: Findings & Statement of Overriding Considerations		1	27-Sep-17	11-Oct-17																	
1.08.2.1	HMF: Authority Board Certifies Environmental Document		1	27-Sep-17	11-Oct-17																	
1.08.2.2	HMF: Authority Prepares and Files Notice of Determination		1	27-Sep-17	11-Oct-17																	
1.08.2.3	HMF: Surface Transportation Board (STB) Issues ROD		2	12-Oct-17	30-Nov-17																	
1.08.3	HMF: Mitigation Monitoring & Reporting Plan		2	21-Aug-17	11-Oct-17																	
1.08.4.1	HMF: Obtain Fully Executed Section 106 MOA		3	22-Jun-17	21-Aug-17																	
1.08.4.2	HMF: Prepare and Submit Draft Section 401 and 404 Permit Applications		3	22-Jun-17	21-Aug-17																	
1.08.5	HMF: Administrative Record		43	01-Jul-15 A	22-Jan-18																	
PE 15% and Preliminary Design for Procurement																						
2.02	HMF: PE Program Management		15	01-Jul-15 A	29-Dec-16																	
2.04	HMF: Conduct Preliminary Engineering for Project Development (PE/PPD)		20	01-Aug-15 A	11-Nov-16																	
2.11	HMF: Conduct Preliminary Engineering for Procurement (PE/PP)		20	01-Aug-15 A	01-Oct-16																	
2.13	RDP Programwide Engineering (HMF)		17	01-Jul-15 A	29-Dec-16																	
Other Related Work																						
3.09	HMF: ROW EIR/EIS Process		1	01-Oct-15 A	31-Oct-15 A																	

Layout: \*FRA Qrtly Summary Report FY16-17

FR-HSR-009-10-01-05 Phase 1 PE/NEPA/EQA

1. This Schedule is for the FRA ARRA Grant Amendment, Data Date September 1, 2016.
2. The San Francisco to San Jose and San Jose to Merced schedule dates reflect the approved Baseline Schedule dates by the Regional Consultants.

FRA Summary Schedule - September 2016															24-Oct-16 15:48				
ID	Activity Name	Duration (months)	Start	Finish	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
PLANNING																			
F-B Locally Generated Alternative (LGA)																			
Environmental Review																			
1.01	(Task 1) Project Management	44	12-Feb-15 A	27-Nov-18															
1.02	(Task 2) Public/Agency Participation	46	12-Feb-15 A	27-Nov-18															
1.02.1	(Task 2.1) Public/Agency Coordination Plan	35	06-Mar-15 A	02-Feb-18															
1.02.2	(Task 2.2) CHSTP Agency Coordination Plan	5	06-Mar-15 A	07-Aug-15 A															
1.03.5	(Task 3.5) Prepare Project Description	9	30-Jun-15 A	16-Mar-16 A															
1.03.6	(Task 3.6) Define Existing Transportation Conditions	11	13-Feb-15 A	15-Jan-16 A															
1.03.7	BFS: NEPA/404 Integration (Checkpoint B) [TBD]	0	01-Feb-16 A	01-Feb-16 A															
1.05.1	(Task 5.1) Environmental Task Management	18	12-Mar-15 A	01-Sep-16															
1.05.2.1	(Task 5.2) Technical Reports	21	12-Mar-15 A	15-Dec-16															
1.05.2.2	(Task 5.2.2) Submit Section 106 Reports to SHPO/Review & Concurrence	2	18-Feb-16 A	18-Apr-16 A															
1.05.2.3	(Task 5.2.3) Prepare & Submit Biological Assessment to USFWS/NMFS	8	07-Jul-15 A	11-Mar-16 A															
1.05.2.4	(Task 5.2.4) Identify Initial Preferred Alternative. Obtain Authority Approval (LEDPA Test)	7	27-Aug-15 A	16-Mar-16 A															
1.05.3	BFS: EIR/EIS Sections	7	15-Sep-15 A	20-Apr-16 A															
1.05.4	BFS: Perform Env Studies and Obtain Permits for Geotech Investigations (TBD)	15	03-Aug-15 A	31-Oct-16															
1.07.1	(Task 7.1) Prepare Administrative Draft EIR/EIS & Circulate to Cooperation Agencies	2	01-Sep-16	17-Oct-16															
1.07.2	(Task 7.2) Prepare Draft EIR/EIS & Circulate for Public Review & Comment	2	29-Sep-16	31-May-16 A															
1.07.3.1	(Task 7.3.1) Respond to Public Comments on Draft EIR/EIS	7	02-Nov-16 A	31-May-16 A															
1.07.3.2	(Task 7.3.2) Identify Preliminary Preferred Alternative	5	11-Mar-16 A	22-Aug-16 A															
1.07.3.3	(Task 7.3.3) Obtain Section 7 Biological Opinion from USFWS/NMFS	13	27-Aug-15 A	29-Sep-16															
1.07.4	(Task 7.4) Identify Least Environmentally Damaging Practicable Alternative (Checkpoint C, LEDPA)	0	01-Feb-16 A	01-Feb-16 A															
1.07.5	BFS: Cal. Dept of Fish & Game (CDFG) Consistency Determination (TBD)	2	03-Nov-16	30-Dec-16															
1.07.6.1	(Task 7.6.1) Prepare & Circulate Administrative Final EIR/EIS to Cooperating Agencies	2	01-Sep-16	31-Jan-17															
1.07.6.2	(Task 7.6.2) Prepare & Publish Final EIR/EIS (includes FRAROD)	14	25-Nov-15 A	31-Jan-17															
1.08.1	(Task 8.1) Findings & Statement of Overriding Considerations	3	30-Jan-17	25-Apr-17															
1.08.2.1	(Task 8.2.1) Authority Certifies EIR	4	15-Dec-16	27-Apr-17															
1.08.2.2	(Task 8.2.2) Notice of Determination / Record of Decision	3	27-Dec-16	05-Apr-17															
1.08.3	(Task 8.3) Mitigation Monitoring & Reporting Plan	0	01-Feb-16 A	01-Feb-16 A															
1.08.4.1	BFS: Obtain Fully Executed Section 106 MOA	4	22-Nov-16	31-Mar-17															
1.08.4.2	(Task 8.4.2) Prepare & Submit 401 & 404 Applications	18	11-Apr-16 A	12-Oct-17															
1.08.4.3	(Task 8.4.3) Prepare & Submit 2081 & 1602 Applications	0	01-Feb-16 A	01-Feb-16 A															
1.08.4.4	BFS: Prepare and Submit Section 408 Application	0	01-Feb-16 A	01-Feb-16 A															
1.08.4.5	BFS: Other Required Permits	17	30-Dec-15 A	12-May-17															
1.08.5	(Task 8.5) Administrative Record	41	05-Mar-15 A	24-Aug-18															
PE 15% and Preliminary Design for Procurement																			
2.02	(Task 4.99) Engineering Management	40	05-Mar-15 A	11-Jul-18															
2.04	(Task 4) Preliminary Engineering (15% PE/FPD) - BFSSA	20	06-Mar-15 A	26-Oct-16															
2.11	(Task 11) Conduct PEAP	28	06-Jul-16 A	24-Aug-18															
2.13	RDP Programwide Engineering (BFSSA)	39	06-Mar-15 A	20-Jun-18															

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FR-HSR-009-10-01-05 Phase 1 PE/NEPA/EQA

- 1. This Schedule is for the FRA ARRA Grant Amendment. Data Date September 1, 2016.
- 2. The San Francisco to San Jose and San Jose to Merced schedule dates reflect the approved Baseline Schedule dates by the Regional Consultants.





FRA Summary Schedule - September 2016										25-Oct-16 08:23																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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ID		Activity Name	Duration (months)	Start	Finish	15	2016	2017	2018	2019	2020	2021
FRA Summary Schedule - September 2016												
CONSTRUCTION												
Merced to Fresno												
		Design-Build Program Management	138	01-Jul-10 A	25-Oct-21							
5		Design-Build Program Management (M-F)	72	01-Jul-10 A	01-Sep-16							
		Real Property Acquisition	67	24-Apr-13 A	12-Nov-18							
6		ROW Acquisition - CP 1A/B	56	24-Apr-13 A	13-Dec-17							
6		M-F: Real Property Acquisition/Condemnation Support	63	01-Jul-13 A	12-Nov-18							
		ROW Acquisition - CP 1D	21	03-Nov-15 A	17-Aug-17							
8		Design-Build Contract Work	77	19-Feb-13 A	28-Jun-19							
8		Design/Buid Civil Infrastructure - CP 1A/B *	69	15-Oct-13 A	28-Jun-19							
		SR99 Realignment	63	19-Feb-13 A	29-Jun-18							
Fresno to Bakersfield												
		Design-Build Program Management	132	01-Jul-10 A	25-Oct-21							
5		Design-Build Program Management (F-B)	132	01-Jul-10 A	25-Oct-21							
		Real Property Acquisition	42	27-Jun-14 A	20-Dec-17							
6		ROW Acquisition - CP 1C	42	27-Jun-14 A	07-Dec-17							
6		ROW Acquisition - CP 2-3	40	27-Jun-14 A	19-Oct-17							
6		ROW Acquisition - CP 4	42	27-Jun-14 A	20-Dec-17							
		Design-Build Contract Work	60	08-Jul-14 A	28-Jun-19							
8		Design/Buid Civil Infrastructure - CP 2-3 *	47	25-Jul-15 A	14-Jun-19							
8		Design/Buid Civil Infrastructure - CP 4 *	36	15-Apr-16 A	02-Apr-19							
8		Design/Buid Civil Infrastructure - CP 1C *	60	08-Jul-14 A	28-Jun-19							
First Construction Segment												
		Design-Build Contract Work	30	25-Dec-16	16-Jun-21							
8		Design/Buid - CP 5 (FCS Track & Systems Combined) (Forecast)	30	25-Dec-18	16-Jun-21							
24-Oct-16 17:13												
FR-HSR-009-10-01-05 Phase 1 PE/NEPA/CEQA												
1. This Schedule is for the FRA ARRA Grant Amendment, Data Date September 1, 2016. 2. The San Francisco to San Jose and San Jose to Merced schedule dates reflect the approved Baseline Schedule dates by the Regional Consultants.												

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FR-HSR-009-10-01-05 Phase 1 PE/NEPA/CEQA

1. This Schedule is for the FRA ARRA Grant Amendment, Data Date September 1, 2016.
2. The San Francisco to San Jose and San Jose to Merced schedule dates reflect the approved Baseline Schedule dates by the Regional Consultants.

**From:** [Malone, Desiree@HSR](mailto:Malone,Desiree@HSR)  
**To:** [Barnes, Juliana \(FRA\); Gilliland, Barbara\(PB\)@HSR](mailto:Barnes,Juliana(FRA);Gilliland,Barbara(PB)@HSR)  
**Cc:** [rlzimmerer@transystems.com](mailto:rlzimmerer@transystems.com); [mlrule@transystems.com](mailto:mlrule@transystems.com)  
**Subject:** RE: Feedback: Q4-16 Deliverables (Revised Annual Work Plan)  
**Date:** Wednesday, April 05, 2017 12:45:38 PM

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Hi Juliana,

The AWP is submitted for FRA review and comment. The Authority submitted the AWP timely, in December, and per FRA comments received in January, submitted a revised AWP in January. Thank you for providing feedback on the revision.

The Authority acknowledges FRA's comments and interest in the ongoing refinement process to the content of the AWP, and appreciates the example work plan recently provided. As the project progresses, FRA's desire for specific content in the AWP may change; therefore, please inform the Authority of new content/format wishes by June 30 (annually). This could be via a sample template (header categories) or updated guidance on the information FRA needs included for future AWP's.

As the Authority moves forward with its work planning for the next year, FRA's comments on the 2016 AWP and potential content changes as mentioned above, will be incorporated into the 2017 submission.

Thank you,

**Desi Malone**  
**Grant Manager**  
**California High-Speed Rail Authority**  
**770 L Street, Suite 870**  
**Sacramento, CA 95814**  
**w: (916) 330-5640**  
**c: (916) 291-4121**  
[desiree.malone@hsr.ca.gov](mailto:desiree.malone@hsr.ca.gov)  
[www.hsr.ca.gov](http://www.hsr.ca.gov)

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**From:** Barnes, Juliana (FRA) [mailto:[juliana.barnes@dot.gov](mailto:juliana.barnes@dot.gov)]  
**Sent:** Wednesday, March 29, 2017 1:15 PM  
**To:** Malone, Desiree@HSR; Gilliland, Barbara(PB)@HSR  
**Cc:** [rlzimmerer@transystems.com](mailto:rlzimmerer@transystems.com); [mlrule@transystems.com](mailto:mlrule@transystems.com)  
**Subject:** RE: Feedback: Q4-16 Deliverables (Revised Annual Work Plan)

Hi Desi,

FRA acknowledges receipt of CHSRA's Revised Annual Work Plan (AWP) on January 23, 2017.

Please see the following feedback below and attached (AWP FY 16 Revised Final \_FRA Comments)



after review of the revised 2016-2017 AWP:

- In its revisions, CHSRA attempts to address FRA's review comments by tying the AWP and the Program Management Plan together; in other words, by making them one. FRA understands that everything CHSRA does ultimately ties together. However, the grants' Statements of Work prescribe different contents/subjects for the AWP versus the Program Management Plan; they are two distinctive deliverables/documents with different purposes even though they relate to one another.
- The primary purpose of the Program Management Plan is explaining how CHSRA manages scope, budget, schedule, and risk over the life of the program while the primary purpose of the AWP is explaining what CHSRA is doing this year to stay on target with scope, budget, schedule, and risk.
- The AWP should provide specific milestones or deliverables (even if partial/iterative) CHSRA is going to meet or provide to FRA during the timeframe covered in the document as well as the number of people/resources and costs associated with achieving specific milestones or deliverables. For example, if the Program Management Plan indicates that CHSRA is going to finish a given task in say five years, then the AWP would indicate what CHSRA is doing this year (expressed by describing the number/type of people involved and/or the cost) to make sure iterative tasks are progressing as necessary to reach project completion at the end of the five years.

In recent years, FRA understood the need to keep the AWP broad given that the period of performance of the grants was fast-approaching. Now that FRA and CHSRA have extended the grants' period of performance, the AWP needs to be specific.

Attached is an example of a good work plan (in a table format) that CHSRA could use as a reference and an FRA mark-up on the Revised AWP (pg 24 – 28, on Task 3). Those comments, while contained to Task 3, offer insight into how FRA viewed each section and the plan as a whole. FRA hopes CHSRA will address those comments in future submissions of the AWP and other annual deliverables/"plans" as a similar thought process was applied to their review.

Please focus on revising Task 3 of the Annual Work Plan to address FRA's review comments as a standalone document for receipt by April 21<sup>st</sup>. As previously shared with CHSRA on January 18, 2017 keeping in mind that one of the primary benefits of a good AWP is allowing FRA to know what is "coming down the pipeline." One piece of feedback CHSRA provides on an ongoing basis to FRA is that CHSRA appreciates quick reviews/turnarounds; thus, letting FRA know what specifically is coming well in advance in the form of the AWP would help FRA better address this valuable feedback.

Thank you,

Juliana Barnes, PMP  
Project Manager  
Office of Program Delivery (RPD-15)  
Federal Railroad Administration

801 I St., Suite 466  
Sacramento, CA 95814  
Cell: 916-215-9115

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**From:** Malone, Desiree@HSR [<mailto:Desiree.Malone@hsr.ca.gov>]  
**Sent:** Monday, January 23, 2017 2:17 PM  
**To:** Barnes, Juliana (FRA) <[juliana.barnes@dot.gov](mailto:juliana.barnes@dot.gov)>  
**Cc:** Gilliland, Barbara(PB)@HSR <[barbara.gilliland@hsr.ca.gov](mailto:barbara.gilliland@hsr.ca.gov)>; [mlrule@transystems.com](mailto:mlrule@transystems.com); Everett, Lynn (FRA) <[lynn.everett@dot.gov](mailto:lynn.everett@dot.gov)>; [rlzimmerer@transystems.com](mailto:rlzimmerer@transystems.com); Malone, Desiree@HSR <[Desiree.Malone@hsr.ca.gov](mailto:Desiree.Malone@hsr.ca.gov)>  
**Subject:** RE: Initial Feedback: Q4-16 Deliverables

Hi Juliana,

The Authority acknowledges your comments and is revising the documents provided by the FRA.

This email returns a revised AWP for FRA comment purposes.

Please note that an extension to the Feb. 2 due date has been requested for the FCS/CONOPs due to being unable to discuss the document today as planned.

A revised CVPFP is in process and I will keep you informed on its status for timeliness to the revision due date of Feb 2.

Thank you - Desi

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**From:** Barnes, Juliana (FRA) [<mailto:juliana.barnes@dot.gov>]  
**Sent:** Wednesday, January 18, 2017 1:22 PM  
**To:** Malone, Desiree@HSR  
**Cc:** Gilliland, Barbara(PB)@HSR; [mlrule@transystems.com](mailto:mlrule@transystems.com); Everett, Lynn (FRA); [rlzimmerer@transystems.com](mailto:rlzimmerer@transystems.com)  
**Subject:** Initial Feedback: Q4-16 Deliverables

Hi Desi,

FRA acknowledges receipt of the following deliverables transmitted on Dec 29, 2016:

- FCS Utilization Plan/CONOPs
- Annual Work Plan (AWP)
- Central Valley Financial Plan (CVFP)
- Phase 1 Program Financial Plan
- Program Management Plan
- CP 4 Baseline Schedule
- Q4\_16 Exhibit A Update

An initial review was conducted of the following submittals in the three attached documents: (1) FCS Utilization Plan/CONOPS, (2) Annual Work Plan, and (3) CV Financial Plan which contain initial comments. Please note FRA is returning those deliverables after initial review and requests resubmission after addressing the attached FRA initial comments for further development by Feb 2, 2017.

The remainder of the 4<sup>th</sup> Qtr deliverables are under review and FRA will provide comments prior to the end of the month.

Regards,

Juliana Barnes, PMP  
Project Manager  
Office of Program Delivery (RPD-15)  
Federal Railroad Administration  
801 I St., Suite 466  
Sacramento, CA 95814  
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**From:** [Malone, Desiree@HSR](mailto:Malone, Desiree@HSR)  
**To:** [Barnes, Juliana \(FRA\)](mailto:Barnes, Juliana (FRA))  
**Cc:** [Gilliland, Barbara@HSR](mailto:Gilliland, Barbara@HSR)  
**Subject:** RE: Feedback: Q4-16 Deliverables (Revised Annual Work Plan)  
**Date:** Thursday, April 06, 2017 2:52:35 PM

---

Actually no. With all due respect, we decided, for a variety of reasons, not to spend valuable time reworking the report again and instead addressing the recent comments (and possible unforeseen at this time future refinements) in the next report.

Let's discuss when you come by for the next Monday meeting ok?

---

**From:** Barnes, Juliana (FRA) [mailto:[juliana.barnes@dot.gov](mailto:juliana.barnes@dot.gov)]  
**Sent:** Thursday, April 06, 2017 2:42 PM  
**To:** Malone, Desiree@HSR  
**Subject:** RE: Feedback: Q4-16 Deliverables (Revised Annual Work Plan)

Hi Desi,

I think I may be missing the attachment?

Thank you,  
Juliana

---

**From:** Malone, Desiree@HSR [mailto:[Desiree.Malone@hsr.ca.gov](mailto:Desiree.Malone@hsr.ca.gov)]  
**Sent:** Wednesday, April 05, 2017 12:45 PM  
**To:** Barnes, Juliana (FRA) <[juliana.barnes@dot.gov](mailto:juliana.barnes@dot.gov)>; Gilliland, Barbara(PB)@HSR <[barbara.gilliland@hsr.ca.gov](mailto:barbara.gilliland@hsr.ca.gov)>  
**Cc:** [rlzimmerer@transystems.com](mailto:rlzimmerer@transystems.com); [mlrule@transystems.com](mailto:mlrule@transystems.com)  
**Subject:** RE: Feedback: Q4-16 Deliverables (Revised Annual Work Plan)

Hi Juliana,

The AWP is submitted for FRA review and comment. The Authority submitted the AWP timely, in December, and per FRA comments received in January, submitted a revised AWP in January. Thank you for providing feedback on the revision.

The Authority acknowledges FRA's comments and interest in the ongoing refinement process to the content of the AWP, and appreciates the example work plan recently provided. As the project progresses, FRA's desire for specific content in the AWP may change; therefore, please inform the Authority of new content/format wishes by June 30 (annually). This could be via a sample template (header categories) or updated guidance on the information FRA needs included for future AWP's.

