CalSTA
CALIFORNIA STATE TRANSPORTATION AGENCY

TRANSPORTATION AGENCY
ISSUE MEMORANDUM

TO: David S. Kim, Secretary

FROM: A. L. Ray, Commissioner
California Highway Patrol

PREPARED BY: R. J. Okashima, Assistant Commissioner, Staff
California Highway Patrol
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DATE:

SUBJECT: Special Project Report – Wireless Mobile Video Audio Recording System Project

Check applicable boxes: ☒ **Request for Approval** ☐ **For Secretary's Information**

- ☐ Non-Competitively Bid Contract Justification
- ☐ Other Procurement-Related Document[1]
- ☐ Feasibility Study Report/Special Project Report
- ☐ Rulemaking/Regulation Document
- ☐ Audit/Investigation-Related Document
- ☒ Other

CalSTA REFERENCE NUMBER:

FINAL APPROVAL NEEDED BY: This Special Project Report (SPR) is associated with a Budget Change Proposal (BCP) currently pending Department of Finance approval; therefore, the California Highway Patrol (CHP) respectfully requests approval as soon as possible, so as not to delay BCP approval.

[1] Either: (1) Notices of Contract to Award.
(2) CMAS contract, MSA contract or Purchase Order exceeding departmental delegated authority.

SUBJECT: SPECIAL PROJECT REPORT – WIRELESS MOBILE VIDEO AUDIO RECORDING SYSTEM PROJECT

SUMMARY: Per the requirements of State Administrative Manual (SAM) 4945, the CHP is submitting an SPR for the Wireless Mobile Video Audio Recording System project (Project). The Project is seeking to align current costs with the previously-approved BCP and re-baseline the schedule to align with the current implementation approach, which will allow schedule variances to be reported more accurately.

DISCUSSION/PRO-CON ARGUMENTS: N/A

EFFECT ON EXISTING LAW: N/A

ESTIMATED COST: N/A

RECOMMENDATION(S): The CHP requests the attached documents be approved and returned to the Department for submission to the California Department of Technology in accordance with SAM 4945 and Statewide Information Management Manual 30.

SUBJECT: **SPECIAL PROJECT REPORT – WIRELESS MOBILE VIDEO AUDIO RECORDING SYSTEM PROJECT**

APPROVED:

A. L. Ray, Commissioner
California Highway Patrol

1/6/2021
Date

Elissa K. Konove for

David S. Kim
Secretary

1/7/2021
Date

Attachments:

(1) Executive Approval Transmittal
(2) SPR
(3) Project Summary Package
(4) Financial Analysis Worksheets
(5) Complexity Assessment
(6) Project Status Report
(7) WMVARS Implementation Plan
(8) WMVARS Master Project Schedule
(9) WMVARS Project Management Plan
(10) WMVARS Risk Issue Change Decision Log
(11) WMVARS BCP - Responsibilities

Information Technology Project Request

Special Project Report
Executive Approval Transmittal

Agency/state entity Name
California Highway Patrol

Project Title (maximum of 75 characters)	Project Acronym
Wireless Mobile Video and Audio Recording System	WMVARS

FSR Project ID	FSR Approval Date	State entity Priority	Agency Priority
		1	

I am submitting the attached Special Project Report (SPR) in support of our request for the California Department of Technology's approval to continue development and/or implementation of this project.

I certify that the SPR was prepared in accordance with the State Administrative Manual Sections 4945-4945.2, my Agency/state entity has considered the cost benefits analysis associated with the proposed project changes and the changes are consistent with our information management strategy as expressed in our current Agency Information Management Strategy (AIMS).

I have reviewed and agree with the information in the attached Special Project Report.

I also certify that the acquisition of the applicable information technology (IT) product(s) or service(s) required by my department that are subject to Government Code 7405 applying Section 508 of the Rehabilitation Act of 1973 as amended meets the requirements or qualifies for one or more exceptions (see following page).

APPROVAL SIGNATURES

Chief Information Officer	Date Signed
Printed name: Chief Chris Childs	1/6/2021
Budget Officer	**Date Signed**
Printed name: Michelle Fojas	1/6/2021
State Entity Director	**Date Signed**
Printed name: Commissioner Amanda Ray	1/6/2021
Agency Chief Information Officer	**Date Signed**
Printed name: Marcie Kahbody	1/7/2021
Agency Secretary	**Date Signed**
Printed name: David Kim (Elissa K. Konove for)	1/7/2021

Executive Approval Transmittal
IT Accessibility Certification

Yes or No

Yes	**The Proposed Project Meets Government Code 7405 / Section 508 Requirements and no exceptions apply.**

Exceptions Not Requiring Alternative Means of Access

Yes or No	Accessibility Exception Justification
	The IT project meets the definition of a national security system.
	The IT project will be located in spaces frequented only by service personnel for maintenance, repair, or occasional monitoring of equipment (i.e., "Back Office Exception.)
	The IT acquisition Is acquired by a contractor incidental to a contract.

Exceptions Requiring Alternative Means of Access for Persons with Disabilities

Yes or No	Accessibility Exception Justification
	Meeting the accessibility requirements would constitute an "undue burden" (i.e., a significant difficulty or expense considering all agency resources). Explain: Describe the alternative means of access that will be provided that will allow individuals with disabilities to obtain the information or access the technology.
	No commercial solution is available to meet the requirements for the IT project that provides for accessibility. Explain: Describe the alternative means of access that will be provided that will allow individuals with disabilities to obtain the information or access the technology.

Special Project Report
Executive Approval Transmittal
IT Accessibility Certification
(continued)

Exceptions Requiring Alternative Means of Access for Persons with Disabilities

Yes or No	Accessibility Exception Justification
	No solution is available to meet the requirements for the IT project that does not require a fundamental alteration in the nature of the product or its components. Explain: Describe the alternative means of access that will be provided that will allow individuals with disabilities to obtain the information or access the technology.

Special Project Report
2720-114
Wireless Mobile Video and Audio Recording System

November 17, 2020

3.0 Proposed Project Change

The Wireless Mobile Video and Audio Recording System (WMVARS) project is seeking to increase one-time projects costs, rebaseline the project schedule, and modify future maintenance and operational (M&O) costs. The increase in one-time project funding aligns with implementation of project-related costs previously approved with the Budget Act of 2018 and will allow the California Highway Patrol (CHP) to fully utilize the funds already allocated. The Budget Act of 2018 authorized 12 positions and $52.53 million to address the three-year implementation phase of the project. The project financials that were approved by the California Department of Technology (CDT) on September 25, 2019, as part of the Project Approval Lifecycle (PAL), were a close approximation of anticipated implementation costs and less than what was approved by the 2018 budget change. The 2018 Budget Change Proposal (BCP) for $52.53 million was based on market research and cost estimates at the time. The project financials developed during PAL were calculated based on actual vendor contract costs that were finalized by the Department of General Services (DGS) in June 2019. Since project kick-off in September 2019, the project has completed design, configuration, and system testing. A pilot is currently in progress and is expected to be completed at the end of January 2020. Although a great effort was made to anticipate expenditures that were submitted in August 2019, these costs did not factor the need for unanticipated expenses. Current project financials have been updated to include a line item for unexpected information technology (IT) costs, which will give the project flexibility to quickly make adjustments if needed during the pilot and rollout phase. The one-time project cost baseline is $47.22 million. The project is currently projected at $53.92 million. The increase is approximately $6 million, which is what the project has allocated for unanticipated IT costs and represents approximately 12 percent of one-time project costs.

	FY 18/19	FY 19/20	FY 20/21	FY 21/22	Total
BCP	$ 5,038,575	$ 22,948,279	$ 24,543,341	$ -	$ 52,530,195
PAL Baseline	$ 3,507,842	$ 23,234,256	$ 17,550,837	$ 2,933,283	$ 47,226,219
Current	$ 3,507,842	$ 22,677,849	$ 24,622,119	$ 3,120,777	$ 53,928,587

The Budget Act of 2018 did not fund ongoing maintenance and support for WMVARS. It was determined the Department must pursue a separate BCP to secure future operational costs. As such, the Department has submitted a Fall 2020 BCP to support the maintenance phase. The maintenance phase of the project will begin Fiscal Year (FY) 2021/22 and requires permanent funding for the 12 previously authorized positions, as well as the ongoing M&O of WMVARS. The financials for future operations submitted during PAL/planning were approximations of anticipated operational costs. Since PAL, the project has refined its estimates. The primary change to future operations is the need to realign IT costs such that they accurately account for ongoing hardware needs. Baseline IT costs were previously underestimated. Project financials have been updated to more accurately reflect future operational costs and submitted with the Fall 2020 BCP.

The project is also requesting to rebaseline the project schedule, so it is more in line with the Department's current implementation approach. The overall project end date did not change. Although the project has experienced some delay to major milestones up until this point (refer to section 3.3, Reason for Proposed Change, and section 3.4.2, Impact of Proposed Change on the Project, for details), it has been able to recover, and completion of the implementation phase remains consistent with the baseline project end date. Schedule recovery is primarily due to the project's change in rollout approach and the dates associated with the beginning of training and vehicle installation. The project is seeking approval of the updated schedule as the current baseline version does not accurately reflect the new rollout approach.

3.1 Project Background/Summary

The project will replace the existing standalone DVD-based mobile video and audio recording system with a commercially available, high-resolution recording solution capable of supporting integrated body worn cameras (BWC) for all officers. The new solution will allow the CHP to increase in-car usage in enforcement vehicles from 66 percent to 100 percent, including the ability to outfit motorcycles in the future. The WMVARS solution will eliminate patrol officer control of in-car data, which will reduce personnel hours expended handling data, and increase evidence reliability. Additionally, the new solution will provide an integrated solution for all video evidence captured in-car and with BWCs.

3.2 Project Status

The project kick-off was held on September 25, 2019. Software design and configuration were completed as of January 31, 2020, and hardware configuration was completed as of September 16, 2020. The WMVARS system has successfully passed electromagnetic interference/radio frequency interference (EMI/RFI) testing and system testing was completed as of September 18, 2020. Pilot implementation began on September 25, 2020. Rollout Phase 1, prewiring of vehicles, began on October 1, 2020.

The below table summarizes major project milestones, current start and end dates, as well as current status.

Milestone	Start Date	End Date	Status
PAL Stage 1 and 2		11/1/17	CDT approved
PAL Stage 3		5/3/19	CDT approved
PAL Stage 4		9/30/19	CDT approved
Project Kick-off	9/23/19	9/25/19	Complete
Prerequisites	6/24/19	12/13/19	Complete
Hardware Configuration	10/10/19	9/11/20	Complete
Software Configuration	1/6/20	1/31/20	Complete
Test Readiness Review	2/3/20	4/24/20	Complete
COBAN – Active Directory Federated Services Integration	3/16/20	8/17/20	Complete
System Test – Part I	3/16/20	1/13/21	Started
System Test – Part II	8/4/20	9/18/20	Complete
System Test Complete		9/18/20	Complete

Milestone	Start Date	End Date	Status
Go/No Go Pilot	9/21/20	9/24/20	Complete
Pilot – East Sacramento	9/25/20	1/13/21	Started
Pilot – Placerville	9/14/20	1/13/21	Started
Command Center Enhancements	11/6/20	1/29/21	Started
Rollout Phase 1 – Prewire/Retrofit Vehicles	10/1/20	4/8/21	Started
Rollout Phase 2 – Division Training and Begin Vehicle Installation	1/25/21	11/30/22	Not started
New Build – Complete Unit	10/1/20	11/30/22	Started
Verification/Quality control	10/1/21	4/7/22	Not started
Final Verification	4/8/22	11/30/22	Not started
Rollout Complete		11/30/22	Not complete

3.3 Reason for Proposed Change

Since the project's approval in June 2019, project cost estimates have been refined based on actual need and new information. Project financials approved during the PAL process were an estimation of project costs at the time. Financials were updated in April 2020 when a Change Request (CR) was approved by the project's Executive Steering Committee (ESC) to support new vehicle builds. Since April 2020, additional refinement has been made to financials based on actual need and the need to plan for unanticipated project costs that may arise during the pilot and rollout.

The below table provides a comparison between the Financial Analysis Worksheet (FAW) PAL baseline and current financials.

	FY 18/19	FY 19/20	FY 20/21	FY 21/22	Total
FAW PAL	$ 3,507,842	$ 23,234,256	$ 17,550,837	$ 2,933,283	$ 47,226,219
FAW Original Change Request	$ 3,507,842	$ 23,502,559	$ 21,492,137	$ 2,778,283	$ 51,280,820
Current	$ 3,507,842	$ 22,677,849	$ 24,622,119	$ 3,120,777	$ 53,928,587
Variance (PAL)	$ 0	$ (556,407)	$ 7,071,282	$ 187,494	$ 6,702,368
%	0.0	-2.4	40.3	6.4	14.2

Staff costs have increased due to salary and benefits rate increases. Interdepartmental services costs have increased, as CHP is leveraging the DGS statewide contract and the cost estimate is based on a percentage of the COBAN/Safe Fleet WMVARS hardware and services procurement. An increase to WMVARS hardware costs is directly tied to an increase in DGS costs. External services costs have been reduced, primarily due to a reduction in the number of CHP Area offices that will require an on-premise appliance to be installed and supported. Net IT costs have increased because of an increase in WMVARS hardware and the need to plan for unanticipated IT expenses. The number of original vehicles estimated did not factor in annual new builds being introduced by the Department's Fleet Operations Section (FOS). A project CR to support new builds was approved by the ESC in March 2020. Current financials account for 2,600 enforcement vehicles in the field, which is slightly higher than the original 2,505 vehicles estimated. The future operational budget must be capable of supporting 10 percent for replacement parts and an additional 800 new builds each FY. The project is projecting an average of 10 percent of its 2,600 vehicles will need full WMVARS component replacement due to loss or damage and/or replacement for out of warranty repairs. In addition, FOS continuously builds new patrol vehicles to replace those that have reached end of life due to normal wear and tear. On average, the project needs the ability to support 800 new builds annually. Unanticipated IT costs have been reserved to cover potential need for additional WMVARS hardware, and replacement of on-premise appliances

and associated network components. As noted above, the number of on-premise appliances was reduced significantly; therefore, reducing the appliance cost as well as the associated installation and support costs. The number of identified sites was based on cellular coverage and Area bandwidth at the time. It is possible adjustments will need to be made if it is determined during the rollout an Area office needs additional network infrastructure to support WMVARS. It is expected unanticipated IT costs will cover the need for additional WMVARS or network telecommunication equipment. In addition, the CHP is currently evaluating the need for BWCs. Body worn camera testing is within the scope of the project; limited testing was completed during system test. Additional system functional testing and field testing of BWC components may be required in the future and it is expected unanticipated IT funds would be used to continue testing on a slightly larger scale, if required.

Future operations cost estimates have also been revised since CDT PAL approval and financials have been updated to reflect current anticipated costs. The primary change is to hardware and the addition of telecommunication and unanticipated IT costs. The baseline hardware cost was based on the legacy in-car camera system M&O budget of $350,000 annually. Future hardware costs are expected to be $2.1 million plus $900,000 for telecommunication costs annually to support a 10 percent WMVARS replacement cost for damaged vehicles and/or equipment that needs to be fully replaced in the field. This is in addition to an average of 800 vehicles built each year to replace vehicles in the field that have reached end of life. $300,000 or 10 percent, of hardware and telecommunication costs have been reserved for unexpected expenses such as the replacement of individual WMVARS components due to normal wear and tear.

The Budget Act of 2018 authorized 12 positions and $52.53 million to address the three-year implementation phase of the project. The maintenance phase of the project begins FY 21/22 and requires permanent funding for the previously authorized positions as well as the ongoing M&O of the system. All 12 positions identified for the implementation phases are required to support M&O. Three of the positions will support the increase in IT workload (e.g., servers, databases, and networks). Eight of the positions will provide local IT support to the field Divisions. One position will be at CHP Headquarters (HQ) to conduct training, assist with deployment, and address maintenance and support issues during the operation of the system. Refer to WMVARS BCP – Responsibilities_10192020_v3.1, for additional detail regarding staff responsibilities.

	FY 18/19	FY 19/20	FY 20/21	Total
Total BCP Approved Positions (per fiscal year)	4	5	3	12
Hired	0	4	1	5
Hiring in Progress	0	0	4	4
Pending Advertisement	0	0	3	3

The current baseline project schedule was based on a three-phased, by Division, rollout approach and the associated project end date did not factor in completion of all vehicles. A new two-phase implementation approach has been defined and accounts for all vehicles. The new two-phase approach allows the project to recover from schedule overruns experienced to date and still meet the originally planned completion date of November 30, 2022. Schedule overruns were primarily due to the additional time needed to ensure hardware compatibility with existing vehicle types, extended EMI/RFI testing, and the need to ensure the WMVARS software system seamlessly integrated with the

Department's Active Directory (AD) system. The integration with AD was dependent on WMVARS software changes. Two new releases were added to the schedule as deliverables and had a direct impact on system testing activities and all downstream tasks. Per a request from CDT, Independent Project Oversight (IPO), the schedule has also been updated to include the time needed for WMVARS equipment to be installed in all identified vehicles. Due to the complete change in approach, it is necessary to rebaseline the schedule to more accurately track the rollout for each Division and to ensure the project end date accurately reflects the current plan.

3.4 Proposed Project Change

3.4.1 Accessibility

Not applicable.

3.4.2 Impact of Proposed Change on the Project

Scope

In March 2020, the project's ESC approved a CR to support new vehicle builds. The original project scope and financials only accounted for vehicles in the field. The Department's FOS continuously builds new vehicles and deploys them to the field as replacements for those that reach end of life. From an efficiency standpoint, the Department determined new builds targeted for the field should be prewired on the assembly line, therefore reducing the amount of work to be done by each Area office. With this approach, Area offices will only need to install new WMVARS units in prewired vehicles or uninstall reusable WMVARS components from previously outfitted WMVARS vehicles then install them into new, prewired vehicles.

Costs

The updated FAW factors in current known costs, including the approved change to support new vehicle builds. The primary change to the financials is the need to plan for unanticipated IT costs. Instead of adding a buffer to individual line items, the CHP has separated these costs out as its own line item. Costs associated with the new build CR were originally estimated at $7.2 million. The estimate assumed complete WMVARS units were required. When finalizing the second purchase order (PO) for COBAN/Safe Fleet equipment, it was determined only prewire cabling, mounting brackets, and antennas were required, greatly reducing the cost to approximately $1.5 million annually. Although current costs are higher than the baselined FAW, the CHP is not requesting any one-time project funds above and beyond what has already been approved and allocated to the Department as part of the Budget Act of 2018. The CHP will provide CDT with an itemized breakdown of any FY 20/21 unanticipated funds spent and any monies not expended by June 2021 will be returned to the Department of Finance (DOF), if required.

The below table provides a comparison between the approved 2018 BCP and current financials.

	FY 18/19	FY 19/20	FY 20/21	FY 21/22	Total
BCP	$ 5,038,575	$ 22,948,279	$ 24,543,341	$ -	$ 52,530,195
Current	$ 3,507,842	$ 22,677,849	$ 24,622,119	$ 3,120,777	$ 53,928,587
Variance	$ (1,530,733)	$ (270,430)	$ 78,778	$ 3,120,777	$ 1,398,392
%	-30.4	-1.2	0.3	0.0	2.7

Please refer to the below table for an itemized breakdown of one-time project costs and the variance between baselined and current cost estimates. These numbers can also be referenced in the Detail Comparison table in the current FAW (FAW 2720 114 WMVARS 101920 SPR.v4.1).

Project Costs (One-Time)	PAL	Current	Variance	%	Comments
Staff (Salaries & Benefits)	**$ 7,502,577**	**$ 7,502,520**	**$ (57)**	**0.0%**	Realigned redirected staff resources based on usage to date.
Staff Operating Expense and Equipment (OE&E) Rollup	**$ 345,725**	**$ 369,725**	**$ 24,000**	**6.9%**	Increase in OE&E rate per Budgets, effective Fiscal Year (FY) 20/21.
Consulting & Professional Services (Prof. Svc.): Interdepartmental (Interdept.)	**$ 1,435,049**	**$ 1,503,222**	**$ 68,173**	**4.8%**	
California Department of Technology (CDT) - Office of Statewide Project Delivery (OSPD) Project Approvals and Oversight	$ 916,540	$ 916,540	$ -	0.0%	
CDT - OSPD Statewide Technology Procurement	$ 2,500	$ 2,500	$ -	0.0%	
CDT - OSPD California Project Management Office	$ -	$ -	$ -		
Department of General Services (DGS) Procurements	$ 516,009	$ 584,182	$ 68,174	13.2%	Directly tied to COBAN procurement.
Office of Systems Integration	$ -	$ -	$ -		
Consulting & Prof. Svc.: External	**$ 2,006,800**	**$ 1,176,040**	**$ (830,760)**	**-41.4%**	
Proof of Concept (POC) - Facility Configuration	$ 10,000	$ 10,000	$ -	0.0%	
Independent Validation and Verification (IV&V)	$ 750,000	$ 747,740	$ (2,260)	-0.3%	Current based on actual contract amount.
Vendor Installation and Configuration (Appliance)	$ 487,500	$ 130,000	$ (357,500)	-73.3%	Reduced the total number of on-premise appliances (from 75 to 20) required based on review of low-bandwidth and poor cell coverage sites.
Vendor Training	$ 58,500	$ 58,500	$ -	0.0%	
Off-Hours Services	$ 5,400	$ 1,800	$ (3,600)	-66.7%	Removed per DGS
On-Premise Appliance Support	$ 695,400	$ 228,000	$ (467,400)	-67.2%	Reduced the total number of on-premise appliances (from 75 to 20) required based on review of low-bandwidth and poor cell coverage sites.
Information Technology	**$ 37,061,469**	**$ 44,502,481**	**$ 7,441,012**	**20.1%**	
POC: Servers (2 at cost to vendor)	$ 80,000	$ 80,000	$ -	0.0%	
Wireless Mobile Video Audio Recording System (WMVARS) Hardware (including taxes)	$ 14,007,772	$ 18,398,411	$ 4,390,639	31.3%	Updated based on actual parts required as a result of working with Fleet Operations Section (FOS), RPS, and WMVARS Technical Team. Cost of complete unit is slightly higher and increase in number of units. Takes into consideration 2,600 vehicles to be outfitted with WMVARS units, 10 percent for loss/damage, and 800 sets of prewiring for new builds (CR1) on an annual basis. Original PAL estimate was 2,505 and current is 2,860.
Software	$ 1,884,800	$ 1,333,000	$ (551,800)	-29.3%	Due to push in implementation rollout schedule, the need for software and cloud storage earlier in the project was eliminated.
On-Premise Appliance (including taxes)	$ 3,099,375	$ 824,030	$ (2,275,345)	-73.4%	Reduced the total number of on-premise appliances (from 75 to 20) required based on review of low-bandwidth and poor cell coverage sites.
Cloud Storage	$ 12,403,200	$ 8,772,000	$ (3,631,200)	-29.3%	Due to push in implementation rollout schedule, the need for software and cloud storage earlier in the project was eliminated.
Network Telecommunication	$ 5,586,322	$ 9,095,040	$ 3,508,718	62.8%	Increased modem and antenna cost. Increased wireless access point (WAP) install and infrastructure costs.
Unanticipated IT Costs (Hardware, Software, Telecommunication)	$ -	$ 6,000,000	$ 6,000,000		Added to cover potential need for increased number of WMVARS replacement units, on-site appliances/installation/support, external WAPs including installation, modems, and potential addition of body worn cameras for extended testing.
Misc. OE&E Rollup (Departmental Services; Central Administrative Services; Office Equipment; Other; Unclassified/Special Adjustment; Local Assistance)	$ -	$ -	$ -		
Total Project Costs (One-Time):	**$ 48,351,620**	**$ 55,054,045**	**$ 6,702,425**	**13.9%**	

In addition to the one-time project cost adjustment, CHP is seeking to adjust future operational costs. Permanent budget augmentation for future operational costs were not approved with the Budget Act of 2018. The FAW has been updated, primarily to support the increase in IT costs. The baseline FAW was based on the M&O budget for the current DVD-based system. Financials have been updated to support the actual cost to replace WMVARS equipment in 10 percent of vehicles and prewiring for 800 new vehicles each FY. Despite the increase in ongoing M&O, cost estimates are still in line with the original 2018 BCP request.

Future Ops. IT Staff & OE&E Costs (Continuing)					
Staff (Salaries & Benefits)	**$ 1,445,169**	**$ 1,620,449**	**$ 175,280**	**12.1%**	Increase in salary, per Budgets
Staff OE&E Rollup	**$ 96,000**	**$ 108,000**	**$ 12,000**	**12.5%**	Increase in OE&E rate per Budgets, effective FY 20/21
Consulting & Prof. Svc.: Interdept.	**$ 262,151**	**$ 308,600**	**$ 46,449**	**17.7%**	
DGS Procurements	$ 262,151	$ 308,600	**$ 46,449**	**17.7%**	Directly tied to COBAN procurement .
Consulting & Prof. Svc.: External	**$ 858,600**	**$ 228,000**	**$ (630,600)**	**-73.4%**	
Off-Hours Services	$ 3,600	$ -	**$ (3,600)**	**-100.0%**	Removed per DGS
On-Premise Appliance Support	$ 855,000	$ 228,000	**$ (627,000)**	**-73.3%**	Reduced the total number of on-premise appliances (from 75 to 20) required based on review of low-bandwidth and poor cell coverage sites.
Information Technology	**$ 18,560,000**	**$ 24,460,000**	**$ 5,900,000**	**31.8%**	
Hardware	$ 700,000	$ 4,071,369	**$ 3,371,369**	**481.6%**	Original was based on RPS' current MVARS budget. Current is based on actual WMVARS cost. Represents the cost associated with 10 percent of fleet vehicles in the field (damage/replacement) and 800 new FOS vehicles that need to be wired annually.
Software	$ 2,356,000	$ 2,356,000	$ -	**0.0%**	
Cloud Storage	$ 15,504,000	$ 15,504,000	$ -	**0.0%**	
Telecommunication (Antenna)	$ -	$ 1,800,000	**$ 1,800,000**		Antennas required for new builds. Cannot be reused.
Unanticipated IT Costs (Hardware, Software, Telecommunication)	$ -	$ 728,631	**$ 728,631**		Added to cover potential need for increased number of WMVARS replacement units, on-site appliances/installation/support and/or external WAPs including installation. More likely individual WMVARS components that need to be replaced due to normal wear and tear.
Misc. OE&E Rollup (Departmental Services; Central Administrative Services; Office Equipment; Other; Unclassified/Special Adjustment; Local Assistance)	$ -	$ -	$ -		
Total Future Operations IT Staff & OE&E (Continuing):	**$ 21,221,920**	**$ 26,725,049**	**$ 5,503,129**	**25.9%**	
Annual Future Operations IT Costs (M&O):	**$ 11,381,545**	**$ 14,226,749**	**$ 2,845,204**	**25.0%**	

The October 2020 Project Status Report table below provides the last approved budget, cumulative planned cost, and cumulative actual costs to clearly show the variance.

IT Project Costs (One-Time)	Last Approved Budget ($)	Cumulative Planned Cost ($)	Cumulative Actual Cost ($)	Comments
Staff (Salaries and Benefits)	**$6,543,400**	**$2,717,272**	**$411,163.61**	Staff costs reported through September 2020. Staff have worked fewer cumulative hours than anticipated.

IT Project Costs (One-Time)	Last Approved Budget ($)	Cumulative Planned Cost ($)	Cumulative Actual Cost ($)	Comments
Staff OE&E Rollup	**$313,725**	**$140,920**	**$48,000.00**	Project has not hired all staff anticipated for FY 20/21. Project Team has not yet traveled.
Consulting and Professional Services: Interdepartmental	**$1,390,825**	**$904,815**	**$385,403.01**	See paragraph below.
CDT - OSPD Project Approvals and Oversight	$874,816	$388,807	$148,617.00	The IPO has invoiced a lower monthly amount than initially anticipated.
CDT - OSPD STPD	$0	$0	$0	
DGS Procurements	$516,009	$516,009	$236,786.01	The COBAN/Safe Fleet PO for FY 20/21 has not yet been issued.
Consulting and Professional Services – External	**$1,996,800**	**$1,746,800**	**$207,660.00**	See paragraph below.
Independent Validation and Verification (IV&V)	$750,000	$500,000	$155,660.00	Anticipated costs broken up evenly across FYs, not based on expected month of expenditure.
Vendor Installation and Configuration (Appliance)	$487,500	$487,500	$26,000.00	To be expended when appliances are scheduled for installation.
Vendor Training	$58,500	$58,500	$26,000.00	See paragraph below.
Off-Hours Services	$5,400	$5,400	$0	
On-Premise Appliance Support	$695,400	$695,400	$0	To be invoiced on a date to be agreed upon by CHP and COBAN/Safe Fleet.
Consolidated Data Centers	**$0**	**$0**	**$0**	
IT	**$36,981,469**	**$36,981,469**	**$3,566,805.39**	See paragraph below.
Proof of Concept: Servers (two at cost to vendor)	$0	$0	$0	
WMVARS Hardware	$14,007,772	$14,007,772	$584,939.53	See paragraph below.
Software	$1,884,800	$1,884,800	$1,550.00	See paragraph below.

IT Project Costs (One-Time)	Last Approved Budget ($)	Cumulative Planned Cost ($)	Cumulative Actual Cost ($)	Comments
On-Premise Appliance	$3,099,375	$3,099,375	$123,595.00	See paragraph below.
Cloud Storage	$12,403,200	$12,403,200	$0.00	See paragraph below.
Network Telecommunication	$5,586,322	$5,586,322	$2,856,720.86	See paragraph below.
Total IT Project Costs (One-Time):	**$47,226,219**	**$42,441,269**	**$4,619,032.01**	

For purposes of cost tracking and calculating planned costs to date, FY totals for each category, except DGS Procurements, Consulting and Professional Services – External, and IT, have been broken down into 12 equal months. The total one-time project cost variance between planned and actual costs is largely due to the fact planned IT costs were based on anticipated PO date. However, actual costs are based on receipt of product and/or services and when invoices are processed. Due to the delay in project schedule and delay in receiving hardware, there is currently a large cost variance. This variance is expected to be gradually reduced over the next several months as hardware is currently being received to support the Phase 1 rollout and FOS new vehicle builds. In addition, Division training and all on-premise installations are expected to be complete by March 2021.

Schedule

There is no negative impact to the overall project schedule. Changes to support the rollout approach, including the approved CR for new vehicle builds, are in line with the baseline project end date. Start and end dates for each Division have been modified to align with a two-phase rollout approach and a new task has been added to account for new vehicles being prewired by FOS for the duration of the project. For clarification purposes, a new Rollout Completion milestone was added, but the project end date of November 30, 2022, remains the same as the baselined project end date.

Original Timeline

Current Timeline

In parallel with Phase 1 and 2, FOS will ensure new enforcement vehicles coming off the assembly line will be prewired for the new WMVARS system. These vehicles will not need to be retrofitted.

The following table summarizes major project milestones, baseline start and end dates, current start and end dates, and current status. The primary change in schedule is due to testing delays and changes in the implementation rollout.

Milestone	Baseline Start	Baseline End	Current Start	Current End Date	Status
Project Kick-off	9/23/19	9/27/19	9/23/19	9/25/19	Complete.
Prerequisites	6/24/19	11/20/19	6/24/19	12/13/19	Complete.
Hardware Configuration	10/14/19	2/28/20	10/10/19	9/11/20	Delayed due to completion of EMI/RFI testing. Complete.
Software Configuration	1/6/20	1/31/20	1/6/19	1/31/20	Complete.
Test Readiness Review	2/3/20	3/6/20	2/3/20	4/24/20	Delayed due to Requirements Traceability Matrix (RTM) and test scripts taking longer than planned. Complete.
COBAN – Active Directory (AD) Integration			3/16/20	8/17/20	New tasks identified March 2020 and added April 2020. Complete.
System Test Complete	3/2/20	5/8/20	3/16/20	9/18/20	Delayed due to new milestone being added to support AD Integration. Complete.
Go/No Go Pilot	5/4/20	5/8/20	9/21/20	9/24/20	Impacted by delay in system test. Complete.

Milestone	Baseline Start	Baseline End	Current Start	Current End Date	Status
Pilot – East Sacramento	4/13/20	6/22/20	9/25/20	1/13/21	Started.
Pilot – Placerville	4/13/20	6/22/20	9/14/20	1/13/21	Started.
Command Center Enhancements			11/6/20	1/29/21	New to track software enhancements identified during system testing. Started.
Rollout Phase 1 – Prewire/Retrofit Vehicles			10/1/20	4/8/21	New with rollout approach. Started.
Rollout Phase 2 – Division Training and Begin Vehicle Installation			1/25/21	11/30/22	New with rollout approach. Not started.
New Build – Complete Units			10/1/20	11/30/22	New with CR and rollout approach. Started.
Verification/Quality control			10/1/21	4/7/22	New with rollout approach. Not started.
Final Verification			4/8/22	11/30/22	New with rollout approach. Not started.
Rollout Complete		11/30/22		11/30/22	Not complete

3.4.3 Feasible Alternatives Considered

No other alternatives have been considered.

3.4.4 Implementation Plan

The plan has been updated to reflect a new two-phase rollout approach. The original implementation plan assumed the rollout by Division would take place immediately following pilot completion. The new approach allows the project to recover from previous milestone delays and still maintain the original project end date of November 30, 2022. The team will utilize its existing preventative maintenance window and resources to begin retrofitting/prewiring identified vehicles in the field at the same time as the pilot. Prewiring of vehicles is considered low risk and will start after system testing has been completed. This will greatly reduce the amount of time Area offices will need to complete the WMVARS installation process.

The first phase includes prewiring of vehicles as part the CHP's normal preventative maintenance schedule. The second phase includes required training and completion of vehicle installation within each field Division and Area office. In parallel with Phase 1 and 2, FOS will prewire new vehicles being deployed to the field.

Retrofit Rollout Schedule

Division	Area	Appliance Count	Enforcement Vehicles*	Division Training Week Of
HQ	HQ	1	3	
Pilot	East Sacramento Placerville	1	6	9/21/20
501	Southern Division	0	213	3/8/21
201	Valley Division	1	202	1/25/21
301	Golden Gate Division	0	178	2/22/21
801	Inland Division	4	165	2/8/21
401	Central Division	1	169	2/1/21
601	Border Division	2	172	3/1/21
101	Northern Division	5	115	3/29/21
701	Coastal Division	3	94	3/22/21
	Total	**18***	**1,308****	

*Estimated number of retrofit vehicles. Number may fluctuate as it is based on vehicle mileage.

New Build Rollout Schedule

Year		Enforcement Vehicles	Build Date
2020-2022	Complete System	1,182	Oct 2020 – Nov 2022
	Total	**1,182***	

*Estimated number of New Build with complete system.

The WMVARS Implementation Plan v4.5 is included as a separate document.