As the Authority moves forward with it's work planning for the next year, FRA's comments on the

2016 AWP and potential content changes as mentioned above, will be incorporated into the 2017 submission.

Thank you,

**Desi Malone**  
**Grant Manager**  
**California High-Speed Rail Authority**  
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---

**From:** Barnes, Juliana (FRA) [<mailto:juliana.barnes@dot.gov>]  
**Sent:** Wednesday, March 29, 2017 1:15 PM  
**To:** Malone, Desiree@HSR; Gilliland, Barbara(PB)@HSR  
**Cc:** [rlzimmerer@transystems.com](mailto:rlzimmerer@transystems.com); [mlrule@transystems.com](mailto:mlrule@transystems.com)  
**Subject:** RE: Feedback: Q4-16 Deliverables (Revised Annual Work Plan)

Hi Desi,

FRA acknowledges receipt of CHSRA's Revised Annual Work Plan (AWP) on January 23, 2017.

Please see the following feedback below and attached (AWP FY 16 Revised Final \_FRA Comments) after review of the revised 2016-2017 AWP:

- In its revisions, CHSRA attempts to address FRA's review comments by tying the AWP and the Program Management Plan together; in other words, by making them one. FRA understands that everything CHSRA does ultimately ties together. However, the grants' Statements of Work prescribe different contents/subjects for the AWP versus the Program Management Plan; they are two distinctive deliverables/documents with different purposes even though they relate to one another.
- The primary purpose of the Program Management Plan is explaining how CHSRA manages scope, budget, schedule, and risk over the life of the program while the primary purpose of the AWP is explaining what CHSRA is doing this year to stay on target with scope, budget, schedule, and risk.
- The AWP should provide specific milestones or deliverables (even if partial/iterative) CHSRA is going to meet or provide to FRA during the timeframe covered in the document as well as the number of people/resources and costs associated with achieving specific milestones or deliverables. For example, if the Program Management Plan indicates that CHSRA is going to finish a given task in say five years, then the AWP would indicate what CHSRA is doing this

year (expressed by describing the number/type of people involved and/or the cost) to make sure iterative tasks are progressing as necessary to reach project completion at the end of the five years.

In recent years, FRA understood the need to keep the AWP broad given that the period of performance of the grants was fast-approaching. Now that FRA and CHSRA have extended the grants' period of performance, the AWP needs to be specific.

Attached is an example of a good work plan (in a table format) that CHSRA could use as a reference and an FRA mark-up on the Revised AWP (pg 24 – 28, on Task 3). Those comments, while contained to Task 3, offer insight into how FRA viewed each section and the plan as a whole. FRA hopes CHSRA will address those comments in future submissions of the AWP and other annual deliverables/"plans" as a similar thought process was applied to their review.

Please focus on revising Task 3 of the Annual Work Plan to address FRA's review comments as a standalone document for receipt by April 21<sup>st</sup>. As previously shared with CHSRA on January 18, 2017 keeping in mind that one of the primary benefits of a good AWP is allowing FRA to know what is "coming down the pipeline." One piece of feedback CHSRA provides on an ongoing basis to FRA is that CHSRA appreciates quick reviews/turnarounds; thus, letting FRA know what specifically is coming well in advance in the form of the AWP would help FRA better address this valuable feedback.

Thank you,

Juliana Barnes, PMP  
Project Manager  
Office of Program Delivery (RPD-15)  
Federal Railroad Administration  
801 I St., Suite 466  
Sacramento, CA 95814  
Cell: 916-215-9115

---

**From:** Malone, Desiree@HSR [<mailto:Desiree.Malone@hsr.ca.gov>]  
**Sent:** Monday, January 23, 2017 2:17 PM  
**To:** Barnes, Juliana (FRA) <[juliana.barnes@dot.gov](mailto:juliana.barnes@dot.gov)>  
**Cc:** Gilliland, Barbara(PB)@HSR <[barbara.gilliland@hsr.ca.gov](mailto:barbara.gilliland@hsr.ca.gov)>; [mlrule@transystems.com](mailto:mlrule@transystems.com); Everett, Lynn (FRA) <[lynn.everett@dot.gov](mailto:lynn.everett@dot.gov)>; [rlzimmerer@transystems.com](mailto:rlzimmerer@transystems.com); Malone, Desiree@HSR <[Desiree.Malone@hsr.ca.gov](mailto:Desiree.Malone@hsr.ca.gov)>  
**Subject:** RE: Initial Feedback: Q4-16 Deliverables

Hi Juliana,

The Authority acknowledges your comments and is revising the documents provided by the FRA.



This email returns a revised AWP for FRA comment purposes.

Please note that an extension to the Feb. 2 due date has been requested for the FCS/CONOPs due to being unable to discuss the document today as planned.

A revised CVFP is in process and I will keep you informed on its status for timeliness to the revision due date of Feb 2.

Thank you - Desi

---

**From:** Barnes, Juliana (FRA) [<mailto:juliana.barnes@dot.gov>]  
**Sent:** Wednesday, January 18, 2017 1:22 PM  
**To:** Malone, Desiree@HSR  
**Cc:** Gilliland, Barbara(PB)@HSR; [mlrule@transystems.com](mailto:mlrule@transystems.com); Everett, Lynn (FRA); [rlzimmerer@transystems.com](mailto:rlzimmerer@transystems.com)  
**Subject:** Initial Feedback: Q4-16 Deliverables

Hi Desi,

FRA acknowledges receipt of the following deliverables transmitted on Dec 29, 2016:

- FCS Utilization Plan/CONOPs
- Annual Work Plan (AWP)
- Central Valley Financial Plan (CVFP)
- Phase 1 Program Financial Plan
- Program Management Plan
- CP 4 Baseline Schedule
- Q4\_16 Exhibit A Update

An initial review was conducted of the following submittals in the three attached documents: (1) FCS Utilization Plan/CONOPS, (2) Annual Work Plan, and (3) CV Financial Plan which contain initial comments. Please note FRA is returning those deliverables after initial review and requests resubmission after addressing the attached FRA initial comments for further development by Feb 2, 2017.

The remainder of the 4<sup>th</sup> Qtr deliverables are under review and FRA will provide comments prior to the end of the month.

Regards,

Juliana Barnes, PMP  
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J0223

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**From:** [Malone, Desiree@HSR](mailto:Malone, Desiree@HSR)  
**To:** [Barnes, Juliana \(FRA\)](mailto:Barnes, Juliana (FRA))  
**Cc:** [Everett, Lynn \(FRA\)](mailto:Everett, Lynn (FRA)); [Gilliland, Barbara\(PB\)@HSR](mailto:Gilliland, Barbara(PB)@HSR); [Giovinazzi, Giles@DOT](mailto:Giovinazzi, Giles@DOT)  
**Subject:** Q3-17 Deliverables  
**Date:** Monday, October 30, 2017 9:14:33 AM  
**Attachments:** [CVPFP June 2017.pdf](#)  
[FY17-18 AWP.pdf](#)  
[Q3-17 Deliverables Transmittal.doc](#)

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Hi Juliana,

Attached in this email are deliverables due in Q3-17:

- Q3-17 Transmittal #06646
- Task 1: Various Re-exams (links are in the transmittal)
- Task 5: Annual Work Plan and Central Valley Project Financial Plan

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**CALIFORNIA**  
High-Speed Rail Authority

# *Annual Work Plan FY 17/18*

*November 2017*



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## Purpose of the Annual Work Plan

The purpose of the Annual Work Plan (AWP) is to provide insight into the processes the Authority uses to manage the project control system, maintain project schedule and budget, and track deliverables within the coming year. The AWP is prepared annually and provides insight into the Authority's operational planning for the next fiscal year, the staffing necessary to support that work, what challenges are anticipated, what actions the Authority will take to meet those requirements and challenges and a summary of the expected expenditures. This plan covers work budgeted and projected for the Authority's fiscal year from July 1, 2017– June 30, 2018. In general, the AWP will address:

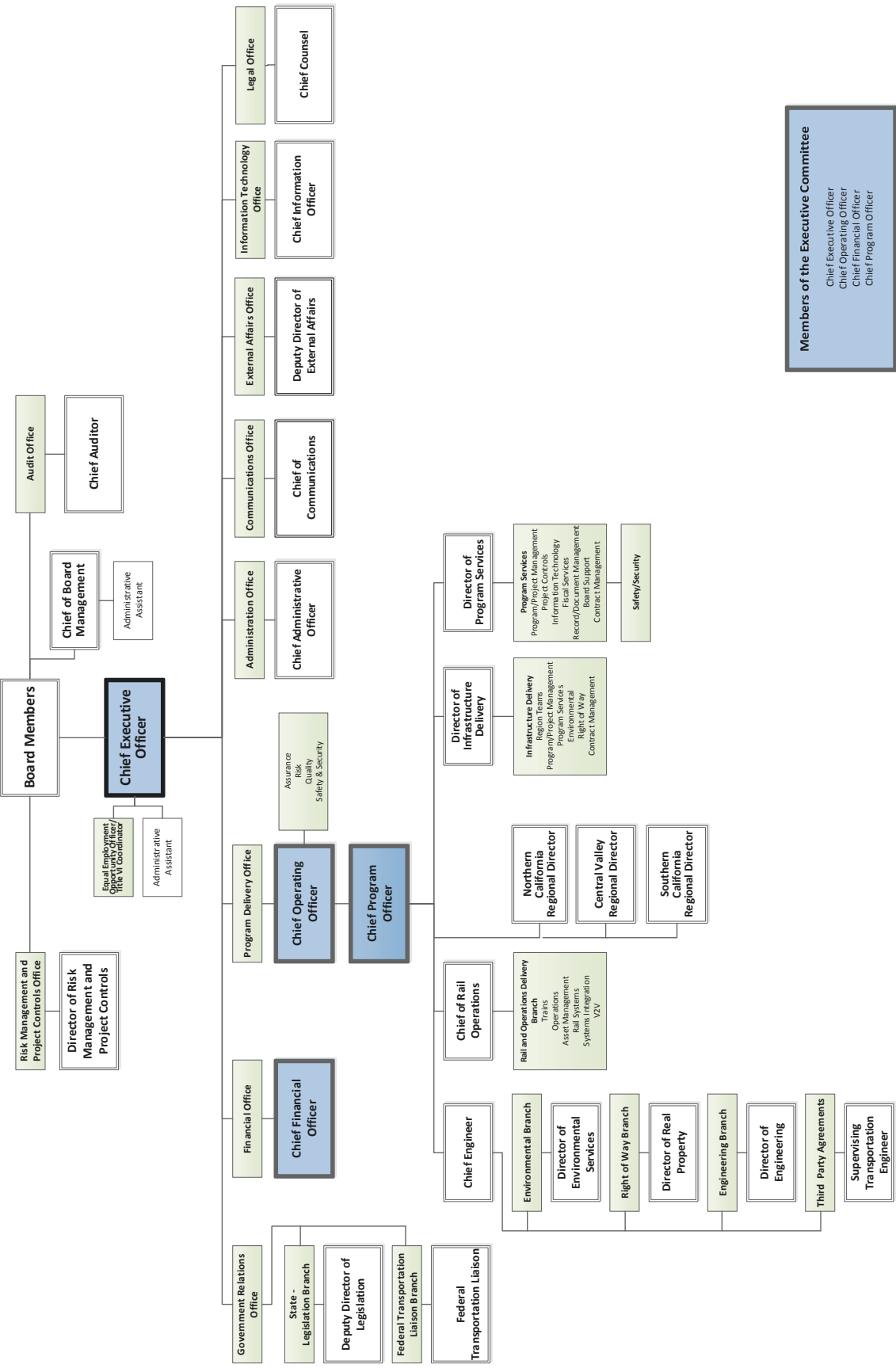
- ≠ How is the Authority going to complete each task?
- ≠ What the Authority will complete this year?
- ≠ How does the work help to progress project completion on schedule and within budget?

## Introduction

On July 10, 2017 Board Chair Dan Richard, announced that the High-Speed Rail Program began implementing organizational changes and process improvements to maintain momentum in constructing the nation's first true high-speed rail system. The Board established Tom Fellenz, as Interim CEO and identified an Executive Committee to act as a core leadership group until a permanent replacement is announced. The Executive Committee consists of Acting CEO Tom Fellenz, Acting Chief Operating Officer (COO) Jon Tapping, Chief Financial Officer (CFO) Russ Fong and Chief Program Officer (CPO) Roy Hill. The Executive Committee will ensure that the organization continues to move forward, establishes a clear sense of roles and responsibilities within the high-speed rail program, and maintains focus on established priorities.

With the Executive Committee in place one of the first actions was a reorganization and a new reporting structure. The attached organization chart provides a high-level overview of that new organization. This change brings an appropriate level of governance and checks and balances for the size and magnitude of the high-speed rail program.

To meet the goals of, and to actualize the benefits of the California High-Speed Rail Program, this updated organization structure is underpinned with key decision-making meetings and committees that integrate the lines and boxes of the organization. They bring governance, structure and informed and timely decision making and provide the necessary reporting, controls and confidence to the Board of Directors, the Federal Railroad Administration, the organization and other partners as the program delivers on the commitments.

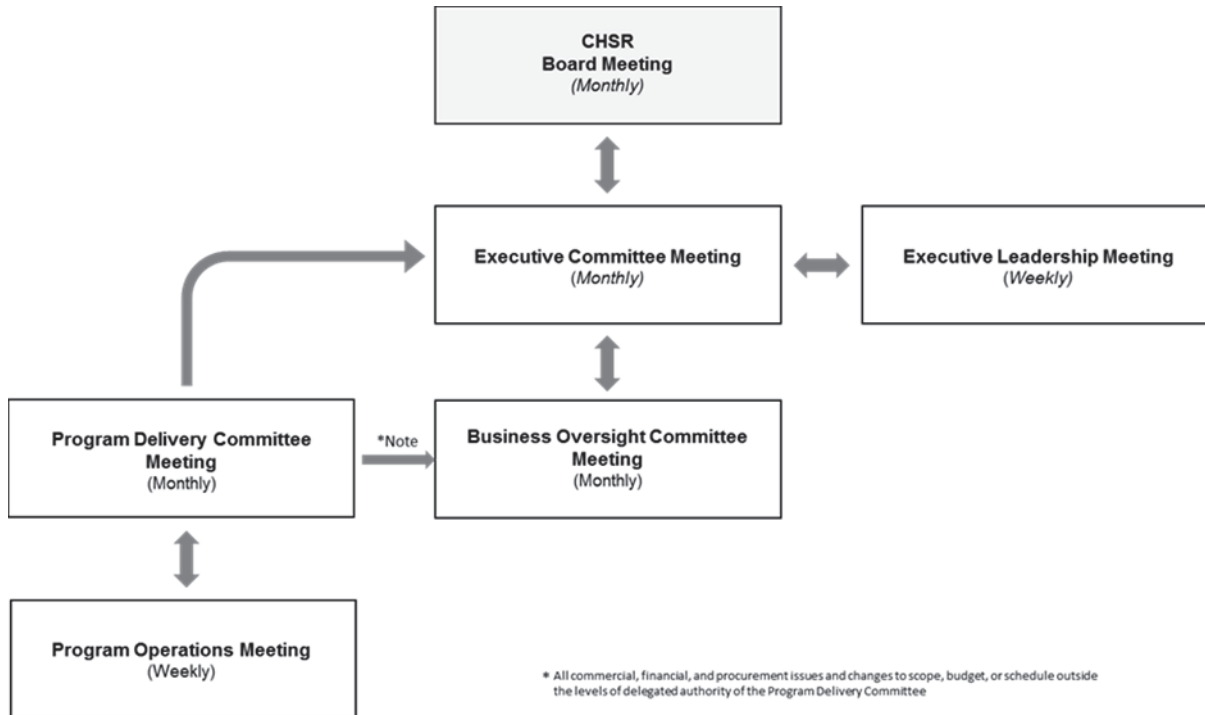


**Members of the Executive Committee**

- Chief Executive Officer
- Chief Operating Officer
- Chief Financial Officer
- Chief Program Officer

Figure 1 Organization Chart

The new committees and their interrelationships are outlined in the diagram below.



**Figure 2 Executive Management Committees**

This organizational change, along with decision-making committees and Executive Committee creates greater clarity around the role of the functional areas and better integrates the workforce as one team.

Additionally, the executive team developed a high-level program prioritization of goals to assure that program components are delivered within approved funding levels and the cash is available to pay for these components. These priorities are based upon meeting the federal grant agreements, pursuing implementation of the 2016 Business Plan and inclusive of executed contract obligations.

Priorities are outlined in three general areas including Planning, Development and Construction and commitments to Bookend Investments directed by the California State Legislature through SB 1029 and authorization of Proposition 1A funding. Priorities are listed in three levels. Priority 1 investments are contract commitments which funding has been appropriated and is available. Priority 2 include those activities remaining that complete the federal grants scope of work that have appropriated funding and either are currently funded or awaiting funding approvals based upon project timing. The final priority 3 activities are those that complete implementation of the Silicon Valley to Central Valley line as envisioned in the 2016 Business Plan. Funds related to these activities are at various levels of appropriation and funding.

## Accomplishments

The program has accomplished a great deal since signing the first American Recovery and Reinvestment Act (ARRA) grant in 2010. ARRA funds provided the initial investment necessary to move the program forward and have been used to accomplish significant public benefits, such as:

- ≠ Environmental clearance on two project sections.
- ≠ Executed contracts with three Design-Build (DB) construction contractors for 119-miles of construction, putting hundreds of laborers and engineers back to work during one of the worst economic downturns in history.
- ≠ Expanded the overall program workforce and encouraged new industry committed to building the nation's first high-speed rail system.

The significant investment of federal funding through ARRA has enabled the Authority to resolve lawsuits and establish sustained, on-going state funding to continue the work that has begun. This Annual Work Plan (AWP) represents the first full fiscal year of dedicated state funding toward program implementation.

## Annual Work Plan Areas of Focus

The primary goal of this AWP is to inform FRA of how the Authority plans to stay on schedule and budget. The following four areas are the largest drivers of the schedule and budget in the coming year and will therefore be the primary focus of the AWP:

- ≠ Environmental documentation
- ≠ Preliminary engineering completion
- ≠ Other related work
- ≠ Right of way acquisition
- ≠ Construction

In addition, the Authority will complete its fourth business plan in this fiscal year. The planning process provides an opportunity to update supporting information such as ridership and operational implementation and funding that is of interest to the FRA.

## Anticipated Expenditures

The Authority anticipates spending in the following areas over the next year. With the completion of ARRA federal spending this last fiscal year, all funding during the next fiscal year will be from Proposition 1A and Cap-and-Trade revenues and local match.

**Table 1 Projected FY 17/18 Expenditures\***

Task	Description	FY 17/18 Projection
Task 1	Environmental Documentation	\$ 166,719
Task 2	Preliminary Engineering	\$ 76,525
Task 3	Other Related Work	\$ 88,986
Task 4	SWCAP	Complete
Task 5	Program, Project, and FCS Construction Management	\$ 84,837
Task 6	Real Property Acquisition and Environmental Mitigation	\$ 213,309
Task 7	Early Works	N/A
Task 8	FCS Final Design and Construction	\$ 1,408,618
Task 9	Interim Use Project Reserves	0
<b>Total</b>		<b>\$ 2,038,994</b>

\*Funding Contribution Plan June 30, 2017

The Authority anticipates spending nearly \$350 million on project development activities, primarily toward the completion of environmental documents, preliminary engineering to support environmental review, and station area planning.

In addition, it is anticipated that nearly \$2 billion will be expended in support of continued construction in the Central Valley. The next fiscal year will see a significant increase in construction throughout the entire 119 miles of the Central Valley first construction segment.

## Plan Outline

Each chapter of this AWP will include:

1. General overview
2. Deliverables to be completed
3. Staffing organization dedicated to completing the work
4. Program challenges and current mitigation strategies
5. Priorities and actions for the coming year
6. Projected expenditures summary

Each chapter is designed to outline the, “work necessary to establish and manage project control systems to maintain, manage, and monitor project schedule, budget, documentation, procurement, and tracking of deliverables so that implementation of the project stays on schedule and within budget.”