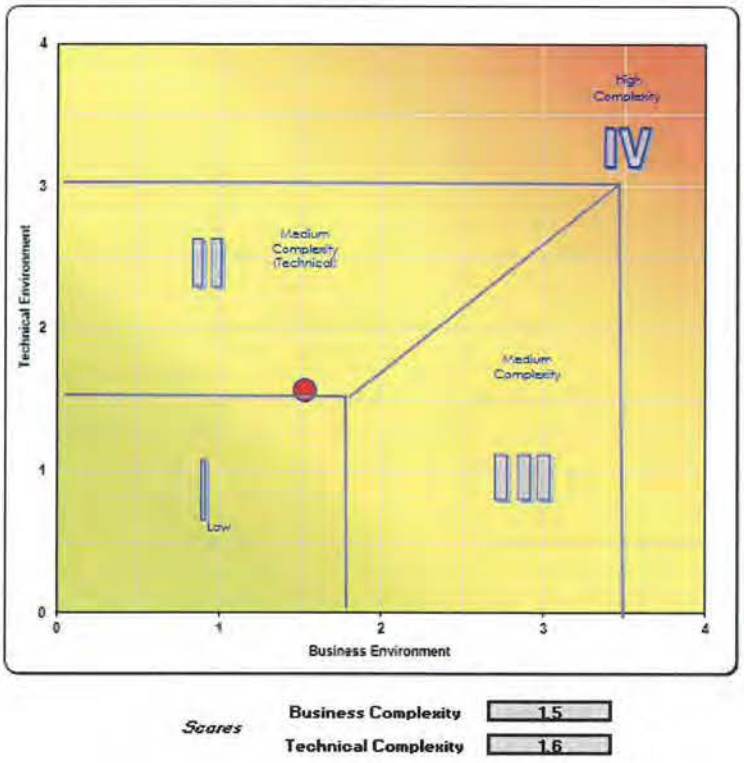
4.0 Updated Project Management Plan

The updated Project Management Plan (PMP) is included as a separate document. Only minor clarifications have been made to the PMP since last shared with CDT IPO. The Project Governance Structure has been updated to include the Telecommunications Section (TS) and updated organizational charts have been added. The Implementation Management section has been updated to remove references to the original rollout plan and includes a reference to a separate Implementation Plan. The Implementation Plan is included as a separate document. The Maintenance and Operations Transition Management section has been updated to reflect current timeframes. The Resource Management (Human Resources and Staff Management) Plan section has been updated to include a staff resource allocation table. The updated WMVARS Master Project Schedule is included as a separate document.

4.1 Project Manager Qualifications

The project's Complexity Assessment was updated on December 18, 2020. With a Technical Complexity score of 1.6 and a Business Complexity score of 1.5, this project falls between a Zone I and Zone II. Refer to Figure 1, below.

Figure 1 – WMVARS Project Complexity Assessment



Below is a summary of the skills and level of project management experience required to successfully manage this project. The Department has assigned a State Project Manager (PM) and a State Technical PM to work collaboratively with COBAN/Safe Fleet for the duration of the project. Both PMs are classified as an Information Technology Manager I and possess the skills and experience necessary for the project.

Skills Required

- Project Management Methodology – The proven ability to apply a widely accepted project management methodology (such as the methodology defined by the Project Management Institute) to a large-scale project.
- Communication Skills – Superior written and oral communication skills.
- Attention to Detail – The proven ability to track issues, risks, and changes to projects, and to document each.
- Presentations – The proven ability to make executive-level presentations.
- Information Technology – The proven ability to lead IT projects.

Experience

- Project Management Experience – Experience as the PM of IT projects of a similar size is required. Size is measured by the following numbers:

Users:	Thousands
Locations Installed:	More than 100

- Quantity of Experience – Project management experience must be proven over at least three large-scale projects.
- State Environment – Proven success managing projects in the state IT sector.

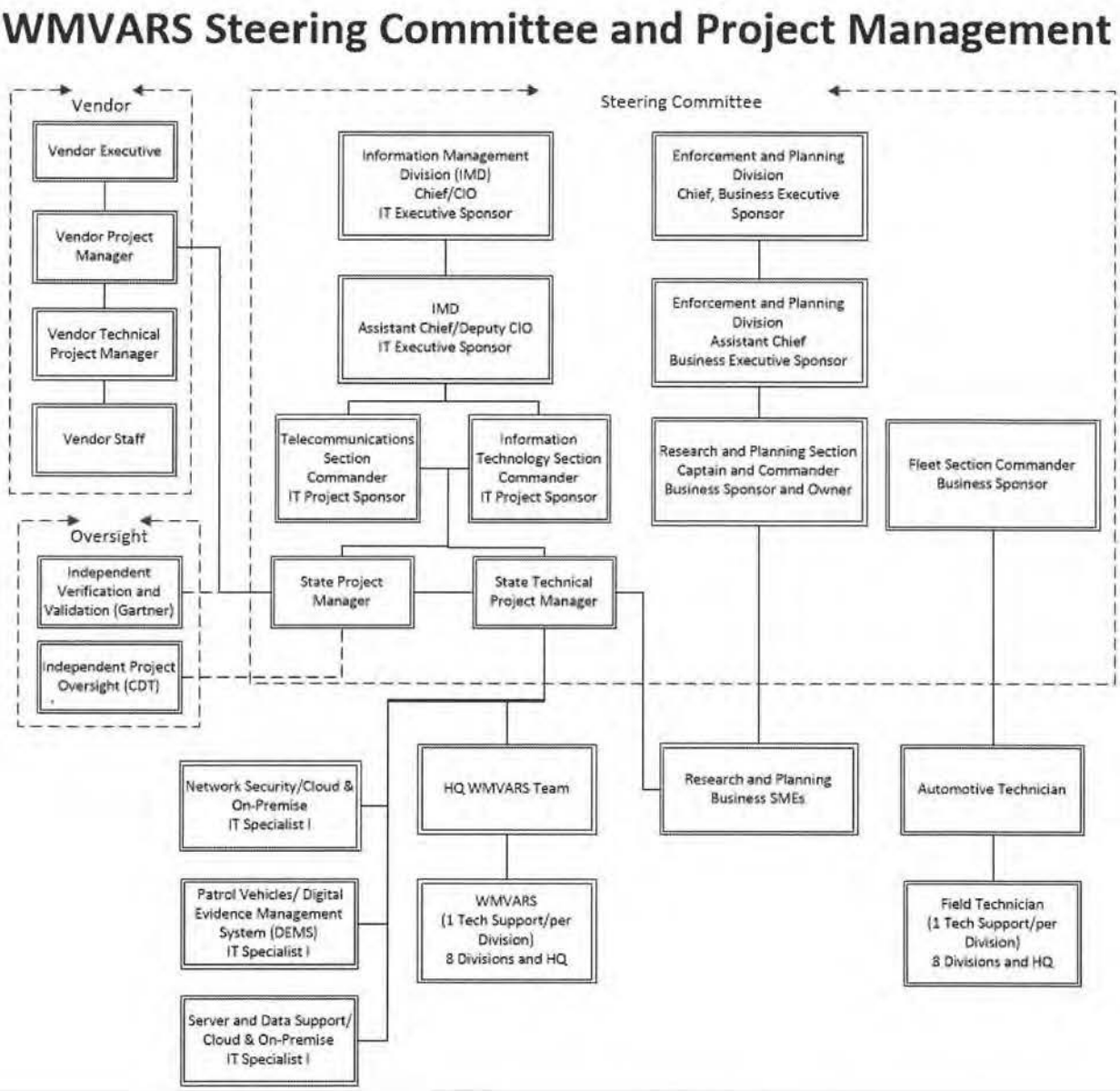
4.2 Project Management Methodology

No change. The WMVARS Project_Management_Plan_v12 is included as a separate document.

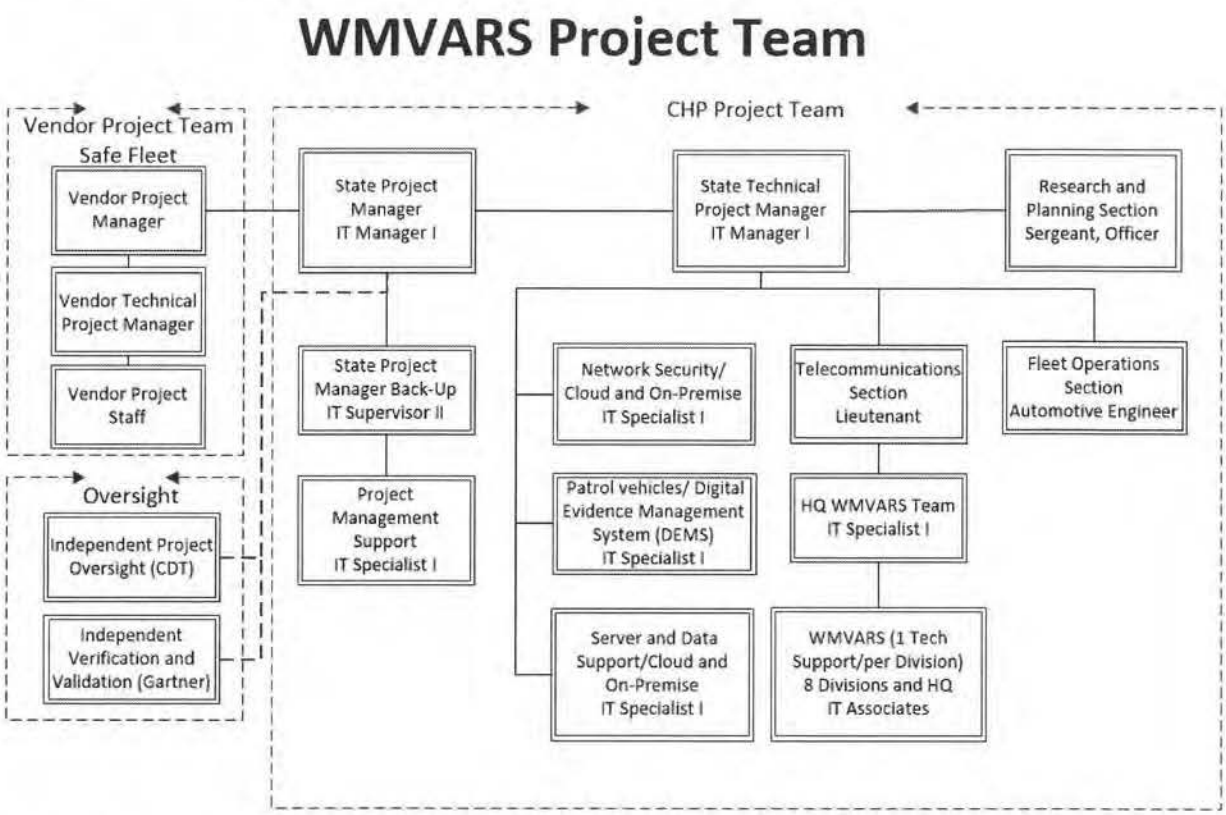
4.3 Project Organization

The TS Commander has been added as an IT Sponsor.

WMVARS Executive Steering Committee and Project Management



WMVARS Project Team



Several key stakeholders at the Executive Sponsor and Sponsor level have also changed since the start of the project. The main changes have been highlighted in the Stakeholder Register table below.

Stakeholder (Name, Title, Organization, Role)	Contact Information	Influence Over Project (H/M/L)	Impacted by Project (H/M/L)	Engagement (Participate /Inform)
Chris Childs, CHP Chief Information Officer (CIO) and Chief, Information Management Division (IMD) **Executive Project Sponsor (EPS) and ESC Member**	CChilds@chp.ca.gov (916) 843-4000	High	Medium	Inform
Kevin Davis, Chief, Enforcement and Planning Division (EPD) **EPS and ESC Member**	KMDavis@chp.ca.gov (916) 843-3330	High	Medium	Inform
April Baxter, Assistant Chief, IMD **EPS and ESC Member**	ABaxter@chp.ca.gov (916) 843-4000	High	High	Inform

Stakeholder (Name, Title, Organization, Role)	Contact Information	Influence Over Project (H/M/L)	Impacted by Project (H/M/L)	Engagement (Participate /Inform)
EPS and ESC Member	DJenkins@chp.ca.gov (916) 843-3330	High	High	Inform
Jill Dolce, Commander, TS IT Sponsor and ESC Member	JDolce@chp.ca.gov (916) 843-4200	High	High	Inform
Chris Lane, Captain, Research and Planning Section (RPS) Business Sponsor and ESC Member	CLane@chp.ca.gov (916) 843-3340	Medium	High	Inform
Stacy Barr, Commander, FOS Business Sponsor and ESC Member	StBarr@chp.ca.gov (916) 309-6800	Medium	High	Inform
Kim Holder, Commander, Information Technology Section (ITS) IT Sponsor and ESC Member	Kimberly.Holder@chp.ca.gov (916) 843-4100	High	High	Participate
Lori Gong, Manager, RPS Business Owner and ESC Member	LGong@chp.ca.gov (916) 843-3340	High	High	Participate
Myrna Viloria, Manager, ITS State PM, CHP IT Contract Manager and ESC Member	MViloria@chp.ca.gov (916) 843-4059	High	High	Participate
John Batarseh, Manager, TS State Technical PM and ESC Member	JBatarseh@chp.ca.gov (916) 843-4256	High	High	Participate
Ben Starkey, Sergeant, RPS Andrew (AJ) Bronson, Officer, RPS Kim Delgadillo, Analyst, RPS Business Project Team Members	BStarkey@chp.ca.gov (916) 843-4080 Andrew.Bronson@chp.ca.gov (916) 843-3346 Kim.Delgadillo@chp.ca.gov (916) 843-3352	Medium	Medium	Participate
Robert Read, Senior Automoti ve Engineer, FOS Business Project Team Member	RRead@chp.ca.gov (916) 309-6800	Medium	High	Participate

Stakeholder (Name, Title, Organization, Role)	Contact Information	Influence Over Project (H/M/L)	Impacted by Project (H/M/L)	Engagement (Participate /Inform)
Mark Firkins, Lieutenant, TS **Niko Thanopolous, Specialist, TS** **Frank Otto, Contractor, TS** **Kristin Landstrom, Contractor, TS** **IT Project Team Members**	MFirkins@chp.ca.gov (916) 843-4200 Niko.Thanopoulos@chp.ca.gov (916) 843-4200 FOtto@chp.ca.gov (916) 843-4200 Kristin.Landstrom@chp.ca.gov (916) 843-4200	Low	Low	Participate
Ryan Beddes, Specialist, Mobile Digital Computer (MDC) **IT Project Team Member**	Ryan.Beddes@chp.ca.gov (916) 843-4075	Medium	High	Participate
Corleen Lambert, Manager, ITS Customer Services Manager - Division Administrators **Darrin Marquez, Manager, ITS, Network Security** **Christopher Martinez, Manager, ITS, Infrastructure/Database/Server** **ITS Functional Managers**	CLambert@chp.ca.gov (916) 843-4082 Darrin.J.Marquez@chp.ca.gov (916) 843-4092 Christopher.Martinez@chp.ca.gov (916) 843-4098	Low	Medium	Inform

Stakeholder (Name, Title, Organization, Role)	Contact Information	Influence Over Project (H/M/L)	Impacted by Project (H/M/L)	Engagement (Participate /Inform)
Jacob Paulos, Specialist, ITS, Network Security **Daniel Rogers, Specialist, ITS, Network Security** **Igor Zhilovskiy, Specialist, ITS, Infrastructure** **Anthony Roadman, Specialist, ITS, Infrastructure** **Chris Flure, Specialist, ITS, Local Area Network (LAN) Support** **David Andrade, Specialist, ITS, LAN Support** **IT Project Team Members**	Jacob.Paulos@chp.ca.gov (916) 843-4072 Daniel.Rogers@chp.ca.gov (916) 843-4104 Igor.Zhilovskiy@chp.ca.gov (916) 843-3538 Anthony.Roadman@chp.ca.gov (916) 843-4050 CFlure@chp.ca.gov (916) 843-4128 David.Andrade@chp.ca.gov (916) 843-3667	Low	Medium	Participate
Pam Greeley, Specialist, IMD Information Security Officer **IT Project Team Member**	PGreeley@chp.ca.gov (916) 843-4012	Medium	Low	Inform
Eugene Martinez, Gartner **Independent Verification and Validation (IV&V) Managing Partner**	Eugene.Martinez@gartner.com Direct: (916) 414-2248 Mobile: (916) 505-0640	Low	Low	Inform
Brian Avants, Gartner **IV&V PM**	Brian.Avants@gartner.com Direct: (916) 414-2256 Mobile: (408) 623-0888	Low	Low	Participate
Jon Kashare, Gartner **IV&V Quality Assurance**	Jonathan.Kashare@gartner.com Direct: (203) 923-0753 Mobile: (917) 882-3274	Low	Low	Participate

Stakeholder (Name, Title, Organization, Role)	Contact Information	Influence Over Project (H/M/L)	Impacted by Project (H/M/L)	Engagement (Participate /Inform)
Jim McGrath, Gartner **Joe Siegel, Gartner** **Ernst Rampen, Gartner** **Nikhil Nayak, Gartner** **Richard Bateman, Gartner** **IV&V Subject Matter Experts (SMEs)**	Jim.Mcgrath@gartner.com (917) 767-9207 Joe.Siegel@gartner.com (310) 713-6300 Ernst.Rampen@gartner.com (203) 316-1745 Nikhil.Nayak@gartner.com (916) 414-2261 Richard.Bateman@gartner.com (916) 414-2242	Low	Low	Participate
Harjot Pabla, Supervisor, ITS, PM Back Up, CR Coordinator **Jessica Leymaster, Specialist, ITS, Financial Analyst** **Audrey Kagiyama, Specialist, ITS** **General PM Support** **IT Acquisitions and Project Management Oversight**	Harjot.Pabla@chp.ca.gov (916) 843-4020 Jessica.Leymaster@chp.ca.gov (916) 843-4015 Audrey.Kagiyama@chp.ca.gov (916) 843-4014	Medium	Medium	Participate
Mike Hagan, COBAN Technologies **Vendor PM**	MHagan@safefleet.net (615) 403-6542	High	Medium	Inform
Cindy Chang, COBAN Technologies **Vendor PM**	CChang@safefleet.net (281) 925-4060	High	High	Participate
Jerry Chang, COBAN Technologies **Vendor Technical PM**	JChang@safefleet.net (281) 925-0488 x126	High	High	Participate

Stakeholder (Name, Title, Organization, Role)	Contact Information	Influence Over Project (H/M/L)	Impacted by Project (H/M/L)	Engagement (Participate /Inform)
Anooja Tandon, Supervisor, CDT **Denise Browne, Manager, CDT** **CDT Project Approvals and Oversight** **Project Oversight Managers**	Anooja.Tandon@state.ca.gov (916) 215-7471 Denise.Browne@State.ca.gov (916) 607-7740	Medium	Low	Participate
Thomas Giordano, Specialist, IT Consulting Unit, DOF **Critical Partner**	Thomas.Giordano@dof.ca.gov (916) 445-1777	Low	Low	Inform
David Bayoneta, Manager, Business Services Section, Purchasing Services Unit **CHP Contract Manager**	DBayoneta@chp.ca.gov (916) 843-3620	Low	Medium	Participate
Denelle Scott, Specialist, DGS **Statewide Contract Manager**	Denelle.Scott@dgs.ca.gov (916) 375-4492	Low	Medium	Participate

4.4 Project Priorities

No change from what was submitted with PMP documentation below:

Constraint	Description
Scope	The project scope is limited to the implementation of in-car cameras. The introduction of BWCs to scope will occur when RPS confirms Department direction and funding becomes available.
Time	The schedule factor was chosen as constrained, because the aging hardware will not last beyond the initial projected end date of the project.
Cost	The project funding is limited to the approved BCP monies of $52.53 million. A future BCP will be submitted to provide for the M&O costs.

4.5 Project Plan

4.5.1 Project Scope

The project will replace the CHP's existing in-car DVD-based video and audio recording system with a new wireless cloud-hosted solution. It will also have the ability to integrate with BWCs if/when the Department elects to implement.

4.5.2 Project Assumptions

No change. The WMVARS Project_Management_Plan v12 is included as a separate document.

The following are the critical assumptions for this project:

Assumptions	Descriptions
Strong management engagement	California Highway Patrol senior management will actively support the direction and effort.
Proven methodologies	The project will use the California Project Management Framework and the CHP Project Management Framework.
Strong user adoption	Users will accept the system when the acceptance test proves the system meets the requirements.
SME availability	Resources will be allocated to the project when required.
Project Team empowerment	Project Team members with conflicting operational responsibilities will have a way to resolve conflicting time frames between an operational issue and project deliverable deadlines.

4.5.3 Project Phasing

Refer to section 3.4.4, Implementation Plan, as well as the separate WMVARS Implementation Plan v4.5.

4.5.4 Project Roles and Responsibilities

The following is a list of general roles and responsibilities for the project. Additional responsibilities may be called out separately in the various subsidiary PMPs.

Role	Responsibility
ESC Member	Provide project-level governance; assist in resolving issues beyond PM's authority; provide recommendations on or approve CRs; and participate in internal stage gate reviews. (Committee may also include PMs and sponsors from outside agencies/state entities.)
Project Sponsor	Provide either business or IT project sponsorship; support the need and justify business value; and ensure business resources are made available to support objectives.

Role	Responsibility
Business Owner	Own the business processes being impacted, provide input into the project objectives and scope of work, and ensure business resources are made available to support objectives.
State PM	Lead the team responsible for achieving the project objectives and ensure project is managed according to state and departmental policies and procedures. Oversee the project at a high-level working closely with the CHP Technical PM and the Vendor PM.
State Technical PM	Oversee and manage the day-to-day tasks associated with project implementation; and work closely with the Project Team, CHP PM, Vendor PM, and assigned solution and implementation consultants.
Project Team Member	Support the PM by performing the work needed to achieve its objectives (i.e., business and technical).
Procurement and Project Management Oversight	Provide guidance on IT project management practice; ensure project follows established policies and procedures; and liaise with control agencies as required. Provide project engagement oversight; review and approve engagement activity and invoice payments; and ensure engagement hours and statement of work (SOW) deliverables and requirements are satisfactorily met.
Vendor/Contractor	Complete deliverables per the SOW.
Vendor PM	Lead the vendor team responsible for completing project tasks and ensure project is managed effectively. Oversee the project at a high-level working closely with the CHP project management team.
Vendor Technical PM	Oversee and manage the day-to-day tasks associated with project implementation and work closely with the Project Team and both the vendor's and CHP's project management teams.
IV&V Team	Perform a granular level of oversight; and review CHP and vendor plans and processes to ensure the WMVARS solution meets the requirements, specifications, and project objectives. Collaborate with the State PM for required project documentation and reports.
CDT IPO	Responsible for approval and oversight of IT projects, including the establishment and enforcement of IT policies and procedures. Provide "an independent review and analysis to determine if the project is on track to be completed within the estimated schedule and cost and will provide the functionality required by the sponsoring business entity. Project oversight identifies and quantifies any issues and risks affecting these project components."

4.5.5 Project Schedule

Refer to section 3.4.2, Impact of Proposed Change on the Project. The table summarizes major project milestones, baseline start and end dates, current start and end dates, and current status.
The WMVARS Master Project Schedule is included as a separate document.

4.6 Project Monitoring and Oversight

The project is subject to IV&V, currently being performed by Gartner, and IPO, performed by CDT. A Project Oversight kick-off meeting was held on December 6, 2019. In addition to Project Team meetings, the State Project Management team meets regularly with both IV&V and CDT IPO to discuss and review IV&V Task Reports, IPO Reports, overall project health, and risks and issues.

The following is also documented in section 4.8, Governance Management, Project Monitoring in the WMVARS Project_Management_Plan v12.

Project Management Controls

Project Management Controls are checkpoints to ensure expectations are in alignment and there is agreement before proceeding to the next phase of the process.

There are five phases to the project management lifecycle (PMLC): 1) Concept, 2) Initiating, 3) Planning, 4) Executing, and 5) Closing. During each phase there are tasks/activities and deliverables being produced. In general, the checkpoint is to ensure tasks have been completed, the budget and schedule are validated, and project risks and issues are reviewed before fully engaging in the next phase of the project lifecycle.

Phase	PM Controls CDT Reportable	Purpose
Concept	• CHP 53, Request for Information Technology Services, IMD Project Approval	Acknowledge the request, agree there is a project need, and determine project priority.
Initiating	• Project Charter Review Approval • Stage 1 Business Analysis Review and Approval	Agree on objective, scope, and whether the project is worth the investment.
Planning	• Kick-off Meeting • Stage 2 Alternatives Analysis Review and Approval • Stage 3 Solution Development Part A Solicitation Prep Review and Approval • Stage 3 Solution Development Part B Solicitation Package Readiness Review and Approval • Stage 4 Project Readiness and Approval	Agree on what it will take to complete the project, verify the project is still worth the investment, and ensure all plans are in place and project is ready to move forward with execution activities.

Phase	PM Controls CDT Reportable	Purpose
Executing	• Go/No Go Decision • Change Control Board Review and Approval • Executing Phase Gate Review and Approval	Confirm the project is ready to move to a production environment.
Closing	• Post Implementation Evaluation Report Review and Approval	Review and confirm all activities related to the project have been completed, review lessons learned and benefits realization, and agree project can be closed.

Project Status Meetings

Status meetings are a project management tool to assist with monitoring the project. They allow project stakeholders the opportunity to discuss project goals, tasks, progress, risks, and issues. The various types of project meetings are to be outlined as part of the project Communication Management Plan within the PMP.

Project Reporting

Status reports are a project management tool to assist with communicating project status on a regular basis. They provide project stakeholders with enough information necessary to keep a pulse on the project. The various types of project reporting and communications are outlined as part of the project Communication Management Plan within the PMP.

4.7 Project Quality

No change. Quality Management is broken into two types: process and product. The following is also documented in section 4.13, Quality Management, in the WMVARS Project_Management_Plan_v12.

Process Quality

The project has the following processes built into the project's management processes to help drive quality throughout the project.

Phase	Process	Activity
All	Staff Acquisition	• Staff acquired has the necessary skill set for their role. • Staff acquired align with Resource Management Plan.
Initiating	PAL	• Completion of the PAL Stage Gate Deliverable (Stage 1). • Approval of the PAL Stage Gate.

Phase	Process	Activity
Planning	Project Planning	• Completion of the PAL Stage Gate Deliverables (Stages 2-4). • The PMP meets applicable standards and is approved by appropriate Stakeholder(s).
Executing	Testing	• Full system functionality testing. • Two Field Tests: direct to cloud and on-premise locations.
Executing	Change Control Management	Go/No Go decision based on: • Number of outstanding critical defects. • Number and severity of open/unresolved defects.
Executing	Verification	• Verify all vehicles identified during Phase 1 have been prewired for WMVARs installation; if not, complete prewire. • Verify and validate Phase 2 vehicles have WMVARS components installed correctly. • Final verification and validation of all vehicles identified during Phase 1 and Phase 2, including any prewired new builds, have a fully functional WMVARS unit.

Process Measurement

The project will conduct the following reviews to assess process quality and identify defects.

Review Type	Review Goal	Deliverables/Artifacts	Responsibility	Timing
Project Review	Review of project management documentation and status reports to ensure project is moving forward as planned.	Project Management Planning Documents Issue Log Risk Register Change Request Log Project Management Office Status Reports	Project Oversight (CHP and CDT) IV&V	As needed.

Review Type	Review Goal	Deliverables/Artifacts	Responsibility	Timing
Documentation Review	Review of the project's management plans and other project documentation to determine if the project's documentation standards are being followed.	Project Management Planning Documents Issue Log Risk Register Change Request Log	PM	When moving to a new project phase. When a risk related to one or more of the processes has been identified. As needed.
Managerial Review	Evaluate and determine the overall efficacy of project quality management. This includes both quality assurance (process quality) and quality control (product quality).	Defect reports Audit results CRs Quality Management Plan	Project Sponsor(s) PM	Quarterly.

Product Quality

The following table shows the product and product-related items that will be measured for quality throughout the project and the criteria by which they will be measured.

Product/Deliverable	Criteria
Requirements Specification	All business, functional, and nonfunctional requirement specifications adhere to the needs of the CHP. Reviews have been conducted through System Functionality Testing and the specification is deemed to be complete.
Recording Equipment	Equipment design specifications adhere to departmental standards. Reviews have been conducted by FOS, RPS, and ITS and are deemed to be complete. The RTM mapping from requirements to design components is complete and addresses all requirements. Further review will take place during the System Functionality Test phases.
Centralized Cloud-Based Evidence Management System	Technical and functional WMVARS requirements reviews have been conducted through System Functionality Testing and the Field Test is deemed to be complete.

Product Measurement

All products will be evaluated for quality. The project will conduct the following reviews to assess product quality and identify defects.

Review Type	Review Goal	Deliverables/ Artifact	Responsibility	Timing
System Requirements Specification Review	Checks the adequacy of the requirements. Verify/validate the requirements. Determine if any additional requirements.	RTM CR	PM Project Team Members RPS ITS	Upon initial submittal of the requirements. Upon initial submittal of the requirements.
Architecture Design Review	Evaluate the technical adequacy of the preliminary design for the WMVARS components, sub-components, software, and services depicted in the preliminary design description.	RTM High-Level Design CR Quality Management Plan	PM IT Sponsor	Upon initial submittal of the preliminary design. Upon a change in the preliminary design baseline. When a risk related to the design has been identified. As needed.

Product Improvement

Project quality is the responsibility of every Project Team member; however, there are specific roles and responsibilities among various Stakeholders. Below are specific roles and essential responsibilities of various Stakeholders related to the project's quality management efforts.

Role	Responsibility
Executive Sponsor	• Set the tone and expectations for project and product quality. • Overall decision-making responsibility for Quality Management activities.
PM	• Oversee overall project quality management process and deliverables. • Ensure quality management activities are being conducted per the plan. • Develop and track project metrics. • Oversee vendor activities. • Promote quality culture.

Role	Responsibility
Technical PM Representatives from: ITS RPS FOS TS	• Participate in quality definition activities. • Review major quality issues and approve or make recommendations to the Project Sponsor(s) and/or ESC. • Monitor and resolve quality issues that are escalated to them. • Promote quality culture. • Ensure adherence to process standards. • Ensure deliverables meet quality standards. • Participate in team-level quality reviews.

4.8 Change Management

No change. The following is also documented in section 4.2, Change Control Management, in the WMVARS Project_Management_Plan_v12.

The purpose of the Change Control Management Plan is to document how project changes are to be requested, assessed, approved, monitored, and controlled. This plan defines the Change Control Process (CCP) to standardize the procedures for efficient and prompt handling of all project CR. A formal, repeatable process minimizes risk when introducing change to the project environment and helps preserve quality. The Change Control Management Plan defines the activities, roles, and responsibilities necessary to effectively and efficiently manage and coordinate the change process.

Approach and Change Control Governance

In the project, the project-Level Change Control Committee and the project team are one in the same. All CRs will be reviewed by the Project Team, which will include reviewing both technical and business impacts. If consensus cannot be reached, the request will be escalated to the commanders of the respective groups and/or the ESC to provide direction.

Change Control Process

Project Change Request

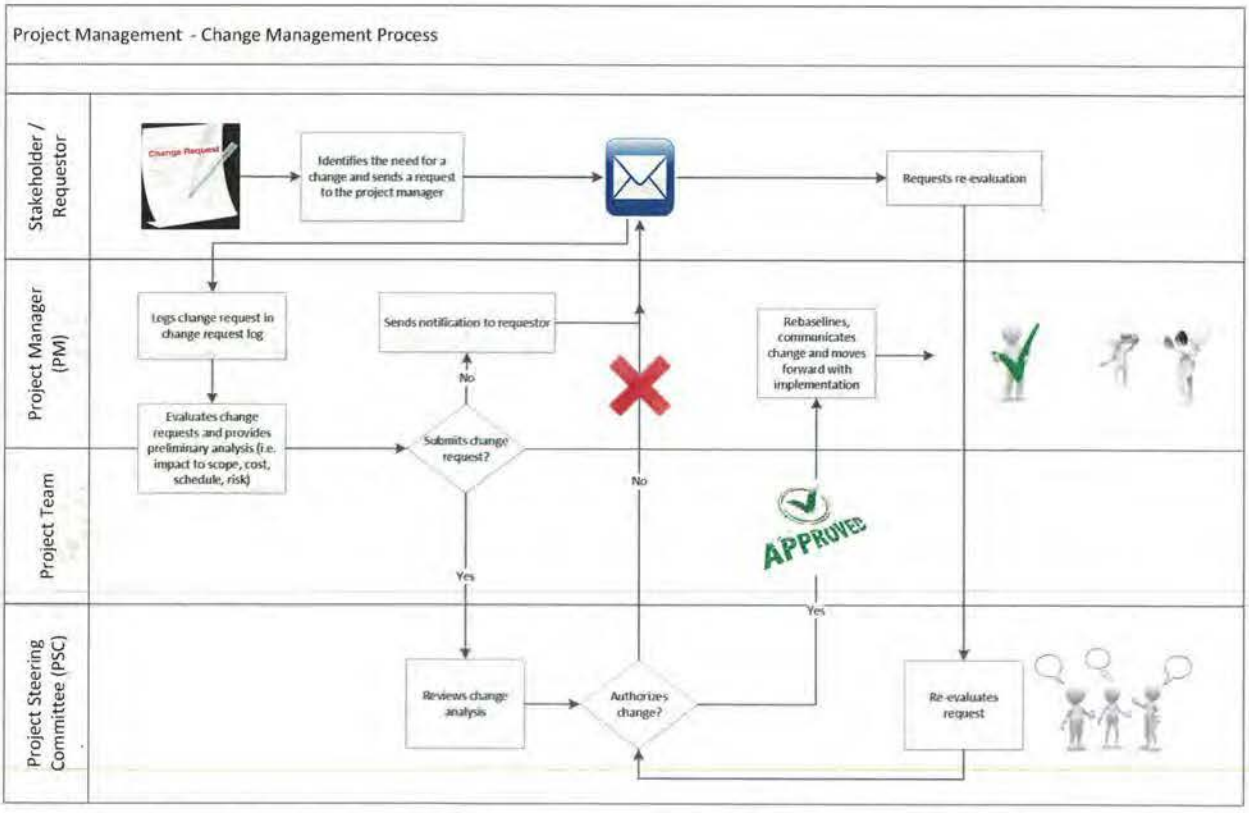
The following project change request process will be used for managing major and minor changes that impact scope, schedule, and/or budget:

Type of Change	General Description	Criteria	Reviewer	Approver	CR Required?
Major	Represents significant change in project scope, schedule, or budget	Addition of a new requirement or expansion of an existing business requirement that has significant impact on scope, schedule, or cost.	ESC	CIO	Yes
		Schedule delay of more than 30 days or 10	ESC	CIO	Yes

		percent delay to project end date.			
		Requires additional funding of $100,000 or impact on total project budget is greater than 10 percent.	ESC	CIO	Yes
Minor	Routine change with little or no significant impact on project	Schedule delay of less than 30 days or less than 10 percent impact to project end date.	Project Sponsors	PM	No
		Impact on project budget is less than $100,000 or less than 10 percent of total project budget.	Project Sponsors	IT Project Sponsor	No

Change Request Initiation and Processing

The following process will be used for managing major changes that impact scope, schedule, and/or budget:



Step 1 Stakeholder/requestor identifies the need for a change and sends a CR to the PM via e-mail. The requestor must complete the "Change Request Submission Section" on Change Request Form (CRF).

Step 2 The PM logs the CR in the project Change Request Log.

Step 3 The PM adds the CR to the Project Team meeting agenda.

Step 4 Project Team or assigned individual evaluates the CR and completes the "Change Request Analysis Section" on the CRF.

Step 5 Project Team determines if the CR moves forward for approval.

Step 5a If it is determined a change will not move forward, the PM will notify the requestor and complete the "Change Request Closing Section" on the CRF (see step 6).

Step 5b If it is determined a change will continue to move forward, the PM will schedule a review meeting with the Project Sponsors and/or ESC.

Step 5c The PM will complete the "Change Request Approval Section" on the CRF and obtain signature from the Project Sponsor.

Step 5d If CR is approved, PM will rebaseline the project and notify the requestor and Project Team.

Step 5e Upon completion of the project or upon confirmation the change was implemented, the PM will complete the "Change Request Closing Section" on the CRF.

Step 6 If the Project Team, Project Sponsors, or ESC do not approve the change, the requestor may escalate and request a re-evaluation by the committee. The PM will schedule a re-evaluation review meeting with the objective of obtaining final disposition.

Change Request Analysis

The Project Team analyzes the CR to determine the potential impact(s) of the requested change on the project. The team validates and verifies the information provided by the Requestor and makes updates as needed. The team analyzes the situation and the CR Owner documents the results of the analysis in the Analysis section of the CRF.

Change Request Approval

The Project Team reviews the recommended approach to implementing the change and determines next steps for the CR. If consensus cannot be reached by the Project Team, the PM will present the CR and recommendation to the Project Sponsors, commanders of the RPS and the ITS, for direction. If more direction is needed, the commanders will present the CR and recommendation to the ESC.

The PM notes the decision in the Change Request Disposition box of the "Change Request Approval Section" on the CRF. The CR disposition is typically accompanied by comments regarding the decision, signature, and signing date.

Roles and Responsibilities

The below table of Roles and Responsibilities provides a description of the duties of those involved in the CCP.

Role	Responsibility
ESC Member	• Review major CRs escalated by the Project Team. • The CIO has final decision authority on major CRs.
Project Sponsors	• Review minor decisions on CRs escalated by the Project Team. • The IT Sponsor has final decision authority on minor CRs.
Project Team	• Primary decision-making body for CRs (i.e., acts as Change Control Committee). • Meet on a regular basis to address outstanding CRs and escalates to Project Sponsor(s) and/or the ESC, as necessary. • Act on CR decisions by Project Sponsors and/or the ESC.
PM	• Establish and maintain the Change Control Management Plan. • An active sponsor of approved changes. • Manage the CCP and any resistance to approved changes. • Approve CRs for analysis. • Assign the CR analysis to a CR Owner. • Review the scope, budget, and schedule impacts. • Assign project resources for CR analysis and, if approved, implementation. • Review the CR implementation after it is deployed. • Communicate CR status/decision back to Stakeholders. • Vote as a member of the Project Team. • Approve changes within designated authority. • Initiate the escalation process to the commander(s) and the ESC, as needed.
CR Owner	• Identify possible solutions and the impact to the project and its Stakeholders. • Take ownership and work with the Project Team to analyze, evaluate, and, if approved, implement CRs. • Complete the CRF. • Prepare supporting documentation for the CR. • Obtain manager approval to submit the CRF to the CR Coordinator (CRC). • Submit CRF to the CRC. • Verify CRs are implemented correctly.

Role	Responsibility
CRC	• Single point of contact for CRs. • Receive and record CRs in the chosen tracking tool. • Perform initial CR risk assessment. • Review the CR's impact to the project's scope, schedule, and cost. • Schedule and transcribe the project meetings in which the CRs are discussed. • Maintain the CR tracking tool, monitor CR progress, and report status regularly. • Measure the overall quality of the CCP to report trends and make recommendations for process improvement. • Maintain project CR documentation in project library.

Project Baselines

Project baselines will be finalized at the following points of the project:

- Scope and Cost – Upon completion of project planning and CDT PAL approval.
- Schedule – Expected to be within 30 days of Contract execution; however, no later than 15 days after project kick-off.

Project Change Request Tracking

The project CRs will be tracked by the CRC in the Change Request Log.

Change Request Reporting

Change request reporting will be presented in Project Team meetings as well as ESC briefings. Change request information will be provided in the format below.

Title	Frequency	Content	Usage
Open, Pending, and Approved CRs	Regularly Scheduled Team Meeting (Weekly)	Summary of the CRs that have been opened, still pending, and approved since the last reporting.	Keeps the Project Team and Stakeholders informed about the changes being made.
CR Implementation Status	As Completed	Lists all CRs approved for implementation, activities to implement, estimated completion date, and status.	Used by management, the CRC, and CR Owners to track CR implementation.

4.9 Authorization Required

Not applicable.

5.0 Updated Risk Management Plan

The following is also documented in section 4.16, Risk Management, in the WMVARS Project_Management_Plan_v12. Since its submission during PAL, only a minor modification has been made to clarify risk reviews that occurred during Project Team meetings as opposed to separate quarterly meetings.

Risk management can be defined as the processes and structures directed towards realizing potential opportunities, while simultaneously managing possible adverse impacts. From a project management perspective, risk management is a continuous activity conducted throughout the life of the project. It seeks to identify potential risk, evaluate impact, develop mitigation plans, and monitor progress.

Roles and Responsibilities

The table below outlines the project participants who are expected to collaborate on project risk management activities.

Role	Responsibility
ESC Member	• Review the Risk Register and/or risk reports provided to the committee in accordance with this plan. • Responsible for understanding the possible effects and impacts of identified risks. • Ensur ethe PM has a sound plan for mitigating the impacts of risks that have been escalated to the ESC.
Project Sponsor	• Provide the necessary support to the PM to ensure state and vendor resources are available to support the execution of this plan. • Provide the necessary support to ensure state and vendor resources commit to the risk management efforts. • Monitor efforts to address risks and provide leadership to focus resources on resolving open unplanned risk events. • Provide guidance on escalated risk events and assist in their resolution.

Role	Responsibility
CHP PM	• Maintain the overall risk management process and Risk Register containing the risk details. • Ensure the risks managed by this plan are organized, managed, communicated, and controlled. • Ensure project-related risks are identified and mitigated in a timely manner to minimize impact; to be discussed at regular Project Team meetings and ESC briefings as included in the Communication Management Section. • Periodically obtain status from Risk Owners on mitigation progress. • Track progress of the risk management effort by reviewing the Risk Register and/or risk management reports. • Escalate mitigation approaches for identified high severity risks that are beyond the PM's span of control and decision authority. • Ensure the entire Project Team, state, and vendor are following this plan. • Ensure all other project processes that interact or provide input to the risk management effort are being adhered to. • Ensure there are sufficient resources to execute this plan and the risk management activities are being performed in a timely manner. • Assign risks to owners.
Vendor PM	• Perform reviews of the risk management work being performed by the vendor team. • Verify the work complies with the risk management approach described in this plan and the requirements in the vendor's Contract. • Share responsibility for identifying risks and risk events in a timely manner to mitigate the risk and minimize impact to the project.
Risk Owner	• Responsible for management, administration, and delivery of assigned risks, including monitoring and controlling risk activities, and updating the Risk Register, the mitigation plan, and contingency plan details in the Risk Register. • Share responsibility with the PM for ensuring risks are organized, managed, and controlled and that risks are identified and mitigated in a timely manner to minimize impact to the project. • Provide status updates to the PM.

Risk Management Processes

The CHP will hold an initial risk brainstorming session to establish a risk list early in the project (i.e., in the planning stages, after project approval). Each risk on the Risk Register will be graded high, medium, or low for both impact and probability of occurrence. The project will track the high-high, medium-high, and high-medium risks monthly.

Identify Risks

Risk identification is the first step in the risk management process that projects should employ. Risk identification involves identifying risks, identifying which of those risks are likely to affect the project, and documenting characteristics of those risks. Spotting a potential risk is accomplished by recognizing an event, state, or condition within the boundaries of a project may occur with unplanned consequences. While these consequences are usually undesirable, they may lead to positive opportunities. All Project Team members, including Stakeholders, end users, SMEs, and sponsors, are encouraged to identify and report potential risks to the project immediately upon detection to the PM.

Identifying risks is an iterative process because new risks may become known as the project progresses through its project lifecycle. Risk information can initially be gathered from the business case, accumulated lessons learned, and an initial risk brainstorming session.

Crucial to risk identification is the input of Project Team members and other Stakeholders to recognize and report risks as soon as possible. Risks can also be identified during Project Team meetings and will be incorporated into the meeting agenda and minutes templates for all project meetings.

Risk Register

The Risk Register is a tool used to document potential risks (risk candidates). The project's Risk Register has been created in Microsoft Excel.

Risk Register Template

Risk Identification						Risk Analysis				Risk Prioritization			Risk Response			Risk Control		
ID #	Risk Title	Risk Statement or Description	Date Risk Identified	Risk Originator	Risk Category	Probability	Impact	Timeframe	Exposure	Severity	Risk Owner	Date Assigned	Risk Response Strategy	Risk Response Plan Description	Contingency Plan Description	Risk Status	Risk Resolution	Risk Closure Date
									0	0								
									0	0								
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Analyze Risks

The focus of analyzing risks is to examine each identified risk to assess the likelihood of the risk event occurring, and the probability of outcomes associated with the risk, to determine its potential impact on the success of the project. This, in turn, provides the ability to prioritize each risk to ensure the risks with the greatest potential impact to the project are dealt with first. The CHP will focus on risks which score as a combination of high or medium project impact and high or medium probability of occurrence. The PM and risk owner will review all risks regularly to identify any low risk items whose circumstances have changed resulting in the elevation of the impact/probability score. Any risks categorized as high impact, high probability, will be escalated by the PM and discussed with Project Sponsors and/or ESC.

Risk Response Planning

Risk Response Planning is the process of selecting the appropriate response strategy for each identified risk. This, in turn, helps the project avoid risks, transfer responsibility for risks, mitigate the consequences of risks, reduce the probability of occurrence of risks, accept the consequences of risks, or enhance the opportunity to benefit from positive risks. Strategies for both negative and positive risks include:

Strategies for Negative Risks

- **Avoid:** Risk Avoidance involves changing the PMP to eliminate the threat posed by the risk. Some risks can be avoided by clarifying requirements, obtaining additional information, improving communication or acquiring expertise.
- **Transfer:** Transferring a risk requires moving, shifting, or reassigning some or all negative impact and ownership to a third party. This does not eliminate the risk but gives another party the responsibility to manage it.
- **Mitigate:** Risk Mitigation implies a reduction in the probability and/or impact of a negative risk. Reducing the probability and/or impact of a risk occurring is often more effective than dealing with the risk after it has occurred.
- **Accept:** This strategy indicates the Project Team has decided not to change the PMP (i.e., schedule, approach, or reduce project scope) or is unable to identify another suitable response strategy.

Strategies for Positive Risks or Opportunities

- **Exploit:** This strategy may be selected for risks with positive impacts where the organization wishes to ensure the opportunity is realized, and eliminates the uncertainty associated with a positive risk by ensuring the opportunity happens.
- **Share:** Sharing a positive risk involves allocating some or all ownership of the opportunity to a third party who is best able to capture opportunity for the benefit of the project.
- **Enhance:** This strategy is used to increase the probability and/or positive impact of an opportunity, identifying and maximizing key drivers of positive risks.
- **Accept:** Accepting a positive risk or opportunity is being willing to take advantage of it, should the opportunity come along.

The project risk response planning will be documented by the PM in collaboration with key project Stakeholders. The status will be presented to the Project Team during project status and ESC meetings.

Risk Monitoring Activities

Once a risk is established, it is monitored on an ongoing basis:

- Monitor if a risk escalation trigger has occurred.
- Monitor if risk response actions are as effective as anticipated.
- Monitor if risk responses are implemented as planned.
- Monitor for Residual Risks (element of a risk that remains once the risk assessment has been made and responses implemented).

- Monitor systematically to:
    - Assess currently defined risks.
    - Determine actions to be taken.
    - Evaluate effectiveness of actions taken.
    - Report on the status of actions to be taken.
    - Validate previous risk assessment (likelihood and impact).
    - Validate previous assumptions.
    - State new assumptions.
    - Identify new risks.

Risk Control Activities

Once a risk is established, it is controlled on an ongoing basis:

- Validate mitigation strategies and alternatives.
- Assess impact on the project of actions taken (scope, cost, time, schedule, and resources).
- Identify new risks resulting from risk mitigation actions.
- Ensure the project's Risk Management Plan is maintained.
- Revise Risk Response plan(s).

The Project Team will review risks during Project Team meetings, update existing risks and discuss potential risks that need to be accounted for. However, it is important to note that any member of the Project Team or Stakeholder group can raise a potential risk to the PM for evaluation at any time. If needed, the PM will schedule a separate risk review session independent of Project Team meetings.

5.1 Risk Register

At time of project approval, eight risks were identified. Of those, six have been closed. Since the start of the execution phase, 13 more risks have been identified and 10 of those have been closed. Five remain as open risks and are actively being managed:

- Out Year Ops Funding – M&O BCP.
- Body Worn Camera funding.
- Parts delay due to Coronavirus.
- Retrofit build time.
- Delay in the processing and approval of the Special Project Report.

The updated Risk Register (WMVARS Risk Issue Change Decision Log_10302020.v3.1) is included as a separate document.

6.0 Updated Financial Analysis Worksheet

Please refer to section 3.4.2, Impact of Proposed Change on the Project, for a breakdown of changes by item.

The FAW (FAW 2720 114 WMVARS 101920 SPR.v4.1) is included as a separate document.

Attachments:

Complexity Assessment WMVARS 053020_v3.0

FAW 2720 114 WMVARS 101920 SPR.v4.1

SIMM45E_WMVARS Project Status Report_October 2020

WMVARS BCP – Responsibilities_10192020_v3.1

WMVARS Implementation Plan v4.5

WMVARS Master Project Schedule_v1.2

WMVARS Project_Management_Plan_v12

WMVARS Risk Issue Change Decision Log _as of10302020.v3.1

INFORMATION TECHNOLOGY ‹OJECT SUMMARY PACKAGE
SECTION B: PROJECT CONTACTS

1.	**Submittal Date**	November 12, 2020

		SPR	PSP Only	Other:
2.	**Type of Document**	X		
	Project Number	2720-114		

			Estimated Project Dates	
			Start	**End**
3.	**Project Title**	Wireless Mobile Video and Audio Recording System	11/20/2019	11/30/2022
	Project Acronym	WMVARS		

4.	**Submitting Agency/state entity**	California Highway Patrol (CHP)
5.	**Reporting Agency/state entity**	California Transportation Agency

6.	**Project Objectives**
	The Wireless Mobile Video and Audio Recording System (WMVARS) project proposes to replace the existing standalone DVD-based Mobile Video and Audio Recording System (MVARS) with a commercially available high-resolution recording solution capable of supporting integrated body worn cameras (BWC) for all officers. The new solution will allow the CHP to increase in-car usage in enforcement vehicles from 66 percent to 100 percent, including the ability to outfit motorcycles in the future. The WMVARS solution will eliminate patrol officer control of in-car data, which will reduce personnel hours expended handling data and increase evidence reliability. Additionally, the new solution will provide an integrated solution for all video evidence captured in-car and with BWC.

8.	**Major Milestones**	**Est Complete Date**
	Project Approval Lifecycle (PAL) Stage 1 and 2	11/01/2017
	PAL Stage 3	05/03/2019
	PAL Stage 4	09/30/2019
	Project Kick-Off	09/25/2019
	Prerequisites	12/13/2019
	Hardware Configuration	09/11/2020
	Software Configuration	01/31/2020
	Test Readiness Review	04/24/2020
	COBAN – Active Directory Federated Services (ADFS) Integration	08/17/2020
	System Test – Part I	01/13/2021
	System Test – Part II	09/18/2020
	System Test Complete	09/18/2020
	Go/No Go Pilot Installation	09/24/2020
	Pilot – Direct to Cloud (East Sacramento Area)	01/13/2021
	Pilot – On-Premise (Placerville Area)	01/13/2021
	Rollout Phase I – Prewire/Retrofit Vehicles	04/08/2021
	Rollout Phase II – Division Training and Begin Vehicle Installation	11/30/2022
	New Build	11/30/2022
	Phase 2 Verification/Quality Control	04/07/2022

Final Verification – Phase 2 (All Division)	11/30/2022
Rollout Complete	11/30/2022
Post Implementation Evaluation Report (PIER)	**08/30/2023**
Key Deliverables	
Finalize and Deliver Public Safety Communications Testing	09/11/2020
ADFS Integration of Roles/Groups/Permission	08/17/2020
Pilot for East Sacramento and Placerville	01/13/2021

7.	**Proposed Solution**
	The project scope is limited to the acquisition and implementation of a Commercial Off-the-Shelf (COTS) software as a service (SaaS) WMVARS solution, including all hardware and software needed to meet project objectives. The overall solution shall support a direct-to-cloud environment as well as a hybrid environment where the solution supports inputs directly from the in-car recording systems and from a temporary local storage appliance from which digital evidence may be uploaded.

INFORMATION TECHNOLOGY PROJECT SUMMARY PACKAGE
SECTION B: PROJECT CONTACTS

Project #	2720-114
Doc. Type	SPR

Executive Contacts								
	First Name	Last Name	Area Code	Phone #	Ext.	Area Code	Fax #	E-mail
Agency Secretary	David	Kim	916	323-5400				David.S.Kim@calsta.ca.gov
State Entity Director	Amanda	Ray	916	843-3001				Amanda.Ray@chp.ca.gov
Budget Officer	Michelle	Fojas	916	843-3530				Michelle.Fojas@chp.ca.gov
CIO	Chris	Childs	916	843-4000				CChilds@chp.ca.gov
Project Sponsor	Kevin	Davis	916	843-3330				KMDavis@chp.ca.gov

Direct Contacts								
	First Name	Last Name	Area Code	Phone #	Ext.	Area Code	Fax #	E-mail
Doc. prepared by	Harjot	Pabla	916	843-4020				Harjot.Pabla@chp.ca.gov
Primary contact	Myrna	Viloria	916	843-4059				MViloria@chp.ca.gov
Project Manager	Myrna	Viloria	916	843-4059				MViloria@chp.ca.gov

INFORMATION TECHNOL GY PROJECT SUMMARY
SECTION C: PROJECT RELEVANCE TO STATE AND/OR DEPARTMENTAL PLANS

1.	What is the date of your current Technology Recovery Plan (TRP)?	Date	October 2019
2.	What is the date of your current Agency Information Management Strategy (AIMS) and/or Departmental Strategic Plan?	Date	January 2020
3.	For the proposed project, provide the page reference in your current AIMS and/or strategic business plan.	Doc.	N/A
		Page #	

Project #	2720-114
Doc. Type	SPR

		Yes	No
4.	Is the project reportable to control agencies?	X	
	If YES, CHECK all that apply:		
X	a) The project involves a budget action.		
	b) A new system development or acquisition that is specifically required by legislative mandate or is subject to special legislative review as specified in budget control language or other legislation.		
X	c) The estimated total development and acquisition costs exceed the Department of Technology's established Agency/state entity delegated cost threshold and the project does not meet the criteria of a desktop and mobile computing commodity expenditure (see SAM 4989 – 4989.3).		
	d) The project meets a condition previously imposed by the Department of Technology.		

INFORMATION TECHNOLOGY PROJECT SUMMARY PACKAGE
SECTION F: RISK ASSESSMENT INFORMATION

	Project #	2720-114
	Doc. Type	SPR

Budget Augmentation Required?													
	No												
	Yes	X	If YES, indicate fiscal year(s) and associated amount:										
			FY	2018/2019	FY	2019/2020	FY	2020/2021	FY	2021/2022	FY 2022/2023	TOTAL	
			$3,507,842		$22,677,849		$24,622,119		$15,619,077		$14,226,749	$80,653,637	

PROJECT COSTS (CURRENT ESTIMATED PROJECT COSTS)

1.	Fiscal Year	Planning Cost	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	TOTAL
2.	One-Time Cost	$1,125,401	$3,507,842	$22,677,849	$24,622,119	$3,120,777	$0	$55,053,988
3.	Continuing Costs	$0	$0	$0	$0	$12,498,300	$14,226,749	$26,725,049
4.	TOTAL PROJECT BUDGET	$1,125,401	$3,507,842	$22,677,849	$24,622,119	$15,619,077	$14,226,749	$81,779,038

Approved Financial Analysis Worksheet vs. Current Financial Analysis Worksheet

PROJECT COSTS	PAL September 2019	CURRENT	VARIANCE	%
Planning Costs (One-Time)	$1,125,401	$1,125,401	$ -	0.0
Project Costs (One-Time)	$47,226,219	$53,928,587	$6,702,369	14.2
Future Operations IT Staff and Operating Expense & Equipment (OE&E) Costs (Continuing)	$21,221,920	$26,725,049	$5,503,129	25.9
TOTAL PROJECT COSTS:	$69,573,540	$81,779,038	$12,205,497	17.5

Detail Comparison

Project Costs (One-Time)	PAL	Current	Variance	%	Comments
Staff (Salaries & Benefits)	**$ 7,502,577**	**$ 7,502,520**	**$ (57)**	**0.0%**	Realigned redirected staff resources based on usage to date.
Staff Operating Expense and Equipment (OE&E) Rollup	**$ 345,725**	**$ 369,725**	**$ 24,000**	**6.9%**	Increase in OE&E rate per Budgets, effective Fiscal Year (FY) 20/21.
Consulting & Professional Services (Prof. Svc.): Interdepartmental (Interdept.)	**$ 1,435,049**	**$ 1,503,222**	**$ 68,173**	**4.8%**	
California Department of Technology (CDT) - Office of Statewide Project Delivery (OSPD) Project Approvals and Oversight	$ 916,540	$ 916,540	$ -	0.0%	
CDT - OSPD Statewide Technology Procurement	$ 2,500	$ 2,500	$ -	0.0%	
CDT - OSPD California Project Management Office	$ -	$ -	$ -		
Department of General Services (DGS) Procurements	$ 516,009	$ 584,182	**$ 68,174**	13.2%	Directly tied to COBAN procurement.
Office of Systems Integration	$ -	$ -	$ -		
Consulting & Prof. Svc.: External	**$ 2,006,800**	**$ 1,176,040**	**$ (830,760)**	**-41.4%**	
Proof of Concept (POC) - Facility Configuration	$ 10,000	$ 10,000	$ -	0.0%	
Independent Validation and Verification (IV&V)	$ 750,000	$ 747,740	**$ (2,260)**	-0.3%	Current based on actual contract amount.
Vendor Installation and Configuration (Appliance)	$ 487,500	$ 130,000	**$ (357,500)**	-73.3%	Reduced the total number of on-premise appliances (from 75 to 20) required based on review of low-bandwidth and poor cell coverage sites.
Vendor Training	$ 58,500	$ 58,500	$ -	0.0%	
Off-Hours Services	$ 5,400	$ 1,800	**$ (3,600)**	-66.7%	Removed per DGS
On-Premise Appliance Support	$ 695,400	$ 228,000	**$ (467,400)**	-67.2%	Reduced the total number of on-premise appliances (from 75 to 20) required based on review of low-bandwidth and poor cell coverage sites.

INFORMATION TECHNOLOGY PROJECT SUMMARY PACKAGE
SECTION F: RISK ASSESSMENT INFORMATION

Project Costs (One-Time)					
Information Technology	**$ 37,061,469**	**$ 44,502,481**	**$ 7,441,012**	**20.1%**	
POC: Servers (2 at cost to vendor)	$ 80,000	$ 80,000	$ -	0.0%	
Wireless Mobile Video Audio Recording System (WMVARS) Hardware (including taxes)	$ 14,007,772	$ 18,398,411	**$ 4,390,639**	31.3%	Updated based on actual parts required as a result of working with Fleet Operations Section (FOS), RPS, and WMVARS Technical Team. Cost of complete unit is slightly higher and increase in number of units. Takes into consideration 2,600 vehicles to be outfitted with WMVARS units, 10 percent for loss/damage, and 800 sets of prewiring for new builds (CR1) on an annual basis. Original PAL estimate was 2,505 and current is 2,860.
Software	$ 1,884,800	$ 1,333,000	**$ (551,800)**	-29.3%	Due to push in implementation rollout schedule, the need for software and cloud storage earlier in the project was eliminated.
On-Premise Appliance (including taxes)	$ 3,099,375	$ 824,030	**$ (2,275,345)**	-73.4%	Reduced the total number of on-premise appliances (from 75 to 20) required based on review of low-bandwidth and poor cell coverage sites.
Cloud Storage	$ 12,403,200	$ 8,772,000	**$ (3,631,200)**	-29.3%	Due to push in implementation rollout schedule, the need for software and cloud storage earlier in the project was eliminated.
Network Telecommunication	$ 5,586,322	$ 9,095,040	**$ 3,508,718**	62.8%	Increased modem and antenna cost. Increased wireless access point (WAP) install and infrastructure costs.
Unanticipated IT Costs (Hardware, Software, Telecommunication)	$ -	$ 6,000,000	**$ 6,000,000**		Added to cover potential need for increased number of WMVARS replacement units, on-site appliances/installation/support, external WAPs including installation, modems, and potential addition of body worn cameras for extended testing.
Misc. OE&E Rollup (Departmental Services; Central Administrative Services; Office Equipment; Other; Unclassified/Special Adjustment; Local Assistance)	$ -	$ -	$ -		
Total Project Costs (One-Time):	**$ 48,351,620**	**$ 55,054,045**	**$ 6,702,425**	**13.9%**	

INFORMATION TECHNOLOGY PROJECT SUMMARY PACKAGE
SECTION F: RISK ASSESSMENT INFORMATION

	PAL	Current	Variance	%	Comments
Future Ops. IT Staff & OE&E Costs (Continuing)					
Staff (Salaries & Benefits)	**$ 1,445,169**	**$ 1,620,449**	**$ 175,280**	**12.1%**	Increase in salary, per Budgets
Staff OE&E Rollup	**$ 96,000**	**$ 108,000**	**$ 12,000**	**12.5%**	Increase in OE&E rate per Budgets, effective FY 20/21
Consulting & Prof. Svc.: Interdept.	**$ 262,151**	**$ 308,600**	**$ 46,449**	**17.7%**	
DGS Procurements	$ 262,151	$ 308,600	**$ 46,449**	**17.7%**	Directly tied to COBAN procurement
Consulting & Prof. Svc.: External	**$ 858,600**	**$ 228,000**	**$ (630,600)**	**-73.4%**	
Off-Hours Services	$ 3,600	$ -	**$ (3,600)**	**-100.0%**	Removed per DGS
On-Premise Appliance Support	$ 855,000	$ 228,000	**$ (627,000)**	**-73.3%**	Reduced the total number of on-premise appliances (from 75 to 20) required based on review of low-bandwidth and poor cell coverage sites.
Information Technology	**$ 18,560,000**	**$ 24,460,000**	**$ 5,900,000**	**31.8%**	
Hardware	$ 700,000	$ 4,071,369	**$ 3,371,369**	**481.6%**	Original was based on RPS' current MVARS budget. Current is based on actual WMVARS cost. Represents the cost associated with 10 percent of fleet vehicles in the field (damage/replacement) and 800 new FOS vehicles that need to be wired annually.
Software	$ 2,356,000	$ 2,356,000	**$ -**	**0.0%**	
Cloud Storage	$ 15,504,000	$ 15,504,000	**$ -**	**0.0%**	
Telecommunication (Antenna)	$ -	$ 1,800,000	**$ 1,800,000**		Antennas required for new builds. Cannot be reused.
Unanticipated IT Costs (Hardware, Software, Telecommunication)	$ -	$ 728,631	**$ 728,631**		Added to cover potential need for increased number of WMVARS replacement units, on-site appliances/installation/support and/or external WAPs including installation. More likely individual WMVARS components that need to be replaced due to normal wear and tear.
Misc. OE&E Rollup (Departmental Services; Central Administrative Services; Office Equipment; Other; Unclassified/Special Adjustment; Local Assistance)	$ -	$ -	$ -		
Total Future Operations IT Staff & OE&E (Continuing):	**$ 21,221,920**	**$ 26,725,049**	$ 5,503,129	25.9%	
Annual Future Operations IT Costs (M&O):	**$ 11,381,545**	**$ 14,226,749**	$ 2,845,204	25.0%	

PROJECT FINANCIAL BENEFITS

5.	Cost Savings/Avoidances	$0	$0	$0	$0	$0	$0
6.	Revenue Increase	$0	$0	$0	$0	$0	$0

Project #	2720-114
Doc. Type	SPR

Vendor Cost for SPR Development (if applicable)	N/A
Vendor Name	N/A

VENDOR PROJECT BUDGET

1.	Fiscal Year	FY 2018/2019	FY 2019/2020	FY 2020/2021	FY 2021/2022		TOTAL
2.	Primary Vendor Budget	$3,341,441	$15,020,315	$10,965,685			$29,327,441
3.	Independent Oversight Budget		$291,605	$291,605	$291,606		$874,816
4.	IV&V Budget		$514,710	$138,030	$95,000		$747,740
5.	Other Budget (DGS)	$46,701	$273,177	$264,304			$584,182
6.	TOTAL VENDOR BUDGET	$3,388,142	$16,099,807	$11,659,624	$386,606	$	$31,534,179

PRIMARY VENDOR HISTORY SPECIFIC TO THIS PROJECT

7.	Primary Vendor	Safe Fleet
8.	Contract Start Date	06/17/2019
9.	Contract End Date (projected)	06/16/2022
10.	Amount	$29,327,441*

* This cost is reflecting Primary Vendor's Information Technology (Hardware, Software, On-Premise Appliance and Cloud Storage), Consulting and Professional Services cost.

PRIMARY VENDOR CONTACTS

	Vendor	First Name	Last Name	Area Code	Phone #	Ext.	Area Code	Fax #	E-mail
11.	Safe Fleet	Cindy	Chang	281	925-0460				cchang@safefleet.net
12.									
13.									

INFORMATION TECHNOLOGY PROJECT SUMMARY PACKAGE
SECTION F: RISK ASSESSMENT INFORMATION

Project #	**2720-114**
Doc. Type	**SPR**

RISK ASSESSMENT

	Yes	No
Has a Risk Management Plan been developed for this project?	X	

General Comment(s)
Project Management Plan v12, section 4.16 refers to risk management. Since its submission during the Project Approval Lifecycle, only a minor modification has been made to clarify risk reviews occurring during project team meetings as opposed to separate quarterly meetings. Risk management can be defined as the processes and structures that are directed towards realizing potential opportunities, while simultaneously managing possible adverse impacts. From a project management perspective, risk management is a continuous activity conducted throughout the life of the project. It seeks to identify potential risks, evaluate their likely impact, develop mitigation plans, and monitor progress.