# Environmental Review

## Introduction

The environmental team is responsible for outlining a strategy, and coordinating the activities required for environmentally clearing and obtaining the necessary permits required for building and operating the high-speed rail system. At present, the Authority is preparing eight project-level environmental documents for Phase 1 of the system that will extend 500 miles from San Francisco south to Los Angeles/Anaheim. As part of this effort, the team provides support in three primary areas: environmental planning, permitting and mitigation, and environmental compliance and reporting.

In general, environmental planning includes developing the Authority's approach and strategy for environmental NOD/ROD approvals; providing technical direction to the regional consultant teams for preparing the Environmental Impact Reports/ Environmental Impact Statements (EIR/EIS) and related environmental documents; and conducting technical, quality, and consistency reviews of documents.

For permitting and mitigation, the team works with FRA and federal and state resource agencies responsible for reviewing the Authority's environmental documents and providing necessary approvals and/or permits, permit amendments, mitigation negotiations and corrective actions for permit violations. The team also provides strategic and technical direction to the regional consultant teams for preparing permit applications and obtaining permit approvals.

Environmental compliance and reporting includes monitoring and reporting compliance with permits and agreements as well as required biological mitigation related to project construction. This area is described in greater detail in Task 6 – Real Property Acquisition and Environmental Mitigation.

All three areas of activity require the Authority to comply with requirements under the National Environmental Policy Act (NEPA), the California Environmental Quality Act (CEQA), Section 106 of the National Historic Preservation Act (NHPA), Section 4(f) of the Department of Transportation (49 U.S.C. 303), and other applicable federal and state environmental laws and regulations.

## Review of Grant Required Deliverables

The grant agreement requires the Authority to make steady progress in completing its environmental documents, obtaining needed permits and approvals from federal and state resources agencies, and for monitoring environmental compliance during project construction. During fiscal year 2016/2017, the Authority continued work preparing environmental documents and obtaining permits in all project sections. Administrative draft milestones were achieved for the Central Valley Way and the Bakersfield Locally Generated Alternative supplemental documents. Key accomplishments for the past year included:

- ≠ San Francisco to San Jose – Supported Caltrain and its effort to obtain federal funding approval of its electrification project. Authority activities in this corridor included project scoping, beginning environmental analysis and community engagement.

- ≠ San Jose to Merced – Continued to conduct community outreach and engineering along the corridor. The Authority and FRA also consulted with environmental regulatory agencies, landowning state and federal agencies and stakeholders. This additional outreach led to the development of new design options in the Monterey Corridor, Morgan Hill and Gilroy and Pacheco Pass subsections.
- ≠ Merced to Fresno Central Valley Wye – Authority and FRA worked to prepare a Draft Supplemental Draft Environmental Impact Report/ Environmental Impact Statement (EIR/EIS). In January 2017, the Authority’s Board of Directors concurred with the staff’s recommendation to identify the Road 11 to State Route 152 alternative as the preferred alternative in the Draft Supplemental EIR/EIS.
- ≠ Fresno to Bakersfield – The Authority continued collaboration with the City of Bakersfield and other stakeholders to identify an alternative alignment through downtown Bakersfield. Following support from the city, the Authority’s Board of Directors in May 2016 concurred with the staff’s recommendation to identify the Locally Generated Alternative and F Street Station as the preferred alternative in a Draft Supplemental EIR/EIS.
- ≠ Bakersfield to Palmdale – Conducted preliminary geotechnical drilling and a substantial amount of environmental field work and data gathering. Extensive public outreach to refine alignment alternatives through meetings with the US Department of Defense, Bureau of Land Management, Kern County, the cities of Tehachapi, Lancaster, and Palmdale, environmental groups such as the Pacific Crest Trail Association, the Chavez Center, and resource agencies.
- ≠ Palmdale to Burbank – Conducted, in cooperation of the US Forest Service, geotechnical work in the Angeles National Forest investigating rock quality and tunnel depth to optimize the tunnel alignments while minimizing impacts. Conducted extensive public outreach and meetings with local jurisdictions, resource agencies and the general public.
- ≠ Burbank to Los Angeles - Continued preliminary engineering and environmental studies on alternatives that focus utilizing as much existing railroad right-of-way, adjacent to the Los Angeles River and through the cities of Burbank, Glendale, and Los Angeles and terminating at Los Angeles Union Station. Coordinated with Los Angeles Metro and conducted extensive public outreach by holding several public workshops to discuss proposals for enhancing safety at six current grade crossings.
- ≠ Los Angeles to Anaheim – Continued design and environmental work in close cooperation with Los Angeles Metro, individual corridor cities, the Gateway Cities Council of Governments, the Orange County Transportation Authority, LOSSAN Joint Powers Authority, Metrolink, BNSF, Amtrak and others to refine two study alternatives.
- ≠ In addition to these activities, the Authority completed environmental re-examinations as needed and monitoring environmental compliance for construction underway between Madera and Kern Counties.

## Deliverables for FY 17/18

Building on the work already accomplished, the Authority tracks targeted completion of several major environmental milestones monthly. The milestones are in three primary areas and summarized in the tables below:

- ≠ NEPA Project-Level Documents
- ≠ Construction-Related Environmental Re-Examinations
- ≠ Permitting

The tables also identify the projected date of completion for each deliverable by project section. The dates are preliminary and are subject to change based upon completion of NEPA Assignment discussions and/or additional FRA input.

**Table 2 Project Level Documentation Deliverables\***

Section	Publish & Circulate Draft Environmental Document	Publish Final Environmental / FRA ROD	Obtain FRA ROD
San Francisco to San Jose	Jan-19	Jan-20	Jan-20
San Jose to Merced	Oct-18	Oct-19	Oct-19
Central Valley Wye	Mar-18	Mar-19	Mar-19
Fresno to Bakersfield Locally Generated Alternative	Oct-17	Oct-18	Oct-18
Bakersfield to Palmdale	Jun-18	Jun-19	Jun-19
Palmdale to Burbank	Oct-18	Jan-20	Jan-20
Burbank to Los Angeles	May-18	Feb-19	Feb-19
Los Angeles to Anaheim	May-18	Mar-19	Mar-19
Table Legend	Due this FY		

\*Dates above confirmed as of October 4, 2017

**Table 3 Permitting Deliverables**

Section	Application/Decision	Obtain Biological Opinion	Obtain Section 106 Report	Obtain Section 401 Water Quality Certification	Obtain Section 404 Permit	Obtain Section 408 Permit	Obtain CDFW 1602 Permit	Obtain CDFW 2801 Permit
San Francisco to San Jose	Application	Feb 17	Jun 18	Dec 18	Dec 18	TBD	Dec 18	Dec 18
	Decision	Jan 20	Dec 19	Jan 20	Dec 19	TBD	Jan 20	Jan 20
San Jose to Merced	Application	Sep 17	Apr 18	Aug 18	Aug 18	TBD	Aug 18	Aug 18
	Decision	Sep 18	Sep 19	Oct 19	Sep 19	TBD	Oct 19	Oct 19
Central Valley Wye	Application	Jun 17	Oct 16	Nov 18	Nov 18	May 16	Oct 18	Dec 17
	Decision	Dec 17	Feb 19	Feb 19	Feb 19	Nov 16	Jan 19	Jan 19
Fresno to Bakersfield Locally Generated Alternative	Application	Jul 15	Nov 16	Jan 17	Dec 16	N/A	Jan 17	Jan 17
	Decision	Jun 17	Sep 18	Aug 18	Aug 18	N/A	Aug 18	Aug 18
Bakersfield to Palmdale	Application	Dec 17	Dec 16	Jun 19	Aug 18	N/A	Jan 17	Apr 16
	Decision	Jun 18	May 19	Nov 19	Dec 19	N/A	Jun 19	Jun 19
Palmdale to Burbank	Application	Jun 15	Feb 18	Jan 20	Jan 20	Jan 20	Jan 20	May 18
	Decision	Nov 17	Dec 19	Mar 20	May 20	Feb 20	Mar 20	Apr 19
Burbank to Los Angeles	Application	Dec 17	Jun 17	Feb 18	Jul 18	TBD	Jan 18	Dec 17
	Decision	Jan 19	Jan 19	Mar 19	Mar 19	TBD	Jan 19	Jan 19
Los Angeles to Anaheim	Application	Jun 17	Oct 16	Mar 18	Jul 18	TBD	Feb 18	Nov 17
	Decision	Jan 19	Feb 19	Mar 19	Mar 19	TBD	Jan 19	Jan 19
Table Legend	Due this FY							

## NEPA Assignment

In addition to the deliverables listed above, the State of California has formally requested assignment of the FRA's responsibility under NEPA and other federal environmental laws to transfer to the California High-Speed Rail Authority for the California High-Speed Rail Program. The NEPA Assignment will provide for a more-efficient and expedient environmental review process reducing delays to the delivery of the high-speed rail program, and allow the Authority to build stronger relationships with local stakeholders, state partners, and federal agencies. In addition, it enables the Authority to manage both the NEPA and CEQA processes in their entirety, finding efficiencies where possible to complete the process faster without diminishing the rigor or the environmental analysis or the opportunities for the public to meaningfully engage with the Program.

## Geotechnical Investigation

For geotechnical work, the Authority will continue the preparation of an (IS/MND) under the California Environmental Quality Act (CEQA) and an EA/FONSI under NEPA for three subsections (i.e., San Jose to Pacheco Pass, Pacheco Pass, and San Joaquin Valley [to Carlucci Road]) for the San Jose to Merced Project Section. The environmental analysis will include evaluation of up to 300 bore locations. The IS/MND and EA/FONSI documentation will be prepared pursuant to the Authority's lead agency role under CEQA and the FRA's lead agency role under NEPA.

## Staffing

The environmental team is responsible for coordinating the activities required to environmentally clear and permit the high-speed rail projects to begin construction. They provide guidance on environmental strategies for project clearance, programmatic methodologies and assumptions to meet environmental commitments. The team directs permit activities and provides strategic guidance on permit approaches. In addition, the environmental team provides strategic guidance on the environmental approval process and serves as the liaison with the FRA, the attorney general's office and other federal, state, regional and local agencies, the regional consultants and environmental and engineering consultants, and other environmental consulting firms on environmental work products.

The environmental team also guides the regional consultants and the environmental and engineering consultants, and coordinates with them and other environmental consultants in preparing the environmental studies, documents and subsequent environmental approvals required for implementing high-speed rail construction and operation. The environmental team follows the quality procedures and reviews proposed environmental approach revisions and environmental deliverables submitted by the regional consultants, the environmental and engineering consultants and environmental teams.

For Fiscal Year 17/18, the Authority's environmental program is staffed by 60 full- or part-time individuals with working knowledge of NEPA, CEQA, environmental permitting, mitigation, and compliance. Many of the staff possess bachelor or graduate degrees in transportation, air quality, noise and vibration, biology, hydrology, geology, economics, sociology, architectural history, archaeology, environmental studies, and planning.

## Regional Consultants

Provided below is a table that identifies the prime environmental consultants under contract to the Authority for preparing the eight Phase 1 environmental documents.

**Table 4 Project Sections, Prime Consultants and Environmental Sub-consultants**

High-Speed Rail Section	Prime Consultant	Primary Environmental Sub-consultant
San Francisco to San Jose	HNTB Corporation	ICF International
San Jose to Merced	HNTB Corporation	ICF International
Merced to Fresno, Central Valley Wye	Parsons Transportation	ICF International
Fresno to Bakersfield, Locally Generated Alternative	T.Y. Lin International	LSA Associates
Bakersfield to Palmdale	T.Y. Lin International	LSA Associates
Palmdale to Burbank	Sener Engineering	Circlepoint
Burbank to Los Angeles	STV Incorporated	STV Incorporated
Los Angeles to Anaheim	STV Incorporated	STV Incorporated

The contracts are managed by a project section manager supported by environmental and engineering managers supporting each region. The Authority also uses specialized assistance from several other consulting firms. This includes Ascent Environmental for evaluating electrical interconnections and utility network upgrades needed for providing power to the high-speed rail system; Letterly Environmental and Land Planning Management for managing environmental permitting activities in the Authority's Los Angeles regional office; and SC Wildlands for identifying and evaluating the size, design, and placement of wildlife crossings along the high-speed rail system.

## Key Challenges and Mitigation

The Authority has identified five key challenges across the program. These include:

1. The efficiency of environmental reviews and permitting;
2. Costly processes;
3. Delayed or premature decisions;
4. Early risk identification and mitigation, and;
5. Engaging effectively with key stakeholders.

To address these challenges, the Authority has identified and is implementing several mitigation measures.

- 1) Improve the efficiency of environmental reviews and permitting:
  - a) Moving permitting earlier into the document process to achieve permits within 90 days of ROD.
  - b) Implemented and hosting monthly agency meetings by region.
  - c) Focusing reviews that match purviews of cooperating agencies.



- d) Conducted environmental program-wide quality workshops.
  - e) Implemented use of quality checklists.
  - f) Issued memo on NEPA significance.
  - g) Narrowing the number of reviewers per document.
  - h) Sharing best practices across the program.
- 2) Conduct a less costly process while promoting better project outcomes:
- a) Continue developing programmatic guidance to communicate best practices, achieve consistency and minimize efforts across the eight documents.
  - b) Tailor the environmental process to the significance of impacts.
  - c) Develop “end to end” alternatives.
  - d) Refine impact avoidance and minimization features and mitigation measures for use across the program.
  - e) Availing process of FAST Act efficiencies.
- 3) Make informed, timely decisions that stick:
- a) Utilize the weekly Executive Leadership meetings to clarify decisions programmatically as well as by project section.
  - b) Hold cross-disciplinary meetings to communicate needs and actions.
- 4) Identify and mitigate risks:
- a) Convene program-wide monthly meetings with the Executive Management.
  - b) Augment these meetings with monthly regional team meetings.
  - c) Elevated these discussions to the weekly Executive Leadership team for action.
- 5) Engage effectively with key stakeholders:
- a) Implement recently adopted guidance on stakeholder outreach for the upcoming Draft EIR/EISs circulation.
  - b) Held training on environmental justice, Americans with Disability Act and Limited English Proficiency.
  - c) Conducted Section 508 compliance training.
  - d) Using input to identify and refine an appropriate range of alternatives.

In addition, the following specific risks and proposed mitigations are also being addressed.

**Table 5 Environmental Task Top Risks for RY 17/18**

Section	Risk Title	Risk Description	Trigger Phase
Programmatic	Delay to review times of environmental documents, technical reports and permit applications because of inadequate staffing/resources in local, state and federal resource agencies.	Insufficient staffing / resource levels in local, state and federal resource agencies to support HSR program; and changes in law/standards, especially with regard to the FRA and the fact that no HSR system has been implemented in the U.S. This would increase costs and/or schedule for the project. Also, FRA is short staffed which also delays environmental activities.	Draft EIR/EIS
	Delay or increase costs to the HSR program because of non-compliance with mitigation and permitting commitments.	The language in DB contract documents is not specific regarding performance standards and enforcement of requirements has been insufficient. DB contractors performance could affect Authority's reputation with regulatory agencies and may delay permitting activities in other sections. Lack of compliance could result in a regulatory agency issuing a stop consultation and work order on the project.	Construction
	NEPA Litigation	Community groups may litigate the NEPA process and the ROD. Schedule impact while litigation is settled. Unplanned legal costs.	Draft EIR/EIS
San Francisco to San Jose	USACE Permit	USACE may require an Individual Permit for compliance with CWA Section 404 instead of a Nationwide 14 permit, which could delay ROD. An Individual Permit will trigger Checkpoint process required by the NEPA/404/408 Integration MOU. This could impact schedule ROD schedule.	Draft EIR/EIS
San Jose to Merced	Other Project Interference	Other projects (planned, planned/unfunded, or unplanned) may influence and/or change HSR project footprint and/or design. Requires re-work of plan and could negatively impact construction if occurrence if downstream.	Draft EIR/EIS
Bakersfield to Palmdale	Project footprint changes due to Chavez Center, causing delay and project cost increases.	Chavez Center may require the alignment to be pushed and therefore change the project footprint, which will cause delay and increase project cost.	Record of Decision
Palmdale to Burbank	Potential schedule delays due to predictive modelling for Section 7/Biological Resources.	Risk to schedule if Agencies cannot agree on predictive model for each species. Risk to schedule and budget if field surveys are needed for certain species (e.g. plant species).	Record of Decision

	Lack of consensus on groundwater effects/surface resources may delay Checkpoint C and Forest Service approval.	Inability to reach consensus with agencies on potential effects on groundwater. Disagreements or prolonged negotiations may delay Draft Environmental Document.	Record of Decision
Burbank to Los Angeles	Future Development ROW Impact Delays	The risk of not obtaining environmental clearances prior to other developments coming in first (e.g. Fullerton Station) could result in significant delays and cost impacts in ROW acquisition and significant delays in design development and associated construction costs due to redesign.	PE4P

For project level documentation, efforts to fully implement the previously described mitigation measures will be a key priority. Successful adoption of NEPA Assignment early in 2018 will help the Authority manage both the NEPA and CEQA processes and accelerate the completion of the remaining project-level documents. This will be in accordance with meeting FRA's expectations for environmental analysis and document quality.

Additionally, the Authority has implemented a new organizational approach to clarify roles and responsibilities between regional and headquarters staff. This approach provides regional Authority staff more flexibility in managing day-to-day environmental work through the regional consultant teams. Headquarters will continue to conduct technical and quality reviews of documents prior to submittal to FRA for review and comment.

## Established Priorities for FY 17/18

Over the next year, the Authority will accomplish the following:

- ≠ Obtain approval from the FRA of its oversight and review responsibilities under NEPA and other federal environmental laws.
- ≠ Circulate the Fresno to Bakersfield Locally Generated Alternative Supplemental EIR/EIS.
- ≠ Circulate the Merced to Fresno Central Valley Wye Draft Supplemental EIR/EIS.
- ≠ Circulate the San Jose to Merced Section Draft EIR/EIS.
- ≠ Identify a preliminary preferred alternative for the San Francisco to San Jose, Bakersfield to Palmdale, Palmdale to Burbank, Burbank to Los Angeles, and Los Angeles to Fresno sections.
- ≠ Complete initial versions of the Administrative Draft EIR/EIS for San Francisco to San Jose, Bakersfield to Palmdale, Palmdale to Burbank, Burbank to Los Angeles, and Los Angeles to Fresno sections.
- ≠ Continue to process environmental re-examinations and conduct compliance monitoring for project-related construction activities between Madera and Kern counties.

## Project-Level Documentation

The Authority will continue preparation of the eight project-level EIR/EIS documents required to evaluate and environmentally clear the Phase 1 project between San Francisco and Los Angeles/Anaheim.

## Actions

- ≠ Provide environmental support to project elements necessary to support construction procurements outside of the EIR/EIS, such as clearing the geotechnical investigation program for the Pacheco Pass.
- ≠ Develop guidance on outreach for the final EIRs/EISs, which is a companion piece to the guidance on outreach for the draft EIRs/EISs, which is critical for achieving stakeholder engagement and meeting federal and state regulatory requirements.

## Permitting

The Authority will continue to facilitate the NEPA/Section 404 Integration Process between the Authority, FRA, US Army Corps of Engineers and US Environmental Protection Agency that will result in the identification of a preliminary least environmentally damaging practicable alternative (LEDPA) for obtaining a Clean Water Act Section 404 permit for project construction. Also, the Authority will continue to facilitate Section 7 consultation under the federal Endangered Species Act with the US Fish and Wildlife Service and National Marine Fisheries Service to obtain a Biological Opinion and an Incidental Take Statement to allow project construction.

## Actions

- ≠ Manage, monitor and support environmental re-evaluations and permitting amendments to support Phase 1 program delivery.
- ≠ Prepare Authority-initiated environmental re-examinations and permitting amendments, as needed to advance construction.
- ≠ Monitor and report compliance with permits and agreements, and identify corrective actions for implementation, as appropriate, reflecting lessons learned in the DB delivery process.
- ≠ Manage, monitor and support environmental permitting amendments to reflect changes that occur in the field leading to and during construction.
- ≠ Prepare Authority-initiated environmental permitting amendments, as needed, to support construction.
- ≠ Implement environmental permitting process improvements identified in 2016 by defining ways to help facilitate delivery of permits within 90 days of the FRA's Record of Decision (level of design permitting) to expedite construction.
- ≠ Provide support to the Authority, project construction manager and DB contractor in their respective responsibilities for obtaining necessary environmental permits and permit amendments.

## Coordination

The Authority will continue to coordinate, collaborate, and communicate among the Authority's team managers/directors and the FRA to provide integrated project delivery from strategy, early planning phases through project delivery. This includes development of strategic approaches and programmatic tools (agreements/plans, methodologies) to support delivery of project sections and support consistency among the sections.