Acronym	Description
BCP	Budget Change Proposal
CDT	California Department of Technology
CHP	California Highway Patrol
COTS	Commercial Off-the-Shelf
CR	Change Request
Dept.	Department
DGS	Department of General Services
FAW	Financial Analysis Worksheet
FOS	Fleet Operations Section
FY	Fiscal Year
HQ	Headquarters
IMD	Information Management Division
Infra	Infrastructure
Interdept.	Interdepartmental
IT	Information Technology
IV&V	Independent Verification and Validation
M&O	Maintenance and Operations
Maint.	Maintenance
Misc.	Miscellaneous
MVARS	Mobile Video Audio Recording System - DVD based system
OE&E	Operating Expense and Equipment
OSI	Office of System Integration
OSPD	Office of Statewide Project Delivery
PAL	Project Approval Lifecycle
PM	Project Manager
POC	Proof of Concept
Prof. Svc.	Professional Service
ROI	Return on Investment
RPS	Research and Planning Section
Spec.	Specific
SI	System Integrator
WAP	Wireless Access Point
WMVARS	Wireless Mobile Video Audio Recording System

EXECUTIVE COST SUMMARY

Project Name:	**Wireless Mobile Video and Audio Recording System (WMVARS)**		
Department Name:	**California Highway Patrol (CHP)**		
Project Number:	**2720-114**	**Date:**	10/19/2020

PROJECT COSTS		
Planning Costs (One-Time)	$	1,125,401
Project Costs (One-Time)	$	53,928,587
Future Operations IT Staff & OE&E Costs (Continuing)	$	26,725,049
TOTAL PROJECT COSTS:	**$**	**81,779,038**
Annual Fut. Ops. IT Costs (M&O):	$	14,226,749

		PROJECT BUDGET
Project Costs (One-Time)		
Staff (Salaries & Benefits)	$	7,502,520
Staff OE&E Rollup	**$**	**369,725**
Consulting & Prof. Services: Interdepartmental	**$**	**1,503,222**
Dept of Technology - Office of Statewide Project Delivery (OSPD) Project Approvals and Oversight	$	916,540
Dept of Technology - OSPD Statewide Technology Procurement	$	2,500
Dept of Technology - OSPD California Project Management Office	$	-
Department of General Services Procurements (DGS)	$	584,182
Office of Systems Integration (OSI)	$	-
	$	-
Consulting & Prof. Services: External	**$**	**1,176,040**
Proof of Concept (POC) - Facility Configuration	$	10,000
Independent Verification and Validation (IV&V)	$	747,740
Vendor Installation and Configuration of Appliance	$	130,000
Vendor Training	$	58,500
Off-Hours Services	$	1,800
On Premise Appliance Support	$	228,000
	$	-
Consolidated Data Centers		
	$	-
Information Technology	**$**	**44,502,481**
POC: Servers (2 at cost to vendor)	$	80,000
WMVARS Hardware (including taxes)	$	18,398,411
Software	$	1,333,000
On-Premise Appliance (including taxes)	$	824,030
Cloud Storage	$	8,772,000
Network Telecommunication	$	9,095,040
Unanticipate IT Costs (Hardware, Software, Telecommunication)	$	6,000,000
Misc. OE&E Rollup (Departmental Services; Central Administrative Services; Office Equipment; Other; Unclassified/Special Adjustment; Local Assistance)	**$**	**-**
Total Project Costs (One-Time):	**$**	**55,053,989**

EXECUTIVE COST SUMMARY

Project Name:	**Wireless Mobile Video and Audio Recording System (WMVARS)**		
Department Name:	**California Highway Patrol (CHP)**		
Project Number:	**2720-114**	**Date:**	10/19/2020

`ROJECT COSTS		
lanning Costs (One-Time)	$	1,125,401
Project Costs (One-Time)	$	53,928,587
Future Operations IT Staff & OE&E Costs (Continuing)	$	26,725,049
TOTAL PROJECT COSTS:	**$**	**81,779,038**
Annual Fut. Ops. IT Costs (M&O):	$	14,226,749

		PROJECT BUDGET
Future Ops. IT Staff & OE&E Costs (Continuing)		
Staff (Salaries & Benefits)	$	1,620,449
Staff OE&E Rollup	**$**	**108,000**
Consulting & Prof. Services: Interdepartmental	**$**	**308,600**
Department of General Services Procurements	$	308,600
Consulting & Prof. Services: External	**$**	**228,000**
Off-Hours Services	$	-
On Premise Appliance Support	$	228,000
	$	-
Consolidated Data Centers		
	$	-
Information Technology	**$**	**24,460,000**
Hardware	$	4,071,369
Software	$	2,356,000
Cloud Storange	$	15,504,000
Telecommunication (Antenna)	$	1,800,000
Unanticipate IT Costs (Hardware, Software, Telecommunication)	$	728,631
Misc. OE&E Rollup (Departmental Services; Central Administrative Services; Office Equipment; Other; Unclassified/Special Adjustment; Local Assistance)		
Total Future Ops. IT Staff & OE&E (Continuing):	**$**	**26,725,049**

California Highway Patrol (CH
2720-114

Date:
Wireless Mobile Video and Audio Recording System (WMVARS)

Project Costs
Alternative 1
Commercial Off-the-shelf (COTS) Solution

Planning Costs (Stage 2, 3, 4)

	Program/ IT	Monthly Salary	Tenure/ Time Base	(Optional) Benefit Rate (%)	FY (Year 1) Positions	2014/15 Dollars	FY (Year 2) Positions	2015/16 Dollars	FY (Year 3) Positions	2016/17 Dollars	FY (Year 4) Positions	2017/18 Dollars	FY (Year 5) Positions	2018/19 Dollars	Total Planning Positions and Costs: Positions	Total Planning Dollars
Personal Services																
Existing Staff To Be Redirected																
Information Technology (IT) Associate	IT	$5,700	P	66%		$0	0.5	$57,272		$0		$0		$0	0.5	$57,272
IT Manager	IT	$8,299	P	66%	0.1	[illegible]	0.1	[illegible]	0.1	[illegible]	0.25	$41,211	0.25	$41,211	0.8	$131,874
Officer (Research and Planning Section)	Pgm	$9,507	P	77%	0.1	[illegible]	0.1	[illegible]	0.1	[illegible]	0.25	$60,521	0.25	[illegible]	0.8	$181,968
Sergeant (Research and Planning Section)	Pgm	$11,616	P	77%	0.1	$24,041	0.25	$61,739	0.5	$74,074	0.25	$61,739	0.25	$61,729	1.3	$283,332
Associate Governmental Program Analyst (AGPA) - Research and Planning Section (RPS)	Pgm	$5,758	P	66%		$0		$0		$0		$0		$0	0.0	$0
IT Specialist I, Range C	IT	$6,962	P	66%	0.1	$13,810	0.1	$13,810	0.1	$13,810	0.1	$13,810	0.1	$13,810	0.5	$69,052
Implementation and Training Officers	Pgm	$9,507	P	77%		$0		$0	0.2	$40,417		$0		$0	0.2	$40,417
						$0		$0		$0		$0		$0	0.0	$0
Total, Permanent					0.4	$43,848	1.1	$99,152	0.8	$94,343	0.9	$98,605	0.9	$98,605		
Total, Temporary					0.0	$0	0.0	$0	0.0	$0	0.0	$0	0.0	$0		
Total, Exempt					0.0	$0	0.0	$0	0.0	$0	0.0	$0	0.0	$0		
Total, Board					0.0	$0	0.0	$0	0.0	$0	0.0	$0	0.0	$0		
Total Salaries and Wages					0.4	$43,848	1.1	$99,152	0.8	$94,343	0.9	$98,605	0.9	$98,605	4.0	$430,391
Overtime, Holiday, Other																$0
Dept. Benefits Rate (% of Salaries/Wages)					0%	$0	0%	$0	0%	$0	0%	$0	0%	$0		$0
TOTAL PERSONAL SERVICES - EXISTING STAFF TO BE REDIRECTED					0.4	[illegible]	1.1	[illegible]	0.8	[illegible]	0.9	[illegible]	0.9	[illegible]	4.0	[illegible]
New Staff	Program/ IT	Monthly Salary	Tenure/TB	Benefit Rate (%)	Positions	Dollars	Positions	Dollars	Positions	Dollars	Positions	Dollars	Positions	Dollars	Positions	Dollars
IT Associate	IT	$5,700	P	60%		$0		$0		$0		$0	1.0	$114,543	1.0	$114,543
IT Specialist I, Range C	IT	$6,962	P	60%		$0		$0		$0		$0	1.0	$138,093	1.0	$138,093
IT Specialist I, Range C	IT	$6,962	P	60%		$0		$0		$0		$0	2.0	$276,187	2.0	$276,187
						$0		$0		$0		$0		$0	0.0	$0
Total, Permanent					0.0	$0	0.0	$0	0.0	$0	0.0	$0	4.0	$318,446		
Total, Temporary					0.0	$0	0.0	$0	0.0	$0	0.0	$0	0.0	$0		
Total, Exempt					0.0	$0	0.0	$0	0.0	$0	0.0	$0	0.0	$0		
Total, Board					0.0	$0	0.0	$0	0.0	$0	0.0	$0	0.0	$0		
Total, Salaries and Wages					0.0	$0	0.0	$0	0.0	$0	0.0	$0	4.0	$318,446	4.0	$318,446
Overtime, Holiday, Other																$0
Dept. Benefits Rate (% of Salaries/Wages)						$0		$0		$0		$0	60%	$209,378		$209,378
TOTAL PERSONAL SERVICES - NEW STAFF					0.0	$0	0.0	$0	0.0	$0	0.0	$0	4.0	[illegible]	4.0	[illegible]
Total, Permanent					0.4	$43,848	1.1	$99,152	0.8	$94,343	0.9	$98,605	4.9	[illegible]		
Total, Temporary					0.0	$0	0.0	$0	0.0	$0	0.0	$0	0.0	$0		
Total, Exempt					0.0	$0	0.0	$0	0.0	$0	0.0	$0	0.0	$0		
Total, Board					0.0	$0	0.0	$0	0.0	$0	0.0	$0	0.0	$0		
Total, Salaries and Wages					0.4	$43,848	1.1	$99,152	0.8	$94,343	0.9	$98,605	4.9	[illegible]	6.0	$749,600
Overtime, Holiday, Other						$0		$0		$0		$0		$0		$0
Dept. Benefits Rate (% of Salaries/Wages)						$0		$0		$0		$0		$209,378		$209,378
TOTAL PERSONAL SERVICES - ALL STAFF					0.4	$43,848	1.1	$99,152	0.8	$94,343	0.9	$98,605	4.9	[illegible]	6.0	[illegible]
Operating Expenses and Equipment (OE&E) (New)					Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost		Cost
General Expense (5301400-Goods - Other) - New Staff OE&E and Equip													4.0	$32,000		$32,000
Printing (5302900-Printing - Other)																$0
Communications (5304800-Communications - Other)																$0
Postage (5306700-Postage - Other)																$0
Insurance (5308900-Insurance - Other)																$0
Travel - In State (5320490-Travel - In State - Other)																$0
Travel - Out of State (5320890-Travel - Out of State - Other)																$0
Training (5322400-Training - Tuition and Registration)																$0
Facilities Operations (e.g. 5324350-Rents & Leases; 5324550-Spec. Repairs & Deferred Maint.)																$0
Utilities (5326900-Utilities - Other)																$0
Consulting and Professional Services: Interdepartmental (5340330-Consulting and Professional Services - Interdepartmental)(e.g., CDT OSPD Project Approvals & Oversight, Statewide Technology Procurement, DGS, OSI)																
Dept of Technology - Office of Statewide Project Delivery (OSPD) Project Approvals and Oversight												$13,500	0.1	$28,224		$41,724
Dept of Technology - OSPD Statewide Technology Procurement												$2,500				$2,500
Dept of Technology - OSPD California Project Management Office																$0
Department of General Services Procurements (DGS)													0.00	$0		$0
Office of Systems Integration (OSI)																$0
																$0
Subtotal - Consulting and Professional Services: Interdepartmental						$0		$0		$0		$16,000		$28,224		$44,224
Consulting and Professional Services: External (5340580-Consulting and Professional Services - External)(e.g., System Integrator (SI) Vendor, Solution Vendor, IV&V, PM Vendor)																
Proof of Concept (POC) - Facility Configuration										$10,000						$10,000
Independent Verification and Validation (IV&V)																$0
Vendor Installation and Configuration of Appliance																$0
Vendor Training																$0
Off-Hours Services																$0
On Premise Appliance Support																$0
																$0
																$0
																$0
																$0
Subtotal - Consulting and Professional Services: External						$0		$0		$10,000		$0		$0		$10,000
Departmental Services (5342500-Indirect Distributed Cost)																
																$0
Subtotal - Departmental Services						$0		$0		$0		$0		$0		$0
Consolidated Data Centers (5344000-Consolidated Data Centers)																
																$0
																$0
Subtotal - Consolidated Data Centers						$0		$0		$0		$0		$0		$0
Information Technology (5346900-Information Technology - Other)																

Project Costs (During Project)

	FY Positions	2018/19 Dollars	FY Positions	2019/20 Dollars	FY Positions	2020/21 Dollars	FY Positions	2021/22 Dollars	Project Total Positions	Project Total Dollars
Existing Staff To Be Redirected										
Information Technology (IT) Associate		$0	0.29	$31,768	2.50	$286,368	2.50	$286,368	5.3	$604,484
IT Manager		$0	0.75	$123,632	1.50	$247,263	1.50	$247,263	3.8	$618,158
Officer (Research and Planning Section)		$0	0.06	$12,893	0.50	$101,042	0.50	$101,042	1.1	$214,976
Sergeant (Research and Planning Section)		$0	0.22	$54,648	1.50	$370,372	1.50	$370,372	3.2	$785,583
Associate Governmental Program Analyst (AGPA) - Research and Planning Section (RPS)		$0	0.19	$20,356	0.14	$18,301	0.14	$18,301	0.5	$56,558
IT Specialist I, Range C		$0	[illegible]	$12,120	1.50	$207,165	1.50	$207,165	3.1	$426,430
Implementation and Training Officers		$0	0.33	$66,941	4.00	$808,340	4.00	$808,340	8.3	$1,683,620
		$0		$0		$0		$0	0.0	$0
Total, Permanent	0.0	$0	1.9	$188,462	11.7	$1,181,001	11.7	$1,181,001		
Total, Temporary	0.0	$0	0.0	$0	0.0	$0	0.0	$0		
Total, Exempt	0.0	$0	0.0	$0	0.0	$0	0.0	$0		
Total, Board	0.0	$0	0.0	$0	0.0	$0	0.0	$0		
Total Salaries and Wages	0.0	$0	1.9	$188,462	11.7	$1,181,001	11.7	$1,181,001	25.2	$2,551,465
Overtime, Holiday, Other										$0
Dept. Benefits Rate (% of Salaries/Wages)	0%	$0	0%	$0	0%	$0	0%	$0		$0
TOTAL PERSONAL SERVICES - EXISTING STAFF TO BE REDIRECTED	0.0	$0	1.9	$188,462	11.7	$1,181,001	11.7	$1,181,001	25.2	$2,551,465
New Staff	Positions	Dollars	Positions	Dollars	Positions	Dollars	Positions	Dollars	Positions	Dollars
IT Associate		$0	6.0	$687,259	9.0	$1,030,889	9.0	$1,030,889	24.0	$2,749,037
IT Specialist I, Range C		$0	1.0	$138,093	1.0	$138,093	1.0	$138,093	3.0	$414,280
IT Specialist I, Range C		$0	2.0	$276,187	2.0	$276,187	2.0	$276,187	8.0	$828,561
		$0		$0		$0		$0	0.0	$0
Total, Permanent	0.0	$0	9.0	$665,408	12.0	$872,982	12.0	$872,982		
Total, Temporary	0.0	$0	0.0	$0	0.0	$0	0.0	$0		
Total, Exempt	0.0	$0	0.0	$0	0.0	$0	0.0	$0		
Total, Board	0.0	$0	0.0	$0	0.0	$0	0.0	$0		
Total, Salaries and Wages	0.0	$0	9.0	$665,408	12.0	$872,982	12.0	$872,982	33.0	$2,411,370
Overtime, Holiday, Other										$0
Dept. Benefits Rate (% of Salaries/Wages)	60%	$0	60%	$436,134	60%	$572,187	60%	$572,187		$1,580,508
TOTAL PERSONAL SERVICES - NEW STAFF	0.0	$0	9.0	$1,101,540	12.0	$1,445,169	12.0	$1,445,169	33.0	$3,991,879
Total, Permanent	0.0	$0	10.9	$854,868	23.7	$2,053,983	23.7	$2,053,983		
Total, Temporary	0.0	$0	0.0	$0	0.0	$0	0.0	$0		
Total, Exempt	0.0	$0	0.0	$0	0.0	$0	0.0	$0		
Total, Board	0.0	$0	0.0	$0	0.0	$0	0.0	$0		
Total, Salaries and Wages	0.0	$0	10.9	$854,868	23.7	$2,053,983	23.7	$2,053,983	58.2	$4,962,835
Overtime, Holiday, Other		$0		$0		$0		$0		$0
Dept. Benefits Rate (% of Salaries/Wages)		$0		$436,134		$572,187		$572,187		$1,580,508
TOTAL PERSONAL SERVICES - ALL STAFF	0.0	$0	10.9	$1,291,002	23.7	$2,626,171	23.7	$2,626,171	58.2	$6,543,343
Operating Expenses and Equipment (OE&E) (New)	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost		Cost
General Expense (5301400-Goods - Other) - New Staff OE&E and Equip	0.0	$0	9.0	$72,000	12.0	$108,000	12.0	$108,000		[illegible]
Printing (5302900-Printing - Other)										$0
Communications (5304800-Communications - Other)										$0
Postage (5306700-Postage - Other)										$0
Insurance (5308900-Insurance - Other)										$0
Travel - In State (5320490-Travel - In State - Other)				$0		$48,725				$48,725
Travel - Out of State (5320890-Travel - Out of State - Other)										$0
Training (5322400-Training - Tuition and Registration)										$0
Facilities Operations (e.g. 5324350-Rents & Leases; 5324550-Spec. Repairs & Deferred Maint.)										$0
Utilities (5326900-Utilities - Other)										$0
Consulting and Professional Services: Interdepartmental										
Dept of Technology - Office of Statewide Project Delivery (OSPD) Project Approvals and Oversight		$0	1.0	$291,606	1.0	$291,606	1.0	$291,606		$874,818
Dept of Technology - OSPD Statewide Technology Procurement										$0
Dept of Technology - OSPD California Project Management Office										$0
Department of General Services Procurements (DGS)	0.0136	$46,701	0.0136	$273,177	0.0125	[illegible]	0.0125	$0		$584,182
Office of Systems Integration (OSI)										$0
										$0
Subtotal - Consulting and Professional Services: Interdepartmental		$46,701		$564,782		$555,909		$291,606		$1,458,998
Consulting and Professional Services: External										
Proof of Concept (POC) - Facility Configuration										$0
Independent Verification and Validation (IV&V)			1.0	$514,710	1.0	$138,030	1.0	$95,000		$747,740
Vendor Installation and Configuration of Appliance		$46,500		$84,500		$0				$130,000
Vendor Training	5.0	$32,500	4.0	$26,000		-				$58,500
Off-Hours Services	6.0	$1,800	0.0	$0	0.0	$0				$1,800
On Premise Appliance Support		$39,900		$74,100		$114,000				$228,000
										$0
										$0
										$0
										$0
Subtotal - Consulting and Professional Services: External		$119,700		$699,310		$252,030		$95,000		$1,166,040
Departmental Services (5342500-Indirect Distributed Cost)										
										$0
Subtotal - Departmental Services		$0		$0		$0		$0		$0
Consolidated Data Centers (5344000-Consolidated Data Centers)										
										$0
										$0
Subtotal - Consolidated Data Centers		$0		$0		$0		$0		$0
Information Technology (5346900-Information Technology - Other)										

California Highway Patrol (CH: 2720-114

Date:

Wireless Mobile Video and Audio Recording System (WMVARS)

Project Costs
Alternative 1
Commercial Off-the-shelf (COTS) Solution

Planning Costs (Pages 2, 3, 4)

Commercial Off-the-shelf (COTS) Solution	Program/ IT	Monthly Salary	Tenure/ Time Base	(Optional) Benefit Rate (%)	FY (Year 1)	2014/15	FY (Year 2)	2015/16	FY (Year 3)	2016/17	FY (Year 4)	2017/18	FY (Year 5)	2018/19	Total Planning Positions and Costs	
POC: Servers (2 at cost to vendor)										$80,000						$80,000
WMVARS Hardware (including taxes)																$0
Software																$0
On-Premise Appliance (including taxes)																$0
Cloud Storage																$0
Network Telecommunication																$0
Unanticipated IT Costs (Hardware, Software, Telecommunication)																$0
Subtotal - Information Technology						$0		$0		$80,000		$0		$0		$80,000
Office Equipment (5368315-Office Equipment)																$0
																$0
																$0
Subtotal - Office Equipment						$0		$0		$0		$0		$0		$0
Other (5390900-Other Items of Expense - Miscellaneous)																$0
																$0
Subtotal - Other						$0		$0		$0		$0		$0		$0
Unclassified/Special Adjustment (e.g., 5396000-Unallocated Operating Expense and Equipment; 5415000 Claims Against the State; 5420000-Debt Service - Interest; 5490000-Other Special Items of Expense; 5700000-Internal Cost Recovery)																$0
Subtotal - Unclassified/Special Adjustment						$0		$0		$0		$0		$0		$0
TOTAL OE&E EXPENDITURES (NEW)						$0		$0		[illegible]		[illegible]		[illegible]		[illegible]
Total Personal Services Expenditures					0.4	$43,848	1.1	$98,152	0.8	$94,343	0.8	$88,605	4.9	$625,429	7.95	$950,177
Total OE&E Expenditures						$0		$0		$90,000		$15,000		$80,224		$185,224
TOTAL EXPENDITURES - ALTERNATIVE 1 OPERATIONS COSTS					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Annual Savings/Revenue Adjustments																
Cost Savings (After final FY, based on Project Costs - Average Current Operations Costs)																
Cost Avoidances/Increased Program Revenues																
Net Cost (+) or Benefit (-)																
Cum. Net Cost (+) or Benefit (-)																
Simple ROI - Average Future Operations / Average Current Operations (Compares Future Costs with the Current Costs)																

Project Costs (During Project)

Commercial Off-the-shelf (COTS) Solution	FY	2018/19	FY	2019/20	FY	2020/21	FY	2021/22	Project Total	
POC: Servers (2 at cost to vendor)										$0
WMVARS Hardware (including taxes)		$2,516,300		$11,646,360		$7,276,000				$18,398,411
Software		$70,680		$64,320		$1,178,000				$1,333,000
On-Premise Appliance (including taxes)		$289,275		$534,750		$0				$824,030
Cloud Storage		$465,120		$364,880		$7,702,000				$8,772,000
Network Telecommunication		$0		$5,032,440		$4,064,600				$9,095,040
Unanticipated IT Costs (Hardware, Software, Telecommunication)						$6,000,000				$6,000,000
Subtotal - Information Technology		$3,341,441		$20,030,755		$21,030,285		$0		$44,422,481
Office Equipment (5368315-Office Equipment)										$0
										$0
										$0
Subtotal - Office Equipment		$0		$0		$0		$0		$0
Other (5390900-Other Items of Expense - Miscellaneous)										$0
										$0
Subtotal - Other		$0		$0		$0		$0		$0
Unclassified/Special Adjustment (e.g., 5396000-Unallocated Operating Expense and Equipment; 5415000 Claims Against the State; 5420000-Debt Service - Interest; 5490000-Other Special Items of Expense; 5700000-Internal Cost Recovery)										$0
Subtotal - Unclassified/Special Adjustment		$0		$0		$0		$0		$0
TOTAL OE&E EXPENDITURES (NEW)		$3,507,842		$21,368,846		$21,995,946		$484,606		$47,385,244
Total Personal Services Expenditures	0.0	$0	10.9	$1,291,002	23.7	$2,826,171	23.7	$2,826,171	58.2	$6,943,343
Total OE&E Expenditures		$3,507,842		$21,368,846		$21,995,946		$484,606		$47,385,244
TOTAL EXPENDITURES - ALTERNATIVE 1 OPERATIONS COSTS	0.0	$3,507,842	10.9	$22,677,848	23.7	$24,622,119	23.7	$3,120,777	[illegible]	[illegible]
Annual Savings/Revenue Adjustments										
Cost Savings (After final FY, based on Project Costs - Average Current Operations Costs)	0.0	-$7,738,550	9.3	$11,433,407	22.1	$13,377,728	22.1	-$8,123,616	53.4	$8,951,017
Cost Avoidances/Increased Program Revenues									0.0	$0
Net Cost (+) or Benefit (-)	0.0	-$7,738,550	9.3	$11,433,407	22.1	$13,377,728	22.1	-$8,123,616	53.4	$8,951,017
Cum. Net Cost (+) or Benefit (-)	0.0	-$7,738,550	9.3	$3,696,907	31.4	$17,074,035	53.4	$8,951,017	53.4	$8,951,017
Simple ROI - Average Future Operations / Average Current Operations (Compares Future Costs with the Current Costs)										237.7%

Comments: (Enter comments here.)

Future Operations Alternative 1 **Commercial Off-the-shelf (COTS) Solution**	Program/ IT	Monthly Salary	Tenure/ Time Base	(Optional) Benefit Rate (%)	Future Annual Operations Costs (After Project) FY 2021/22 Positions	FY 2021/22 Dollars	FY 2022/23 Positions	FY 2022/23 Dollars	IT Only Total (Future FYs) Pys	IT Only Total (Future FYs) Dollars	Enter Final M&O FY: 2022/23 Positions	2022/23 Dollars	**(See below) - No. of FYs with entries = 2 Future Operations Positions	Future Operations Dollars	Average Future Operations Costs Positions	Average Future Operations Costs Dollars
Personal Services (Existing/Redirected)																
Officer (Research and Planning Section [RPS])	Pgm	$9,507	P	77%		$0		$0	-	$0	0.0	$0	0.0	$0	0.0	$0
Sergeant (RPS)	Pgm	$11,816	P	77%		$0		$0	-	$0			0.0	$0	0.0	$0
AGPA	Pgm	$5,758	P	66%		$0		$0	-	$0			0.0	$0	0.0	$0
						$0		$0	-	$0			0.0	$0	0.0	$0
Total, Permanent					0.0	$0	0.0	$0	-	$0.00						
Total, Temporary					0.0	$0	0.0	$0								
Total, Exempt					0.0	$0	0.0	$0								
Total, Board					0.0	$0	0.0	$0								
Total Salaries and Wages					0.0	$0	0.0	$0	0.0	$0	0.0	$0	0.0	$0	0.0	$0
Overtime, Holiday, Other										$0		$0		$0		$0
Dept. Benefits Rate (% of Salaries/Wages)						$0		$0		$0		$0		$0		$0
TOTAL EXISTING/REDIRECTED STAFF					0.0	$0	0.0	$0	-	$0	0.0	$0	0.0	$0	0.0	$0
Personal Services (New)	Program/ IT	Monthly Salary	Tenure/ TB	Benefit Rate (%)	FY 2021/22		FY 2022/23		IT NEW	IT NEW	Final Year M&O 2022/23					
IT Associate	IT	$6,206	P	72%		$0	9.0	$1,155,876	9.0	$1,155,876	12.0	$1,620,449	9.0	$1,155,876	4.5	$577,938
IT Specialist I, Range C	IT	$7,483	P	72%		$0	1.0	$154,858	1.0	$154,858			1.0	$154,858	0.5	$77,429
IT Specialist I, Range C	IT	$7,483	P	72%		$0	2.0	$309,715	2.0	$309,715			2.0	$309,715	1.0	$154,858
Total, Permanent					0.0	$0	12.0	$939,636	12.0	$1,620,449						
Total, Temporary					0.0	$0	0.0	$0								
Total, Exempt					0.0	$0	0.0	$0								
Total, Board					0.0	$0	0.0	$0								
Total Salaries and Wages					0.0	$0	12.0	$939,636	12.0	$939,636	12.0	$1,620,449	12.0	$939,636	6.0	$469,818
Overtime, Holiday, Other										$0		$0		$0		$0
Dept. Benefits Rate (% of Salaries/Wages)						$0		$680,813		$680,813		$0		$680,813		$340,407
TOTAL PERSONAL SERVICES - NEW STAFF					0.0	$0	12.0	$1,620,449	12.0	$1,620,449	12.0	$1,620,449	12.0	$1,620,449	6.0	$810,225
Total, Permanent					0.0	$0	12.0	$939,636								
Total, Temporary					0.0	$0	0.0	$0								
Total, Exempt					0.0	$0	0.0	$0								
Total, Board					0.0	$0	0.0	$0								
Total Salaries and Wages					0.0	$0	12.0	$939,636	12.0	$939,636	12.0	$1,620,449	12.0	$939,636	6.0	$469,818
Overtime, Holiday, Other						$0		$0		$0		$0		$0		$0
Dept. Benefits Rate (% of Salaries/Wages)						$0		$680,813		$680,813		$0		$680,813		$340,407
TOTAL PERSONAL SERVICES - ALL STAFF					0.0	$0	12.0	$1,620,449	12.0	$1,620,449	12.0	$1,620,449	12.0	$1,620,449	6.0	$810,225
Operating Expenses and Equipment (OE&E)					Qty		Qty	Cost	(OPTIONAL) ENTER TOTAL IT OE&E COSTS ONLY		Final M&O FY 2022/23	(Optional) Enter IT OE&E for FINAL M&O FY ONLY		Cost		Cost
General Expense (5301400-Goods - Other) - New Staff OE&E and Equip					0.0	$0	12.0	$108,000						$108,000		$54,000
Printing (5302900-Printing - Other)														$0		$0
Communications (5304800-Communications - Other)														$0		$0
Postage (5306700-Postage - Other)														$0		$0
Insurance (5308900-Insurance - Other)														$0		$0
Travel - In State (5320490-Travel - In State - Other)														$0		$0
Travel - Out of State (5320890-Travel - Out of State - Other)														$0		$0
Training (5322400-Training - Tuition and Registration)														$0		$0
Facilities Operations (e.g., 5324350-Rents & Leases; 5324550-Spec. Repairs & Deferred Maint.)														$0		$0
Utilities (5326900-Utilities - Other)														$0		$0
Consulting and Professional Services: Interdepartmental (5340330-Consulting and Professional Services - Interdepartmental) (e.g., CDT OSPD Project Approvals & Oversight, Statewide Technology Procurement, DGS, OSI)																
Department of General Services Procurements					0.0125	$154,300	0.0125	$154,300						$308,600		$154,300
														$0		$0
Subtotal - Consulting and Professional Services: Interdepartmental						$154,300		$154,300		$0		$0		$308,600		$154,300
Consulting and Professional Services: External (5340580-Consulting and Professional Services - External) (e.g., System Integrator (SI) Vendor, Solution Vendor, IV&V, PM Vendor)																

Future Operations
Alternative 1
Commercial Off-the-shelf (COTS) Solution

	Program/ IT	Monthly Salary	Tenure/ Time Base	(Optional) Benefit Rate (%)	Future Annual Operations Costs (After Project) FY 2021/22		FY 2022/23		IT Only Total (Future FYs)		Enter Final M&O FY: 2022/23		**(See below) - No. of FYs with entries = 2 Future Operations	Average Future Operations Costs
Off-Hours Services					0.0	$0	0.0	$0					$0	$0
On Premise Appliance Support					20.0	$114,000	20.0	$114,000					$228,000	$114,000
													$0	$0
			Subtotal - Consulting and Professional Services: External			$114,000		$114,000		$0		$0	$228,000	$114,000
Departmental Services (5342500-Indirect Distributed Cost)														
													$0	$0
			Subtotal - Departmental Services			$0		$0		$0		$0	$0	$0
Consolidated Data Centers (5344000-Consolidated Data Centers)														
													$0	$0
													$0	$0
													$0	$0
			Subtotal - Consolidated Data Centers			$0		$0		$0		$0	$0	$0
Information Technology (5346900-Information Technology - Other)														
Hardware					260.0	$2,035,685	260.0	$2,035,685					$4,071,369	$2,035,685
Software					7600.0	$1,178,000	7600.0	$1,178,000					$2,356,000	$1,178,000
Cloud Storage					7600.0	$7,752,000	7600.0	$7,752,000					$15,504,000	$7,752,000
Telecommunication (Antenna)					800.0	$900,000	800.0	$900,000					$1,800,000	$900,000
Unanticipate IT Costs (Hardware, Software, Telecommunication)					3%	$364,315		$364,315					$728,631	$364,315
													$0	$0
													$0	$0
													$0	$0
													$0	$0
													$0	$0
													$0	$0
													$0	$0
													$0	$0
			Subtotal - Information Technology			$12,230,000		$12,230,000		$0		$0	$24,460,000	$12,230,000
Office Equipment (5368115-Office Equipment)														
													$0	$0
			Subtotal - Office Equipment			$0		$0		$0		$0	$0	$0
Other (5390900-Other Items of Expense - Miscellaneous)														
													$0	$0
			Subtotal - Other			$0		$0		$0		$0	$0	$0
Unclassified/Special Adjustment (e.g., 5395000-Unallocated Operating Expense and Equipment; 5415000 Claims Against the State; 5420000-Debt Service - Interest; 5490000-Other Special Items of Expense; 5700000-Internal Cost Recovery)														
													$0	$0
			Subtotal - Unclassified/Special Adjustment			$0		$0		$0		$0	$0	$0
TOTAL OE&E EXPENDITURES						$12,498,300		$12,606,300	IT OE&E:	$0	IT OE&E:	$0	$25,104,600	$12,552,300
Total Personal Services Expenditures					0.0	$0	12.0	$1,620,449	12.0	$1,620,449	12.0	$1,620,449	12.0 $1,620,449	6.0 $1,150,631
Total OE&E Expenditures						$12,498,300		$12,606,300		$25,104,600		$12,606,300	$25,104,600	$12,552,300
TOTAL EXPENDITURES - ALTERNATIVE 1 FUTURE OPERATIONS COSTS					0.0	$12,498,300	12.0	$14,226,749	12.0	$26,725,049	12.0	$14,226,749	12.0 $26,725,049	6.0 $13,362,525

**Note: Manually change the value in Cell AG1 to the number of FYs that have been completed.

Final M&O FY: 2022/23

Comments: Contract term = Three years with seven, one year extensions.

California Highway Patrol (CHP) Stage 4/Version 2 Date:
2720-114 Wireless Mobile Video and Audio Recording System (WMVARS)

Funding Plan
Alternative 1
Commercial Off-the-shelf (COTS) Solution

	Planning Costs* (Stage 3 & 4)										Project Costs (During Project)								FUTURE ANNUAL COSTS (AFTER PROJECT/M&O - FULL FYs ONLY)				All Costs (Redirected & One-Time for Planning & Project & Future) (During & After)		Average Future Operations Cost (After Project)	
	FY 1	2014/15	FY 2	2015/16	FY 3	2016/17	FY 4	2017/18	FY 5	2018/19	FY	2018/19	FY	2019/20	FY	2020/21	FY	2021/22	FY	2021/22	FY	2022/23				
	Positions	Dollars	Positions	Dollars	Positions	Dollars	Positions	Dollars	Positions	Dollars	Positions	Dollars	Positions	Dollars	Positions	Dollars	Positions	Dollars	Positions	Dollars	Positions	Dollars			Positions	Dollars
Total Project Costs	0.4	$43,648	1.1	$99,152	0.8	$184,343	0.9	$112,605	4.9	$685,653	0.0	$3,507,842	10.9	$22,677,849	23.7	$24,622,119	23.7	$3,120,777								
Total Future Costs											0.0	$0	0.0	$0	0.0	$0	0.0	$0	0.0	$12,498,300	12.0	$14,228,749			8.0	$13,382,525
Total Project Costs + Total Future Annual Costs	0.4	$43,648	1.1	$99,152	0.8	$184,343	0.9	$112,605	4.9	$685,653	0.0	$3,507,842	10.9	$22,677,849	23.7	$24,622,119	23.7	$3,120,777	0.0	$12,498,300	12.0	$14,228,749	78.2	$81,779,038		
Project Resources (including funding) To Be Redirected																							TOTAL EXISTING/REDIRECTED (Planning & Project & Future)		Current Operations Cost (Before Project)	
Personal Services (Project)	0.4	$43,648	1.1	$99,152	0.8	$84,343	0.9	$96,605	0.9	$96,605	0.0	$0	1.9	$189,462	11.7	$1,181,001	11.7	$1,181,001					29.2	$2,981,818	1.9	$11,244,393
Personal Services (Future Annual Operations)											0.0	$0	0.0	$0	0.0	$0	0.0	$0	0.0	$0	0.0	$0	0.0	$0		
Operating Expenses & Equipment																								$0		$0
Existing System Funds																								$0		$0
Other Fund Sources (Motor Vehicle Account)																								$0		$0
Total Redirected Resources	0.4	$43,648	1.1	$99,152	0.8	$84,343	0.9	$96,605	0.9	$96,605	0.0	$0	1.9	$189,462	11.7	$1,181,001	11.7	$1,181,001	0.0	$0	0.0	$0	29.2	$2,981,818	1.9	$11,244,393
Additional Funding Needed																							Total Project Funding (Planning & Project & Future*)		Future Ops (Annual) Funding** (After Project)	
Project (One-Time) Funding (Budget Concept Proposal [BCP])	0.0	$0	0.0	$0	0.0	$90,000	0.0	$19,000	4.0	$569,048	0.0	$3,507,842	9.0	$22,488,387	12.0	$23,441,117	12.0	$1,939,775					*Future FY One-Time Costs included if it has the same FY as a Project FY		**Only Future Ops FYs with full FYs included	
Future Ops (Annual) Funding (BCP)											0.0	$0	0.0	$0	0.0	$0	0.0	$0					37.0	$52,072,170		
Total Additional Funding	0.0	$0	0.0	$0	0.0	$90,000	0.0	$19,000	4.0	$569,048	0.0	$3,507,842	9.0	$22,488,387	12.0	$23,441,117	12.0	$1,939,775	0.00	$12,498,300	12.0	$14,228,749	0.0	$0		
																							37.0	$52,072,170	12.0	$26,725,049
																							TOTAL ADDITIONAL FUNDING (Planning, Project, Future):		49.0	$78,797,219
Funding Source, State Operations																										
General Funds		$0		$0		$0		$0		$0		$0		$0		$0		$0		$0		$0	0%	$0	0%	$0
Special Funds		$0		$0		$0		$0		$0		$0		$0		$0		$0		$0		$0	0%	$0	0%	$0
Federal Funds		$0		$0		$0		$0		$0		$0		$0		$0		$0		$0		$0	0%	$0	0%	$0
Other Funds (Specify Fund(s)) - Motor Vehicle Account		$0		$0	100.0%	$90,000	100.0%	$19,000	100.0%	$569,048	100.0%	$3,507,842	100.0%	$22,488,387	100.0%	$23,441,117		$0		$0		$0	96%	$50,132,395	0%	$0
Cost Recovery/Reimbursement		$0		$0		$0		$0		$0		$0		$0		$0		$0		$0		$0	0%	$0	0%	$0
Total Funding, State Operations	0%	$0	0%	$0	100%	$90,000	100%	$19,000	100%	$569,048	100%	$3,507,842	100%	$22,488,387	100%	$23,441,117	0%	$0	0%	$0	0%	$0	96%	$50,132,395	0%	$0
Funding Source, Local Assistance																										
General Funds		$0		$0		$0		$0		$0		$0		$0		$0		$0		$0		$0	0%	$0	0%	$0
Special Funds		$0		$0		$0		$0		$0		$0		$0		$0		$0		$0		$0	0%	$0	0%	$0
Federal Funds		$0		$0		$0		$0		$0		$0		$0		$0		$0		$0		$0	0%	$0	0%	$0
Other Funds (Specify Fund(s))		$0		$0		$0		$0		$0		$0		$0		$0		$0		$0		$0	0%	$0	0%	$0
Cost Recovery/Reimbursement		$0		$0		$0		$0		$0		$0		$0		$0		$0		$0		$0	0%	$0	0%	$0
Total Funding, Local Assistance	0%	$0	0%	$0	0%	$0	0%	$0	0%	$0	0%	$0	0%	$0	0%	$0	0%	$0	0%	$0	0%	$0	0%	$0	0%	$0
FUNDING SOURCE TOTAL:	0%	$0	0%	$0	100%	$90,000	100%	$19,000	100%	$569,048	100%	$3,507,842	100%	$22,488,387	100%	$23,441,117	0%	$0	0%	$0	0%	$0	96%	$50,132,395	0%	$0
																							TOTAL ONE-TIME (Planning & Project & Future) FY/COSTS:		49.0	$50,132,395

COMMENTS: (Enter Comments Here)

Breakdown	Users (Based on May 2019 position count)		Appliances	30% Buffer Appliances	Travel	#Cars	Rollout Phase (10/50/40) - Original Plan	FY	#Cars May 2020	New 2 Phased Rollout Begins	#Cars Remaining					
Valley	897		5	7	$0	327	1	19/20	192	2021						
Northern	557		11	14	$3,770	262	2	19/20	126	2021						
Golden Gate	1168		6	8	$3,770	352	2	19/20	174	2021						
Central	847		4	5	$3,770	338	2	19/20	168	2021						
Coastal	584		4	5	$5,655	214	2	20/21	81	2021						
Southern	1214		9	12	$11,050	386	3	20/21	201	2021						
Border	1038		8	10	$11,245	345	3	20/21	161	2021						
Inland	667		10	13	$10,465	278	3	20/21	173	2021						
Headquarters (HQ)	608					3		20/21	502	2021	1082					
7600	7580		57	74	$49,725	2505			1778		2860	Total Quantity				
Implementation Planned Purchase Order (PO)	**Unit**		**Rate**	**PO1**	**Sub**	**Tax**	**PO2**	**Sub**	**Tax**	**PO3**	**Sub**	**Tax**	**Total Qty**	**Total Cost**	**With Tax**	**Notes**
WMVARS Hardware (Complete Unit)	$ -		0.0825	450	$ 2,313,900	$ 202,466	2150	$ 12,211,095	$ 1,007,415	260	$ 1,300,540	$ 107,295	2860	$ 15,825,535	$ 17,142,711	Slight incre
New Build Hardware			0.0825				800	$ 580,000	$ 47,850	800	$ 580,000	$ 47,850				
Software (Annual Per User)	$ 155		0.06	456	$ 70,680		544	$ 84,320		7600	$ 1,178,000		7600	$ 1,333,000	$ 1,333,000	Pushed mo
Cloud Storage (Annual per user)	$ 1,020			456	$ 465,120		544	$ 554,880		7600	$ 7,752,000			$ 8,772,000	$ 8,772,000	Pushed mo
Appliance (Per Unit)	$ 38,000		0.0825	7	$ 266,000	$ 23,275	13	$ 494,000	$ 40,755	0	$ -	$ -	20	$ 760,000	$ 824,030	Moved 8 a
Appliance Installation (Per Unit)	$ 6,500			7	$ 45,500		13	$ 84,500		0	$ -		20	$ 130,000	$ 130,000	Moved 8 a
Appliance Support (Annual per Unit)	$ 5,700			7	$ 39,900		13	$ 74,100		20	$ 114,000			$ 228,000	$ 228,000	Moved 8 a
Off-Hours Services	$ 225			8	$ 1,800		0	$ -		0	$ -			$ 1,800	$ 1,800	
Training (Per Session)	$ 6,500			5	$ 32,500		4	$ 26,000		0	$ -		9	$ 58,500	$ 58,500	
Total Vendor Costs					**$ 3,235,400**	**$ 225,741**		**$ 14,108,895**	**$ 1,096,020**		**$ 10,924,540**	**$ 155,145**		**$ 27,108,835**	**$ 28,490,041**	
Total With Taxes					**$ 3,461,141**			**$ 15,204,915**			**$ 11,079,685**					
					18/19			**19/20**			**20/21**		**Total**			**Notes**
Modems					Per modem	$ 1,300	1800	$ 2,340,000		1060	$ 1,378,000		$3,718,000			Increase in
					Antenna adaptor		1500	$ 12,600					$ 12,600			New part
Antennas - Retrofit					Per set of 2	$ 1,010	1800	$ 1,964,840		1060	$ 1,070,600		$3,035,440			Increase in
Antennas - New Builds					Per set of 2	$ 1,010				1600	$ 1,616,000					
Wireless Access Point (WAP)					WAP - 100,000 Infra - 613,000	$ 5,980	58	$ 713,000		0	$ -		$ 713,000			Increase in
Total With Taxes								**$ 5,030,440**			**$ 4,064,600**		**$7,479,040**			
					18/19			**19/20**			**20/21**					

PROJECT COSTS		BCP	FAW (PAL 09 2019)	FAW (CR 04 2020)	CURRENT	VARIANCE (PAL APPROVED)	%
Planning Costs (One-Time)			$ 1,125,401	$ 1,125,401	$ 1,125,401	$ -	0.0
Project Costs (One-Time)			$ 47,226,219	$ 51,280,820	$ 53,928,587	$ 6,702,369	14.2
Future Operations IT Staff & OE&E Costs (Continuing)			$ 21,221,920	$ 22,913,857	$ 26,725,049	$ 5,503,129	25.9
	TOTAL PROJECT COSTS:		$ 69,573,540	$ 75,320,079	$ 81,779,038	$ 12,205,497	17.5
Annual Fut. Ops. IT Costs (M&O):		$ 14,381,146	$ 11,381,545	$ 12,227,513	$ 14,226,749	$ 2,845,204	25.0

		FY 18/19	FY 19/20	FY 20/21	FY 21/22	Total
FAW	PAL	$ 3,507,842	$ 23,234,256	$ 17,550,837	$ 2,933,283	$ 47,226,219
FAW	Original Change Request #1	$ 3,507,842	$ 23,502,559	$ 21,492,137	$ 2,778,283	$ 51,280,820
Current		$ 3,507,842	$ 22,677,849	$ 24,622,119	$ 3,120,777	$ 53,928,587
Variance (PAL)		$ 0	$ (556,407)	$ 7,071,282	$ 187,494	$ 6,702,368
%		0.0	-2.4	40.3	6.4	14.2

M&O	Notes:
$ 11,381,545	
$ 12,227,513	Updated to include costs associated with CR#1
$ 14,226,749	Refer to Detail Comparison tab (Fall 2020 BCP)
$ 2,845,204	
25.0	

	FY 18/19	FY 19/20	FY 20/21	FY 21/22	Total
BCP	$ 5,038,575	$ 22,948,279	$ 24,543,341	$ -	$ 52,530,195
Current	$ 3,507,842	$ 22,677,849	$ 24,622,119	$ 3,120,777	$ 53,928,587
Variance	$ (1,530,733)	$ (270,430)	$ 78,778	$ 3,120,777	$ 1,398,392
%	-30.4	-1.2	0.3	0.0	2.7

BCP Information Management Division (IMD)	FY 18/19	FY 19/20	FY 20/21	FY 21/22	Total
Consulting & Professional Services	$ 434,000	$ 1,787,000	$ 1,449,000	$ -	$ 3,670,000
IT	$ 3,664,609	$ 19,611,372	$ 21,558,357	$ -	$ 44,834,338
BCP IMD (Total)	$ 4,098,609	$ 21,398,372	$ 23,007,357	$ -	$ 48,504,338
Planned spend (Current)	$ 3,489,365	$ 21,041,670	$ 21,573,920	$ 386,606	$ 46,104,955
Variance	$ (609,244)	$ (356,702)	$ (1,433,437)	$ 386,606	$ (2,399,383)
%	-0.1	0.0	-0.1	0.0	0.0

	FY 18/19	FY 19/20	FY 20/21	FY 21/22	Total
BCP	$ 5,038,575	$ 22,948,279	$ 24,543,341	$ -	$ 52,530,195
PAL Baseline	$ 3,507,842	$ 23,234,256	$ 17,550,837	$ 2,933,283	$ 47,226,219
Current	$ 3,507,842	$ 22,677,849	$ 24,622,119	$ 3,120,777	$ 53,928,587

Project Costs (One-Time)	PAL	Current	Variance	%	Comments
Staff (Salaries & Benefits)	**$ 7,502,577**	**$ 7,502,520**	**$ (57)**	**0.0%**	Realigned redirected staff resources based on usage to date.
Staff Operating Expense and Equipment (OE&E) Rollup	**$ 345,725**	**$ 369,725**	**$ 24,000**	**6.9%**	Increase in OE&E rate per Budgets, effective Fiscal Year (FY) 20/21.
Consulting & Professional Services (Prof. Svc.): Interdepartmental (Interdept.)	**$ 1,435,049**	**$ 1,503,222**	**$ 68,173**	**4.8%**	
California Department of Technology (CDT) - Office of Statewide Project Delivery (OSPD) Project Approvals and Oversight	$ 916,540	$ 916,540	$ -	0.0%	
CDT - OSPD Statewide Technology Procurement	$ 2,500	$ 2,500	$ -	0.0%	
CDT - OSPD California Project Management Office	$ -	$ -	$ -		
Department of General Services (DGS) Procurements	$ 516,009	$ 584,182	$ 68,174	13.2%	Directly tied to COBAN procurement.
Office of Systems Integration	$ -	$ -	$ -		
Consulting & Prof. Svc.: External	**$ 2,006,800**	**$ 1,176,040**	**$ (830,760)**	**-41.4%**	
Proof of Concept (POC) - Facility Configuration	$ 10,000	$ 10,000	$ -	0.0%	
Independent Validation and Verification (IV&V)	$ 750,000	$ 747,740	$ (2,260)	-0.3%	Current based on actual contract amount.
Vendor Installation and Configuration (Appliance)	$ 487,500	$ 130,000	$ (357,500)	-73.3%	Reduced the total number of on-premise appliances (from 75 to 20) required based on review of low-bandwidth and poor cell coverage sites.
Vendor Training	$ 58,500	$ 58,500	$ -	0.0%	
Off-Hours Services	$ 5,400	$ 1,800	$ (3,600)	-66.7%	Removed per DGS
On-Premise Appliance Support	$ 695,400	$ 228,000	$ (467,400)	-67.2%	Reduced the total number of on-premise appliances (from 75 to 20) required based on review of low-bandwidth and poor cell coverage sites.
Information Technology	**$ 37,061,469**	**$ 44,502,481**	**$ 7,441,012**	**20.1%**	
POC: Servers (2 at cost to vendor)	$ 80,000	$ 80,000	$ -	0.0%	

Wireless Mobile Video Audio Recording System (WMVARS) Hardware (including taxes)	$ 14,007,772	$ 18,398,411	$ **4,390,639**	31.3%	Updated based on actual parts required as a result of working with Fleet Operations Section (FOS), RPS, and WMVARS Technical Team. Cost of complete unit is slightly higher and increase in number of units. Takes into consideration 2,600 vehicles to be outfitted with WMVARS units, 10 percent for loss/damage, and 800 sets of prewiring for new builds (CR1) on an annual basis. Original PAL estimate was 2,505 and current is 2,860.
Software	$ 1,884,800	$ 1,333,000	$ **(551,800)**	-29.3%	Due to push in implementation rollout schedule, the need for software and cloud storage earlier in the project was eliminated.
On-Premise Appliance (including taxes)	$ 3,099,375	$ 824,030	$ **(2,275,345)**	-73.4%	Reduced the total number of on-premise appliances (from 75 to 20) required based on review of low-bandwidth and poor cell coverage sites.
Cloud Storage	$ 12,403,200	$ 8,772,000	$ **(3,631,200)**	-29.3%	Due to push in implementation rollout schedule, the need for software and cloud storage earlier in the project was eliminated.
Network Telecommunication	$ 5,586,322	$ 9,095,040	$ **3,508,718**	62.8%	Increased modem and antenna cost. Increased wireless access point (WAP) install and infrastructure costs.
Unanticipated IT Costs (Hardware, Software, Telecommunication)	$ -	$ 6,000,000	$ **6,000,000**		Added to cover potential need for increased number of WMVARS replacement units, on-site appliances/installation/support, external WAPs including installation, modems, and potential addition of body worn cameras for extended testing.
Misc. OE&E Rollup (Departmental Services; Central Administrative Services; Office Equipment; Other; Unclassified/Special Adjustment; Local Assistance)	$ -	$ -	$ -		
Total Project Costs (One-Time):	**$ 48,351,620**	**$ 55,054,045**	$ **6,702,425**	**13.9%**	
Future Ops. IT Staff & OE&E Costs (Continuing)					
Staff (Salaries & Benefits)	**$ 1,445,169**	**$ 1,620,449**	$ **175,280**	**12.1%**	Increase in salary, per Budgets
Staff OE&E Rollup	**$ 96,000**	**$ 108,000**	$ **12,000**	**12.5%**	Increase in OE&E rate per Budgets, effective FY 20/21

Consulting & Prof. Svc.: Interdept.	**$ 262,151**	**$ 308,600**	**$ 46,449**	**17.7%**	
DGS Procurements	$ 262,151	$ 308,600	**$ 46,449**	**17.7%**	Directly tied to COBAN procurement
Consulting & Prof. Svc.: External	**$ 858,600**	**$ 228,000**	**$ (630,600)**	**-73.4%**	
Off-Hours Services	$ 3,600	$ -	**$ (3,600)**	**-100.0%**	Removed per DGS
On-Premise Appliance Support	$ 855,000	$ 228,000	**$ (627,000)**	**-73.3%**	Reduced the total number of on-premise appliances (from 75 to 20) required based on review of low-bandwidth and poor cell coverage sites.
Information Technology	**$ 18,560,000**	**$ 24,460,000**	**$ 5,900,000**	**31.8%**	
Hardware	$ 700,000	$ 4,071,369	**$ 3,371,369**	**481.6%**	Original was based on RPS' current MVARS budget. Current is based on actual WMVARS cost. Represents the cost associated with 10 percent of fleet vehicles in the field (damage/replacement) and 800 new FOS vehicles that need to be wired annually.
Software	$ 2,356,000	$ 2,356,000	$ -	**0.0%**	
Cloud Storage	$ 15,504,000	$ 15,504,000	$ -	**0.0%**	
Telecommunication (Antenna)	$ -	$ 1,800,000	**$ 1,800,000**		Antennas required for new builds. Cannot be reused.
Unanticipated IT Costs (Hardware, Software, Telecommunication)	$ -	$ 728,631	**$ 728,631**		Added to cover potential need for increased number of WMVARS replacement units, on-site appliances/installation/support and/or external WAPs including installation. More likely individual WMVARS components that need to be replaced due to normal wear and tear.
Misc. OE&E Rollup (Departmental Services; Central Administrative Services; Office Equipment; Other; Unclassified/Special Adjustment; Local Assistance)	$ -	$ -	$ -		
Total Future Operations IT Staff & OE&E (Continuing):	**$ 21,221,920**	**$ 26,725,049**	**$ 5,503,129**	**25.9%**	
Annual Future Operations IT Costs (M&O):	**$ 11,381,545**	**$ 14,226,749**	**$ 2,845,204**	**25.0%**	

	Purchase Order	Qty	FY 18/19	Qty	FY 19/20	Qty	FY 20/21
Coban	**FAW**		**$ 3,461,141.25**		**$ 15,204,915.34**		**$ 11,079,684.55**
PO#1	PO #5499		$3,461,141.27				
PO#2	PO #11455				$ 15,204,937.01		
Modems	**FAW**		**$ -**	**1800**	**$ 2,340,000.00**		**$ 1,378,000.00**
Cradlepoint IBR700 Modems	PO #8223			500	$ 633,735.00		
Cradlepoint IBR700 Modems	PO #8006			250	$ 316,867.50		
Cradlepoint IBR700 Modems	PO #11457			1000	$ 1,357,076.13		
Antennas	**FAW**		**$ -**		**$ 1,964,840.00**		**$ 1,070,600.00**
Rottweiler Antennas (1500)	PO #11456/Form 20 #20-041-0348			1500	$ 544,478.15		
Shepherd & Rottweiler Antennas	PO #11458			1800+571	$ 1,273,772.34		
Adaptors	PO #11454			1500	$ 3,588.49		
WAPs	**FAW**		**$ -**		**$ 100,000.00**		**$ -**
Aruba WAPs	PO #11453			85	$ 98,914.87		
WAP Infra	**FAW**		**$ -**		**$ 613,000.00**		**$ -**
WAP Installation	PO #11448/Form 20#20-041-0505		$ -		$ 613,000.00		

Original forecasted PO cost was $950,503.00, however, PO was executed into two separate POs
Actual Total of 2 POs is $950,602.50 which is over by $99.50 due to taxes/shipping costs

Project Name: Wireless Mobile Video and Audio Recording System

Technology Agency Project #: 2720-114

Department: California Highway Patrol

Revision Date: 12/17/20

Complexity Assessment

Business Complexity

Instructions: On a scale of .5 - low to 4-high (0 = N/A), rate each applicable attribute and compute the Business Complexity by dividing the total by the number of items rated above zero. *[Notes: Business and technical complexity will be computed automatically in this worksheet, using the ratings you enter. Move your pointer over each attribute cell, marked with a red triangle, to see a definition of the attribute.]*

Low Complexity	Business Attribute	High Complexity	Rating
0 1 2	3	4	
Static	**Business rules**	Changing	1
Static	**Current Business Systems**	Changing	1
Known and Followed	**Decision Making Process**	Not Known	1
Low	**Financial Risk to State**	High	3
Local	**Geography**	State Wide	3
Clear and Stable	**High Level Requirements**	Vague	1
Few & Routine	**Interaction with Other Departments and Entities**	Many and New	1
None	**Impact to Business Process**	High	2
Few & Straight Forward	**Issues**	Multiple & Contentious	2
High	**Level of Authority**	Low	2
Clear	**Objectives**	Vague	1.5
Established	**Policies**	Non-existent	0.5
Minimal	**Politics**	High	0.5
Familiar	**Target Users**	Unfamiliar	2
Experienced	**Project Manager's Experience**	Inexperienced	0.5
Experienced	**Team**	Inexperienced	0.5
Loose	**Time Scale**	Tight	2
Low	**Visibility**	High	3
		Total:	27.5
		Complexity:	1.5

Project Name: Wireless Mobile Video and Audio Recording System

Technology Agency Project #: 2720-114

Department: California Highway Patrol

Revision Date: 12/17/20

Complexity Assessment

Technical Complexity

Instructions: On a scale of 0-low to 4-high, rate each applicable attribute and compute the Technical Complexity by dividing the total by the number of items rated above zero. Use the definitions in the student notebook for clarity.

Low Complexity 0 1	Technical Attribute 2 3	High Complexity 4	Rating
Local	**Communications**	State wide	**2**
Established	**Delivery Mechanism**	New	**1**
Local	**Geography**	State wide	**3**
Proven	**Hardware**	New	**1**
Stand-alone	**Level Of Integration**	Tightly Integrated	**2**
Proven/Stable	**Networks (L/W)**	New	**2**
In place	**New Technology Architecture**	Not in place	**1**
9-5, Mon-Fri	**Operations**	24-hour, 7-day	**2**
Expert	**PM Technical Experience**	Novice	**0.5**
Established and in use	**Scope Management Process**	None	**0.5**
Light	**Security**	Tight	**2**
Proven	**Software**	New	**1**
Established and In Use	**Standards And Methods**	None	**0.5**
Experienced	**Team**	Inexperienced	**2**
High	**Tolerance To Fault**	Low	**2**
Low	**Transaction Volume**	High	**2.5**
		Total:	25
		Complexity:	1.6

Project Name: Wireless Mobile Video and Audio Recording System

Technology Agency Project #: 2720-114

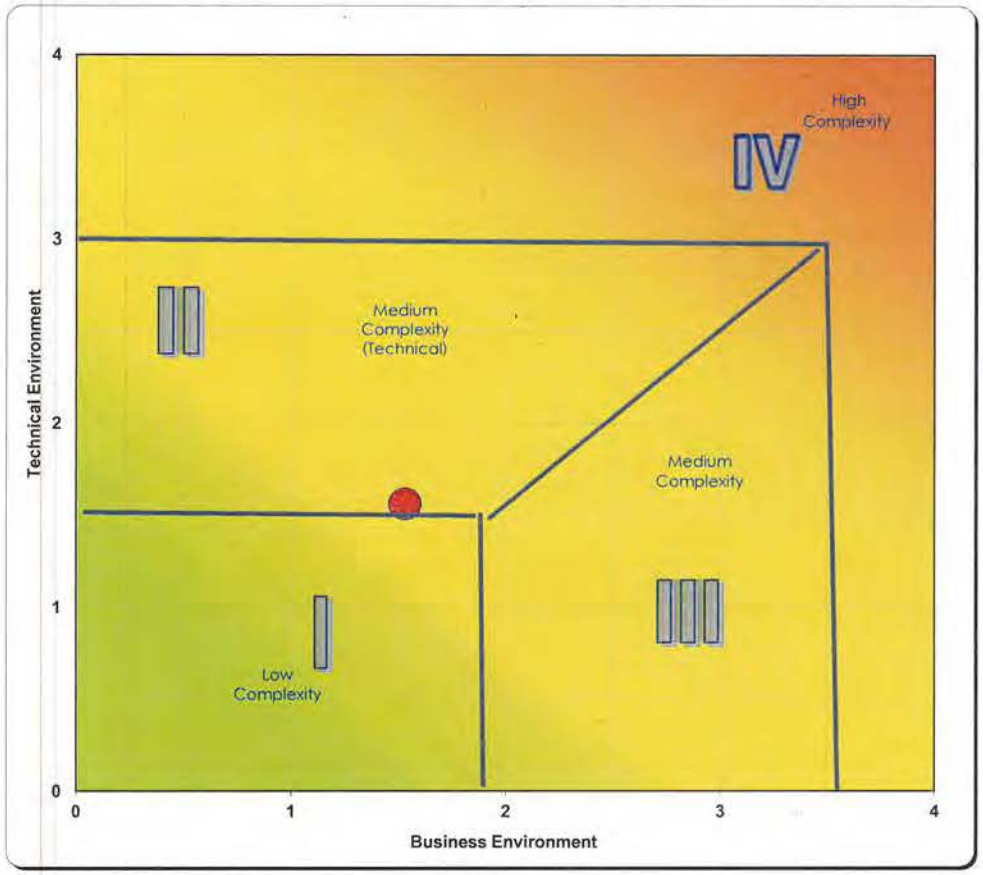
Department: California Highway Patrol

Revision Date: 12/17/20

Complexity Assessment

Complexity Diagram

Instructions: Plot your project in the appropriate complexity zone.
[Note: Your project will be plotted automatically in this worksheet, using the values computed in the previous tables.]



Scores		
	Business Complexity	1.5
	Technical Complexity	1.6

Project Name: Wireless Mobile Video and Audio Recording System

Technology Agency Project #: 2720-114

Department: California Highway Patrol

Revision Date: 12/17/20

Complexity Assessment

Suggested Project Manager Skill Set Guidelines

	Complexity		Duration		Budget		Resources	
○	Zone 1	○	< 6 months	○	<$500K	○	< 5
○	Zone II, Medium Zone III, Medium	○	< 1 year	○	<$1M	○	<10
●	Zone II, High Zone III, High	○	>1 year; < 3 years	○	>$1M; <$5M	○	11 – 20
○	Zone IV	●	>3 years; <10 years	●	>$5M; <$100M	●	21 – 40
		○	>10 years	○	>$100M	○	40+

PM Level: 3

Experience: 3-5 years working as Project Manager on medium or other large IT projects. Technical experience commensurate with the proposed technology.

Professional Knowledge: Strong working knowledge of the CA-PMM, department's methodology, Software Development Life Cycle. Familiar with CA Budgeting, Procurement and Contracting processes.

For Oversight Purposes:
Zone I = Low Criticality/Risk
Zones II and III = Medium Criticality/Risk
Zone IV = High Criticality/Risk

Assess the complexity of the project periodically: every two - three months and/or at the conclusion of each phase

Special Project Report

California Highway Patrol

Wireless Mobile Video and Audio Recording System (WMVARS)

TABLE OF CONTENTS

Section 1: Overall Evaluation

1.1 Key Information (must include):

Project Name:	Wireless Mobile Video and Audio Recording System	Project Number:	2720 - 114
Department Name:	California Highway Patrol	Agency Name:	California Transportation Agency
Reporting Period:	October 2020		
Most Recent Project Approval Document:	Stage 4 Project Readiness and Approval	Date of Most Recent Project Approval Document:	9/25/2019

1.2 Key Questions:

The answers to the questions below must relate to the most recent project approval document -- see Project Approval Lifecycle (PAL) document or Special Project Report (SPR).

Question:	Yes/No:
Is the project on track to satisfy the customer's business objectives?	Yes
Is the project on track to achieve the objectives in the approved timeframe?	Yes
Is the project on track to achieve the objectives within the approved budget?	Yes

If the response to any of the Key Questions is "No," provide an explanation:
Click here to enter text.

Total number of Stage 1 Business Analysis (S1BA) objectives: 6

Total number of S1BA objectives achieved to date: 0

1.3 Variance Table:

The Variance Table shows variances from the most recent California Department of Technology (CDT) project approval document – PAL document or SPR.

Variance Table

	On Plan <5%	Caution 5 – 10%	Significant Variance >10%	Comments and Action Required
Schedule	0%			Schedule start date is 11/2/19 and the end date is 11/30/22, for a total of three (3) years and one (1) month. Based on actual project timelines, project is progressing as planned. 0 months / 37 months = 0 x 100% = 0%
Milestones			35%	System Test Part I Planned 3/2/20 – 5/8/20 (49 days). Expected 3/16/20 – 8/11/20 (105 days) = 56 days late. Pilot – Direct to Cloud (East Sacramento Area) Planned 4/13/20 – 6/22/20 (50 days). Expected 9/25/20 – 12/23/20 (61 days) = 11 days late. Pilot – On-Premise (Placerville Area) Planned 4/13/20 – 6/22/20 (50 days). Expected 9/18/20 – 12/23/20 (66 days) – 16 days late. Go/No Go Rollout Planned 6/23/20 – 6/29/20 (5 days). Expected 12/24/20 – 12/31/20 (5 days) = 0 days late. Purchase Order – Phase 3 Planned 9/18/20 – 9/18/20 (1 day). Expected 9/18/20 – 9/18/20 (1 day) = 0 days late. 155 days – 238 days = 83 days late / 238 days = 0.35 x 100% = 35%
Deliverables			58%	Test Individual Components Planned 3/16/20 – 3/20/20 (5 days). Expected 3/16/20 – 8/3/20 (99 days) = 94 days late.

	On Plan <5%	Caution 5 – 10%	Significant Variance >10%	Comments and Action Required
				Test Interfaces (Wireless and cellular) Planned 3/23/20 – 3/27/20 (5 days). Expected 3/16/20 – 8/3/20 (99 days) = 94 days late. **East Sacramento** Begin Hardware Pilot Site Planned 4/13/20 – 5/22/20 (30 days). Actual 9/25/20 – 11/5/20 (30 days) = 0 days late. Train Pilot Staff User Planned 5/4/20 – 5/8/20 (5 days). Actual 9/25/20 – 10/1/20 (5 days) = 0 days late. Fix Issues in the Pilot System Planned 5/11/20 – 5/15/20 (5 days). Expected 11/6/20 – 11/13/20 (5 days) = 0 days late. Field Test without Errors Planned 5/18/20 – 5/29/20 (10 days). Expected 11/16/20 – 12/1/20 (10 days) = 0 days late. Burn-In Period Planned 6/1/20 – 6/19/20 (15 days). Expected 12/2/20 – 12/22/20 (15 days) = 0 days late. Accept Piloted System Planned 6/22/20 – 6/22/20 (1 day). Expected 12/23/20 – 12/23/20 (1 day) = 0 days late. **Placerville** Begin Hardware Pilot Site Planned 4/13/20 – 5/22/20 (30 days). Actual 9/25/20 – 11/5/20 (30 days) = 0 days late. Fix Issues in the Pilot System Planned 5/11/20 – 5/15/20 (5 days). Expected 11/6/20 – 11/13/20 (5 days) = 0 days late.

	On Plan <5%	Caution 5 – 10%	Significant Variance >10%	Comments and Action Required
				Field Test without Errors Planned 5/18/20 – 5/29/20 (10 days). Expected 11/16/20 – 12/1/20 (10 days) = 0 days late. Burn-In Period Planned 6/1/20 – 6/19/20 (15 days). Expected 12/2/20 – 12/22/20 (15 days) = 0 days late. Accept Piloted System Planned 6/22/20 – 6/22/20 (1 day). Expected 12/23/20 – 12/23/20 (1 day) = 0 days late. 137 days – 325 days = 188 days late / 325 days = .58 x 100% = 58%
Resources	-10%			(20-18) / 20 = -(.10) x 100% = -10% Resources reported through September 2020.
One Time Cost (Planning and Project)	-89%			($42,491,277- $4,619,032.01 / $42,491,277= -(.89) x 100 = -89% Shipments resumed from COBAN/Safe Fleet under Purchase Orders #1 and #2 as soon as the California Highway Patrol (CHP) issued a Memorandum of Acceptance to Safe Fleet on the Public Safety Communications test results. Both CHP and Safe Fleet agreed on delivery schedules. Invoices will be processed and approved when shipments are received. Additional invoice received for Independent Verification and Validation (IV&V), but not fully processed for payment in October at this time.
Future Operations IT Staff and OE&E Cost	0%			No data to report at this time.

1.4 Variance Detail Chart:

Any responses indicating variance to approved project plans must include primary cause, project impact, and action planned and/or taken.

Question (during the reporting period)	Yes/ No	Cause	Impact	Action Planned and/or Taken
1. Were any recent milestones not completed on schedule?	Yes	System Test – Part I at 95 percent complete. - Build Test System (hardware) at 100 percent complete. - Test Individual Components at 95 percent complete. - Test Interfaces (wireless and cellular) at 95 percent complete. - Execute System Functionality Test at 100 percent complete. - Fix Test Problems and Retest at 100 percent complete.	No project schedule impact.	Although the execution of System Test Functionality - Part 1 is 100 percent complete, the five percent remaining will be completed during Pilot to confirm full software and hardware is tested and the Active Directory Federated Services structure is in-place.
		Purchase Order – Phase 3	No project schedule impact.	Currently, Safe Fleet is waiting for Department of General Services (DGS) approval on the updated Catalog. Purchase Order #3 will be processed as soon as the new Catalog is approved by DGS.
2. Were any key deliverables rescheduled?	No	Same as previous report.	Same as previous report.	The CHP submitted a SPR package to re-baseline the original project schedule and avoid variance.
		Revised Master Project Schedule to align with newly revised Implementation Plan.	Expected on-going variance on original approved project schedule.	

Question (during the reporting period)	Yes/ No	Cause	Impact	Action Planned and/or Taken
3. Was work done that was not planned?	No			
4. Were there any changes to the scope?	No			
5. Were any deliverables or milestones removed?	No			
6. Were any scheduled tasks not started?	No			
7. Are there any new major issues?	No			
8. Are there any staffing problems?	No			

1.5 Look Ahead View:

Any responses indicating potential variance to approved project plans must include project impact and required action.

Question	Yes/ No	Impact	Action Required
1. Will any upcoming critical path milestones or deliverables miss their planned completion date(s)?	No		
2. Do any key milestones or deliverables need to be rescheduled?	No		
3. Is there any unplanned work that needs to be done?	No		
4. Are there any expected or recommended changes to the scope?	No		

5. Are there any deliverables that should be removed from the plan?	No		
6. Are there any new major issues foreseeable?	No		
7. Are there any staffing problems anticipated?	No		

Section 2: Cost Report

2.1 Cost Table:

Reporting Period: October 1 – October 31, 2020			
	Last Approved Budget ($)	Cumulative Actual Cost ($)	Comments
IT Project Costs (One-Time)			
Staff (Salaries & Benefits)	**$6,543,400**	**$411,163.61**	Through September 2020.
Staff OE&E Rollup (Gen. Exp.; Printing, Comm.; Postage; Ins.; Travel – In/Out of State; Training; Fac. Ops.; Utilities)	**$313,725**	**$48,000.00**	
Consulting & Prof. Services: Interdepartmental	**$1,390,825**	**$385,403.01**	
Dept of Technology - OSPD Project Approvals and Oversight	$874,816	$148,617.00	Through September 2020.
Dept of Technology - OSPD STPD	$0	$0.00	
Department of General Services Procurements	$516,009	$236,786.01	
Consulting & Prof. Services: External	**$1,996,800**	**$207,660.00**	
Independent Validation & Verification (IV&V)	$750,000	$155,660.00	
Vendor Installation and Configuration (Appliance)	$487,500	$26,000.00	
Vendor Training	$58,500	$26,000.00	
Off-Hours Services	$5,400	$0.00	
On-Premise Appliance Support	$695,400	$0.00	
Consolidated Data Centers	**$0**	**$0.00**	
Information Technology	**$36,981,469**	**$3,566,805.39**	
POC: Servers (2 at cost to vendor)			
WMVARS Hardware	$14,007,772	$584,939.53	
Software	$1,884,800	$1,550.00	
On-Premise Appliance	$3,099,375	$123,595.00	
Cloud Storage	$12,403,200	$0.00	
Network Telecommunication	$5,586,322	$2,856,720.86	
Misc. OE&E Rollup (Dept. Services; Central Admin. Services; Office Equip.; Other; Unclassified/Special Adjustment; Local Assistance)	**$0**	**$0**	

Reporting Period: October 1 – October 31, 2020			
	Last Approved Budget ($)	Cumulative Actual Cost ($)	Comments
Total IT Project Costs (One-Time):	**$47,226,219**	**$4,619,032.01**	
Future Operations IT Staff and OE&E Costs (Continuing)			
Staff (Salaries & Benefits)	**$1,445,169**	**$0**	
Staff OE&E Rollup (Gen. Exp.; Printing, Comm.; Postage; Ins.; Travel – In/Out of State; Training; Fac. Ops.; Utilities)	**$96,000**	**$0**	
Consulting & Prof. Services: Interdepartmental	**$262,151**	**$0**	
Department of General Services	$262,151	$0	
Consulting & Prof. Services: External	**$858,600**	**$0**	
Off-Hours Services	$3,600	$0	
On-Premise Appliance Support	$855,000	$0	
Consolidated Data Centers	**$0**	**$0**	
Information Technology	**$18,560,000**	$0	
Hardware	$700,000	$0	
Software	$2,356,000	$0	
Cloud Storage	$15,504,000	$0	
Misc. OE&E Rollup (Dept. Services; Central Admin. Services; Office Equip.; Other; Unclassified/Special Adjustment; Local Assistance)	**$0**	**$0**	
Future Operations IT Staff and OE&E Costs (Continuing):	**$21,221,920**	**$0**	
TOTAL:	**$68,448,140**	**$4,619,032.01**	

Section 3: Project Status

☒ Current Status/Accomplishments/Key Information

- Project Status_October 2020

☒ Schedule and Scope Management

- Please refer to the attached WMVARS Master Project Schedule.