## Actions

- ≠ With the Authority's leadership, work to place and maintain the Phase 1 high-speed rail projects (and their components) on the Federal Permitting Dashboard, which helps enforce accountability for delivering on schedule.
- ≠ In relationship with the item above, coordinate public schedules for environmental reviews and permitting with the FRA and affected agencies for posting to the Federal Dashboard.
- ≠ Conduct monthly meetings with resource and regulatory agencies to maintain progress on environmental clearances with more frequent resource-specific meetings held, as needed, that improve stakeholder engagement and facilitate use of the Federal Dashboard.
- ≠ Provide monthly progress updates, including those needed for the Authority's Finance and Audit Committee, change control committee, program management and risk register.
- ≠ Work with the Authority, FRA and legal counsel to update the guidance for establishing and maintaining the administrative record for the environmental clearance process, which is critical to maintaining construction while any litigation may be underway.
- ≠ Support Authority Government Affairs team with legislative analysis on proposed bills introduced in the California Legislature so the Authority can weigh in on likely program effects should these bills become laws.

## Task Budget

The table below summarizes the projected expenditures as outlined in the Q2-17 Funding Contribution Plan.

**Table 6 Summary Budget Task 1**

Description	Task Number	FY17/18 Projected Expenditures
Regional Consultant Project Management	1.1	\$ 26,326,780
Regional Consultant Public/Agency Participation	1.2	\$ 4,230,510
Alternatives Analysis	1.3	\$ 404,541
EIR/EIS Analysis	1.4	\$ 9,355,597
Draft and Final EIR/EIS	1.5	\$ 12,371,240
Certification of EIR/EIS and ROD	1.6	\$ 7,436,765
Program Management	1.7	\$ 15,476,022
Non-federal Resource and Other Agencies for Environmental Review	1.8	\$ 91,117,938
<b>Total</b>		<b>\$166,719,393</b>

\*Data based on June 30, 2017 Funding Contribution Plan forecast



# Preliminary Engineering

## Introduction

The Authority follows a standard design development process for each segment. Work has focused on the development of design standards, development of preliminary engineering to support environmental documentation and contract procurement and review of contractor submittals and requests for design variances and/or alternative technical concepts. The phases include:

- ≠ Preliminary Engineering – Provides ongoing oversight of regional consultant-developed plans for design consistency across the system.
- ≠ Preliminary Engineering for Project Development (PE4PD) Design – Supports draft and final EIR/EIS alternatives, provides an itemized construction cost estimate and conforms with all requirements and commitments included in decision documents (FRA ROD; Authority Board Resolution, CEQA findings, and Mitigation Monitoring and Report Plan).

During this fiscal year, the design manual will be updated to include elements of design for stations as well as more refined criteria related to tunneling. Engineering staff also support the review of various DB contractor proposals related to design refinements and/or variations. This work includes: final design submittal review, design variance requests, constructability reviews, and value engineering.

## Review of Grant Required Deliverables

Deliverable/Section	Schedule from FY 16/17	FY 17/18 Update*
<b><i>PE to Support Environmental Review</i></b>		
San Francisco – San Jose	1st Qtr 2017	1st Qtr 2019
San Jose – Merced	2nd Qtr 2017	4th Qtr 2018
Bakersfield – Palmdale	2nd Qtr 2017	2nd Qtr 2018
Palmdale – Burbank	2nd Qtr 2017	4th Qtr 2018
<b><i>Supplemental Documents</i></b>		
Bakersfield F Street	4th Qtr 2016	4th Qtr 2017
Central Valley Wye	1st Qtr 2017	1st Qtr 2018
<b><i>Other Deliverables</i></b>		
Design Manual Update	4th Qtr 2016	4th Qtr 2017
CONOPS for the FCS and any other operating segments	4th Qtr 2016 (update)	Complete (next update 4th Qtr 2018)
Rolling Stock Performance Specifications	3rd Qtr 2016	Complete
System Safety and Security Management Plan (SSMP)	3rd Qtr 2016	Complete

\*Updates based upon revised environmental schedule. PEPD for Environmental to be delivered with Draft EIR/EIS

## Deliverables for FY 17/18

Deliverable/Section	FY 17/18
Burbank – Los Angeles	2 <sup>nd</sup> Qtr 2018
Los Angeles – Anaheim	2 <sup>nd</sup> Qtr 2018

### Deliverable: PE to Support Environmental Review

The dates above are based upon a revised environmental schedule developed jointly with FRA. Draft PEPPD submittals for all but three sections are anticipated to be completed within the next FY as noted above.

### Deliverable: Design Manual Update

Design Criteria was developed for the Central Valley and supported the procurement of three DB contracts, Construction Packages (CP) 1, 2-3 and 4 in a low seismic region. With the 2016 Business Plan decision to implement a Silicon Valley to Central Valley operable segment and new procurements extending into a higher seismic region with more variable ground conditions and complex structures including long span high-speed rail viaducts and tunneling, design criteria continues to evolve and needed to be updated to incorporate new sections, lessons learned and a re-write of several key sections in the Design Criteria Manual.

## Staffing

Planning and conceptual design supports the development of alternatives to be evaluated during the environmental review. Design development is based on the performance criteria contained in the legislation governing the high-speed rail program, and outlined in the business plan. The chief engineer provides direction and oversight of preliminary engineering policy and guidance for the development of plans associated with alignment development for environmental clearance documents. The plans are prepared in each region by regional consultants managed by the regional directors. The team consists of primarily RDP staff that prepares standards and oversees plans prepared both by regional consultants in the environmental phase and DB teams for preparation of final design in compliance with the Authority's criteria and standards. RDP management roles cover the following engineering areas and include engineering points of contact assigned to the CP teams in Fresno:

- ≠ Technical Director
- ≠ Infrastructure Manager
- ≠ Structures Manager
- ≠ Geotechnical Manager
- ≠ Tunneling Manager
- ≠ Underground Structures and Seismic Manager
- ≠ Civil/Drainage/Utilities Manager

Sacramento staff provide programmatic support to the field including interpretation of technical requirements, responses to contractor's design related RFIs, review and recommendation of design

variances, preparation of due diligence reviews of contractor's design submittals at a programmatic level and issuance of design directives. Field engineering staff in the Project and Construction Management (PCM) teams are primarily responsible for project level requirements and adherence to local conditions.

In addition, the preliminary engineering task is supported by the various regional consultants and environmental and engineering consultants identified in the environmental task. The consultants develop the designs that support the environmental review process.

## Key Challenges and Mitigation

The authority has identified three primary key challenges:

- ≠ A key challenge is developing less prescriptive requirements that allow for more performance based criteria and encourages innovation.
- ≠ Tunnel requirements for ventilation facilities add significant costs to tunnel sections.
- ≠ Developing new seismic criteria to cover the unique challenges of a high-speed rail system built in the higher seismic regions of California.

To address these technical challenges, the Authority has identified several staffing enhancements to bring a broader perspective to these issues. These have included:

- ≠ Recruiting and retaining key staff with experience in development of complex and highly technical projects with experience in the development of performance based criteria.
- ≠ Expanding engagement of engineering staff across multiple office locations. Efforts are being made to:
  - Communicate regularly with all engineering staff on Authority program issues.
  - Identification of workshops to address issues and develop common objectives.

The Authority's organizational approach ensures that the staff roles and responsibilities are well defined. In addition, the establishment of various committees has allowed for greater participation and development of recommendations to ensure broad identification of solutions and a clearer narrowing of recommendations. For example, a Tunnel Steering Committee guides the evaluation of associated risks and hazards. Infrastructure Engineering provides technical experts to support steering committee.<sup>1</sup> Infrastructure Engineering also interfaces quarterly with a Technical Advisory Panel and a Seismic Advisory Panel on a bi-yearly basis. Both panels include technical experts in multiple fields that provide feedback and input to the development of Authority design criteria and other requirements.

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<sup>1</sup> A final report will document the findings and recommendations of the steering committee and enable an informed decision by the State Fire Marshall and other stakeholders.

The following table outlines the key risks by project section and the mitigation strategies to address those risks.

**Table 7 Key Risks by Project Section**

Section	Risk Title	Risk Description	Trigger Phase
San Francisco to San Jose	Project Definition related to passing tracks and maintenance facility.	Narrowing down of the project definition issues in a timely manner is critical to ROD schedule: i) ii) Passing Tracks; iii) Maintenance Facility	Initial Preferred Alternative
San Jose to Merced	Project Definition	Narrowing down of the project definition issues in a timely manner is critical to ROD schedule: 1. Diridon Station 2. Monterey Highway cut and cover tunnel	Initial Preferred Alternative
Palmdale to Burbank	Difficulty in meeting a reasonable construction schedule due to long length of tunnel through ANF and not having intermediate access.	Risk is not having approved/permitted intermediate access to satisfy practical construction program. Adit locations are being cleared in environmental document that would provide for construction access and not preclude for use as mid-tunnel ventilation shafts, if required.	PE4P
Palmdale to Burbank	Difficulty in clearing a below-grade cut and cover Burbank station in an active EPA Super Fund site	Uncertainty in addressing mitigations and cost to address below grade station location in Super Fund site. Site is currently undergoing groundwater treatment. Construction may interfere with ongoing ground water treatment. Need to identify hazardous materials site. May require EPA to open its ROD. EPA has to sign off on station location.	PE4P
Los Angeles to Anaheim	Uncertainties in reaching concurrence with Railroads (UPRR and Metro/Metrolink) and City of LA may cause delay	The risk could result in changes to alignment /station changes and significant re-survey and re-design work, increase in ROW, change in railroad operation requirements. Possible expansion outside environmental footprint is also an issue.	Final Design
Los Angeles to Anaheim	Unable to finalize design assumptions for corridor in a timely manner could delay project section ROD.	Delays in finalizing decisions regarding alternatives within shared track segment with BNSF would delay environmental clearance process.	Record of Decision

Examples of mitigation currently being evaluated the address these specific issues include:

#### Mitigation

1. Development of service plans and ongoing negotiations with Caltrain to eliminate passing tracks.

2. Resolution of key issues at Diridon Station require ongoing discussion and negotiation with key stakeholders including City of San Jose and Google. Station may be a phased development approach over time; may need to isolate environmental clearance of Diridon Station.
3. Intermediate access to Palmdale to Burbank section is proposed from possible adit locations inside private holdings in the ANF.
4. Mitigation of high groundwater pressure and inflows into tunnel requires additional geotechnical investigations and innovative construction methods.
5. Discussion with EPA on Super Fund site to identify constraints and identify process for environmental clearance of Burbank station.
6. Regional staff are in active discussions with BNSF to approve a 2 plus 2 alternatives for LA to Anaheim section. Working with BNSF to validate corridor capacity.
7. Ongoing discussions and negotiation with other operators in LA to Anaheim section.

## Established Priorities for FY 17/18

Over the next year, the preliminary engineering task will focus primarily on providing the engineering support for environmental documentation. A focus will be on the completion of preliminary preferred alternative alignments for draft environmental documents.

In addition, the team will continue to provide support to construction staff on evaluation of design proposals to ensure that a consistent high-speed rail design is achieved. Any changes will be documented and updates to design standards will be made as appropriate.

The team will also be updating the design criteria manual. The goal is to update technical standards as previously defined in technical memoranda and to begin to outline the requirements for tunneling construction and operational elements.

Below is a more detailed accounting of some activities that will be conducted over the next fiscal year.

### Infrastructure Engineering Support

Staff will continue to support the development of design standards and work with regional consultants and environmental and engineering teams. Work will focus on developing new design criteria for tunnel sections and support the development of preliminary engineering designs to support environmental review.

#### Actions

- ≠ Integrate operations and maintenance knowledge and Reliability, Availability and Maintainability (RAM) requirements into infrastructure engineering design requirements and criteria.
- ≠ Support regional management on review of ongoing draft and final PEPD submittals to support establishment of environmental footprints for environmental analysis.
- ≠ Provide support to development of the 2018 Business Plan cost estimate and basis of cost assumptions and differences between 2016 and 2018 Business Plan cost estimates.
- ≠ Provide interface coordination between Infrastructure and Rail/Systems/Operations/Maintenance group.

- ≠ Review and provide comments and recommendations on design variance reports submitted by the regional consultants.
- ≠ Provide technical studies and review in support of ongoing third-party negotiations (e.g., impacts to railroad facilities or right-of-way).

## Construction Support

Staff will continue to review construction RFI's and provide independent review of contractor design variations.

### Actions

- ≠ Participate in partnering, project development team meetings, and other meetings as requested by senior management staff.
- ≠ Support the construction team in resolution of technical issues and interpretation of design criteria.
- ≠ Review and provide comments and recommended disposition of design variance reports submitted by the CP contractors.
- ≠ Develop RFI responses and design directive memos to PCM managers as required to document change or clarification of design criteria, directive drawings, and other technical requirements.
- ≠ Perform the due diligence review of final design technical submittals for overall conformance with program-wide design criteria and other technical standards.
- ≠ Provide support to PCM teams as requested in negotiation of design cost for construction change orders.

## Civil/Structures

This area focuses on the key actions that will be the focus of the civil/structures engineer group for the FY.

### Actions

- ≠ Review PEPD draft and final submittals and provide support to regional teams in developing scope of work for PE4P phase.
- ≠ Provide support for review of third-party utilities that may have construction, protection or relocation activities within or affecting the Authority right-of-way.
- ≠ Review submittals for overall compliance with Authority policy, procedure and guidance documents.
- ≠ Update, as needed, the civil/structure-related technical requirements to support preliminary designs and update the technical documents in support of procurement contracts.
- ≠ Host and participate in the Technical Advisory Panel quarterly meetings in August and December 2017 and web conferences relative to geotechnical, structure, seismic and tunneling chapters of the Design Criteria Manual.
- ≠ Prepare programmatic technical documents in support of procurement contracts.
- ≠ Develop final civil and structural directive drawings.
- ≠ Support architectural and aesthetic review and input for Type 1 and Type 2 structures and other non-station structural elements subject to aesthetic treatments.
- ≠ Advance general criteria and updates for shared corridor structural criteria dependent on environmental priorities and procurement timelines.



- ≠ Coordinate with track/system teams to clarify the system interface requirements to support preliminary and final designs of infrastructure.
- ≠ Provide infrastructure-related documents as required to support Track and Systems contract procurement.

## Geotechnical

The geotechnical team will be focused on support of the environmental documentation and furthering the analysis related to tunneling sections in the north and south sections.

### Actions

- ≠ Provide ongoing review and support of early and expanded geotechnical site investigation services in support of preliminary engineering process for geotechnical-related deliverables.
- ≠ Transition geotechnical design criteria into new integrated format, establish interfaces with integration team and complete cross-discipline review with all chapters.
- ≠ Define site response sites and geo-hazard special sites and criteria.
- ≠ Advance and develop transition zone criteria.
- ≠ Develop and perform a testing program to evaluate the performance of abutment backfill material for high-speed rail viaducts. Work covers the test program, including the review and interpretation of the test program results to develop final design guidelines for seismic performance. Work is to be done by Brigham Young University in Utah.
- ≠ Participate in the Authority's Geotechnical Steering Committee to establish policy and provide support on both a program wide and project basis; provide technical input and recommendations to guide the committee's work.
- ≠ Support completion of remaining subsidence studies undertaken by the United States Geological Survey and AMEC.
- ≠ Review and coordinate the remaining survey (LiDAR, magnetic and gravity survey) prepared by the University of California at San Diego to be completed this year for consideration in geotechnical site exploration.

## Tunneling/Tunnel Aerodynamics

This team will focus on the following activities in the coming FY.

### Actions

- ≠ Provide support on PEPD design of tunneling, including long tunnel segments through areas of high groundwater and high seismicity.
- ≠ Monitor the regional consultants in establishing the limits of tunnel sections by evaluating the available geotechnical data to assess proposed tunneling methods and other key factors, such as site access and construction staging.
- ≠ Transition tunnel design criteria into new integrated format, establish interfaces with integration team and complete cross discipline review with all chapters.
- ≠ Develop final tunnel directive drawings addressing current tunnel configuration. Coordinate with other disciplines (track, train control systems, communications, traction power, ventilation, etc.) to discuss and to finalize requirements for tunnel directive drawings.
- ≠ Support Tunnel Safety Steering Committee on evaluation of tunnel ventilation concepts for applicable tunnel configurations. Coordinate analysis with Office of the State Fire Marshall (OSFM).

## Seismic Design, Earthquake Engineering and Modeling

The team will be focused on the development of standards for implementation in seismic active areas of the high-speed rail system.

### Actions

- ≠ For purposes of seismic design, clarify infrastructure component classifications across infrastructure design criteria (Chapters 10 through 13).
- ≠ Provide analysis of representative standard designs, support other disciplines in addressing technical issues in regions of high seismicity and fault crossings for aerial structures, earth retaining structures, buried structures and tunnels.
- ≠ Manage the seismic specialist team, review and advance fault characterization and fault displacement guidelines.
- ≠ Manage the seismic specialist team, review and advance guidelines for development of preliminary and final ground motions in the Central Valley and conduct special studies to develop procedures for ground motion site conditions such as hard rock, near fault, basin effects, etc.
- ≠ Support the Authority in preparation for the Seismic Advisory Board workshop in fall of 2017.
- ≠ Advance seismic performance criteria requirements for tall/long span/long continuous viaducts and tunnels as required.
- ≠ Support development of an earthquake warning system.

## Task Budget

The following identifies the projected expenditures over the next year to support this effort. Information is summarized from the Q2-17 Funding Contribution Plan.

**Table 8 Summary Budget Task 2**

Description	Task Number	FY17/18 Projected Expenditures
Regional Consultant PE	2.1	\$52,223,713
Program Management	2.2	\$24,301,756
RDP Engineering	2.3	–
<b>Total</b>		<b>\$76,525,470</b>

\*Data based on June 30, 2017 Funding Contribution Plan forecast

## Other Related Work Needed to Start of Construction

### Introduction

The Authority performs additional work required prior to the start of construction for each section. The areas covered under this task include:

- ≠ **Station Area Planning** – Work to support the environmental documentation phase as well as support to local jurisdictions to evaluate land use and access planning around stations.
- ≠ **Right-of-Way (ROW) Work** – Work to identify the right of way requirements for environmental evaluation and the development of guidance documents for the right of way acquisition, relocation and management.
- ≠ **Ridership Forecasting** – Updates to ridership forecasts to support financial planning and operational development needs related to concessionaire planning.
- ≠ **LAUS/SoCal Investments** – Master planning to support future high-speed rail investment.

### Review of Grant Required Deliverables

The table below outlines the deliverables anticipated in FY16/17 and provides a FY 17/18 update.

Deliverable	Schedule from FY 16/17	FY 17/18 Update
Station Area Plans	2 <sup>nd</sup> Qtr 2017	4 <sup>th</sup> Qtr 2018
ROW Procedures Manual	2 <sup>nd</sup> Qtr 2017	Complete
ROW Acquisition Plan for the FCS	Quarterly	Provided Quarterly
FCS Contingency Plan (Update)	4 <sup>th</sup> Qtr 2016	Complete

#### Additional FY17/18 Deliverables

Deliverable/Section	FY 17/18
ROW Procedures Manual Update	2 <sup>nd</sup> Qtr 2018
Ridership Forecasting Analysis	2 <sup>nd</sup> Qtr 2018

### Deliverables for FY 17/18

There are three main areas of work within this task for the next fiscal year. The primary activity will be advancing station area planning in identified cities along the Phase 1 alignment. Two additional tasks that will be completed over the next year will include the completion of the ROW Procedures Manual Update (due December 2017) and an update to the ridership forecasting analysis in support of operations and financial planning (due May 2018).