☐ Support Contracts (provide information below for each contract)

☒ Risk Register

- Please refer to the attached WMVARS Risk Issue Change Decision Log_10302020.

☒ Issue Log

- Please refer to the attached WMVARS Risk Issue Change Decision Log_10302020.

☒ Change Log

- Please refer to the attached WMVARS Risk Issue Change Decision Log_10302020.

☒ Decision Log

- Please refer to the attached WMVARS Risk Issue Change Decision Log_10302020.

☐ Quality

☐ Resources

Implementation Plan

California Highway Patrol

Wireless Mobile Video and Audio Recording System (WMVARS)

VERSION HISTORY

Version #	Date	Author	Key Differences
0.1	12/11/19	Audrey Kagiyama	DRAFT.
0.2	12/18/19	David Wanjiru	Updated on-premise site information.
1.0	12/20/19	Audrey Kagiyama	Final.
1.1	12/24/19	Audrey Kagiyama	Removed Fiscal Year from Division Rollout table to avoid confusion. Corrected a couple of items in the Deployment Tasks table.
1.2	1/23/20	Audrey Kagiyama	Corrected appliance counts in Summary section and Division Rollout table. Added clarification around three-car installation and Public Safety Communications testing. Updated Technical Project Manager.
2.0	1/29/20	Audrey Kagiyama	Pilot site change. Placerville Area will replace Auburn Area.
3.0	4/10/20	Frank Otto	Updated to add details about the installation of the on-premise appliances.
4.0	7/14/20	Audrey Kagiyama	Updated to reflect change in rollout approach and timeline
4.1	9/10/20	Audrey Kagiyama Harjot Pabla	Updated based on California Department of Technology's (CDT) Independent Project Oversight and Independent Verification and Validation oversight feedback.
4.2	9/25/20	Tara Larcade	Minor edits.
4.3	10/19/20	Harjot Pabla	Minor edits based on CDT's Special Project Report feedback.
4.4	11/12/20	Harjot Pabla	Added Vehicle Verification section.
4.5	11/23/20	Deanna Silvera	Updated Vehicle Verification section and Information Management Division's feedback.

TABLE OF CONTENTS

1 Introduction

The purpose of the Implementation Plan is to document the approach and required activities associated with successfully deploying the Wireless Mobile Video and Audio Recording System (WMVARS).

2 Approach

Use of this plan will ensure all required deployment tasks for the project are clearly defined, helping to promote an effective and efficient implementation.

This document will be reviewed throughout the lifecycle of the project and revised as necessary to ensure the implementation plan accurately reflects all planned deployment tasks for the project.

This document includes these main sections:

- *Summary* – Summarizes the activities associated with pre-deployment, deployment, and post deployment.
- *Deployment Tasks* – Lists the various tasks and responsible individual or group for ensuring the necessary tasks are completed as part of the deployment.
- *Back-out Tasks* – Lists the tasks required in the event an issue arises during the deployment and fall back is required.
- *Support Plan* – Identifies the individual or group responsible for providing support during the deployment; includes the support period and process by which issues are to be tracked and communicated for the project.

3 Summary

The California Highway Patrol (CHP) is organizationally divided into eight geographic field Divisions across the state and the CHP Headquarters (HQ). The rollout schedule for these eight field Divisions is divided into two phases per the diagram below. It is expected the implementation of WMVARS will be complete within three years. Initial implementation activities will include WMVARS configuration, system testing, administrator and user training, and a pilot. Statewide deployment will occur in two rollout phases. The first phase will be to pre-wire retrofit vehicles in the field as part of CHP's normal preventative maintenance schedule. The second phase will include divisional train-the-trainer sessions, which will include Focus H1 training for officers, Command Center application training for back office staff, and WMVARS in-car installation training for Automotive Technicians. The deployment of body worn cameras (BWC) is not currently in scope for this implementation.

3.1 Pre-deployment

In preparation for deployment, the pre-deployment activities below are expected to take place.

3.1.1 One-Car Standalone Demonstration

The purpose of the one-car standalone demonstration is to give CHP staff the opportunity to physically see the WMVARS unit, including associated components such as mounting brackets and cables, and discuss modifications that may be required. The physical unit shall drive detailed technical discussions and the requirements for the final WMVARS build. The initial procurement of WMVARS units was based on standard hardware configuration known at the time. During the one-car set up, COBAN/Safe Fleet shall work collaboratively with CHP's Fleet Operations Section (FOS), Telecommunications Section (TS), and Information Technology Section (ITS) staff to understand existing vehicle designs and ensure WMVARS units can be installed successfully. Any changes to standard configuration shall be captured and discussed, with prototypes of custom components delivered to CHP within thirty days.

3.1.2 Three-Car System Installation and Training

The activities associated with building out the three-car systems are like the one-car; however, these systems are required to be functional. The systems must be functional from the standpoint the WMVARS units shall be installed in the vehicle per FOS requirements and able to capture and store test data in the designated CHP digital evidence repository.

With COBAN/Safe Fleet assistance, CHP's FOS shall be responsible for all hardware installation within the vehicle. COBAN/Safe Fleet shall be responsible for initial configuration of hardware and software components, including the installation and configuration of one on-premise appliance, and to provide configuration training for identified CHP staff.

The three (3) WMVARS units shall be installed and distributed to the following teams:

1. Telecommunications Section – Public Safety Communications (PSC) testing.
2. Information Technology Section.
3. Research and Planning Section (RPS).

In addition to the initial three vehicles above, each platform vehicle type will need to be installed with the WMVARS and sent to PSC for electromagnetic interference/radio frequency interference (EMI/RFI) testing, as different model year vehicles have different components. As the various vehicles are built, they will be sent for testing. For purposes of this project and moving forward with the overall WMVARS test, the focus of EMI/RFI testing is only on the Dodge Charger "EV20," previously known as the "Car of Tomorrow."

3.1.3 Configuration and System Test

During the three-car training or shortly after, COBAN/Safe Fleet shall meet with CHP staff to capture both hardware and software configuration requirements and configure systems per CHP requirements. COBAN/Safe Fleet shall provide CHP with final configuration documentation.

Upon final configuration, the previously built vehicles will be used for system testing. The System Test will consist of executing all defined test cases, including those for BWC integration, and ensure the overall system meets or exceeds CHP requirements and quality standards.

3.1.4 Go/No Go - Pilot

As laid out in the Master Project Schedule, a formal meeting will be held with the project's Executive Steering Committee (ESC). The purpose of this meeting will be to review the testing activities, surveys, and training materials and discuss any outstanding issues by the CHP Executive Management and the Project Owners. The goal is to acknowledge the solution has met the CHP requirements and quality standards required for a Field Test and obtain agreement that Field Test pilot activities may commence.

3.1.5 Field Test - Pilot

Upon a "Go" decision by the project ESC, the project will enter a Field Test to ensure the solution performs as expected in a production setting. The CHP has selected Placerville Area and East Sacramento Area to pilot the new WMVARS. East Sacramento Area will be configured to transmit the in-car video evidence directly to the cloud and Placerville Area will be configured to transmit in-car video evidence directly to an on-premise appliance, with transmission of evidence to the cloud in the background as bandwidth allows. All vehicles will be configured to continuously transmit evidence through a 4G cellular modem connection then switch to the CHP Area office's Wireless Fidelity to complete the transmission.

The pilot will consist of a ten day Proof of Performance test period followed by a fifteen day Burn-In test period. During testing in either phase, if there is any deviation from the requirement, the issue will be tested at least twice before logging a defect. If the solution fails or any showstopper defect is identified during the Proof of Performance period, such as downtime or features that are nonoperative, COBAN/Safe Fleet shall be allowed to correct the problem(s) and the ten day period will restart when the problem is resolved. Upon successfully completing the Proof of Performance test period, the Burn-In test period will be initiated.

If any additional showstopper defect is identified or the solution does not successfully complete the Burn-In test period, COBAN/Safe Fleet will have ten days to remedy and resubmit for testing. The fifteen day Burn-In test period shall restart for retesting of the complete system to ensure the solution has met CHP requirements and quality standards.

If a minor defect is identified during the Proof of Performance or Burn-In test periods, the defect will be addressed without stopping and restarting the process. In this event, retesting of the complete system will not be required.

3.1.6 Go/No Go - Statewide

As laid out in the Master Project Schedule, a formal meeting will be held with the project's ESC. The purpose of this meeting will be to review the pilot activities and discuss any outstanding issues. The goal is to acknowledge the pilot has successfully ended, formally accept the WMVARS solution, and obtain agreement statewide rollout activities may commence.

3.2 Statewide Rollout Plan

Existing vehicles in the field with less than 100,000 miles will be retrofitted. The retrofits will be conducted in two phases. Approaching the rollout in phases allows CHP to streamline the amount of work to be performed.

Phase 1 – Pre-wire Vehicles.

Phase 2 – Training and Complete Installation.

3.2.1 Phases

Rollout Phase 1 (wiring, antenna, and preparation work) will be started by the TS and Consolidate Patrol Vehicle Environment (CPVE) team as part of its normal preventative maintenance window from October 2020 through April 2021. The plan is to complete a majority of pre-wire installation within this window at each Area office. The CPVE and FOS teams will be conducting the training session for prewiring activities. Any remaining pre-wire work will continue in parallel with Phase 2. With the teams prewiring the vehicles, it will significantly reduce the amount of time and effort needed by Automotive Technicians at each Area office. During this phase, identified vehicles, regardless of vehicle type, will be equipped with antennas and Focus H1 wiring (front camera cable, rear camera cable, wireless microphone sync cables, and the wireless dock charging cable). It is estimated each vehicle will require seven to nine hours to complete wiring installation.

Rollout Phase 2 (brackets, H1 hardware, modem, connect wires) will be completed by Automotive Technicians and/or a WMVARS coordinator at each Area office once trained. Automotive Technicians will be responsible for removing existing MVARS equipment and installing the complete WMVARS. It is estimated it will take approximately five hours to complete the installation of the WMVARS unit.

In parallel with Phases 1 and 2, FOS will ensure new enforcement vehicles coming off the assembly line will be pre-wired for the new WMVARS.

3.2.2 Retrofit Rollout Schedule

Division	Area	Appliance Count	Enforcement Vehicles	Division Training Scheduled for Week Of
HQ	Headquarters	1	3	12/13/2019
Pilot	East Sacramento Area Placerville Area	1	6	09/21/2020
501	Southern Division	0	213	03/08/2021
201	Valley Division	1	202	01/25/2021
301	Golden Gate Division	0	178	02/22/2021
801	Inland Division	4	165	02/08/2021
401	Central Division	1	169	02/01/2021
601	Border Division	2	172	03/01/2021
101	Northern Division	5	115	03/29/2021
701	Coastal Division	3	94	03/22/2021
	Total	**18***	**1,308****	

*Estimated number of retrofit vehicles. Number may fluctuate based on vehicle mileage.
**Total does not include HQ or Pilot. Plan is to retrofit vehicles with less than 100,000 miles.

3.2.3 New Build Rollout Schedule

As mentioned in section 3.2.1, Phases, new enforcement vehicles will be pre-wired for WMVARS. All pre-wire efforts will be completed by FOS and the remaining WMVARS component installation will be finalized by the Area office to which the enforcement vehicle is assigned.

Year		Enforcement Vehicles	Build Date
2020-2022	Complete System	1,182*	Oct 2020 – Nov 2022
	Total	**1,182***	

*Estimated number of New Build with complete system.

3.2.4 Train the Trainer Sessions

Division training will be conducted jointly by:

- Research and Planning Section
- Fleet Operations Section
- COBAN/Safe Fleet – Focus H1 and Command Center support

The RPS and COBAN/Safe Fleet teams will begin the classroom portion of the training simultaneously with FOS training and installation of WMVARS in patrol vehicles, according to the training schedule in the Master Project Schedule. For WMVARS installation, FOS training will be conducted using a HQ vehicle.

In addition to representatives from the above HQ groups, the following Area representatives are expected to be in attendance:

- Mobile Video and Audio Recording System/WMVARS officers and back-ups.
- Automotive Technicians.
- Any other designees identified by the Area.

Classroom training will consist of:

- Policy and procedures.
- System operation.
- Application functions.
- Program responsibilities.

Automotive Technician training will be conducted in the parking lot (weather permitting) and consist of:

- The FOS will provide an installation overview and instructions.
- Automotive Technicians will perform an installation with FOS assistance.

Upon completion of classroom and Automotive Technician training, users will have the opportunity to train with the newly installed WMVARS units. Additionally, they will be provided with training material to train additional, different types of users within their Area offices.

3.2.5 On-Premise Appliance Installation

For some sites, installation of an on-premise appliance will be required. Site surveys will be conducted and installation will be coordinated for impacted locations. The on-premise appliance installation must be complete prior to commencing Division training and vehicle installations.

The following is a list of sites flagged with low-bandwidth and poor cellular coverage. These sites will require an on-premise appliance:

Division	Area
HQ – System Test	041 – ITS
Valley – Pilot	245 – Placerville
Valley	221 – Gold Run
Northern	120 – Crescent City 126 – Garberville 146 – Mount Shasta 165 – Quincy 175 – Trinity River
Golden Gate	N/A
Central	426 – Buttonwillow
Coastal	725 – Hollister-Gilroy 755 – Buellton 770 – Moorpark
Southern	N/A
Border	620 – Winterhaven 630 – Indio
Inland	820 - Bridgeport 825 – Bishop 834 – Needles 835 – Barstow

COBAN/Safe Fleet is responsible for on-premise appliance installation; however, all installations must be coordinated with the ITS Customer Service Group (CSG), Technical Services Group (TSG), Division Local Area Network Administrators (DAdmin), and Areas' Local Area Network Coordinators. As the project approaches the end of pilot, actual installation dates will be finalized.

For each site that requires an on-premise appliance, a site survey should be performed to determine if it needs a new, lockable rack and, if so, where it should be installed. Also, the team needs to determine if there is a need for additional power, grounding, cooling, and other facility factors. The site survey team will need staff from COBAN/Safe Fleet and the CHP's technical team. Site surveys and required installation for each site will be tracked separate from the Master Project Schedule. The CHP Technical Project Manager (PM) will determine the necessary staff to be in attendance. Prior to the survey, the Technical PM will work with the CHP's Facilities Section to obtain an asbestos survey for each site (if applicable). During the site survey, the team will document:

1. If the existing CHP servers are behind a locking door and an existing, onsite rack has space to accommodate the new COBAN/Safe Fleet equipment.
2. If a new rack is required, a recommended location of a new rack (mindful of clearance and the documented asbestos areas, if any) will be provided.
3. Power requirements.
4. Grounding requirements.
5. Cooling issues (if any).
6. Cabling requirements.
7. Whether a separate uninterrupted power supply (UPS) is needed or if the server can attach to the building's existing UPS.

After the site survey, the CHP will arrange to address any identified facility issues.

If the decision is to implement a new locking rack, COBAN/Safe Fleet will arrange with the CHP project management to have the new rack sent to the site and installed when the facility is ready. The CHP will arrange to have the cabling run to allow the equipment in the new rack to attach to the CHP's network.

After the rack is in place or space is chosen in an existing rack, COBAN/Safe Fleet will coordinate with the CHP to bring the server(s) to the site for installation in the rack. The CHP will need to have a representative available to attach the server to the CHP's network.

3.2.6 Vehicle Installation

As outlined in section 3.2.1, identified vehicles will be pre-wired in Rollout Phase 1 then, upon completion of Division training and on-premise appliance installation, installation of WMVARS units will commence in Rollout Phase 2. The DAdmins and RPS will be responsible for any vehicle installation questions.

During Rollout Phase 2, a monthly report of vehicle installations completed will be provided to the PM and Technical PM by the DAdmin. Reports are due on the fifth working day of the month for the previous month. For example, WMVARS installations completed through June 2020 shall be reported in the July 2020 report. The report shall be submitted to the PM and Technical PM via electronic mail (e-mail). Once the installation process begins, this report will be reviewed during the monthly ESC meeting to provide visibility to the leadership of the project. Reports shall continue to be submitted until all identified vehicles complete the installation.

Sample Report:

Division		
Area office	Total # of Pre-wired Vehicles	Total # of Vehicles with WMVARS
...		
...		

3.2.7 Vehicle Verification

As part of the Statewide Rollout Plan, during Rollout Phase 2, the vehicle verification will be conducted in three subphases described by the tasks outlined below and tracked as a milestone in the Master Project Schedule.

3.2.7.1 Phase 1 Verification of Pre-wired Vehicles

During Phase 1, the CPVE team will:

- Verify all vehicles previously identified as a retrofit (mileage is less than 100,000) have been equipped with WMVARS wires, antenna, and specific hardware.
- Identify and pre-wire vehicles which were out of service or not operational due to natural disaster.

3.2.7.2 Phase 2 Verification of Retrofit (Quality Control)

During Phase 2, all vehicles with an active WMVARS unit will be verified as part of the "Phase 2 Verification of Retrofit (Quality Control)" milestone. The Area will:

- Verify the number of pre-wired vehicles with WMVARS unit installed.
- Validate the vehicles are functional and WMVARS is fully operational.
- Maintain a living document which tracks progress of vehicles verified as completed. The DAdmin will provide a monthly report to the PM and Technical PM.

3.2.7.3 Final Verification (All Divisions)

If there are any vehicles which could not be verified during Phase 2, these vehicles, along with new enforcement vehicles, will be verified as part of the "Final Verification (All Division)" milestone. The DAdmin will:

- Validate all remaining vehicles are equipped with WMVARS units to meet the approximate 2,600 vehicle threshold.
- Validate the vehicles are functional and WMVARS is fully operational.
- Provide a final monthly report to the PM and Technical PM.

4 Deployment Tasks

The following table provides a list of the various deployment tasks, individual or group responsible for completion, as well as the timeframe in which tasks will be worked on.

Task Description	Primary Responsible	Timeframe
Pre-Deployment Activities		
Build One (1) In-Car Standalone Demo	COBAN/Safe Fleet	November 2019
Build Three (3) In-Car Systems and One (1) On-Premise Appliance Environment	COBAN/Safe Fleet	November 2019 – February 2020
Configure Focus H1 Hardware and Command Center Software (Sandbox Environment)	COBAN/Safe Fleet	December 2019 – January 2020
Complete PSC Office Testing of WMVARS Vehicle	CHP – TS	January 2020 – August 2020
Execute System Tests	CHP – ITS and RPS	March 2020 – September 2020
Go/No Go - Pilot	CHP – ITS	September 2020
Deliver Complete WMVARS Units and Appliances to CHP	COBAN/Safe Fleet	Deliver two (2) months before each Division training
Tag WMVARS Units and Appliances and Complete Information Technology Security Check	CHP – TS/RPS CHP – ITS, CSG, and Network Services Group	Upon receipt
Send Appliances to Area Office	CHP – ITS and BSS	Per Appliance Installation Schedule
Install Appliances at Area Office	COBAN/Safe Fleet CHP – ITS TSG	Per Rollout Schedule
Send WMVARS Units Area Office	CHP – TS/RPS	Send thirty (30) days prior to Division training
Receive WMVARS Units	CHP – Area Office	Deliver two (2) months before each Division training
Deployment Activities		
Train-the-Trainer at Division Office	CHP – RPS	Per Training Schedule
Bring One (1) Complete WMVARS Unit per Pre-wired Vehicle to Training	CHP – Area	Per Training Schedule
Install WMVARS Units	Area	After Completion of training
Post-Deployment Activities		
Complete Monthly WMVARS Vehicle Report	Division	Due fifth working day of each month

5 Back-Out Tasks

The following table identifies the tasks or steps required to be taken if a critical issue arises during the deployment and fall back is required. A critical issue is one in which many WMVARS units or the complete Digital Evidence Management System is not operational and there is no workaround.

If a critical issue arises, the Area shall notify the CHP PM and Technical PM immediately via phone or e-mail. They will engage the WMVARS team and COBAN/Safe Fleet as appropriate.

If appropriate, the Area command shall halt WMVARS installations until the issue is addressed and ITS has provided confirmation installations can resume. If the critical issue is deemed enterprise-wide, ITS will send a division-level communication to those impacted and WMVARS installations shall be halted until notified.

Task Description	Responsible	Timeframe
Halt WMVARS Installations	Area Office	As soon as issue is known
Communicate Issue to CHP PM and Technical PM	Area Office	As soon as issue is known
Continue Business as Usual with Existing MVARS system	Area Office	As soon as issue is known
Coordinate with WMVARS Support Team and COBAN/Safe Fleet (as needed) to resolve the issue	CHP PM and Technical PM	After issue notification
Notify impacted Divisions (if enterprise-wide) of critical issue	CHP PM and Technical PM	After confirmation of enterprise-wide issue
Notify impacted Divisions and/or Area of issue resolution	CHP PM and Technical PM	After confirmation of issue resolution

6 Support Plan

6.1 Project Support

Phase	Responsible
System Test	The ITS and RPS will conduct system testing. During this time, COBAN/Safe Fleet will be the primary group providing WMVARS hardware and application support and will provide users with onsite assistance as needed.
Pilot	Placerville Area and East Sacramento Area will conduct Proof of Performance and Burn-In testing. During this time, ITS and RPS will provide tier-1 WMVARS hardware and application support to users and COBAN/Safe Fleet will provide tier-2 support. Area commands shall report all issues to the CHP PM and Technical PM for resolution. If an issue is critical (i.e., no workaround and has a major impact on operations), the Area shall also follow back-out steps in section 5, Back-Out Tasks. Issues will be tracked and monitored by the CHP and COBAN/Safe Fleet project management team. COBAN/Safe Fleet will work issues according to agreed priority.
Statewide Deployment	The ITS and RPS will provide tier-1 WMVARS hardware and application support to users and COBAN/Safe Fleet will provide tier-2 support. Area commands shall report issues to the CHP PM and Technical PM for resolution. If an issue is critical (i.e., no workaround and has a major impact on operations), the Area shall also follow back-out steps in section 5. Issues will be tracked and monitored by the CHP and COBAN/Safe Fleet project management team. COBAN/Safe Fleet will work issues according to agreed priority.

6.2 On-Going Maintenance and Support

Group	Responsible
Area	Each Area is responsible for providing first-level support for their respective users. Each Area shall identify at least one subject matter expert (SME) to answer any questions or address WMVARS issues within their Area.
RPS	The RPS will provide primary support for all WMVARS policy-related questions or issues. The RPS will also need to approve any change requests to standard configuration or changes to security access roles. The RPS will work with the WMVARS Technical Support team as needed.
WMVARS Technical Support	Area offices shall direct any WMVARS technical questions or issues to the assigned WMVARS Area SME. If needed, the SME will contact the HQ WMVARS Technical Support team by submitting a work order/ticket to the IT Support Unit (formerly Help Desk).
ITS Acquisitions Services Unit	The ITS Acquisition Services Unit will be the point of contact for any vendor-related issues as they relate to the following: • Contract/licensing • Procurement • Product escalations
COBAN/Safe Fleet Technical Support	Vendor is responsible for providing on-premise appliance maintenance and support, as well as providing Command Center application support. The HQ WMVARS Technical Support team will contact and coordinate with the vendor as needed.
WMVARS Product Warranty and Quality Assurance Guarantees COBAN/Safe Fleet	Vendor shall honor all manufacturer warranties and guarantees all products purchased for a period of three (3) years from the date of the acceptance. The HQ WMVARS Technical Support team will contact and coordinate with the vendor as needed.