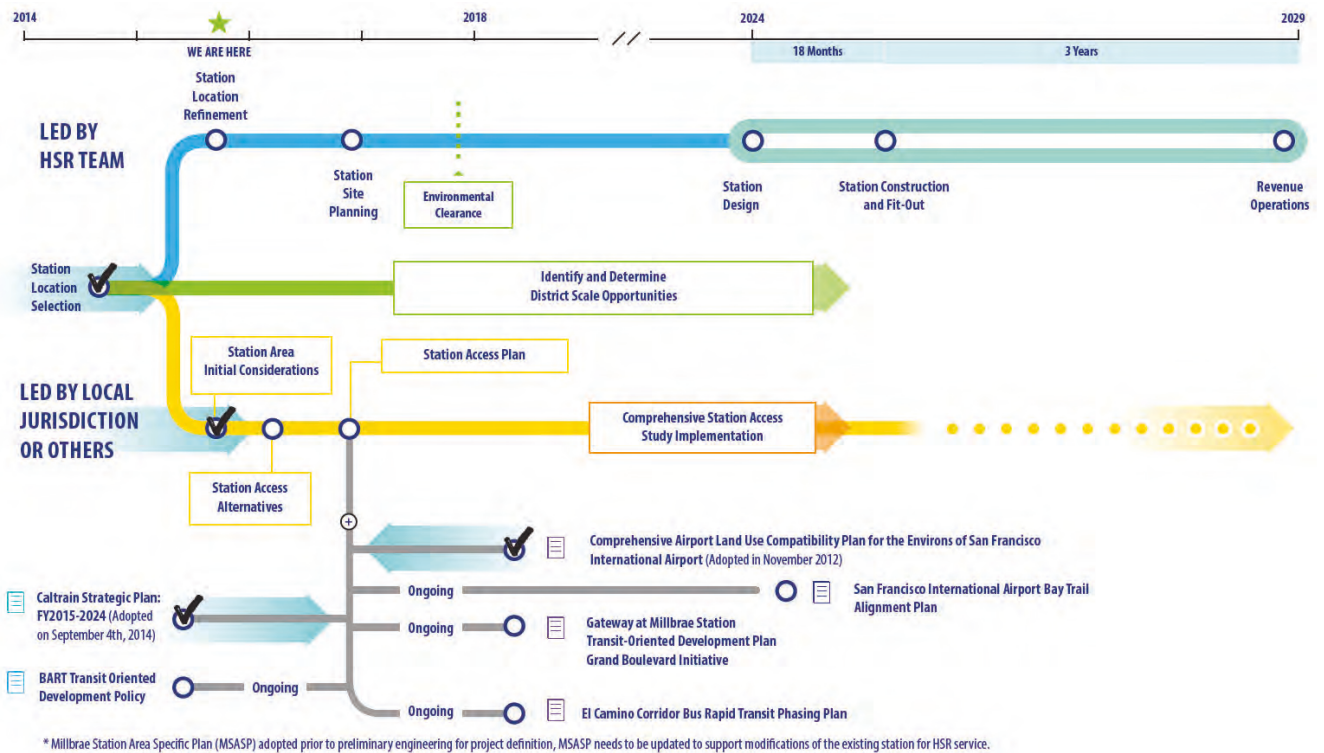
Work will also continue related to right-of-way identification for environmental documentation. This work is included in the environmental task discussed previously. Deliverables are included as part of

environmental documents as they are published. The schedule for draft and final EIR/EIS publications are outlined in the Environmental Review chapter.

### Station Area Planning

Station area planning activities are underway in all identified station cities. All station area planning contracts between the Authority and cities/operators have been executed except for Millbrae, which is anticipated to be executed in late 2017. Creating partnerships with local agencies has been an important and valuable component of the station area planning contracts.

### Millbrae Station Area Plan



**Figure 3 Millbrae Regulatory Updates and Related Planning Studies**

## San Jose Station Area Plan

San Jose and the Santa Clara Valley Transportation Authority (VTA) are working with the Authority, Caltrain and BART to develop a vision for the future of Diridon Station. Google recently announced its plans to develop office, retail, commercial and housing centered on the transit hub in partnership with the City of San Jose. They have acquired land and are proceeding with an integrated design approach for the station area that will contribute and complement the future station design. The rail service providers are engaged in dialogue and sharing their individual operating requirements and needs in terms of station facilities. This work has just started, but is expected to result in a unified vision and implementation plan for urban regeneration around the San Jose station that reflects the anticipated changes in ridership from today at less than 20,000 riders a day to over 150,000 riders a day anticipated in 2040.

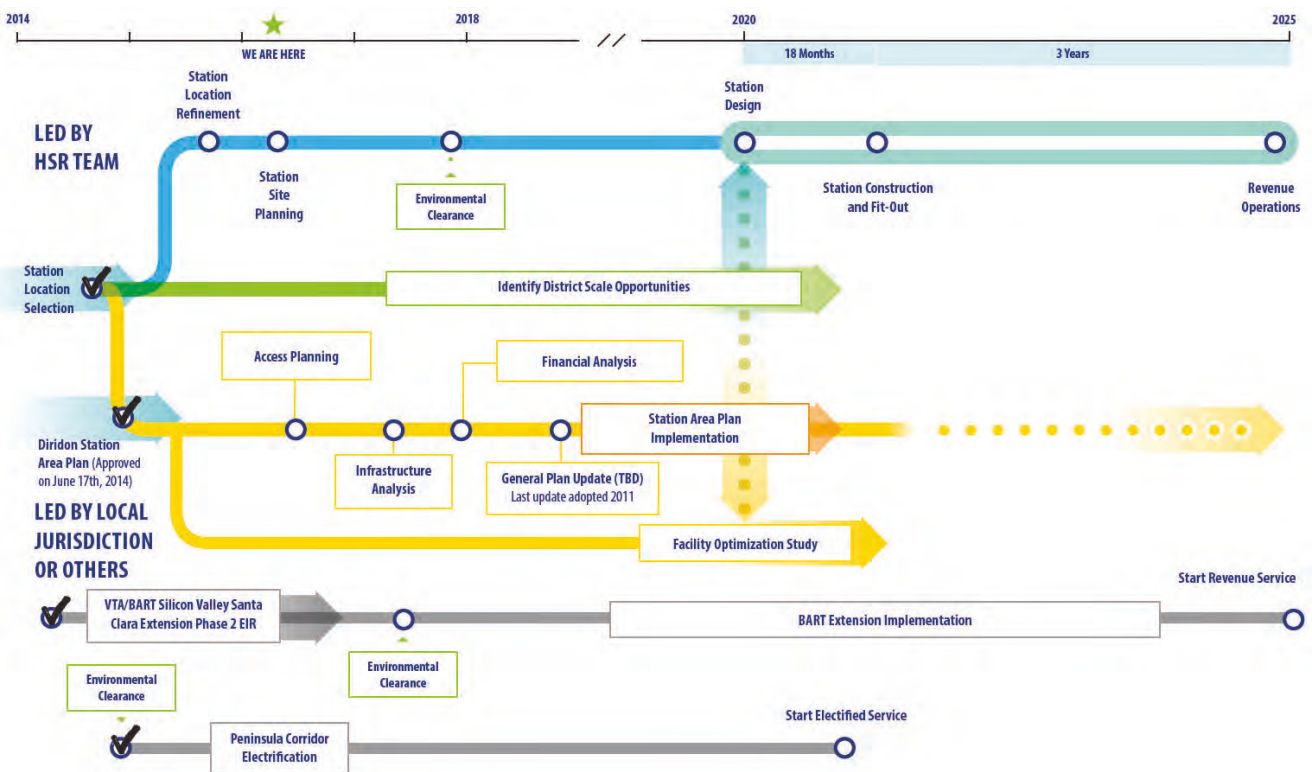
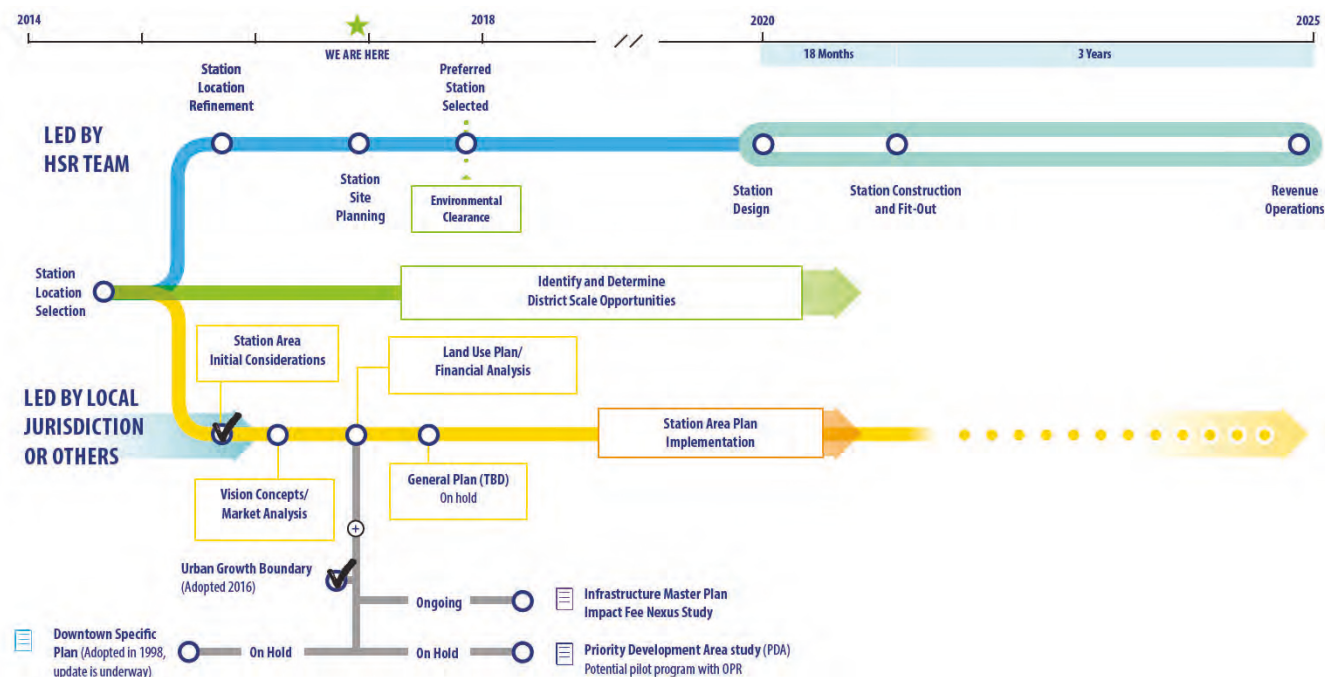


Figure 4 San Jose Regulatory Updates and Related Planning Studies

## Gilroy Station Area Plan

The Authority and the City of Gilroy have mutually agreed to put the station area planning work on hold until after the identification of the Preliminary Preferred Alternative for the San Jose to Merced Project Section. The Gilroy City Council has requested a focus on alignment details and impacts evaluation over land use planning for downtown. The work will resume in 2018 to address changes in the Downtown Gilroy Specific Plan and General Plan, and will be completed in late 2019.



**Figure 5 Gilroy Regulatory Updates and Related Planning Studies**

## Merced Station Area Plan

Merced is working on a Downtown Vision Plan to partner with the University of California, Merced (UC Merced) and other local stakeholder efforts to provide services and amenities in downtown Merced that will attract thousands of college students and working professionals to the downtown station area. Goals include making downtown Merced more bike and pedestrian friendly, and updating the existing land uses to allow for more mixed uses, higher densities and building heights. Creating and fostering long term partnerships with UC Merced and other stakeholders in Merced will be an important part of successfully delivering and implementing the pending Downtown Vision Plan. Work is expected to be finalized in 2019.



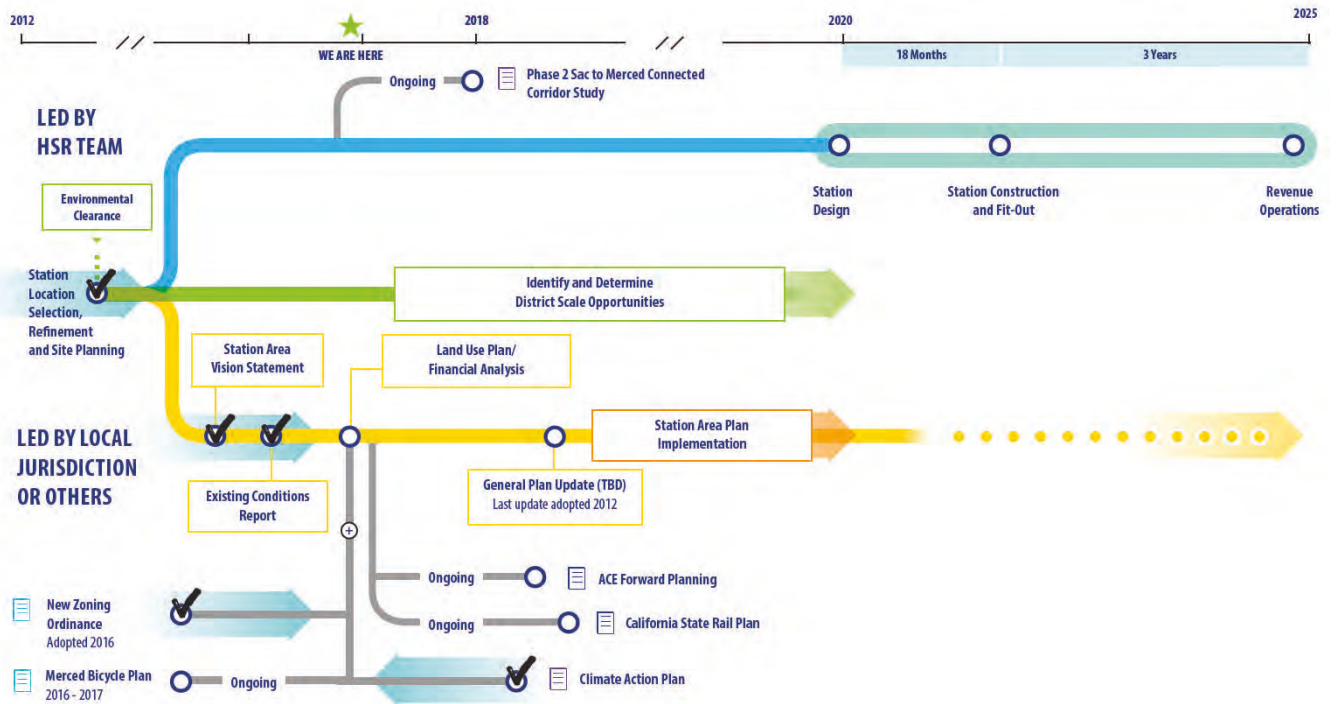
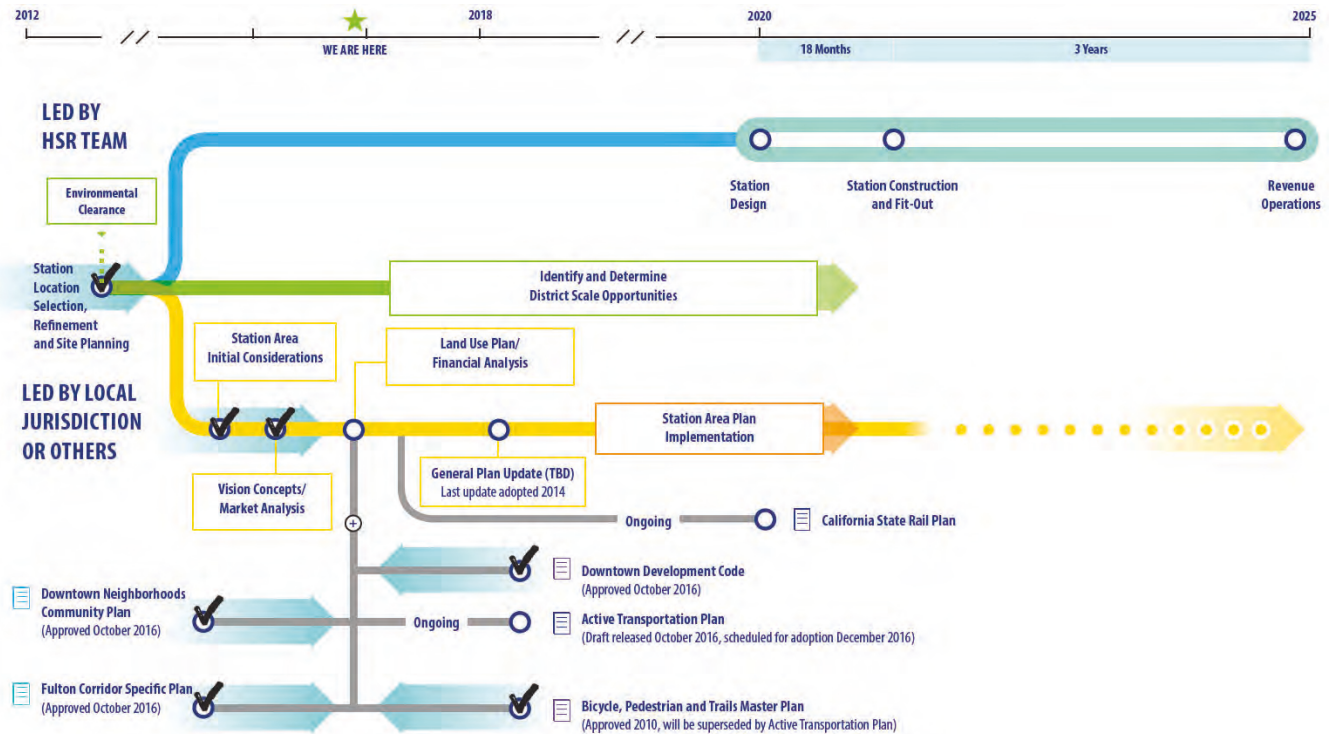


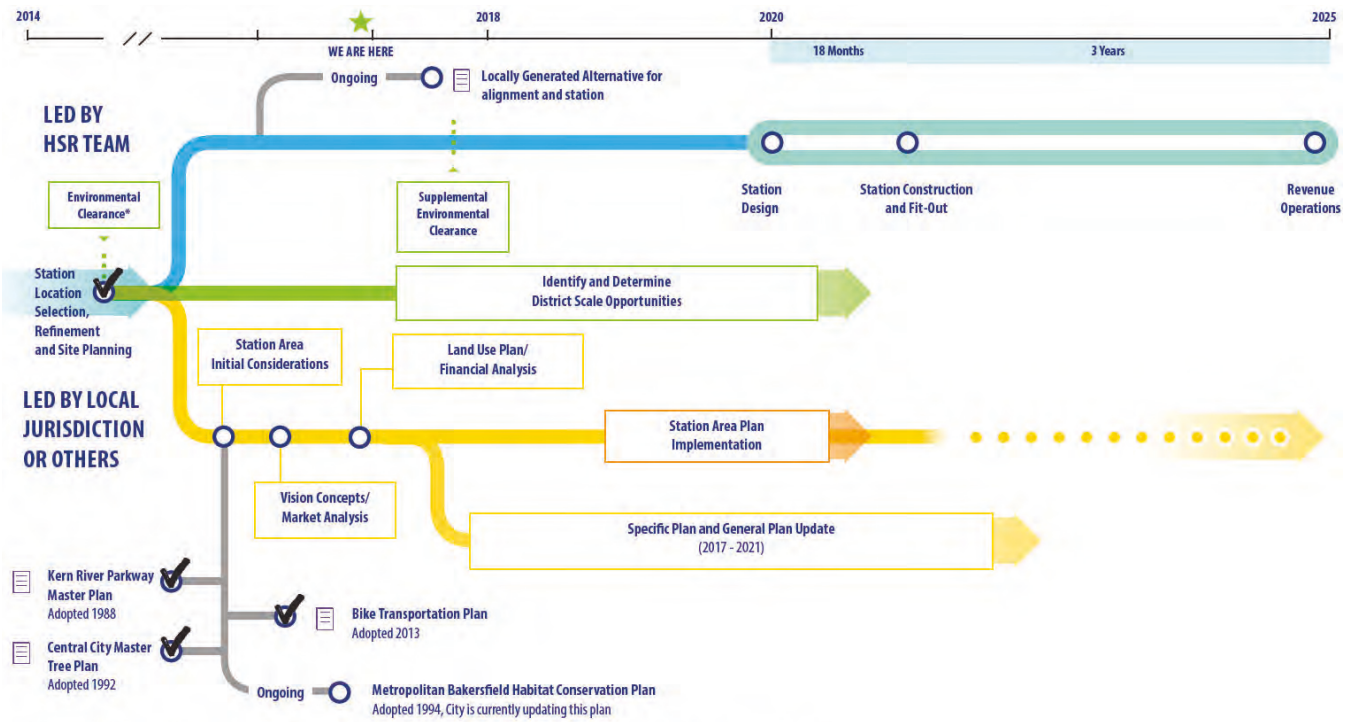
Figure 6 Merced Regulatory Updates and Related Planning Studies

## Fresno and Bakersfield Station Area Plan

The cities of Fresno and Bakersfield are the furthest along in station area planning efforts, with draft plans likely for FRA review in early 2018. The plans will include phased implementation over time, aligned with the Authority's business planning.



**Figure 7 Fresno Regulatory Updates and Related Planning Studies**

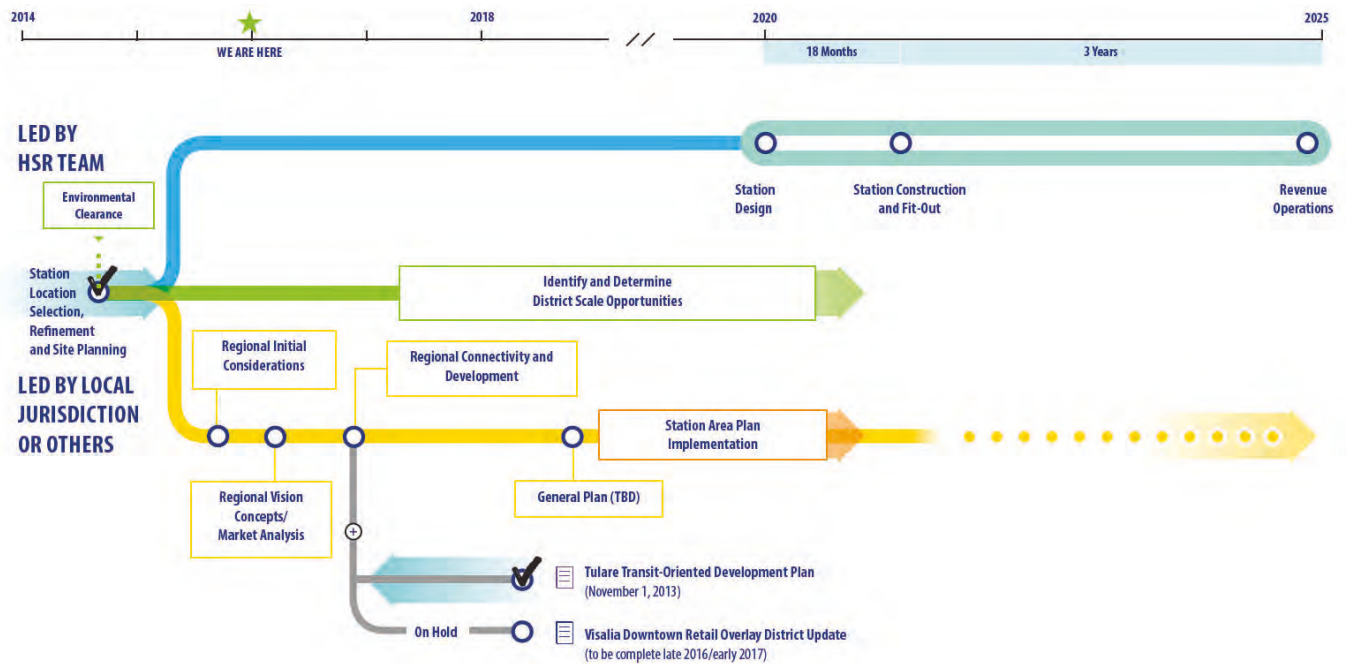


\*Platform Option 2 approved by Federal Railroad Administration and Surface Transportation Board in Summer 2014

**Figure 8 Bakersfield Regulatory Updates and Related Planning Studies**

## Kings/Tulare Station Area Plan

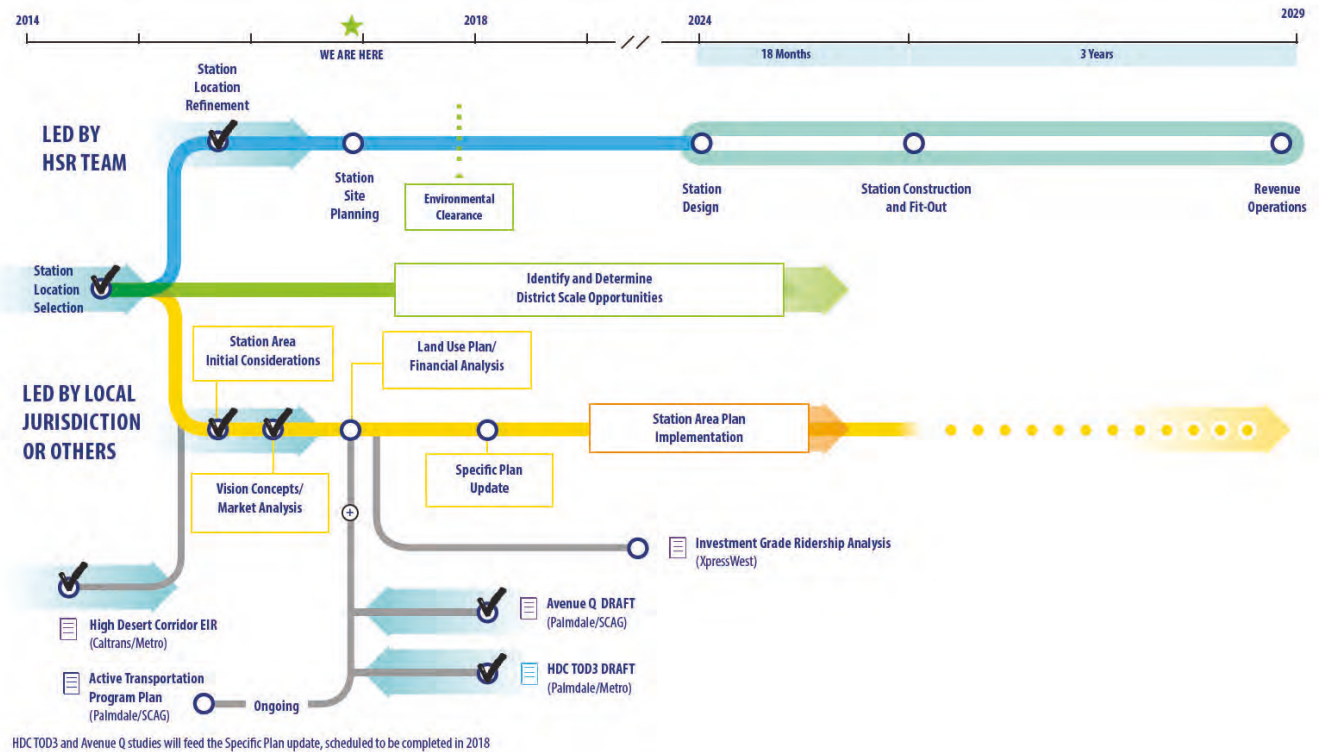
The Tulare Council of Governments (TCAG) is partnering with the Authority and several local agencies to finalize a regional connectivity plan to link more than 400,000 Central Valley residents to the Kings/Tulare high-speed rail station. Their efforts will be complete in early 2018. The former San Joaquin Railroad that runs east/west through the cities of Visalia, Hanford, Lemoore, Tulare, Exeter, Lindsay and Porterville, referred to as “cross valley railroad,” provides the connectivity that can access the Kings/Tulare Regional high-speed rail station without creating additional development in the agricultural land surrounding the Kings/Tulare station.



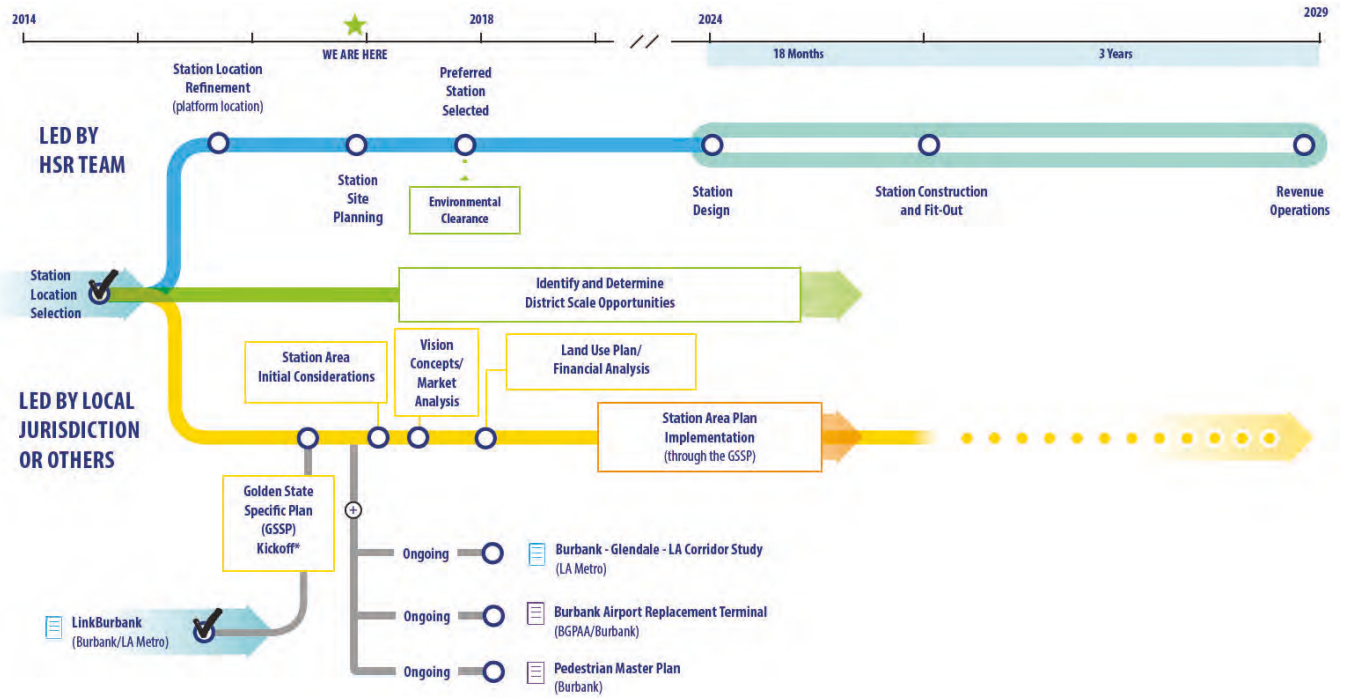
**Figure 9 Kings/Tulare Regulatory Updates and Related Planning Studies**

## Palmdale and Burbank Station Area Plans

Palmdale and Burbank have been partnering with the Authority and other local stakeholders to develop their corresponding plans. Both cities are using funds to link downtown planning efforts together. They are working toward developing a program of improvements and projects for phased implementation.



**Figure 10 Palmdale Regulatory Updates and Related Planning Studies**



\*The Station Area Plan will feed the GSSP, scheduled to be completed in 2018

**Figure 11 Burbank Regulatory Updates and Related Planning Studies**



The anticipated dates for Station Area Planning reports for FRA review and comment are listed below:

**Table 9 Station Area Planning Deliverables**

Station City	HSR Contract Number	Period of performance for the contract	Anticipated SAP draft date	Partners (intermodal working group members)
City of Millbrae	N/A	2018-2019	Q4 2019	Caltrain, BART, SFO
City of San Jose	15-64	2016-2018	Q2 2018	VTA/BART, Caltrain
Santa Clara VTA	15-173	2016-2018	Q2 2018	City of San Jose, VTA/BART, Caltrain
City of Gilroy	13-47	2014-2019	Q4 2019	VTA
City of Merced	11-10	2013-2018	Q3 2019	Merced County, MCAG
City of Fresno	11-09	2012-2018	Q1 2018	
Tulare Council of Governments	15-123	2016-2018	Q2 2018	Hanford, Visalia, Porterville, and others
City of Bakersfield	15-22	2015-2018	Q2 2018	
City of Palmdale	14-50	2015-2018	Q2 2018	Metro/Metrolink, XpressWest
City of Burbank	15-17	2015-2019	Q4 2018	

The Authority is building from these successes by creating working groups and partnerships that will continue long after the station area planning efforts are complete. The groups and partnerships will help guide future station design work and district-scale development.

#### Right-of-Way Manual

The Authority uses the Caltrans Right-of-Way Procedures Manual as the base document to guide work. Sections have been updated as appropriate to meet Authority specific requirements. This document is currently being updated and a revised version will be complete December 2017.

#### Ridership Forecasting

The Authority reviews and updates its ridership and revenue forecasting model based on feedback provided by external organizations and updates with the latest available travel data information. The ridership and revenue forecasts are updated as information is available and based on the implementation schedule set in the Business Plan. These forecasts are used to demonstrate compliance with Proposition 1A and are used to provide planning information in station area development. A risk analysis is also conducted as part of the Business Plan forecasting to provide a range of potential ridership and revenue outcomes.

The statistical projections in the ridership and revenue forecasts support the Phase 1 final environmental documents and the selection of station locations, service plan development, and

evaluation of maximum reasonable impacts (local traffic, regional & local air quality, parking requirements, etc.).

#### LAUS/SoCal Investments

The Authority is jointly working with LA Metro on the Link US master planning effort for LA Union Station. This work is to identify an integrated solution to improving regional and commuter rail services and accommodating future high-speed rail service through the station. The work will also identify passenger concourse area improvements including expanded passenger waiting area, new retail amenities, and enhanced circulation. A Draft EIR/EIS is anticipated to be released by LA Metro on the project in early 2018.

## Staffing

### Station Area Planning

The Authority is a substantial partner in the station area planning contracts with each of the cities listed above in Table 9. Work includes regular coordination activities on district-scale planning, rolling out the vision plan for stations system-wide, design opportunities for local jurisdictions and aesthetic requirements, and workshops for networking and idea-sharing venues for the Authority and local governments. The program is led by the Authority's Transportation/Commercial Planning section with planning staff in the regions. Two contract managers work under the planning director and are supported by RDP staff as required.

### Right-of-Way Manual

ROW staff as identified in the Real Property Acquisition and Environmental Mitigation chapter are all involved in the completion and updating of the manual. The final publication will be completed by staff in Sacramento but input on updating various sections involves input from staff working in all aspects of the right of way delivery program.

### Ridership Forecasting

The ridership and revenue forecasting is conducted by Cambridge Systematics. It is supported by three Authority and RDP staff who oversee the work and provide information to agency groups using information in their work.

**Table 10 Staffing Requirements for Ridership Forecasting**

Resource	Description
Cambridge Systematics	Subcontractor; day-to-day manager of travel demand forecast model
Rail Delivery Partner	Data Scientist
Rail Delivery Partner	Travel Demand Forecasting Manager
Authority Staff	Deputy Director of Business Analytics and Strategic Planning

The ridership forecasting team holds bi-weekly coordination meetings with Cambridge Systematics and weekly Business Plan meetings.

#### LAUS/SoCal Investments

This joint project between the Authority and LA Metro. Authority engagement in the project include various staff from the Southern California office include the regional director, the deputy director and various program staff for specific project elements.

## Key Challenges and Mitigation

### Station Area Planning

Access improvements, specifically parking, has been one of the initial areas of interest for station cities and proposed initial investment prioritization. Cities are trying to advance development and seeking other public funds to provide the required parking spaces for that development to occur. The challenge is to ensure that the high-speed rail stations are developed to ensure that access investments prioritize walking, biking and transit and other options over single occupancy vehicle access and storage. The goal is to ensure that land in and around stations is developed to meet various goals and objectives of both the city and the Authority.

Incentivizing land uses that allow mixed land uses, maximizing density and building height, and achieving high value mixed land uses around high-speed rail stations. Other key changes include mode of access priority, shifting the focus away from single occupant automobiles, and requiring improvements to bike and pedestrian infrastructure, as well as improving transit connectivity. Gap financing for development of weaker markets is an area of concern for several cities. The Authority is working to identify financing mechanisms and public funding options to facilitate sustainable development in and around stations that are in support of high-speed rail.

The Authority has identified a variety of challenges facing station planning as it moves forward, including:

- ≠ The Authority relies on local jurisdictions to procure and manage consultants. Some local jurisdictions are limited in technical capacity and under resourced for management of the work. Local jurisdictions can confuse station area planning work with the Authority's environmental clearance and preliminary engineering work. For example, this led to the pause on station area planning in Gilroy.
- ≠ Where there is a lack of strong local champion/leadership, we often suffer from a lack of vision for the station area and what it should transform into with high-speed rail service.
- ≠ If not well-crafted with a plan and creative opportunities for input, public engagement can be counter-productive, creating a forum for project opponents and "nimbyism".

To mitigate these challenges, the authority will:

- ≠ Continue work with station cities to plan for and implement projects and land use changes as early as possible around high-speed rail stations. Start early identifying district-scale opportunities with energy, water, infrastructure delivery, etc. These sustainable development

ideas need to be baked into the future high-speed rail station design as well as code/zoning changes and development agreements.

- ≠ Continue coordinating with station cities for station area elements and local values that will influence future station design.
- ≠ Identify early opportunities for development and investments that are consistent with Authority goals and objectives. This includes the Authority's high performance design criteria for its stations and our sustainability policy, and our future vision plan for stations state-wide (which will identify how we will meet our sustainability goals).
- ≠ Work with station cities to identify infrastructure and other needs at a district-scale. Form working groups, resource the focus on district-scale development (currently unfunded).
- ≠ Work with station cities to incorporate high-performance design criteria into the development around the station.
- ≠ Early and frequent communication and confirmation of scope and expectations with city/partners to align efforts and values. It is important for locals to prioritize access investments and land use changes within their authority and develop implementation strategies that the community will be excited to see.

The Authority's station area planning program is fully funded and fully subscribed. There are additional cities that would benefit from station area planning funds. The team continues to pursue additional funding to support station area planning efforts and was recently awarded a Brownfields grant from EPA for the LAUS Station. The Authority will continue to pursue grants and other funding in partnership with station cities.

### Right-of-Way Manual

Authority staff, supported by right-of-way consultants, are continually assessing the current processes and procedures to the acquisition, delivery and management of real estate resources. The manual is in the process of being updated.

### Ridership Forecasting

For ridership forecasting, setting the parameters and key assumptions for business plan forecasting has proven to be critical to meet forecast deadlines; delays in Business Plan development can have a significant impact on the travel demand forecasting process.

To mitigate this, the travel demand forecasting team remains in close contact with Business Plan managers and sit-in on key Business Plan delivery meetings. Those managing travel demand forecasting sit in on Business Plan delivery meetings and are responsible for writing the forecasting chapter of the Business Plan and producing the relevant Technical Appendices. This requires staff to remain in close coordination to ensure the content is delivered accurately and on-time.

## Established Priorities for FY 17/18

### Station Area Planning

Station area planning includes the Authority's contracts with local jurisdictions to make land use and zoning changes that are necessary prior to high-speed rail stations development. It is also a relationship building tool in working closely with our jurisdictions and other mobility service providers that will

enable more district-scale development to occur at and around the high-speed rail stations. Many of these contracts have resulted in the development of “intermodal working groups” with all the service providers who will be serving each station, as well as more detailed conversations with the cities and service providers on needs at the station and how to provide first and last mile connectivity projects. The Authority is leveraging FRA funding toward these activities with state funding sources including Cap-and-Trade and local monies to develop a program of investments in the station area that will support ridership and revenue for the Authority and other service providers, and urban regeneration, especially in our state’s weaker markets. The station area planning work provides an arena for partnerships that will focus public dollars and entice private sector participation earlier. We are seeing the results of these relationships in the Bay Area, where the markets are stronger and considering ways, with the Silicon Valley to Central Valley Line, to connect the markets in such a way that helps spur development in the Central Valley cities served.

### Right-of-Way

By December, the Authority will provide an updated ROW Procedures Manual that includes the content necessary to identify all right-of-way processes are consistent with applicable federal and state law including the Uniform Relocation and Real Property Acquisition Policies Act of 1970.

### Ridership Forecasting

The Authority prepares ridership and revenue forecasts to support the Phase 1 final environmental documents and the selection of station locations, service plan development, and evaluation of maximum reasonable impacts (local traffic, regional and local air quality, parking requirements.)

#### Actions

- ≠ In the upcoming fiscal year, the Authority will update ridership and revenue forecasts and conduct a new risk analysis.

### LAUS/SoCal Investments

Work related to the Link US master planning will continue in the upcoming FY. This work will include analysis of track alignments and coordination with existing regional services. In addition, the work will identify additional concourse improvements to be implemented as service investments are made. The Authority will work cooperatively to develop this major hub with current owners and rights holders and influence and benefit from future station development initiatives.

#### Actions

- ≠ Continue to support analysis of future improvement necessary to support high-speed rail service. This will include participation in public outreach and completion of a draft environmental document in early 2018.

## Task Budget

The table below summarizes the projected expenditures as outlined in the Q2-17 Funding Contribution Plan.