WMVARS Project Schedule

ID	WBS	Task Name	% Complete	Baseline Start	Baseline Finish	Start	Finish	Duration	Predecessors	Actual Start	Actual Finish	Finish Variance	Notes
1	1	**Wireless Mobile Video and Audio Recording System (WMVARS) Project**	22%	Mon 7/23/18	Tue 7/26/22	Mon 7/23/18	Wed 8/30/23	1299 days		Mon 7/23/18	NA	277 days	
2	1.1	**Project Approval Lifecycle (PAL) Process**	100%	Mon 7/23/18	Mon 9/30/19	Mon 7/23/18	Mon 9/30/19	311 days		Mon 7/23/18	Mon 9/30/19	0 days	
3	1.1.1	**WMVARS Solicitation (Stage 3 and 4)**	100%	Mon 7/23/18	Mon 9/30/19	Mon 7/23/18	Mon 9/30/19	311 days		Mon 7/23/18	Mon 9/30/19	0 days	
4	1.1.1.1	**Stage 3 Solution Development**	100%	Mon 7/23/18	Fri 5/3/19	Mon 7/23/18	Fri 5/3/19	205 days		Mon 7/23/18	Fri 5/3/19	0 days	
5	1.1.1.1.1	**Stage 3, Part A**	100%	Mon 7/23/18	Fri 1/25/19	Mon 7/23/18	Fri 1/25/19	135 days		Mon 7/23/18	Fri 1/25/19	0 days	
6	1.1.1.1.1.1	Complete Procurement Profile	100%	Mon 7/23/18	Fri 8/3/18	Mon 7/23/18	Fri 8/3/18	10 days		Mon 7/23/18	Fri 8/3/18	0 days	
7	1.1.1.1.1.2	Revise all Stage 3 Documentation to Reflect New Project Scope	100%	Mon 7/23/18	Fri 8/3/18	Mon 7/23/18	Fri 8/3/18	10 days	655	Mon 7/23/18	Fri 8/3/18	0 days	
8	1.1.1.1.1.3	**Detailed Solution Requirements**	100%	Mon 7/23/18	Fri 1/25/19	Mon 7/23/18	Fri 1/25/19	135 days		Mon 7/23/18	Fri 1/25/19	0 days	
9	1.1.1.1.1.3.1	Finalize Technical Architecture	100%	Mon 7/23/18	Fri 9/21/18	Mon 7/23/18	Fri 9/21/18	45 days	655	Mon 7/23/18	Fri 9/21/18	0 days	
10	1.1.1.1.1.3.2	Assemble requirements	100%	Mon 7/23/18	Fri 11/23/18	Mon 7/23/18	Fri 11/23/18	90 days	655	Mon 7/23/18	Fri 11/23/18	0 days	
11	1.1.1.1.1.3.3	Internal Review/Revision of Requirements	100%	Mon 11/26/18	Fri 12/21/18	Mon 11/26/18	Fri 12/21/18	20 days	10	Mon 11/26/18	Fri 12/21/18	0 days	
12	1.1.1.1.1.3.4	Review requirements with Office of Primary Interest	100%	Mon 12/24/18	Fri 1/11/19	Mon 12/24/18	Fri 1/11/19	15 days	11	Mon 12/24/18	Fri 1/11/19	0 days	
13	1.1.1.1.1.3.5	Revise Sections	100%	Mon 1/14/19	Fri 1/25/19	Mon 1/14/19	Fri 1/25/19	10 days	12	Mon 1/14/19	Fri 1/25/19	0 days	
14	1.1.1.1.1.4	**Solicitation Statement of Work (SOW)**	100%	Mon 9/24/18	Fri 11/30/18	Mon 9/24/18	Fri 11/30/18	50 days		Mon 9/24/18	Fri 11/30/18	0 days	
15	1.1.1.1.1.4.1	Prepare Draft SOW	100%	Mon 9/24/18	Fri 11/16/18	Mon 9/24/18	Fri 11/16/18	40 days	9	Mon 9/24/18	Fri 11/16/18	0 days	
16	1.1.1.1.1.4.2	Submit draft for review	100%	Fri 11/16/18	Fri 11/16/18	Fri 11/16/18	Fri 11/16/18	0 days	15	Fri 11/16/18	Fri 11/16/18	0 days	
17	1.1.1.1.1.4.3	Review of SOW	100%	Mon 11/19/18	Fri 11/23/18	Mon 11/19/18	Fri 11/23/18	5 days	16	Mon 11/19/18	Fri 11/23/18	0 days	
18	1.1.1.1.1.4.4	Revise and finalize SOW	100%	Mon 11/26/18	Fri 11/30/18	Mon 11/26/18	Fri 11/30/18	5 days	17	Mon 11/26/18	Fri 11/30/18	0 days	
19	1.1.1.1.1.4.5	SOW complete	100%	Fri 11/30/18	Fri 11/30/18	Fri 11/30/18	Fri 11/30/18	0 days	18	Fri 11/30/18	Fri 11/30/18	0 days	
20	1.1.1.1.1.5	**Solicitation Administrative Sections**	100%	Mon 12/3/18	Fri 12/14/18	Mon 12/3/18	Fri 12/14/18	10 days		Mon 12/3/18	Fri 12/14/18	0 days	
21	1.1.1.1.1.5.1	Prepare draft of administrative sections	100%	Mon 12/3/18	Fri 12/7/18	Mon 12/3/18	Fri 12/7/18	5 days	19	Mon 12/3/18	Fri 12/7/18	0 days	
22	1.1.1.1.1.5.2	Submit draft of administrative sections	100%	Fri 12/7/18	Fri 12/7/18	Fri 12/7/18	Fri 12/7/18	0 days	21	Fri 12/7/18	Fri 12/7/18	0 days	
23	1.1.1.1.1.5.3	Revise and finalize administrative sections	100%	Mon 12/10/18	Mon 12/10/18	Mon 12/10/18	Fri 12/14/18	5 days	22	Mon 12/10/18	Fri 12/14/18	0 days	
24	1.1.1.1.1.6	Finalize Remaining Solicitation Sections and Stage 3 Part A	100%	Mon 12/17/18	Fri 12/21/18	Mon 12/17/18	Fri 12/21/18	5 days	23	Mon 12/17/18	Fri 12/21/18	0 days	
25	1.1.1.1.2	**Stage 3, Part B**	100%	Mon 12/24/18	Fri 12/28/18	Mon 12/24/18	Fri 12/28/18	5 days		Mon 12/24/18	Fri 12/28/18	0 days	
26	1.1.1.1.2.1	Finalize Evaluation Criteria	100%	Mon 12/24/18	Fri 12/28/18	Mon 12/24/18	Fri 12/28/18	5 days	24	Mon 12/24/18	Fri 12/28/18	0 days	
27	1.1.1.1.2.2	Finalize Cost/Payment Model	100%	Mon 12/24/18	Fri 12/28/18	Mon 12/24/18	Fri 12/28/18	5 days	24	Mon 12/24/18	Fri 12/28/18	0 days	
28	1.1.1.1.2.3	Finalize Solicitation Template	100%	Mon 12/24/18	Fri 12/28/18	Mon 12/24/18	Fri 12/28/18	5 days	24	Mon 12/24/18	Fri 12/28/18	0 days	
29	1.1.1.1.3	**Stage 3 Part A and B Approvals**	100%	Mon 12/31/18	Fri 5/3/19	Mon 12/31/18	Fri 5/3/19	90 days		Mon 12/31/18	Fri 5/3/19	0 days	
30	1.1.1.1.3.1	Obtain Information Security Officer (ISO) Approval	100%	Mon 12/31/18	Mon 12/31/18	Mon 12/31/18	Mon 12/31/18	1 day	27	Mon 12/31/18	Mon 12/31/18	0 days	
31	1.1.1.1.3.2	Obtain Enterprise Architect Approval	100%	Mon 12/31/18	Mon 12/31/18	Mon 12/31/18	Mon 12/31/18	1 day	27	Mon 12/31/18	Mon 12/31/18	0 days	
32	1.1.1.1.3.3	Obtain Chief Information Officer (CIO) Approval	100%	Mon 12/31/18	Mon 12/31/18	Mon 12/31/18	Mon 12/31/18	1 day	27	Mon 12/31/18	Mon 12/31/18	0 days	
33	1.1.1.1.3.4	Obtain Budget Officer Approval	100%	Mon 12/31/18	Wed 1/2/19	Mon 12/31/18	Wed 1/2/19	1 days	27	Mon 12/31/18	Wed 1/2/19	0 days	
34	1.1.1.1.3.5	Obtain Procurement and Contracting Officer Approval	100%	Mon 12/31/18	Wed 1/2/19	Mon 12/31/18	Wed 1/2/19	1 days	27	Mon 12/31/18	Wed 1/2/19	0 days	
35	1.1.1.1.3.6	Incorporate edits	100%	Thu 1/3/19	Wed 1/9/19	Thu 1/3/19	Wed 1/9/19	5 days	34	Thu 1/3/19	Wed 1/9/19	0 days	
36	1.1.1.1.3.7	Obtain Commissioner Approval	100%	Thu 1/10/19	Mon 1/14/19	Thu 1/10/19	Mon 1/14/19	3 days	35	Thu 1/10/19	Mon 1/14/19	0 days	
37	1.1.1.1.3.8	Obtain Agency Information Officer (AIO) Approval	100%	Tue 1/15/19	Thu 1/17/19	Tue 1/15/19	Thu 1/17/19	3 days	36	Tue 1/15/19	Thu 1/17/19	0 days	
38	1.1.1.1.3.9	Obtain Agency Secretary Approval	100%	Tue 1/15/19	Thu 1/17/19	Tue 1/15/19	Thu 1/17/19	3 days	36	Tue 1/15/19	Thu 1/17/19	0 days	
39	1.1.1.1.3.10	**Obtain California Department of Technology (CDT) Approval**	100%	Fri 1/25/19	Fri 5/3/19	Fri 1/25/19	Fri 5/3/19	71 days	38	Fri 1/25/19	Fri 5/3/19	0 days	
40	1.1.1.1.3.10.1	Draft submission	100%	Fri 1/25/19	Fri 1/25/19	Fri 1/25/19	Fri 1/25/19	1 day		Fri 1/25/19	Fri 1/25/19	0 days	
41	1.1.1.1.3.10.2	Final Stage 3 Submission	100%	Fri 3/22/19	Fri 3/22/19	Fri 3/22/19	Fri 3/22/19	1 day		Fri 3/22/19	Fri 3/22/19	0 days	
42	1.1.1.1.3.10.3	Obtain Approval Letter	100%	Mon 3/25/19	Fri 5/3/19	Mon 3/25/19	Fri 5/3/19	30 days	41	Mon 3/25/19	Fri 5/3/19	0 days	
43	1.1.1.2	**Stage 4 - Project Readiness and Approval**	100%	Fri 1/4/19	Mon 9/30/19	Fri 1/4/19	Mon 9/30/19	192 days		Fri 1/4/19	Mon 9/30/19	0 days	
44	1.1.1.2.1	**Draft Solicitation**	100%	Fri 1/4/19	Fri 2/15/19	Fri 1/4/19	Fri 2/15/19	31 days		Fri 1/4/19	Fri 2/15/19	0 days	
45	1.1.1.2.1.1	Kick Off Meeting with Department of General Services	100%	Fri 1/4/19	Fri 1/4/19	Fri 1/4/19	Fri 1/4/19	1 day		Fri 1/4/19	Fri 1/4/19	0 days	
46	1.1.1.2.1.2	Working Sessions to Complete Procurement Documents	100%	Mon 1/7/19	Fri 2/15/19	Mon 1/7/19	Fri 2/15/19	6 wks	45	Mon 1/7/19	Fri 2/15/19	0 days	
47	1.1.1.2.2	**Solicitation (Statewide Contract)**	100%	Thu 2/28/19	Mon 6/17/19	Thu 2/28/19	Mon 6/17/19	77 days		Thu 2/28/19	Mon 6/17/19	0 days	
48	1.1.1.2.2.1	**Solicitation Release - Key Dates**	100%	Thu 2/28/19	Fri 5/10/19	Thu 2/28/19	Fri 5/10/19	52 days		Thu 2/28/19	Fri 5/10/19	0 days	
49	1.1.1.2.2.1.1	Release the Solicitation	100%	Thu 2/28/19	Thu 2/28/19	Thu 2/28/19	Thu 2/28/19	1 day		Thu 2/28/19	Thu 2/28/19	0 days	
50	1.1.1.2.2.1.2	Last Day to Submit Final Questions	100%	Thu 3/14/19	Thu 3/14/19	Thu 3/14/19	Thu 3/14/19	1 day		Thu 3/14/19	Thu 3/14/19	0 days	
51	1.1.1.2.2.1.3	Final Bids Due	100%	Thu 4/11/19	Thu 4/11/19	Thu 4/11/19	Thu 4/11/19	1 day		Thu 4/11/19	Thu 4/11/19	0 days	
52	1.1.1.2.2.1.4	Evaluate Bids	100%	Thu 4/11/19	Thu 4/25/19	Thu 4/11/19	Thu 4/25/19	11 days		Thu 4/11/19	Thu 4/25/19	0 days	
53	1.1.1.2.2.1.5	Technical Clarification to Bidders	100%	Fri 5/10/19	Fri 5/10/19	Fri 5/10/19	Fri 5/10/19	1 day		Fri 5/10/19	Fri 5/10/19	0 days	
54	1.1.1.2.2.2	**Select Vendor**	100%	Fri 5/10/19	Mon 6/17/19	Fri 5/10/19	Mon 6/17/19	26 days		Fri 5/10/19	Mon 6/17/19	0 days	
55	1.1.1.2.2.2.1	Notify Suppliers of Cost Opening	100%	Fri 5/10/19	Fri 5/10/19	Fri 5/10/19	Fri 5/10/19	1 day		Fri 5/10/19	Fri 5/10/19	0 days	
56	1.1.1.2.2.2.2	Public Cost Opening	100%	Thu 5/16/19	Thu 5/16/19	Thu 5/16/19	Thu 5/16/19	1 day		Thu 5/16/19	Thu 5/16/19	0 days	
57	1.1.1.2.2.2.3	Contract Cost Negotiation	100%	Fri 5/17/19	Thu 5/30/19	Fri 5/17/19	Thu 5/30/19	10 days	56	Fri 5/17/19	Thu 5/30/19	0 days	
58	1.1.1.2.2.2.4	Demonstration	100%	Tue 6/4/19	Tue 6/4/19	Tue 6/4/19	Tue 6/4/19	1 day		Tue 6/4/19	Tue 6/4/19	0 days	
59	1.1.1.2.2.2.5	Contract Award	100%	Mon 6/17/19	Mon 6/17/19	Mon 6/17/19	Mon 6/17/19	0 days		Mon 6/17/19	Mon 6/17/19	0 days	
60	1.1.1.2.3	**Stage 4 - Project Readiness and Approval Submission**	100%	Fri 5/31/19	Mon 9/30/19	Fri 5/31/19	Mon 9/30/19	87 days		Fri 5/31/19	Mon 9/30/19	0 days	
61	1.1.1.2.3.1	Baseline Costs (Update Financial Analysis Worksheets)	100%	Fri 5/31/19	Thu 6/13/19	Fri 5/31/19	Thu 6/13/19	10 days	57	Fri 5/31/19	Thu 6/13/19	0 days	
62	1.1.1.2.3.2	Baseline Schedule	100%	Fri 5/31/19	Thu 6/13/19	Fri 5/31/19	Thu 6/13/19	10 days	57	Fri 5/31/19	Thu 6/13/19	0 days	
63	1.1.1.2.3.3	Project Readiness (Project Plan, etc.)	100%	Fri 5/31/19	Thu 6/13/19	Fri 5/31/19	Thu 6/13/19	10 days	57	Fri 5/31/19	Thu 6/13/19	0 days	
64	1.1.1.2.3.4	Risk Register	100%	Fri 5/31/19	Thu 6/6/19	Fri 5/31/19	Thu 6/6/19	5 days	57	Fri 5/31/19	Thu 6/6/19	0 days	
65	1.1.1.2.3.5	Stage 4 Draft Complete	100%	Fri 6/14/19	Fri 6/14/19	Fri 6/14/19	Fri 6/14/19	1 day	61,63,64,62	Fri 6/14/19	Fri 6/14/19	0 days	
66	1.1.1.2.3.6	**Internal Stage 4 Approvals**	100%	Thu 6/20/19	Wed 7/10/19	Thu 6/20/19	Wed 7/10/19	15 days		Thu 6/20/19	Wed 7/10/19	0 days	
67	1.1.1.2.3.6.1	Obtain Enterprise Architect Approval	100%	Thu 6/20/19	Thu 6/20/19	Thu 6/20/19	Thu 6/20/19	1 day	76	Thu 6/20/19	Thu 6/20/19	0 days	
68	1.1.1.2.3.6.2	Obtain ISO Approval	100%	Fri 6/21/19	Fri 6/21/19	Fri 6/21/19	Fri 6/21/19	1 day	67	Fri 6/21/19	Fri 6/21/19	0 days	
69	1.1.1.2.3.6.3	Obtain CIO Approval	100%	Mon 6/24/19	Mon 6/24/19	Mon 6/24/19	Mon 6/24/19	1 day	68	Mon 6/24/19	Mon 6/24/19	0 days	
70	1.1.1.2.3.6.4	Obtain Budget Officer Approval	100%	Tue 6/25/19	Thu 6/27/19	Tue 6/25/19	Thu 6/27/19	3 days	69	Tue 6/25/19	Thu 6/27/19	0 days	
71	1.1.1.2.3.6.5	Obtain Procurement and Contracting Officer Approval	100%	Fri 6/28/19	Tue 7/2/19	Fri 6/28/19	Tue 7/2/19	3 days	70	Fri 6/28/19	Tue 7/2/19	0 days	
72	1.1.1.2.3.6.6	Obtain Commissioner Approval	100%	Wed 7/3/19	Fri 7/5/19	Wed 7/3/19	Fri 7/5/19	3 days	71	Wed 7/3/19	Fri 7/5/19	0 days	
73	1.1.1.2.3.6.7	Obtain AIO Approval	100%	Mon 7/8/19	Wed 7/10/19	Mon 7/8/19	Wed 7/10/19	3 days	72	Mon 7/8/19	Wed 7/10/19	0 days	
74	1.1.1.2.3.6.8	Obtain Agency Secretary Approval	100%	Mon 7/8/19	Wed 7/10/19	Mon 7/8/19	Wed 7/10/19	3 days	72	Mon 7/8/19	Wed 7/10/19	0 days	
75	1.1.1.2.3.7	**CDT Stage 4 Approval**	100%	Wed 6/19/19	Mon 9/30/19	Wed 6/19/19	Mon 9/30/19	74 days	38	Wed 6/19/19	Mon 9/30/19	0 days	
76	1.1.1.2.3.7.1	Submit Stage 4 Draft Submission	100%	Wed 6/19/19	Wed 6/19/19	Wed 6/19/19	Wed 6/19/19	1 day	65FS+2 days	Wed 6/19/19	Wed 6/19/19	0 days	
77	1.1.1.2.3.7.2	Verbal Approval	100%	Thu 6/20/19	Thu 6/20/19	Thu 6/20/19	Thu 6/20/19	1 day	76	Thu 6/20/19	Thu 6/20/19	0 days	
78	1.1.1.2.3.7.3	Submit Stage 4 Final Submission	100%	Thu 7/11/19	Thu 7/11/19	Thu 7/11/19	Thu 7/11/19	1 day	66	Thu 7/11/19	Thu 7/11/19	0 days	
79	1.1.1.2.3.7.4	Obtain Approval Letter	100%	Thu 6/20/19	Mon 9/30/19	Thu 6/20/19	Mon 9/30/19	75 days	77SS	Thu 6/20/19	Mon 9/30/19	0 days	
80	1.2	**WMVARS Project**	18%	Fri 6/21/19	Mon 10/31/22	Fri 6/21/19	Wed 11/30/22	870 days		Fri 6/21/19	NA	285 days	
81	1.2.1	Purchase Order/Contract Execution - Phase 1	100%	Fri 6/21/19	Fri 6/21/19	Fri 6/21/19	Fri 6/21/19	1 day	77	Fri 6/21/19	Fri 6/21/19	0 days	Information Technology Manager I (ITM I), Information Technology Associate (ITA)
82	1.2.2	Review/Update Project Management Plans and Schedule	100%	Mon 6/24/19	Fri 8/16/19	Mon 6/24/19	Fri 8/16/19	8 wks	81	Mon 6/24/19	Fri 8/16/19	0 days	ITM I, Information Technology Specialist I (IT Spec I)
83	1.2.3	Develop Implementation Plan	100%	Mon 8/19/19	Fri 12/20/19	Mon 8/19/19	Fri 12/20/19	17.8 wks	82	Mon 8/19/19	Fri 12/20/19	0 days	ITM I, IT Spec I
84	1.2.4	**Maintenance and Operations Budget Change Proposal (BCP)**	99%	Mon 3/2/20	Wed 6/30/21	Mon 2/3/20	Wed 6/30/21	355 days		Mon 2/3/20	NA	0 days	
85	1.2.4.1	Initiate Budget Change Request (BCR)	100%	Mon 3/2/20	Fri 5/1/20	Mon 2/3/20	Thu 2/6/20	4 days		Mon 2/3/20	Thu 2/6/20	-59 days	Project Management Unit (PMU)
86	1.2.4.2	Submit BCR	100%	Fri 5/1/20	Fri 5/1/20	Fri 2/7/20	Fri 2/7/20	1 day		Fri 2/7/20	Fri 2/7/20	-58 days	PMU
87	1.2.4.3	Submit Draft BCP	100%	Wed 7/1/20	Wed 7/1/20	Wed 6/17/20	Wed 6/17/20	1 day		Wed 6/17/20	Wed 6/17/20	-10 days	PMU
88	1.2.4.4	BCP Department of Finance (DOF) Approval	0%	Wed 6/30/21	Wed 6/30/21	Wed 6/30/21	Wed 6/30/21	0 days		NA	NA	0 days	CDT/DOF
89	1.2.5	Project Kick Off	100%	Mon 9/23/19	Fri 9/27/19	Mon 9/23/19	Wed 9/25/19	0.6 wks		Mon 9/23/19	Wed 9/25/19	-2 days	ITM I, Vendor Project Manager (PM)
90	1.2.6	**Prerequisites**	100%	Mon 6/24/19	Wed 11/20/19	Mon 6/24/19	Fri 12/13/19	124 days		Mon 6/24/19	Fri 12/13/19	16 days	
91	1.2.6.1	Deliver Preproduction Sets (In-Car) to the California Highway Patrol (CH	100%	Mon 6/24/19	Fri 8/2/19	Mon 6/24/19	Fri 8/2/19	30 days	83	Mon 6/24/19	Fri 8/2/19	0 days	Vendor Project Team
92	1.2.6.2	Deliver Training Outlines	100%	Tue 10/1/19	Mon 11/4/19	Tue 10/1/19	Fri 11/1/19	24 days		Tue 10/1/19	Fri 11/1/19	-1 day	Vendor Project Team

WMVARS Project Schedule

ID	WBS	Task Name	% Complete	Baseline Start	Baseline Finish	Start	Finish	Duration	Predecessors	Actual Start	Actual Finish	Finish Variance	Notes
93	1.2.6.9	Train Technical Staff	100%	Tue 11/5/19	Wed 11/20/19	Mon 11/4/19	Fri 12/13/19	29 days	92	Mon 11/4/19	Fri 12/13/19	16 days	Vendor Project Team, IT Spec I, ITA, Sergeant, Officer
94	**1.2.7**	**Configure WMVARS Solution**	**100%**	**Mon 10/14/19**	**Fri 2/28/20**	**Thu 10/10/19**	**Fri 9/11/20**	**234 days**		**Thu 10/10/19**	**Fri 9/11/20**	**137 days**	
95	**1.2.7.1**	**Hardware Configuration**	**100%**	**Mon 10/14/19**	**Fri 2/28/20**	**Thu 10/10/19**	**Fri 9/11/20**	**234 days**		**Thu 10/10/19**	**Fri 9/11/20**	**137 days**	
96	1.2.7.1.1	Conduct Vehicle Inspections by Vehicle Type	100%	Mon 10/14/19	Fri 11/15/19	Mon 10/14/19	Fri 11/8/19	20 days		Mon 10/14/19	Fri 11/8/19	-5 days	Vendor Project Team, IT Spec I, ITA, Sergeant, Officer, Automotive Technician (Auto Tech)
97	1.2.7.1.2	Design and configure custom install components by Vehicle Type	100%	Mon 10/14/19	Fri 11/8/19	Mon 10/14/19	Fri 11/8/19	20 days		Mon 10/14/19	Fri 11/8/19	0 days	Vendor Project Team, IT Spec I, ITA, Sergeant, Officer, Auto Tech
98	1.2.7.1.3	Procure and Deliver Custom Install Components	100%	Mon 11/11/19	Fri 12/13/19	Mon 11/11/19	Mon 12/16/19	25 days	91	Mon 11/11/19	Mon 12/16/19	1 day	ITM I, Vendor PM, Vendor Project Team
99	**1.2.7.1.4**	**Install in Test Vehicle**	**100%**	**Mon 11/4/19**	**Fri 12/20/19**	**Mon 11/4/19**	**Fri 2/21/20**	**75 days**		**Mon 11/4/19**	**Fri 2/21/20**	**41 days**	
100	1.2.7.1.4.1	One (1)-Car Standalone Demo	100%	Mon 11/4/19	Fri 11/15/19	Mon 11/4/19	Fri 11/8/19	5 days		Mon 11/4/19	Fri 11/8/19	-5 days	Vendor Project Team, IT Spec I, ITA, Sergeant, Officer
101	1.2.7.1.4.2	Three (3)-Car Install and Training	100%	Mon 11/18/19	Fri 12/20/19	Mon 11/18/19	Fri 2/21/20	65 days	100SS+2 wks	Mon 11/18/19	Fri 2/21/20	41 days	Vendor Project Team, IT Spec I, ITA, Sergeant, Officer
102	1.2.7.1.5	Work with Fleet Ops to ensure compatibility	100%	Mon 1/6/20	Fri 1/17/20	Thu 10/10/19	Fri 3/6/20	103 days		Thu 10/10/19	Fri 3/6/20	33 days	Vendor Project Team, IT Spec I, ITA, Sergeant, Officer, Auto Tech
103	1.2.7.1.6	Work with Public Safety Communications Office (PSCO) to ensure con	100%	Mon 1/6/20	Fri 2/28/20	Mon 1/6/20	Fri 3/13/20	1.6 mons		Mon 1/6/20	Fri 3/13/20	10 days	Vendor Project Team, IT Spec I, ITA, Sergeant, Officer, Auto Tech, ITM I
104	1.2.7.1.7	Finalize and Deliver PSCO Compatibility Testing	100%	NA	NA	Mon 3/16/20	Fri 9/11/20	127 days		Mon 3/16/20	Fri 9/11/20	0 days	Vendor Project Team, ITM I, PSCO
105	**1.2.7.2**	**Software Configuration**	**100%**	**Mon 1/6/20**	**Fri 1/31/20**	**Mon 1/6/20**	**Fri 1/31/20**	**19 days**		**Mon 1/6/20**	**Fri 1/31/20**	**0 days**	
106	1.2.7.2.1	Configure WMVARS Commercial off-the-shelf application and Train T	100%	Mon 1/6/20	Fri 1/24/20	Mon 1/6/20	Tue 1/21/20	12 days	99	Mon 1/6/20	Tue 1/21/20	-3 days	Vendor Project Team, IT Spec I, ITA, Sergeant, Officer
107	1.2.7.2.2	Deliver Final Configuration Document (Completed with CHP Settings)	100%	Mon 1/27/20	Fri 1/31/20	Mon 1/27/20	Fri 1/31/20	5 days	106	Mon 1/27/20	Fri 1/31/20	0 days	Vendor Project Team, IT Spec I, ITA, Sergeant, Officer
108	**1.2.8**	**Test Readiness Review**	**100%**	**Mon 2/3/20**	**Fri 3/6/20**	**Mon 2/3/20**	**Fri 4/24/20**	**58 days**		**Mon 2/3/20**	**Fri 4/24/20**	**34 days**	
109	1.2.8.1	Requirements Traceability	100%	Mon 2/3/20	Fri 2/7/20	Mon 2/3/20	Fri 3/6/20	24 days	107	Mon 2/3/20	Fri 3/6/20	19 days	Vendor Project Team, IT Spec I, ITA
110	1.2.8.2	Test Scenarios and Scripts	100%	Mon 2/10/20	Fri 2/14/20	Mon 2/10/20	Fri 3/13/20	24 days	109	Mon 2/10/20	Fri 3/13/20	19 days	Vendor Project Team, IT Spec I, ITA
111	1.2.8.3	Conduct System Pretest (COBAN)	100%	Mon 2/17/20	Fri 2/28/20	Mon 3/16/20	Thu 4/16/20	23 days	110	Mon 3/16/20	Thu 4/16/20	33 days	Vendor Project Team
112	1.2.8.4	System Configuration Sign Off	100%	Mon 3/2/20	Fri 3/6/20	Fri 4/17/20	Fri 4/24/20	6 days	111	Fri 4/17/20	Fri 4/24/20	34 days	ITM I, IT Spec I, ITA
113	**1.2.9**	**COBAN - Active Directory (AD) Integration**	**100%**	**NA**	**NA**	**Mon 3/16/20**	**Mon 8/17/20**	**109 days**		**Mon 3/16/20**	**Mon 8/17/20**	**0 days**	
114	1.2.9.1	Authentication Only - Software Release 2.6.1	100%	NA	NA	Mon 3/16/20	Mon 5/18/20	38 days		Mon 3/16/20	Mon 3/18/20	0 days	Vendor Project Team
116	**1.2.9.2**	**Addition of Roles/Groups/User Permissions – Software Release 2.7**	**100%**	**NA**	**NA**	**Thu 4/23/20**	**Mon 8/17/20**	**82 days**		**Thu 4/23/20**	**Mon 8/17/20**	**0 days**	
116	1.2.9.2.1	Addition of Roles/Groups/User Permissions	100%	NA	NA	Thu 4/23/20	Mon 8/17/20	82 days		Thu 4/23/20	Mon 8/17/20	0 days	Vendor Project Team
117	1.2.9.2.2	Preview AD Authorization (Roles and Groups)	100%	NA	NA	Mon 7/20/20	Mon 8/17/20	21 days		Mon 7/20/20	Mon 8/17/20	0 days	Vendor Project Team, IT Spec I, ITA
118	1.2.9.2.3	Software Release 2.7	100%	NA	NA	Mon 8/17/20	Mon 8/17/20	0 days	117	Mon 8/17/20	Mon 8/17/20	0 days	Vendor Project Team
119	**1.2.10**	**System Test - Part I**	**98%**	**Mon 3/2/20**	**Fri 5/8/20**	**Mon 3/16/20**	**Wed 1/13/21**	**210 days**		**Mon 3/16/20**	**NA**	**171 days**	
120	1.2.10.1	Build Test System (hardware)	100%	Mon 3/9/20	Fri 3/13/20	Mon 3/16/20	Mon 8/3/20	95 days		Mon 3/16/20	Mon 8/3/20	99 days	IT Spec I, ITA
121	1.2.10.2	Test Individual Components	100%	Mon 3/16/20	Fri 3/20/20	Mon 3/16/20	Tue 12/1/20	181 days		Mon 3/16/20	Tue 12/1/20	176 days	Vendor Project Team, IT Spec I, ITA
122	1.2.10.3	Test Interfaces (wireless + cellular)	100%	Mon 3/23/20	Fri 3/27/20	Mon 3/16/20	Fri 11/6/20	167 days		Mon 3/16/20	Fri 11/6/20	157 days	Vendor Project Team, IT Spec I, ITA
123	1.2.10.4	Execute System Test Functionality - Part I	100%	Mon 3/30/20	Fri 4/10/20	Mon 5/18/20	Fri 6/19/20	24 days	124	Mon 5/18/20	Fri 6/19/20	49 days	IT Spec I, ITA, Sergeant, Officer
124	1.2.10.5	Fix System Test Problems and Retest	90%	Mon 4/13/20	Fri 4/24/20	Mon 6/22/20	Wed 1/13/21	142 days	123	Mon 6/22/20	NA	181 days	Vendor Project Team, IT Spec I, ITA
125	**1.2.11**	**System Test - Part II**	**100%**	**NA**	**NA**	**Tue 8/4/20**	**Fri 9/18/20**	**33 days**		**Tue 8/4/20**	**Fri 9/18/20**	**0 days**	
126	1.2.11.1	Update Software (SW) and Train Staff	100%	NA	NA	Tue 8/4/20	Tue 9/1/20	21 days	115	Tue 8/4/20	Tue 9/1/20	0 days	Vendor Project Team, IT Spec I, ITA, Sergeant, Officer
127	1.2.11.2	Execute System Test Functionality - Part II	100%	NA	NA	Tue 8/11/20	Fri 9/18/20	28 days		Tue 8/11/20	Fri 9/18/20	0 days	IT Spec I, ITA, Sergeant, Officer
128	1.2.11.3	Fix System Test Problems and Retest	100%	NA	NA	Tue 9/8/20	Mon 9/14/20	5 days	127	Tue 9/8/20	Mon 9/14/20	0 days	Vendor Project Team, IT Spec I, ITA
129	1.2.11.4	Finalize and Deliver System Test Report	100%	NA	NA	Tue 9/15/20	Fri 9/18/20	4 days	128	Tue 9/15/20	Fri 9/18/20	0 days	Vendor Project Team
130	1.2.12	System Test Completion	100%	NA	NA	Fri 9/18/20	Fri 9/18/20	0 days	125	Fri 9/18/20	Fri 9/18/20	0 days	Vendor Project Team, IT Spec I, ITA, Sergeant, Officer
131	1.2.13	Go/No Go Pilot Installations	100%	Mon 5/4/20	Fri 5/8/20	Mon 9/21/20	Thu 9/24/20	4 days	104,125	Mon 9/21/20	Thu 9/24/20	97 days	ITM I, Vendor PM
132	**1.2.14**	**Pilot (Field Test and Burn-In)**	**65%**	**Mon 4/13/20**	**Mon 6/22/20**	**Mon 9/14/20**	**Wed 1/13/21**	**83 days**		**Mon 9/14/20**	**NA**	**141 days**	
133	**1.2.14.1**	**Pilot - Direct to Cloud (East Sacramento Area)**	**65%**	**Mon 4/13/20**	**Mon 6/22/20**	**Fri 9/25/20**	**Wed 1/13/21**	**74 days**		**Fri 9/25/20**	**NA**	**141 days**	
134	1.2.14.1.1	Begin hardware pilot sites (vehicle training and installation)	100%	Mon 4/13/20	Fri 5/22/20	Fri 9/25/20	Thu 11/5/20	30 days	131	Fri 9/25/20	Thu 11/5/20	117 days	IT Spec I, ITA, Sergeant, Officer, Auto Tech
135	1.2.14.1.2	Train pilot staff users (and setup new processes)	100%	Mon 5/4/20	Fri 5/8/20	Fri 9/25/20	Thu 10/1/20	5 days	131	Fri 9/25/20	Thu 10/1/20	102 days	Vendor Project Team, IT Spec I, ITA, Sergeant, Officer
136	1.2.14.1.3	Fix issues in the pilot system (change processes)	90%	Mon 5/11/20	Fri 5/15/20	Fri 11/6/20	Fri 12/4/20	18 days	134	Fri 11/6/20	NA	140 days	Vendor Project Team
137	1.2.14.1.4	Field Test without errors	0%	Mon 5/18/20	Fri 5/29/20	Mon 12/7/20	Fri 12/18/20	10 days	136	NA	NA	141 days	Sergeant, Officer
138	1.2.14.1.5	Burn-In Period	0%	Mon 6/1/20	Fri 6/19/20	Mon 12/21/20	Tue 1/12/21	15 days	137	NA	NA	141 days	Sergeant, Officer
139	1.2.14.1.6	Accept Piloted system	0%	Mon 6/22/20	Mon 6/22/20	Wed 1/13/21	Wed 1/13/21	1 day	138	NA	NA	141 days	Sergeant, Officer
140	**1.2.14.2**	**Pilot - On-Premise (Placerville Area)**	**65%**	**Mon 4/13/20**	**Mon 6/22/20**	**Mon 9/14/20**	**Wed 1/13/21**	**83 days**		**Mon 9/14/20**	**NA**	**141 days**	
141	1.2.14.2.1	Install, Configure and Test On-Premise Appliance	100%	Mon 4/27/20	Fri 5/1/20	Mon 9/14/20	Fri 9/18/20	5 days	133SS-1 wk	Mon 9/14/20	Fri 9/18/20	98 days	Vendor Project Team, IT Spec I, ITA
142	1.2.14.2.2	Begin hardware pilot sites (vehicle training and installation)	100%	Mon 4/13/20	Fri 5/22/20	Fri 9/25/20	Thu 11/5/20	30 days	131	Fri 9/25/20	Thu 11/5/20	117 days	IT Spec I, ITA, Sergeant, Officer, Auto Tech
143	1.2.14.2.3	Train pilot staff users (and setup new processes)	100%	Mon 5/4/20	Fri 5/8/20	Fri 9/18/20	Fri 9/18/20	0 days	133SS	Fri 9/18/20	Fri 9/18/20	93 days	Vendor Project Team, IT Spec I, ITA, Sergeant, Officer
144	1.2.14.2.4	Fix issues in the pilot system (change processes)	90%	Mon 5/11/20	Fri 5/15/20	Fri 11/6/20	Fri 12/4/20	18 days	142	Fri 11/6/20	NA	140 days	Vendor Project Team
145	1.2.14.2.5	Field Test without errors	0%	Mon 5/18/20	Fri 5/29/20	Mon 12/7/20	Fri 12/18/20	10 days	144	NA	NA	141 days	Sergeant, Officer
146	1.2.14.2.6	Burn-in Period	0%	Mon 6/1/20	Fri 6/19/20	Mon 12/21/20	Tue 1/12/21	15 days	145	NA	NA	141 days	Sergeant, Officer
147	1.2.14.2.7	Accept Piloted system	0%	Mon 6/22/20	Mon 6/22/20	Wed 1/13/21	Wed 1/13/21	1 day	146	NA	NA	141 days	Sergeant, Officer
148	**1.2.15**	**Command Center Enhancements**	**48%**	**NA**	**NA**	**Fri 11/6/20**	**Fri 1/29/21**	**55 days**		**Fri 11/6/20**	**NA**	**0 days**	
149	1.2.15.1	COBAN - Software Delivery	65%	NA	NA	Fri 11/6/20	Fri 1/8/21	41 days		Fri 11/6/20	NA	0 days	Vendor Project Team
150	1.2.15.2	CHP Testing and Acceptance	0%	NA	NA	Mon 1/11/21	Fri 1/29/21	14 days	149	NA	NA	0 days	IT Spec I, ITA, Sergeant, Officer
151	1.2.16	Go/No Go Rollout	0%	Tue 6/23/20	Mon 6/29/20	Thu 1/14/21	Thu 1/21/21	5 days	147,106	NA	NA	141 days	ITM I, Vendor PM
152	**1.2.17**	**Purchase Orders**	**99%**	**Fri 12/20/19**	**Fri 9/18/20**	**Wed 6/3/20**	**Fri 9/18/20**	**77 days**		**Wed 6/3/20**	**NA**	**0 days**	
153	1.2.17.1	Purchase Order - Phase 2	100%	Fri 12/20/19	Fri 12/20/19	Wed 6/3/20	Tue 6/23/20	15 days		Wed 6/3/20	Tue 6/23/20	126 days	ITM I, IT Spec I
154	1.2.17.2	Purchase Order - Phase 3	90%	Fri 9/18/20	Fri 9/18/20	Fri 9/18/20	Fri 9/18/20	1 day		Fri 9/18/20	NA	0 days	ITM I, IT Spec I
155	**1.2.18**	**Rollout and Train Eight (8) Divisions and Headquarters (HQ)**	**1%**	**NA**	**NA**	**Thu 10/1/20**	**Wed 11/30/22**	**544 days**		**Thu 10/1/20**	**NA**	**0 days**	
156	1.2.18.1	New Build	0%	NA	NA	Thu 10/1/20	Tue 11/29/22	543 days		NA	NA	0 days	Sergeant, Officer, 2 Auto Tech
157	**1.2.18.2**	**Rollout Phase 1 (Wiring, Antenna, Preparation Work)**	**6%**	**NA**	**NA**	**Thu 10/1/20**	**Thu 4/8/21**	**129 days**		**Thu 10/1/20**	**NA**	**0 days**	
158	**1.2.18.2.1**	**Northern Division**	**9%**	**NA**	**NA**	**Thu 10/1/20**	**Thu 4/8/21**	**129 days**		**Thu 10/1/20**	**NA**	**0 days**	
159	1.2.18.2.1.1	101 Northern Division Office	0%	NA	NA	Thu 4/1/21	Thu 4/8/21	6 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
160	1.2.18.2.1.2	120 Crescent City	0%	NA	NA	Mon 12/7/20	Tue 12/8/20	2 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
161	1.2.18.2.1.3	125 Humboldt	0%	NA	NA	Mon 3/22/21	Thu 3/25/21	4 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
162	1.2.18.2.1.4	126 Garberville	0%	NA	NA	Mon 12/14/20	Wed 12/16/20	3 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
163	1.2.18.2.1.5	130 Red Bluff	83%	NA	NA	Mon 11/9/20	Thu 11/12/20	3 days		Mon 11/9/20	NA	0 days	4 Officers, Sergeant, 2 ITA
164	1.2.18.2.1.6	135 Redding (Communications Center)	0%	NA	NA	Mon 4/5/21	Thu 4/8/21	4 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
165	1.2.18.2.1.7	140 Susanville (Communications Center)	0%	NA	NA	Mon 4/5/21	Thu 4/8/21	4 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
166	1.2.18.2.1.8	145 Yreka (Communications Center)	0%	NA	NA	Mon 4/5/21	Thu 4/8/21	4 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
167	1.2.18.2.1.9	146 Mount Shasta	0%	NA	NA	Tue 4/6/21	Thu 4/8/21	3 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
168	1.2.18.2.1.10	150 Ukiah (Communications Center)	0%	NA	NA	Wed 12/2/20	Fri 12/4/20	3 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
169	1.2.18.2.1.11	153 Clear Lake	0%	NA	NA	Mon 11/30/20	Tue 12/1/20	2 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
170	1.2.18.2.1.12	155 Williams	0%	NA	NA	Thu 11/19/20	Fri 11/20/20	2 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
171	1.2.18.2.1.13	160 Willows	100%	NA	NA	Thu 10/1/20	Fri 10/2/20	2 days		Thu 10/1/20	Fri 10/2/20	0 days	4 Officers, Sergeant, 2 ITA
172	1.2.18.2.1.14	165 Quincy	0%	NA	NA	Mon 4/5/21	Thu 4/8/21	4 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
173	1.2.18.2.1.15	170 Alturas	0%	NA	NA	Wed 4/7/21	Thu 4/8/21	2 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
174	1.2.18.2.1.16	175 Trinity River	0%	NA	NA	Wed 4/7/21	Thu 4/8/21	2 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
175	**1.2.18.2.2**	**Valley Division**	**13%**	**NA**	**NA**	**Mon 11/9/20**	**Thu 4/8/21**	**102 days**		**Mon 11/9/20**	**NA**	**0 days**	
176	1.2.18.2.2.1	HQ/Academy/Capitol	0%	NA	NA	Tue 12/15/20	Fri 3/19/21	65 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
177	1.2.18.2.2.2	201 Valley Division Office	50%	NA	NA	Tue 11/17/20	Tue 11/24/20	6 days		Tue 11/17/20	NA	0 days	4 Officers, Sergeant, 2 ITA
178	1.2.18.2.2.3	220 Auburn	14%	NA	NA	Mon 11/30/20	Thu 12/3/20	4 days		Mon 11/30/20	NA	0 days	4 Officers, Sergeant, 2 ITA
179	1.2.18.2.2.4	221 Gold Run	0%	NA	NA	Tue 4/6/21	Thu 4/8/21	3 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
180	1.2.18.2.2.5	222 Truckee (Communications Center)	0%	NA	NA	Mon 4/5/21	Thu 4/8/21	4 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
181	1.2.18.2.2.6	230 Grass Valley	0%	NA	NA	Tue 4/6/21	Thu 4/8/21	3 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
182	1.2.18.2.2.7	240 Oroville	86%	NA	NA	Mon 11/9/20	Tue 11/10/20	2 days		Mon 11/9/20	NA	0 days	4 Officers, Sergeant, 2 ITA
183	1.2.18.2.2.8	241 Chico (Communications Center)	97%	NA	NA	Mon 11/16/20	Wed 11/18/20	3 days		Mon 11/16/20	NA	0 days	4 Officers, Sergeant, 2 ITA