**Table 11 Summary Budget Task 3**

Description	Task Number	FY17/18 Projected Expenditures
Regional Consultant Station Area Planning (RC)	3.1	\$ 3,939,782
Regional Consultant ROW Work (RC)	3.2	\$ 518,649
RDP ROW Work (RDP)	3.3	–
Ridership Forecasting (RDP)	3.4	–
Construction Planning / Procurement Support (RDP)	3.5	–
Station Area Planning	3.6	\$ 7,185,462
LAUS / So California Investments	3.7	\$33,600,000
Legal Services - Pre-construction	3.8	\$43,741,705
<b>Total</b>		<b>\$88,985,598</b>



# Program, Project and FCS Construction Management

## Introduction

This chapter covers elements related to general program oversight as well as construction oversight activities. Deliverables in this area focus on the overall program and project management and construction oversight provided by the Project Construction Managers (PCM). Implementation of the program will be performed by documenting the work processes, training the people and delivering systems/tools to assist in the tracking of progress against the plan. The organization is broken down into four primary areas:

- ≠ **Program Management:** Includes recommendations and support related to program delivery approach and master program planning such as oversight of program controls including program scope, cost, and schedule.
- ≠ **Program Delivery:** Includes providing the specialized technical resources which may include, but not be limited to, tunneling, seismic design, high-speed rail systems (track electrification, train control, signaling, and communications), trainsets, track work, heavy maintenance facilities, high-speed rail system testing and commissioning, and facility operations and maintenance.
- ≠ **Project Delivery:** Includes the overall planning, coordination, and control of construction.
- ≠ **Project and Construction Management:** Includes assistance in coordination with agencies and utility companies, and in making field decisions to address conditions and/or activities that could impact budget or schedule.

## Review of Grant Required Deliverables

The table below outlines the deliverables anticipated in FY16/17 and provides a FY 17/18 update.

**Table 12 Grant Required Deliverables**

Deliverable	Schedule from FY 16/17	FY 17/18 Update
Annual Work Plan (Annual Update)	4th Qtr 2016	Complete
Program Management Plan (Annual Update)	4th Qtr 2016	Complete
Central Valley Project Financial Plan (Annual Update)	4th Qtr 2016	Complete
Phase 1 Program Financial Plan	4th Qtr 2016	Complete
CP 5 RFP	4th Qtr 2016	Postponed
Network Integration Plan	3rd Qtr 2016	Complete
Updated Service Development Plan	2nd Qtr 2017	Postponed
Infrastructure Maintenance Plan (update)	2nd Qtr 2017	Postponed
Rolling Stock Maintenance plan (update)	2nd Qtr 2017	Postponed

## Deliverables for FY 17/18

**Table 13 FY 17/18 Deliverable Dates**

Deliverable	FY 17/18 Update
Annual Work Plan (Annual Update)	3 <sup>rd</sup> Qtr 2017
Program Management Plan (Annual Update)	4 <sup>th</sup> Qtr 2017
Central Valley Project Financial Plan (Annual Update)	3 <sup>rd</sup> Qtr 2017
CP 5 RFP	TBD

## Staffing

Together, the Authority and the RDP form an integrated organization. The deliverables identified above are produced using various resources throughout the organization that have extensive knowledge of the program and current project implementation. Authority operations and procurement staff have also been working on the development of the CP 5 RFP. The release of this RFP is pending the completion of the Authority's cost and program implementation review as part of the 2018 Business Plan. That review will be complete in early 2018.

### Program/Project Controls

The Authority provides overarching program oversight and policy direction, and the RDP manages, monitors and oversees the program's operations and progress. Currently, the Authority is reevaluating program controls key roles and staffing assignments. While many tasks are currently conducted in Sacramento, discussions are underway in assessing field oversight functions to better assess project level implementation. As part of the governance structure, there will be a series of meetings established at different layers of the organization to assist in decision making and assessing progress toward the plan.

**Program Management:** Program management is overseen by the Chief Program Officer. This position is currently filled by the RDP Program Director under the Authority Chief Operating Officer's leadership.

**Program Delivery:** This area is overseen by the Chief Program Officer who covers both program and project delivery to ensure coordination between program technical support and construction project support. This area is supported by Regional Directors that are responsible for project and community coordination and delivery in the Northern, Southern and Central Valley regions. Regional program teams provide functional support in each of the regions.

**Project Delivery:** The Chief Engineer and Director of Infrastructure Delivery report to the Chief Program Officer and have overall responsibility for the execution of the construction program. Construction project managers are responsible for overseeing the construction contracts and provide direction to program functional resources assigned to help manage construction.

**Project and Construction Management:** The Authority has retained the services of specialty project and construction management (PCM) firms to provide on-site management expertise and staff to oversee the DB contracts. The PCM oversees and directs field inspectors, and work closely with the DB teams to assist in coordination with agencies and utility companies. PCM's also assist the design-builder in making field decisions to address conditions and/or activities that could impact budget or schedule. The PCM's for each construction project are:

- ≠ CP 1 – PGH Wong Engineering
- ≠ CP 2-3 – ARCADIS U.S. Inc.
- ≠ CP 4 – HNTB Corporation

The Authority primarily manages oversight activities from the Sacramento program offices in Sacramento; project managers, project staff, the PCM and the DB are in local construction project offices. This co-location enhances communication between all parties, expedites the DB approach and provides onsite oversight and coordination.

## Key Challenges

**Table 14 Key Challenges**

Section	Risk Title	Risk Description	Risk Mitigation
Programmatic	Organizational integration and clarity	<p>Risk related to integration, roles and responsibilities and requirements clarity</p> <ul style="list-style-type: none"> <li>▪ Integration - Process, procedures, and work instructions not fully integrated across the entire organization, resulting in delays, redundancy, and rework</li> <li>▪ Requirements Clarity – Unclear quality and contractual requirements throughout the Program could lead to redundancy or rework</li> </ul>	<p>Delivery and Operations focused organization</p> <p>Performing a regular program review</p> <p>Actively engaging staff in the Regions and Sacramento</p> <p>Organization underpinned with key decision-making meetings and committees</p> <p>Quality team working with functional area managers throughout organization to develop metrics to drive delivery excellence</p>
Programmatic	Failure to obtain financing for the project, either public or private financing or both.	<p>The ability to finance the project is largely dependent upon the stability of future revenue sources. For project financing, this is normally net project revenue (revenue less operating costs).</p>	<p>Continue to work with Federal partners, members of Congress and state legislators, the US DOT and other stakeholders to maintain support for funding and financing programs.</p> <p>Continue to evaluate alternative delivery models and commercial mechanisms.</p>

Development of the program baseline schedule will be incorporating a consistent Work Breakdown Structure (WBS) which can be used in other areas consistently (cost, scope). There has been limited

experience in the program staff in utilizing a WBS and a challenge will be to properly use the hierarchy. Program reporting will be performed with the WBS as a base feature, to properly identify cost, schedule or scope issues with performance measured.

Training sessions will be provided to ensure consistent use of the WBS. The schedule management staff will predominantly be filled by RDP and analysis will be provided to Authority. Sacramento staff will predominantly work at the program level, while field staff will focus on project level. Project management training will include identification of training modules; topics to be developed; and a training needs assessment. This will be documented in the training plan which is currently under development.

## Established Priorities for FY 17/18

Over the next year, the Authority will focus on the development of rigorous program controls systems and establishment of field oversight teams. This will require extensive training and outlining protocols for communication and coordination. This will include the development of several areas outlined below.

### Required Deliverable Documentation

The Authority will complete the required deliverables above based upon the most current information available. The Annual Work Plan and Central Valley Project Financial Plan (completed based upon the Authority's fiscal year) provides the FRA with a snap shot of agency activities, budget and spending related to the federal grant scope of work. The Program Management Plan (PMP) will provide the FRA a sense for how the Authority approaches delivering the program. The PMP will incorporate updated information related to the agency's updated organization and revised approval processes.

### Program Management Implementation

This section includes development and implementation of program management framework that will be used. Areas include work process documentation, governance structure that will be used to manage and control systems that will be deployed to assist the team in deploying.

#### Actions

- ≠ Implement and maintain Work Plan Standards Guide
- ≠ Update and implement the Program Management Plan
- ≠ Update and implement the Resource Management Plan
- ≠ Develop and maintain a schematic of various policies, procedures and plans related to program delivery
- ≠ Update and implement Program Baseline Plan

### Schedule Management

Schedule management includes development of a baseline schedule plan, communicating the plan with all parties involved, monitoring progress against the plan and analyzing performance.

### Actions

- ≠ Develop program baseline schedule in support of the 2018 Business Plan.
- ≠ Develop schedule management plan to identify how progress will be measured and analyzed during regular status updates.

### Project Management Training

Project management training includes development of a training program for staff involved in the delivery of specific tasks. The object of the training is to develop best practice measures into the culture of the organization and improve predictability.

### Actions

- ≠ Continue the development of the project management training plan, which will promote and advance new organizational goals and objectives to support consistent implementation of project management. The training plan will identify specific training modules/topics and individual presenters for each topic, and lay out a deployment schedule. The training plan will include obtaining feedback from those trained and establishing performance indicators that will assess the effectiveness of those trained. The feedback obtained and performance assessment will be used to establish a continuous improvement process for future employee development and continuing training plans.

### Design/Construction

The Sacramento office will support the field review of contractor claims and provide information related to impacts to overall program delivery.

### Actions

- ≠ Establish a program-level claims team to provide advisory opinions and oversight of claims management by the regional project management teams, including support for DRB position papers:
  - Program Claims Manager located in Sacramento
  - Regional Claims Manager located in Fresno

## Task Budget

**Table 15 Overall Budget**

Description	Task Number	FY 17/18 Projected Expenditures
Program Management (RDP)	5.1	\$44,891,749
Project Construction Management (PCM)	5.2	\$38,242,434
Legal Services - Construction	5.3	\$ 1,703,131
<b>Total</b>		<b>\$84,837,314</b>

# Real Property Acquisition and Environmental Mitigation

## Introduction

Task 6 focuses on right-of-way delivery for construction and property associated with environmental mitigation. The ROW team maps, appraises, and acquires parcels and provides relocation assistance (associated with right-of-way) needed for CP1, CP2-3 and CP4. Emphasis in FY 17/18 is to continue to acquire property in support of construction of Merced to Fresno and Fresno to Bakersfield segments. Right-of-way schedules and costs are reported on a quarterly basis.

## Review of Grant Required Deliverables

The Authority provides FRA on a quarterly basis a summary of upcoming right-of-way acquisition activities and costs for completion of First Construction Segment (FCS) construction.

In addition, this task also includes acquisition of biological mitigation to meet permitting requirements. The Authority also has developed and provides FRA with access to the Environmental Mitigation and Monitoring Tool. This tool tracks all mitigation requirements outlined in the ROD and permits.

## Deliverables for FY 17/18

### Right-of-Way Acquisitions Planned for Fiscal Year 17/18

The following table summarizes the remaining right-of-way acquisition necessary to complete construction of the FCS in the Central Valley. Based upon the ROW Acquisition Plan, the Authority anticipates purchasing up to 550 parcels that represents nearly all the remaining parcels necessary for FCS construction. Approximately 300 of this amount is associated with CP 2-3. Currently, the funding contribution plan projects \$213,309,000 for right-of-way purchases in FY 17/18.

**Table 16 Right of Way Acquisition Plan (July 2017)**

Funding Month	Parcel Count–All Sections	Appraised/Just Compensation Values
July 2017	17	\$ 9,300,000
August 2017	25	\$ 22,000,000
September 2017	28	\$ 2,700,000
October 2017	37	\$ 7,900,000
November 2017	52	\$ 22,500,000
December 2017	108	\$ 12,600,000
January 2018	84	\$ 9,200,000
February 2018	72	\$ 7,500,000
March 2018	42	\$ 1,200,000
April 2018	54	\$ 100,000



May 2018	6	\$ 8,300,000
June 2018	19	\$ 200,000
<b>Total</b>	<b>544</b>	<b>\$103,500,000</b>

### Compensatory Mitigation Planning and Acquisition for 17/18 Fiscal Year

In addition, the Authority will be purchasing property to meeting biological requirements outlined in the environmental documents and stipulated as part of permits received. Final timing of compensatory mitigation plans are under review based upon the adopted environmental documentation schedule and NEPA assignment discussions.

## Staffing

### FCS Right of Way Acquisition

Right-of-way is managed by the Director of Real Property and reports to the Program Director. The Director is supported by a manager of right-of-way information, and a Deputy Director of Real Property that oversees Authority agents who oversee the work of right-of-way consultants. The Authority's ROW division managers are in the Sacramento headquarters office, in the Central Valley regional office in Fresno, the Southern California regional office in Los Angeles and the Northern California regional office in San Jose. ROW continues to make organizational and process refinements to improve efficiency in support of right-of-way acquisition.

ROW consultants are responsible for performing right-of-way appraisal and acquisition services, including:

- ≠ Issuing initial letters to the property owners (Notice of Determination to Appraise [NODA])
- ≠ Conducting appraisals
- ≠ Issuing the first written offers
- ≠ Conducting negotiations
- ≠ Preparing the administrative settlement memo
- ≠ Issuing revised offers
- ≠ Establishing and providing relocation benefits and educating affected property owners about the benefits
- ≠ Preparing the acquisition quality checklist
- ≠ Preparing the memorandum of appraisal updates, the declaration of value and close escrow and the resolutions of necessity (RONs) needed for the condemnation process

### Compensatory Mitigation

The identification, acquisition and approval of compensatory mitigation acquisitions is managed by the Environmental Director in coordination with the ROW team. The Authority has utilized two approaches for completing the compensatory mitigation requirement. For Merced-Fresno mitigation properties (acquisition, easements, third party manager, etc) were completed as individual tasks completed 'in house' and using contractors. For the Fresno-Bakersfield section the Authority procured a single

mitigation contractor to provide required mitigation as ‘units or credits’ using the most efficient to meet project needs (e.g. property development, existing bank). They provide the needed mitigation and maintain the rights to the property(ies) for ongoing management and oversight.

## Key Challenges

### Right-of-Way Delays

The CP 2-3 DB contractor has submitted a change order request for a significant contract time extension and corresponding delay costs. The Authority is in the process of conducting a time impact analysis. This work includes a detailed schedule analyses, based upon the current critical path activities and right-of-way needs.

### Compensatory Mitigation

The Authority continues to pursue locating and securing compensatory mitigation prior to procuring DB contractors as its primary risk mitigation; however, it will also explore various procurement strategies that allow for variations (both in schedule and need) to occur.

The following tables describe some of the specific challenges for each project section.

**Table 17 Key ROW Challenges**

Section	Risk Title	Risk Description	Trigger Phase
Merced to Fresno	Delays to acquisition of ROW parcels for CP 1 contract as committed in the DB contract ROW Acquisition Plans may impact the construction schedule.	The Authority owns the risk of delivering ROW to DB Contractor on time. If the ROW acquisition has not progressed as committed in the ROW Acquisition Plan for Design Build Contracts, Authority may incur delay claims.	Construction
Fresno to Bakersfield	Delays to acquisition of additional ROW required for CP2-3 contract per the contractor proposed ATCs and additional design changes may impact the construction schedule.	Additional ROW parcels will be required for the CP2-3 contract due to approved Alternative Technical Concepts (ATC) and additional design changes. Once Authority approves the design changes, contractually the Authority needs to deliver additional ROW parcels within 12 months. Actual delivery of certain parcels may take longer due to relocation or condemnation process.	Final Design

**Table 18 Key Compensatory Mitigation Challenges**

Section	Risk Title	Risk Description	Trigger Phase
Programmatic	Delays to identification and acquisition of compensatory mitigation sites may impact the construction schedule because permits could not be delivered.	The Authority delivers initial permits to DB Contractor. Without those initial permits, some portions of the ROW may not be available for construction. Authority may incur delay claims.	Permitting

Programmatic	Compensatory mitigation property need is based on the initial PE design. The final design's actual requirement could be greater or less than was anticipated.	When the DB begins to refine the design (including ATCs and other design refinements) the mitigation requirements may change and require additional properties (or use of mitigation banks) to fulfill. Delays can occur if these changes are not determined early in the design process.	Final Design
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## Established Priorities for FY 17/18

### FCS Right-of-Way Acquisition

The Authority operates with support from the RDP team, ROW consultants, ROW engineering and surveying firms, and various state agencies to acquire real property under property acquisition law. The team works to determine potential opportunities for improving production rates and to identify and make recommendations to help reduce right-of-way acquisition times. Delivery of real property is impacted by complex relocations regarding commercial and industrial properties as well as design changes from the design-builders.

#### Actions

The following actions will be performed in FY 17/18 in support of the overall ROW goals and objectives:

- ≠ Revising and updating ROW policies, procedures and practices to better serve property management, excess parcel management, asset management and encroachments.
- ≠ Maintaining, updating and continuing to expand the capabilities of the Rights-of-Way Database Exchange System (ROWDES) to meet the expanding ROW role.
- ≠ Supporting the Authority in the preparation of weekly, monthly and quarterly ROW reports for submittal to the Authority's Finance and Audit Committee and the FRA.
- ≠ Supporting the Authority in the preparation of weekly and monthly financial forecasting.
- ≠ Developing and publishing regularly scheduled and ad-hoc reporting for ROW.
- ≠ Analyzing ongoing performance of ROW delivery and contractors.
- ≠ Providing contract management, contract administration which includes task order support and invoice review and processing for payment.
- ≠ Providing revision management and coordination for the ROW manual, forms and exhibits.
- ≠ Striving to accomplish the production numbers required to meet the Authority's overall goals and objectives.
- ≠ Tracking pertinent data related to the processing of appraisals, acquisitions and relocations, property management, excess, etc.
- ≠ Providing pre-ROD PTE support for all environmental sections.
- ≠ Providing utility relocation coordination in support of right-of-way acquisition and construction.

### Compensatory Mitigation Properties – Environmental

The environmental team determines the habitat impacts of the project during the planning phases based on preliminary design. During the permitting process, a strategy for providing compensatory mitigation for any habitat impacts is developed. The Authority works with the RDP and RCs to determine

what options may be available for a given environmental section. A preliminary list of properties and other assets (e.g., existing approved mitigation banks by species) is produced. At this point the Authority works with the RDP (ROW and environmental) to determine the most effective procurement strategy.

#### Actions

- ≠ Support developing and implementing the Authority's Regional Mitigation Strategy, including executive briefings and procurement documentation, to meet mitigation commitments and achieve permits in a proactive, timely manner, which will enable construction.
- ≠ Identify and acquire regional conservation sites to implement the statewide network of important natural resources to help satisfy the Authority's biological mitigation commitments and enable permitting, both of which accelerate construction.
- ≠ Develop a component of the EMMA database that will work in coordination with the ROW database to track impacts and compensatory mitigation as construction progresses and through the lifetime of the project.

### Environmental Mitigation Management and Assessment (EMMA) 2.0

EMMA is a web-based geospatially enabled application created to document and track compliance with environmental mitigation measures, environmental permit conditions and environmental commitments prescribed by various regulatory agencies. These environmental obligations are contained within environmental permit narratives, treatment plans, regulatory assessments and other environmental documents. Enhancements are planned during the next fiscal year.

#### Actions

The scope for EMMA 2.0 – Enhancements Project includes:

- ≠ Enhancements:
  - Dashboard and reporting enhancements to develop dashboard contents, metrics and preconfigured queries based on feedback and input from end users to automatically generate environmental commitment memo and quarterly reports and to allow users to select data sets and layout and create a printable PDF to be included in reports.
  - Disconnected Editing to allow the users to access and operate EMMA in areas where no Wi-Fi or cellular data exists (i.e., dead zones).
  - Deadline Tracker to track dates that often do not have a predetermined deadline, rather are dependent on an event occurring that is reported in a daily report such as start of construction.
  - Map Query and Reporting for users to query EMMA records and commitments from inside the map interface.
  - Issue Tracking and non-compliance reporting workflow enhancement to facilitate reporting of potential issues and prescribe corrective actions.
  - Parcel Ready-to-Construct reviews to determine if all of preconstruction commitments have been completed on a parcel.
- ≠ Additional Modules:
  - Consultation Tracker for permits, amendments and re-examinations is a formal system where all primary/important communications or decisions with permitting staff and agencies are documented starting with the initial decision to pursue a permit until passing a final inspection.

- Cultural resource records and mapping management to track the entire 106 permit process, manage Native American approved monitors and provide tribal leaders information on locations of culturally sensitive sites.
  - Sustainability reporting and dashboards to quickly gauge and report on the status of any Sustainability module, export modular reports and compile monthly and/or quarterly reports.
  - Tree and vegetation tracking is required by several permits and agreements both within the construction footprint and off-site as part of compensatory mitigation. This module is needed to keep track of the location of tree planting and vegetation and will eventually be incorporated into the asset management system.
- ≠ Training Materials and User Guidance Documentation:
- Development of user training materials and presentations to support EMMA2 onboarding and phased rollout to user groups (program, construction management teams, DBs).
  - Development of the EMMA2 User Guidance Manual and Frequently Asked Questions to support ongoing EMMA2 maintenance and operations.

## Task Budget

The budget below summarizes the projected costs for the next fiscal year.

**Table 19 Right-of-Way Task Budget**

Description	Task Number	FY 17/18 Projected Expenditures
Real Property - Preliminary ROW	6.1	–
Real Property - ROW Services & Relocation	6.2	\$ 55,506,421
Real Property - Environmental Mitigation	6.3	\$ 52,915,189
Real Property - ROW Acquisition	6.4	\$104,887,236
<b>Total</b>		<b>\$213,308,846</b>

# Final Design and Construction

## Introduction

The First Construction Segment (FCS) is approximately 118 miles traversing the Central Valley from northern Madera County to Shafter. The alignment is broken into four civil construction packages (CP) and one track work construction package. The five packages include:

- ≠ **SR 99 – Civil Infrastructure** – Caltrans is designing and constructing roadway improvements to support the high-speed train infrastructure from Ashlan Avenue to Clinton Avenue in Fresno.
- ≠ **CP 1 – Civil Infrastructure** – Avenue 19 (Madera) to East American Avenue (Fresno), 31 miles.
- ≠ **CP 2-3 – Civil Infrastructure** – East American Ave (Fresno) to one mile north of Tulare/Kern County line, 65 miles.
- ≠ **CP 4 – Civil Infrastructure** – One mile north of Tulare/Kern County line to Poplar Avenue north of Bakersfield, 22 miles
- ≠ **CP 5 – Track (also known as Rail Infrastructure, RI1)** – including systems, communications, signaling, and overhead power for CP1, CP2-3 and CP4.

The following DB contractors have been procured:

- ≠ CP 1 was awarded to Tutor Perini/Zachry/Parsons (TPZP) Joint Venture in 2013.
- ≠ CP 2-3 was awarded to the Dragados/Flatiron Joint Venture in 2015.
- ≠ CP 4 was awarded to California Rail Builders: Farrovial Agroman US Corp in 2016.

## Review of Grant Required Deliverables

The table below outlines the deliverables anticipated in FY16/17 and provides a FY 17/18 update.

**Table 20 Grant Required Deliverables for FY 16/17 and FY 17/18 Update**

Deliverable	Schedule form FY 16/17	FY 17/18 Update
<b>Construction Package 1</b>		
Type Selection Reports	4th Qtr 2016	Complete
60 % Design	4th Qtr 2016	Complete
90% Design	1st Qtr 2017	3rd Qtr 2017
Ready for Construction Design	2nd Qtr 2017	4th Qtr 2017
<b>Construction Package 2-3</b>		
Type Selection Reports	2nd Qtr 2017	Complete
<b>Construction Package 4</b>		
Detailed Baseline Schedule	4th Qtr 2016	Complete



## Deliverables for FY 17/18

**Table 21 Additional FY17/18 Deliverables**

Deliverable	FY 17/18 Update
<b>Construction Package 2-3</b>	
60% Design	1st Qtr 2017
90% Design	3rd Qtr 2017
Ready for Construction Design	2nd Qtr 2018
<b>Construction Package 4</b>	
Type Selection Reports	1st Qtr 2018
60% Design	1st Qtr 2018
90% Design	2nd Qtr 2018
Ready for Construction Design	2nd Qtr 2018

## Staffing

The project director leads each construction section and has overall responsibility for all construction elements including design, construction, ROW, third parties, project delivery, etc. The project director is supported by a project manager whose primary responsibility is to coordinate all external and third party elements. A design and construction manager is the contract manager for each DB and PCM contract. They ensure effective coordination between the project team and the DB contractor. The project director is the Authority's lead representative for each construction project and the design and construction manager is the lead representative for DB and PCM contract issues.

The Authority has hired PCM firms to oversee DB contract compliance. These firms provide on-site project and construction management services covering areas such as project pre-planning and programming; procurement, design and construction support; commissioning; testing; claims; and post construction services:

- ≠ Wong+Harris provides on-site oversight for CP 1
- ≠ Arcadis was procured for CP 2-3
- ≠ HNTB was procured for CP 4

The Authority recently updated organizational roles and responsibilities to meet the changing needs of the program and to effectively manage program delivery. The new organizational structure (shown in Figure 1) has four primary divisions that report to the Chief Program Officer (CPO): 1. Environmental/Third Party/ROW/Engineering Division, 2. Rail Delivery and Operations, 3. Infrastructure Delivery, and 4. Program Services Division. The CPO reports to the Chief Operating Officer (COO). The Infrastructure Delivery Division is responsible for delivering the civil infrastructure and the Rail Delivery and Operations Division is responsible for delivering the rail infrastructure. These two delivery divisions are supported by the Environment/Third Party/ROW/Engineering and Program Services delivery division.

## Infrastructure Delivery

The Infrastructure Delivery Division is led by the Infrastructure Delivery Director and is supported by the Regional Project Directors, Construction Package Directors, and Project Services Director. The Regional Project Directors manages the Regional Consultant (RC) and Environmental and Engineering Consultant (EEC) contracts and the Construction Package Directors manage construction package delivery.

All FCS construction packages (CP1, CP2-3, and CP4) have a Project Director. The Project Director is supported by a Design and Construction Manager (DCM) and a PCM consultant. Project level issues are addressed and resolved within the projects and issues that are beyond projects' control are escalated to the Infrastructure Delivery Director and/or the Executive Committee as appropriate for resolution and decision making.

The PCM administers the construction contracts under the Project Director's and DCM's direction. The PCM Design-Build Oversight Manager is the Authority/RDP's on-site representative and is responsible for the oversight of all work required in the execution of the design and build contracts. The PCM Design-Build Oversight Manager is the single point of contact for all communication with the design and build contractor. Direction regarding contractual changes follows authorized delegation of the Authority. The PCM Design-Build Oversight Manager works closely with the DCM or designee to communicate and coordinate on the progress, issues, changes, etc. as needed. The PCM has primary oversight and audit responsibility for the administration, management, and quality of the DB Contract which includes (but may not be limited to) the following:

- ≠ Design, manufacturing, construction and quality testing is accomplished in compliance with the design and construction contract documents and sound engineering, quality assurance plans and system safety and security plans.
- ≠ All changes, claims and disputes are properly defined, documented, promptly negotiated and processed, or otherwise resolved.
- ≠ Documentation of any contractual obligations and actions.
- ≠ All oversight of the design and construction contract work and enforcement of the contract requirements.

## Project Controls Systems

The Authority is in the process of implementing a project management information management system (PMIS) to capture all the project documentation, track, monitor and control the project schedules and costs. This system is being implemented in phases over the next FY.

Oracle Primavera Contract Management (OPCM) software is being used for all the design and build contracts. All the contract correspondence is registered in OPCM to have complete history and evidence to support potential claims. The OPCM is also used to capture submittals, RFIs, payment requisitions, change order notices, change order request such that these are tracked, addressed and responded to in a timely manner. The project controls teams log all the correspondence within PCM and advises the PCM DB Oversight Manager of any necessary actions required to make sure that all the submissions are addressed in a timely fashion.

The Authority has implemented the Design and Build Change Order Procedure to appropriately document any design and build contract changes. In addition to this procedure, the Authority had also implemented a Delegation of Authority matrix that defines the decision level of authority for contract changes of different staff with the Authority. All change notices and change order proposals from the contractor are reviewed and responded to by the PCM, RDP, and Authority.

A dispute resolution board addresses any disputes between the contractors and the Authority. Partnering sessions are held with the contractors on a regular basis with an intention to resolve issues with the contractors before escalating.

The Authority has also established a Change Control Committee (CCC) to deal with critical and major changes in the projects. This committee reviews changes and depending on the delegation level will decide or elevate recommendations to the CEO and/or board for approval.

## Key Challenges

**Table 22 List of Key Challenges**

Section	Risk Title	Risk Description	Risk Mitigation
FCS	Delays in obtaining agreements with railroads and increased cost of modifications required for railroads.	Many interface agreements are required with UP and BNSF and other railroad agencies related to design, construction methodologies, operational issues, stations and ancillary facilities, integration with rail infrastructure and operating companies. Authority is responsible for providing the Contractors with executed Railroad Agreements that were not executed and provided to the Contractor prior to the Proposal Deadline.	Working with railroads to establish remaining agreements.
FCS	Increase in capital costs due to limited outages from railroads	BNSF has suggested HSR to implement capacity improvements in the BNSF corridor to expand construction windows. BNSF could restrict DB contractors to one closure per week which would significantly delay DB construction schedule.	Evaluating impact of delays to construction and estimating cost of construction.
FCS	Additional /changing third party requirements	Additional or changing third party requirement has already resulted in increased capital costs and likely to lead to further increases. Examples include higher level of mitigation requested by railroads including access requirements for restricted access on one side of Railroad ROW, widening of bridge structures etc.	The staff is carrying out a cost-benefit analysis to support the decision-making process.

FCS	Increased Cost from Railroad Intrusion Protection Barrier Requirements	Increased Cost from Railroad Intrusion Protection Barrier Requirements	<p>Proposing reductions in barrier lengths based on current existing track alignments.</p> <p>Proposing alternatives to installation of concrete barriers to allow for engineering alternatives, such as reducing peak operating speeds in urban area or using dirt berms in lieu of concrete walls.</p>
FCS	Increased Cost of Northern Extension change order work	Increased Cost of Northern Extension change order work	<p>Revising alignment to avoid intrusion protection barrier.</p> <p>Evaluating scope to complete only critical work now and evaluating alternative delivery options.</p>
FCS	ROW Parcel Acquisition Delay	ROW Parcel Acquisition Delay	<p>Time impact analysis of the contractor's schedule to determine merit and identify responsibilities.</p> <p>Continue to focus ROW acquisition efforts on critical parcels to avoid future delays and costs.</p>
FCS	Additional Costs for Excluded Utilities Relocation and Conflicts	Increased costs for excluded utilities relocation and conflicts identified during detail design.	<p>Exploring alternative procurement methods to help reduce costs.</p> <p>Working with the Utilities to develop approved suppliers and contractors to increase competition and reduce costs.</p>

## Additional Challenges and Mitigation

### Railroad Requirements

The Authority is in discussions with the CP designers to minimize the use of costly concrete intrusion protection barrier (IPB) walls and exploring more cost-effective alternatives such as earthen berms, gabion walls, and other options. IPB is the second largest construction cost impact, after right-of-way delays.

The Authority has recommended significant reductions in the quantity of barrier walls in the three CPs and has reviewed the updated concepts with BNSF. Comments were received from BNSF and staff are working with the CP teams to address so BNSF Agreements can be executed.

BNSF is limiting outages for construction in the Central Valley which affects all CPs. Initial assumptions for outages included three outages a week, excluding fourth quarter which outages are not allowed. BNSF has recently indicated that outages will be limited to one 4-hour window per week. Based on the amount of work requiring BNSF outages throughout the CPs, this change is expected to cause additional construction delays.

BNSF has also requested the Authority fund the planned Una siding project to allow for more outages. In addition, BNSF has requested advance construction of the Shafter yard that is proposed as part of the Fresno – Bakersfield LGA project. Staff is carrying out a cost-benefit analysis on this request.

For track adjacency to UPRR, Authority's legal counsel is also planning to propose further reduction to the IPB length by including slower train speeds of 125 mph along approximately 8 miles through Fresno and/or deferring construction of barrier walls to a future date when UPRR has built out additional railroad tracks within its right-of-way.

### CP 1 Northern Extension

The Authority issued DL-00137 on June 23, 2017 directing TPZP to stop the guideway design along the original alignment and start design on an alignment to the west away from the BNSF right-of-way. This change would eliminate the need for an intrusion protection barrier. The environmental re-examination is in final review for FRA consideration. Ongoing ROW acquisition of the remaining 26 (out of a total of 106) parcels will continue per the current plan. Over the next year staff will work to identify all the necessary changes to accommodate this action.

### Project and Construction Management

Staff are presently evaluating all construction management oversight activities by the PCM, CP contractor, RDP and Authority to ensure the efficient management of construction oversight costs. This review will assess the current allocated resources for all CP's and ensure clear roles and responsibilities are defined.

## Established Priorities for FY 17/18

Over the next year, the Authority will be taking the following actions to assess and improve the overall oversight of construction of the FCS.

### Design

- ≠ Establish a program-level claims team to provide advisory opinions and oversight of claims management by the regional project management teams, including support for DRB position papers:
  - Program Claims Manager located in Sacramento.
  - Regional Claims Manager located in Fresno.
- ≠ Support the Authority's regional staff and project teams in the implementation of the Authority's policies and procedures and identification of available resources.
- ≠ Support the development and revision of construction management policies and procedures.
- ≠ Support training for construction management procedures as described in the Project and Construction Management Manual and relevant Authority procedures.
- ≠ Review contract changes and contractor claims for consistency as needed, lessons learned and resolution support.
- ≠ Support headquarters staff in the development and collection of reports and data from the regional and project teams.
- ≠ Support the Authority in the development and implementation of continuous improvements in policies and procedures.
- ≠ Provide legislative analysis of bills as requested.
- ≠ Support the Authority and project teams in the resolution of design and construction issues.

### Construction Support

- ≠ Provide design/construction support to each of the three CP contracts in the Central Valley.
- ≠ Participate in partnering, project development team meetings, and other meetings as requested by senior management staff.
- ≠ Support the construction team in resolution of technical issues and interpretation of design criteria:
  - Review and provide comments and recommended disposition of design variance reports submitted by the CP contractors.
  - Develop RFI responses and design directive memos to Project Construction Managers (PCMs) as required to document change or clarification of design criteria, directive drawings, and other technical requirements.
- ≠ Review and respond to technical RFIs received from the CP contractors and PCM teams.
- ≠ Perform the due diligence review of final design technical submittals for overall conformance with program-wide design criteria and other technical standards, including:
  - Design baseline reports; type selection reports; 60%, 90%; and request for construction submittals.
- ≠ Participate in technical meetings, including:
  - Informal reviews and over-the-shoulder discussions as requested on technical submittals.
  - Joint comment resolution meetings for the submittals.
- ≠ Participate in civil/structure task force meetings.



- ≠ Participate in remaining type selection meetings, including assistance in resolution of technical issues.
- ≠ Participate in monthly system interface workshop meetings.
- ≠ Provide support to PCM teams as requested in negotiation of design cost for construction change orders.

## Central Valley Construction Management and Support

- ≠ Oversee construction management services for the central region's construction contracts.
- ≠ Monitor project schedules, manage change-order requests and contingencies and assist with claims management.
- ≠ Monitor the performance and quality of the DB contractor teams for compliance with contract terms and maintain the contractual records and documents.
- ≠ Provide support for the project construction management contracts.
- ≠ Coordinate program-level construction safety activities coordination.

## Task Budget

**Table 23 Task Budget Expenditures**

Task	Title	FY 17/18 Projected Expenditures <sup>2</sup>
Task 8.1	SR-99	\$ 67,120,191
Task 8.2	Civil Infrastructure Construction Package 1 (CP1)	\$ 491,944,820
Task 8.3	Civil Infrastructure Construction Package 2-3 (CP2-3)	\$ 563,432,931
Task 8.4	Civil Infrastructure Construction Package 4 (CP4)	\$ 286,119,561
<b>Task 8</b>	<b>Final Design and Construction Contract Work for the FCS</b>	<b>\$1,408,617,503</b>

<sup>2</sup> Expenditures based upon June 30, 2017 FCP and adopted state budget.

**From:** [Barnes, Juliana \(FRA\)](#)  
**To:** ["Malone, Desiree@HSR"](#)  
**Cc:** [Everett, Lynn \(FRA\)](#); ["rlzimmerer@transystems.com"](#); ["mlrule@transystems.com"](#)  
**Subject:** Feedback: Q3-17 Deliverables (AWP)  
**Date:** Monday, January 08, 2018 2:58:00 PM  
**Attachments:** [2018-01-05 FY17\\_18 AWP\\_FRA Review.docx](#)

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Hi Desi,

FRA acknowledges receipt of CHSRA's [FY17/18 Annual Work Plan](#), dated November 2017, on 10/30/17. After review of the deliverable, FRA has enclosed comments in the attached document to CHSRA (*ref. FY17/18\_AWP\_FRA Review*).

We appreciate CHSRA's significant effort made to the AWP and look forward to further development of this deliverable incorporating FRA's comment in the upcoming year.

Thank you,

Juliana Barnes, PMP  
Project Manager  
Office of Program Delivery (RPD-15)  
Federal Railroad Administration  
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**From:** Malone, Desiree@HSR [mailto:Desiree.Malone@hsr.ca.gov]  
**Sent:** Monday, October 30, 2017 9:13 AM  
**To:** Barnes, Juliana (FRA) <juliana.barnes@dot.gov>  
**Cc:** Everett, Lynn (FRA) <lynn.everett@dot.gov>; Gilliland, Barbara(PB)@HSR <barbara.gilliland@hsr.ca.gov>; Giovinazzi, Giles@DOT <Giles.Giovinazzi@dot.ca.gov>  
**Subject:** Q3-17 Deliverables

Hi Juliana,

Attached in this email are deliverables due in Q3-17:

- Q3-17 Transmittal #06646
- Task 1: Various Re-exams (links are in the transmittal)
- Task 5: Annual Work Plan and Central Valley Project Financial Plan

**Desi Malone**  
**Grant Manager**  
**California High-Speed Rail Authority**

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CHSRA delivered the FY17/18 Annual Work Plan, dated November 2017, to FRA on 10/30/17. FRA's review comments follow.

- **Annual Work Plan (AWP):**

- Required Components (ARRA Grant Amendment 6):
  - CHSRA will prepare for FRA's review and comment a detailed staffing plan and cost estimate for the project. The AWP outlines the work necessary to establish and manage project control systems to maintain, manage, and monitor project schedule, budget, documentation, procurement, and tracking of deliverables so that implementation of the project stays on schedule and within budget.
- Key FRA Review Comments from Prior Review:
  - The document is helpful in understanding who is working on a task and what requirements/standards CHSRA has to meet when completing a task. However, the document does not outline "how" CHSRA plans to execute on schedule and within budget. CHSRA needs to develop the deliverable taking into consideration FRA's past review comments (above) as well as the following:
    - How CHSRA is going to complete each task on schedule and within budget.
    - What CHSRA is going to complete this year and how that work is helping CHSRA progress to project completion on schedule and within budget.
  - The AWP should provide specific milestones or deliverables (even if partial/iterative) CHSRA is going to meet or provide to FRA during the timeframe covered in the document as well as the number of people/resources and costs associated with achieving specific milestones or deliverables. For example, if the Program Management Plan indicates that CHSRA is going to finish a given task in say five years, then the AWP would indicate what CHSRA is doing this year (expressed by describing the number/type of people involved and/or the cost) to make sure iterative tasks are progressing as necessary to reach project completion at the end of the five years.
- Comments:
  - FRA appreciates the progress that has been made in the re-formatting of the AWP.
  - Significant progress was made in the discussion of specific milestones or deliverables in detailing the timeframe and the number of people/resources and costs to achieve the milestone or deliverable. This discussion focused on deliverables due this FY.
  - Please further develop the document in the upcoming submission by:
    - For deliverables due beyond this FY, include discussion of progress (even if it may be minimal) being made this FY.
    - The AWP does not discuss some key actions to occur this FY, such as, but not limited to, the following:
      - Early Train Operator (ETO): There is no mention of the ETO who should assist in progressing several deliverables this fiscal year.
      - Construction Package 1 Project & Construction Manager (CP 1 PCM): While the AWP discusses the responsibilities/roles of the PCMs, it does not mention that funding for the CP 1 PCM will end in the middle of this fiscal year nor how CHSRA will proceed.
  - Items to note:

- 
- The Business Plan cannot modify the scope, budget, and schedule for the FRA grants. In the next AWP please discuss the 2018 Business Plan affects CHSRA's ability to deliver the grants' scope of work.