WMVARS Project Schedule

ID	WBS	Task Name	% Complete	Baseline Start	Baseline Finish	Start	Finish	Duration	Predecessors	Actual Start	Actual Finish	Finish Variance	Notes
184	1.2.18.2.2.9	246 South Lake Tahoe	0%	NA	NA	Tue 4/6/21	Thu 4/8/21	3 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
185	1.2.18.2.2.10	250 North Sacramento	0%	NA	NA	Mon 1/4/21	Wed 1/20/21	12 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
186	1.2.18.2.2.11	252 South Sacramento	68%	NA	NA	Tue 3/30/21	Thu 4/8/21	7 days		Tue 3/30/21	NA	0 days	4 Officers, Sergeant, 2 ITA
187	1.2.18.2.2.12	255 San Andreas	100%	NA	NA	Mon 11/30/20	Tue 12/1/20	2 days		Mon 11/30/20	Tue 12/1/20	0 days	4 Officers, Sergeant, 2 ITA
188	1.2.18.2.2.13	265 Stockton (Communications Center)	38%	NA	NA	Tue 2/9/21	Tue 2/16/21	6 days		Tue 2/9/21	NA	0 days	4 Officers, Sergeant, 2 ITA
189	1.2.18.2.2.14	266 Tracy	0%	NA	NA	Thu 2/18/21	Fri 2/19/21	2 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
190	1.2.18.2.2.15	280 Woodland	0%	NA	NA	Thu 12/10/20	Mon 12/14/20	3 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
191	1.2.18.2.2.16	285 Yuba-Sutter	0%	NA	NA	Wed 4/7/21	Thu 4/8/21	2 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
192	1.2.18.2.2.17	295 Amador	0%	NA	NA	Mon 12/7/20	Tue 12/8/20	2 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
193	**1.2.18.2.3**	**Golden Gate Division**	**0%**	**NA**	**NA**	**Mon 1/4/21**	**Thu 4/8/21**	**67 days**		**NA**	**NA**	**0 days**	
194	1.2.18.2.3.1	301 Golden Gate Division Office	0%	NA	NA	Tue 3/2/21	Wed 3/10/21	7 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
195	1.2.18.2.3.2	320 Contra Costa	0%	NA	NA	Tue 3/30/21	Thu 4/8/21	7 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
196	1.2.18.2.3.3	325 Napa	0%	NA	NA	Tue 1/26/21	Fri 1/29/21	4 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
197	1.2.18.2.3.4	330 Redwood City	0%	NA	NA	Tue 1/19/21	Tue 1/26/21	6 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
198	1.2.18.2.3.5	335 San Francisco	0%	NA	NA	Mon 1/4/21	Thu 1/14/21	9 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
199	1.2.18.2.3.6	340 San Jose	0%	NA	NA	Wed 1/27/21	Wed 2/10/21	11 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
200	1.2.18.2.3.7	345 Hayward	0%	NA	NA	Mon 2/22/21	Mon 3/1/21	6 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
201	1.2.18.2.3.8	350 Marin	0%	NA	NA	Mon 1/4/21	Tue 1/12/21	7 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
202	1.2.18.2.3.9	360 Santa Rosa	0%	NA	NA	Wed 1/13/21	Mon 1/25/21	8 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
203	1.2.18.2.3.10	365 Solano	0%	NA	NA	Tue 3/30/21	Thu 4/8/21	7 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
204	1.2.18.2.3.11	370 Oakland	0%	NA	NA	Thu 3/11/21	Mon 3/22/21	8 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
205	1.2.18.2.3.12	375 Castro Valley	0%	NA	NA	Tue 2/16/21	Thu 2/18/21	2 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
206	1.2.18.2.3.13	380 Dublin	0%	NA	NA	Wed 3/24/21	Tue 3/30/21	6 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
207	**1.2.18.2.4**	**Central Division**	**5%**	**NA**	**NA**	**Mon 11/9/20**	**Thu 4/8/21**	**102 days**		**Mon 11/9/20**	**NA**	**0 days**	
208	1.2.18.2.4.1	401 Central Division Office	0%	NA	NA	Tue 2/16/21	Mon 2/22/21	4 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
209	1.2.18.2.4.2	420 Bakersfield (Communications Center)	0%	NA	NA	Wed 3/24/21	Wed 4/7/21	11 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
210	1.2.18.2.4.3	425 Sonora	0%	NA	NA	Mon 12/14/20	Wed 12/16/20	3 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
211	1.2.18.2.4.4	426 Buttonwillow	0%	NA	NA	Wed 4/7/21	Thu 4/8/21	2 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
212	1.2.18.2.4.5	430 Fort Tejon	60%	NA	NA	Mon 11/16/20	Wed 11/18/20	3 days		Mon 11/16/20	NA	0 days	4 Officers, Sergeant, 2 ITA
213	1.2.18.2.4.6	435 Fresno (Communications Center)	0%	NA	NA	Mon 11/30/20	Mon 12/14/20	11 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
214	1.2.18.2.4.7	440 Hanford	40%	NA	NA	Mon 11/9/20	Thu 11/12/20	4 days		Mon 11/9/20	NA	0 days	4 Officers, Sergeant, 2 ITA
215	1.2.18.2.4.8	450 Madera	0%	NA	NA	Mon 12/7/20	Wed 12/9/20	3 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
216	1.2.18.2.4.9	455 Mariposa	0%	NA	NA	Thu 3/25/21	Fri 3/26/21	2 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
217	1.2.18.2.4.10	456 Oakhurst	0%	NA	NA	Mon 2/1/21	Tue 2/2/21	2 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
218	1.2.18.2.4.11	460 Merced (Communications Center)	0%	NA	NA	Tue 12/15/20	Mon 1/4/21	13 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
219	1.2.18.2.4.12	461 Los Banos	0%	NA	NA	Thu 12/10/20	Mon 12/14/20	3 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
220	1.2.18.2.4.13	465 Modesto	0%	NA	NA	Mon 2/1/21	Mon 2/8/21	6 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
221	1.2.18.2.4.14	480 Visalia	0%	NA	NA	Tue 4/6/21	Thu 4/8/21	3 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
222	1.2.18.2.4.15	481 Porterville	0%	NA	NA	Mon 4/5/21	Thu 4/8/21	4 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
223	1.2.18.2.4.16	495 Coalinga	100%	NA	NA	Mon 11/16/20	Wed 11/18/20	3 days		Mon 11/16/20	NA	0 days	4 Officers, Sergeant, 2 ITA
224	**1.2.18.2.5**	**Southern Division**	**2%**	**NA**	**NA**	**Thu 11/19/20**	**Thu 4/8/21**	**95 days**		**Thu 11/19/20**	**NA**	**0 days**	
225	1.2.18.2.5.1	501 Southern Division Office	0%	NA	NA	Mon 3/22/21	Tue 3/23/21	2 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
226	1.2.18.2.5.2	525 Baldwin Park	0%	NA	NA	Fri 3/26/21	Wed 4/7/21	9 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
227	1.2.18.2.5.3	530 South Los Angeles	0%	NA	NA	Wed 1/20/21	Fri 2/5/21	13 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
228	1.2.18.2.5.4	535 East Los Angeles	0%	NA	NA	Mon 1/4/21	Tue 1/19/21	11 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
229	1.2.18.2.5.5	540 Newhall	0%	NA	NA	Mon 12/14/20	Wed 1/6/21	16 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
230	1.2.18.2.5.6	545 Antelope Valley	58%	NA	NA	Thu 11/19/20	Tue 11/24/20	4 days		Thu 11/19/20	NA	0 days	4 Officers, Sergeant, 2 ITA
231	1.2.18.2.5.7	550 Santa Fe Springs	0%	NA	NA	Mon 2/8/21	Mon 2/22/21	10 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
232	1.2.18.2.5.8	565 West Los Angeles	0%	NA	NA	Mon 3/29/21	Thu 4/8/21	8 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
233	1.2.18.2.5.9	575 Altadena	0%	NA	NA	Mon 12/7/20	Wed 12/16/20	8 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
234	1.2.18.2.5.10	580 West Valley	0%	NA	NA	Wed 3/24/21	Tue 4/6/21	10 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
235	1.2.18.2.5.11	590 Central Los Angeles	0%	NA	NA	Mon 2/1/21	Tue 2/16/21	12 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
236	**1.2.18.2.6**	**Border Division**	**2%**	**NA**	**NA**	**Tue 12/15/20**	**Thu 4/8/21**	**79 days**		**Tue 12/15/20**	**NA**	**0 days**	
237	1.2.18.2.6.1	601 Border Division Office	0%	NA	NA	Mon 3/15/21	Fri 3/19/21	5 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
238	1.2.18.2.6.2	620 Winterhaven	0%	NA	NA	Wed 4/7/21	Thu 4/8/21	2 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
239	1.2.18.2.6.3	625 El Centro (Communications Center)	44%	NA	NA	Mon 4/5/21	Thu 4/8/21	4 days		Mon 4/5/21	NA	0 days	4 Officers, Sergeant, 2 ITA
240	1.2.18.2.6.4	630 Indio (Communications Center)	0%	NA	NA	Thu 12/17/20	Tue 1/5/21	12 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
241	1.2.18.2.6.5	645 San Diego	0%	NA	NA	Tue 1/12/21	Fri 1/29/21	13 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
242	1.2.18.2.6.6	650 Oceanside	0%	NA	NA	Fri 4/2/21	Thu 4/8/21	5 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
243	1.2.18.2.6.7	655 San Gorgonio Pass	0%	NA	NA	Fri 4/2/21	Thu 4/8/21	5 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
244	1.2.18.2.6.8	660 Blythe	0%	NA	NA	Tue 12/15/20	Wed 12/16/20	2 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
245	1.2.18.2.6.9	670 Westminster	0%	NA	NA	Wed 3/17/21	Fri 3/26/21	8 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
246	1.2.18.2.6.10	675 Santa Ana	0%	NA	NA	Mon 3/1/21	Fri 3/12/21	10 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
247	1.2.18.2.6.11	680 El Cajon	0%	NA	NA	Mon 3/29/21	Thu 4/8/21	8 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
248	1.2.18.2.6.12	685 Temecula	0%	NA	NA	Mon 1/4/21	Mon 1/11/21	6 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
249	1.2.18.2.6.13	690 Capistrano	0%	NA	NA	Mon 4/5/21	Thu 4/8/21	4 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
250	**1.2.18.2.7**	**Coastal Division**	**0%**	**NA**	**NA**	**Mon 1/4/21**	**Wed 4/7/21**	**68 days**		**NA**	**NA**	**0 days**	
251	1.2.18.2.7.1	701 Costal Division Office	0%	NA	NA	Mon 2/1/21	Tue 2/2/21	2 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
252	1.2.18.2.7.2	720 Santa Cruz	0%	NA	NA	Tue 1/19/21	Tue 1/26/21	6 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
253	1.2.18.2.7.3	725 Hollister-Gilroy	0%	NA	NA	Mon 1/4/21	Fri 1/8/21	5 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
254	1.2.18.2.7.4	730 Monterey (Communications Center)	0%	NA	NA	Mon 1/11/21	Tue 1/19/21	6 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
255	1.2.18.2.7.5	735 King City	0%	NA	NA	Tue 3/23/21	Wed 3/24/21	2 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
256	1.2.18.2.7.6	740 Templeton	0%	NA	NA	Wed 1/27/21	Fri 1/29/21	3 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
257	1.2.18.2.7.7	745 San Luis Obispo (Communications Center)	0%	NA	NA	Wed 2/3/21	Fri 2/5/21	3 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
258	1.2.18.2.7.8	750 Santa Maria	0%	NA	NA	Mon 2/8/21	Tue 2/9/21	2 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
259	1.2.18.2.7.9	755 Buellton	0%	NA	NA	Wed 2/10/21	Thu 2/11/21	2 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
260	1.2.18.2.7.10	760 Santa Barbara	0%	NA	NA	Mon 2/22/21	Fri 2/26/21	5 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
261	1.2.18.2.7.11	765 Ventura (Communications Center)	0%	NA	NA	Tue 3/30/21	Wed 4/7/21	6 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
262	1.2.18.2.7.12	770 Moorpark	0%	NA	NA	Tue 2/16/21	Fri 2/19/21	3 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
263	**1.2.18.2.8**	**Inland Division**	**13%**	**NA**	**NA**	**Fri 11/13/20**	**Thu 4/8/21**	**99 days**		**Fri 11/13/20**	**NA**	**0 days**	
264	1.2.18.2.8.1	801 Inland Division Office	0%	NA	NA	Fri 2/19/21	Mon 3/1/21	7 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
265	1.2.18.2.8.2	820 Ridgecrest	0%	NA	NA	Fri 4/2/21	Thu 4/8/21	5 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
266	1.2.18.2.8.3	825 Bishop (Communications Center)	0%	NA	NA	Fri 4/2/21	Thu 4/8/21	5 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
267	1.2.18.2.8.4	830 Mojave	0%	NA	NA	Tue 4/6/21	Thu 4/8/21	3 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
268	1.2.18.2.8.5	834 Needles	100%	NA	NA	Fri 11/13/20	Tue 11/17/20	3 days		Fri 11/13/20	Tue 11/17/20	0 days	4 Officers, Sergeant, 2 ITA
269	1.2.18.2.8.6	835 Barstow (Communications Center)	56%	NA	NA	Tue 12/1/20	Tue 12/8/20	6 days		Tue 12/1/20	NA	0 days	4 Officers, Sergeant, 2 ITA
270	1.2.18.2.8.7	840 Riverside	19%	NA	NA	Tue 12/1/20	Mon 12/14/20	10 days		Tue 12/1/20	NA	0 days	4 Officers, Sergeant, 2 ITA
271	1.2.18.2.8.8	850 Victorville	0%	NA	NA	Tue 1/19/21	Thu 1/21/21	3 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
272	1.2.18.2.8.9	855 Rancho Cucamonga	0%	NA	NA	Thu 4/1/21	Thu 4/8/21	6 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
273	1.2.18.2.8.10	860 San Bernardino	0%	NA	NA	Mon 2/8/21	Thu 2/18/21	8 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
274	1.2.18.2.8.11	865 Arrowhead	0%	NA	NA	Mon 4/5/21	Wed 4/7/21	3 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
275	1.2.18.2.8.12	870 Morongo Basin	0%	NA	NA	Wed 4/7/21	Thu 4/8/21	2 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
276	1.2.18.2.8.13	875 Mountain Pass Enforcement Facility	0%	NA	NA	Mon 11/30/20	Mon 11/30/20	1 day		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
277	**1.2.18.3**	**Rollout Phase 2 (Brackets, H1 Hardware, Modem, Connect Wires)**	**0%**	**NA**	**NA**	**Mon 1/25/21**	**Wed 11/30/22**	**468 days**		**NA**	**NA**	**0 days**	
278	1.2.18.3.1	2021 Phase 1 Verification of Prewired Vehicles	0%	NA	NA	Thu 4/1/21	Mon 8/2/21	87 days		NA	NA	0 days	

WMVARS Project Schedule

ID	WBS	Task Name	% Complete	Baseline Start	Baseline Finish	Start	Finish	Duration	Predecessors	Actual Start	Actual Finish	Finish Variance	Notes
279	1.2.18.3.1.1	Verify and prewire identified vehicles	0%	NA	NA	Thu 4/1/21	Mon 8/2/21	87 days		NA	NA	0 days	4 Officers, Sergeant, 2 ITA
280	**1.2.18.3.2**	**Northern Division**	**0%**	**NA**	**NA**	**Mon 3/29/21**	**Mon 6/28/21**	**64 days**		**NA**	**NA**	**0 days**	
281	1.2.18.3.2.1	Division User and Fleet Training	0%	NA	NA	Mon 3/29/21	Fri 4/2/21	4 days	279	NA	NA	0 days	Vendor Project Team, Sergeant, Officer, Auto Tech
282	1.2.18.3.2.2	101 Northern Division Office	0%	NA	NA	Mon 4/5/21	Mon 6/28/21	12 wks	281	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
283	1.2.18.3.2.3	120 Crescent City**	0%	NA	NA	Mon 4/5/21	Fri 5/14/21	6 wks	281	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
284	1.2.18.3.2.4	125 Humboldt	0%	NA	NA	Mon 4/5/21	Fri 5/28/21	8 wks	281	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
285	1.2.18.3.2.5	126 Garberville**	0%	NA	NA	Mon 4/5/21	Fri 5/21/21	7 wks	281	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
286	1.2.18.3.2.6	130 Red Bluff	0%	NA	NA	Mon 4/5/21	Fri 5/14/21	6 wks	281	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
287	1.2.18.3.2.7	135 Redding (Communications Center)	0%	NA	NA	Mon 4/5/21	Fri 5/14/21	6 wks	281	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
288	1.2.18.3.2.8	140 Susanville (Communications Center)	0%	NA	NA	Mon 4/5/21	Mon 6/21/21	11 wks	281	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
289	1.2.18.3.2.9	145 Yreka (Communications Center)	0%	NA	NA	Mon 4/5/21	Mon 6/7/21	9 wks	281	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
290	1.2.18.3.2.10	146 Mt. Shasta**	0%	NA	NA	Mon 4/5/21	Fri 5/21/21	7 wks	281	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
291	1.2.18.3.2.11	150 Ukiah (Communications Center)	0%	NA	NA	Mon 4/5/21	Mon 6/21/21	11 wks	281	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
292	1.2.18.3.2.12	151 Clear Lake	0%	NA	NA	Mon 4/5/21	Fri 5/14/21	6 wks	281	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
293	1.2.18.3.2.13	155 Williams	0%	NA	NA	Mon 4/5/21	Fri 4/16/21	2 wks	281	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
294	1.2.18.3.2.14	160 Willows	0%	NA	NA	Mon 4/5/21	Fri 4/23/21	3 wks	281	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
295	1.2.18.3.2.15	165 Quincy**	0%	NA	NA	Mon 4/5/21	Fri 5/28/21	8 wks	281	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
296	1.2.18.3.2.16	170 Alturas	0%	NA	NA	Mon 4/5/21	Fri 4/30/21	4 wks	281	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
297	1.2.18.3.2.17	175 Trinity River**	0%	NA	NA	Mon 4/5/21	Fri 4/30/21	4 wks	281	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
298	**1.2.18.3.3**	**Valley Division**	**0%**	**NA**	**NA**	**Mon 1/25/21**	**Fri 5/28/21**	**89 days**		**NA**	**NA**	**137 days**	
299	1.2.18.3.3.1	Division User and Fleet Training	0%	NA	NA	Mon 1/25/21	Fri 1/29/21	1 wk		NA	NA	0 days	Vendor Project Team, Sergeant, Officer, Auto Tech
300	1.2.18.3.3.2	HQ/Academy/Capitol	0%	NA	NA	Mon 3/15/21	Fri 3/19/21	1 wk	351	NA	NA	166 days	Sergeant, Officer, ITA, Auto Tech
301	1.2.18.3.3.3	201 Valley Division Office	0%	NA	NA	Tue 2/2/21	Fri 5/28/21	16.6 wks	299	NA	NA	206 days	Sergeant, Officer, ITA, Auto Tech
302	1.2.18.3.3.4	220 Auburn	0%	NA	NA	Mon 2/1/21	Mon 3/15/21	6 wks	299	NA	NA	61 days	Sergeant, Officer, ITA, Auto Tech
303	1.2.18.3.3.5	221 Gold Run**	0%	NA	NA	Mon 2/1/21	Mon 3/22/21	7 wks	299	NA	NA	147 days	Sergeant, Officer, ITA, Auto Tech
304	1.2.18.3.3.6	222 Truckee (Communications Center)	0%	NA	NA	Tue 2/2/21	Fri 4/30/21	12.6 wks	299	NA	NA	186 days	Sergeant, Officer, ITA, Auto Tech
305	1.2.18.3.3.7	230 Grass Valley	0%	NA	NA	Mon 2/1/21	Mon 3/8/21	5 wks	299	NA	NA	147 days	Sergeant, Officer, ITA, Auto Tech
306	1.2.18.3.3.8	240 Oroville	0%	NA	NA	Mon 2/1/21	Fri 3/19/21	6.8 wks	299	NA	NA	156 days	Sergeant, Officer, ITA, Auto Tech
307	1.2.18.3.3.9	241 Chico (Communications Center)	0%	NA	NA	Tue 2/2/21	Fri 4/16/21	10.6 wks	299	NA	NA	176 days	Sergeant, Officer, ITA, Auto Tech
308	1.2.18.3.3.10	246 South Lake Tahoe	0%	NA	NA	Mon 2/1/21	Fri 3/19/21	6.8 wks	299	NA	NA	156 days	Sergeant, Officer, ITA, Auto Tech
309	1.2.18.3.3.11	250 North Sacramento	0%	NA	NA	Tue 2/2/21	Fri 5/21/21	15.6 wks	299	NA	NA	172 days	Sergeant, Officer, ITA, Auto Tech
310	1.2.18.3.3.12	252 South Sacramento	0%	NA	NA	Mon 2/1/21	Mon 4/26/21	12 wks	299	NA	NA	133 days	Sergeant, Officer, ITA, Auto Tech
311	1.2.18.3.3.13	255 San Andreas	0%	NA	NA	Mon 2/1/21	Fri 3/19/21	6.8 wks	299	NA	NA	156 days	Sergeant, Officer, ITA, Auto Tech
312	1.2.18.3.3.14	265 Stockton (Communications Center)	0%	NA	NA	Mon 2/1/21	Mon 3/22/21	7 wks	299	NA	NA	82 days	Sergeant, Officer, ITA, Auto Tech
313	1.2.18.3.3.15	266 Tracy	0%	NA	NA	Mon 2/1/21	Mon 2/22/21	3 wks	299	NA	NA	137 days	Sergeant, Officer, ITA, Auto Tech
314	1.2.18.3.3.16	280 Woodland	0%	NA	NA	Mon 2/1/21	Mon 3/8/21	5 wks	299	NA	NA	147 days	Sergeant, Officer, ITA, Auto Tech
315	1.2.18.3.3.17	285 Yuba-Sutter	0%	NA	NA	Mon 2/1/21	Mon 4/5/21	9 wks	299	NA	NA	167 days	Sergeant, Officer, ITA, Auto Tech
316	1.2.18.3.3.18	295 Amador	0%	NA	NA	Mon 2/1/21	Mon 4/5/21	9 wks	299	NA	NA	167 days	Sergeant, Officer, ITA, Auto Tech
317	**1.2.18.3.4**	**Golden Gate Division**	**0%**	**NA**	**NA**	**Mon 2/22/21**	**Mon 7/5/21**	**95 days**		**NA**	**NA**	**0 days**	
318	1.2.18.3.4.1	Division User and Fleet Training	0%	NA	NA	Mon 1/22/21	Fri 2/26/21	1 wk	354	NA	NA	0 days	Vendor Project Team, Sergeant, Officer, Auto Tech
319	1.2.18.3.4.2	301 Golden Gate Division Office	0%	NA	NA	Mon 3/1/21	Mon 6/7/21	14 wks	318	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
320	1.2.18.3.4.3	320 Contra Costa	0%	NA	NA	Mon 3/1/21	Fri 5/21/21	12 wks	318	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
321	1.2.18.3.4.4	325 Napa	0%	NA	NA	Mon 3/1/21	Fri 4/23/21	8 wks	318	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
322	1.2.18.3.4.5	330 Redwood City	0%	NA	NA	Mon 3/1/21	Fri 4/30/21	9 wks	318	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
323	1.2.18.3.4.6	335 San Francisco	0%	NA	NA	Mon 3/1/21	Fri 5/28/21	13 wks	318	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
324	1.2.18.3.4.7	340 San Jose	0%	NA	NA	Mon 3/1/21	Fri 5/21/21	12 wks	318	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
325	1.2.18.3.4.8	345 Hayward	0%	NA	NA	Mon 3/1/21	Fri 5/7/21	10 wks	318	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
326	1.2.18.3.4.9	350 Marin	0%	NA	NA	Mon 3/1/21	Fri 5/14/21	11 wks	318	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
327	1.2.18.3.4.10	360 Santa Rosa	0%	NA	NA	Mon 3/1/21	Mon 7/5/21	18 wks	318	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
328	1.2.18.3.4.11	365 Solano	0%	NA	NA	Mon 3/1/21	Fri 4/30/21	9 wks	318	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
329	1.2.18.3.4.12	370 Oakland	0%	NA	NA	Mon 3/1/21	Mon 6/14/21	15 wks	318	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
330	1.2.18.3.4.13	375 Castro Valley	0%	NA	NA	Mon 3/1/21	Fri 4/30/21	9 wks	318	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
331	1.2.18.3.4.14	390 Dublin	0%	NA	NA	Mon 3/1/21	Fri 4/23/21	8 wks	318	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
332	**1.2.18.3.5**	**Central Division**	**0%**	**NA**	**NA**	**Mon 2/1/21**	**Tue 6/22/21**	**100 days**		**NA**	**NA**	**0 days**	
333	1.2.18.3.5.1	Division User and Fleet Training	0%	NA	NA	Mon 2/1/21	Fri 2/5/21	1 wk	299	NA	NA	0 days	Vendor Project Team, Sergeant, Officer, Auto Tech
334	1.2.18.3.5.2	401 Central Division Office	0%	NA	NA	Mon 2/8/21	Tue 6/22/21	19 wks	333	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
335	1.2.18.3.5.3	420 Bakersfield (Communications Center)	0%	NA	NA	Mon 2/8/21	Mon 5/3/21	12 wks	333	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
336	1.2.18.3.5.4	425 Sonora	0%	NA	NA	Mon 2/8/21	Mon 5/3/21	12 wks	333	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
337	1.2.18.3.5.5	426 Buttonwillow**	0%	NA	NA	Mon 2/8/21	Fri 2/12/21	1 wk	333	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
338	1.2.18.3.5.6	430 Fort Tejon	0%	NA	NA	Mon 2/8/21	Mon 2/22/21	2 wks	333	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
339	1.2.18.3.5.7	435 Fresno (Communications Center)	0%	NA	NA	Mon 2/8/21	Mon 5/10/21	13 wks	333	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
340	1.2.18.3.5.8	440 Hanford	0%	NA	NA	Mon 2/8/21	Mon 3/8/21	4 wks	333	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
341	1.2.18.3.5.9	450 Madera	0%	NA	NA	Mon 2/8/21	Mon 3/8/21	4 wks	333	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
342	1.2.18.3.5.10	455 Mariposa	0%	NA	NA	Mon 2/8/21	Mon 2/22/21	2 wks	333	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
343	1.2.18.3.5.11	456 Oakhurst	0%	NA	NA	Mon 2/8/21	Mon 3/1/21	3 wks	333	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
344	1.2.18.3.5.12	460 Merced (Communications Center)	0%	NA	NA	Mon 2/8/21	Sat 3/27/21	7 wks	333	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
345	1.2.18.3.5.13	461 Los Banos	0%	NA	NA	Mon 2/8/21	Sat 3/27/21	7 wks	333	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
346	1.2.18.3.5.14	465 Modesto	0%	NA	NA	Mon 2/8/21	Tue 6/15/21	18 wks	333	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
347	1.2.18.3.5.15	480 Visalia	0%	NA	NA	Mon 2/8/21	Mon 3/15/21	5 wks	333	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
348	1.2.18.3.5.16	481 Porterville	0%	NA	NA	Mon 2/8/21	Mon 4/19/21	10 wks	333	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
349	1.2.18.3.5.17	495 Coalinga	0%	NA	NA	Mon 2/8/21	Mon 4/12/21	9 wks	333	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
350	**1.2.18.3.6**	**Southern Division**	**0%**	**NA**	**NA**	**Mon 3/8/21**	**Mon 8/23/21**	**120 days**		**NA**	**NA**	**30 days**	
351	1.2.18.3.6.1	Division User and Fleet Training	0%	NA	NA	Mon 3/8/21	Fri 3/12/21	1 wk	364	NA	NA	0 days	Vendor Project Team, Sergeant, Officer, Auto Tech
352	1.2.18.3.6.2	501 Southern Division Office	0%	NA	NA	Mon 3/15/21	Mon 8/23/21	23 wks	351	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
353	1.2.18.3.6.3	525 Baldwin Park	0%	NA	NA	Mon 3/15/21	Mon 8/2/21	20 wks	351	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
354	1.2.18.3.6.4	530 South Los Angeles	0%	NA	NA	Mon 3/15/21	Mon 7/19/21	18 wks	351	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
355	1.2.18.3.6.5	535 East Los Angeles	0%	NA	NA	Mon 3/15/21	Mon 6/28/21	15 wks	351	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
356	1.2.18.3.6.6	540 Newhall	0%	NA	NA	Mon 3/15/21	Mon 8/9/21	21 wks	351	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
357	1.2.18.3.6.7	545 Antelope Valley	0%	NA	NA	Mon 3/15/21	Fri 5/14/21	9 wks	351	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
358	1.2.18.3.6.8	550 Santa Fe Springs	0%	NA	NA	Mon 3/15/21	Mon 7/5/21	16 wks	351	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
359	1.2.18.3.6.9	565 West Los Angeles	0%	NA	NA	Mon 3/15/21	Mon 6/21/21	14 wks	351	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
360	1.2.18.3.6.10	575 Altadena	0%	NA	NA	Mon 3/15/21	Mon 7/12/21	17 wks	351	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
361	1.2.18.3.6.11	580 West Valley	0%	NA	NA	Mon 3/15/21	Mon 7/19/21	18 wks	351	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
362	1.2.18.3.6.12	590 Central Los Angeles	0%	NA	NA	Mon 3/15/21	Mon 7/26/21	19 wks	351	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
363	**1.2.18.3.7**	**Border Division**	**0%**	**NA**	**NA**	**Mon 3/1/21**	**Mon 7/26/21**	**105 days**		**NA**	**NA**	**0 days**	
364	1.2.18.3.7.1	Division User and Fleet Training	0%	NA	NA	Mon 3/1/21	Fri 3/5/21	1 wk	318	NA	NA	0 days	Vendor Project Team, Sergeant, Officer, Auto Tech
365	1.2.18.3.7.2	601 Border Division Office	0%	NA	NA	Mon 3/8/21	Fri 5/21/21	11 wks	364	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
366	1.2.18.3.7.3	620 Winterhaven**	0%	NA	NA	Mon 3/8/21	Fri 4/9/21	5 wks	364	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
367	1.2.18.3.7.4	625 El Centro (Communications Center)	0%	NA	NA	Mon 3/8/21	Fri 4/23/21	7 wks	364	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
368	1.2.18.3.7.5	630 Indio** (Communications Center)	0%	NA	NA	Mon 3/8/21	Fri 5/21/21	11 wks	364	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
369	1.2.18.3.7.6	645 San Diego	0%	NA	NA	Mon 3/8/21	Mon 7/26/21	20 wks	364	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
370	1.2.18.3.7.7	650 Oceanside	0%	NA	NA	Mon 3/8/21	Fri 4/30/21	8 wks	364	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
371	1.2.18.3.7.8	655 San Gorgonio Pass	0%	NA	NA	Mon 3/8/21	Mon 6/21/21	15 wks	364	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
372	1.2.18.3.7.9	660 Blythe	0%	NA	NA	Mon 3/8/21	Fri 4/9/21	5 wks	364	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
373	1.2.18.3.7.10	670 Westminster	0%	NA	NA	Mon 3/8/21	Fri 5/14/21	10 wks	364	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
374	1.2.18.3.7.11	675 Santa Ana	0%	NA	NA	Mon 3/8/21	Mon 6/7/21	13 wks	364	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech

WMVARS Project Schedule

ID	WBS	Task Name	% Complete	Baseline Start	Baseline Finish	Start	Finish	Duration	Predecessors	Actual Start	Actual Finish	Finish Variance	Notes
376	1.2.18.3.7.12	680 El Cajon	0%	NA	NA	Mon 3/8/21	Mon 6/28/21	16 wks	364	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
376	1.2.18.3.7.13	685 Temecula	0%	NA	NA	Mon 3/8/21	Fri 4/30/21	8 wks	364	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
377	1.2.18.3.7.14	690 Capistrano	0%	NA	NA	Mon 3/8/21	Fri 4/30/21	8 wks	364	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
378	**1.2.18.3.8**	**Coastal Division**	**0%**	**NA**	**NA**	**Mon 3/22/21**	**Mon 6/28/21**	**70 days**		**NA**	**NA**	**0 days**	
379	1.2.18.3.8.1	Division User and Fleet Training	0%	NA	NA	Mon 3/22/21	Fri 3/26/21	1 wk	351	NA	NA	0 days	Vendor Project Team, Sergeant, Officer, Auto Tech
380	1.2.18.3.8.2	701 Costal Division Office	0%	NA	NA	Mon 3/29/21	Mon 5/24/21	8 wks	379	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
381	1.2.18.3.8.3	720 Santa Cruz	0%	NA	NA	Mon 3/29/21	Mon 5/3/21	5 wks	379	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
382	1.2.18.3.8.4	725 Hollister-Gilroy**	0%	NA	NA	Sat 3/27/21	Mon 6/28/21	13 wks	379	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
383	1.2.18.3.8.5	730 Monterey (Communications Center)	0%	NA	NA	Mon 3/29/21	Mon 5/10/21	6 wks	379	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
384	1.2.18.3.8.6	735 King City	0%	NA	NA	Mon 3/29/21	Mon 4/5/21	1 wk	379	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
385	1.2.18.3.8.7	740 Templeton	0%	NA	NA	Mon 3/29/21	Tue 6/8/21	10 wks	379	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
386	1.2.18.3.8.8	745 San Luis Obispo (Communications Center)	0%	NA	NA	Mon 3/29/21	Mon 4/12/21	2 wks	379	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
387	1.2.18.3.8.9	750 Santa Maria	0%	NA	NA	Mon 3/29/21	Mon 4/19/21	3 wks	379	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
388	1.2.18.3.8.10	755 Buellton**	0%	NA	NA	Sat 3/27/21	Fri 4/16/21	3 wks	379	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
389	1.2.18.3.8.11	760 Santa Barbara	0%	NA	NA	Mon 3/29/21	Mon 4/19/21	3 wks	379	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
390	1.2.18.3.8.12	740 Ventura (Communicatinns Center)	0%	NA	NA	Mon 3/29/21	Tue 6/15/21	11 wks	379	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
391	1.2.18.3.8.13	770 Moorpark**	0%	NA	NA	Sat 3/27/21	Fri 4/23/21	4 wks	379	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
392	1.2.18.3.8.14	771 Conejo Enforcement Facility	0%	NA	NA	Fri 3/26/21	Fri 3/26/21	1 day		NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
393	**1.2.18.3.9**	**Inland Division**	**0%**	**NA**	**NA**	**Mon 2/8/21**	**Tue 6/29/21**	**100 days**		**NA**	**NA**	**0 days**	
394	1.2.18.3.9.1	Division User and Fleet Training	0%	NA	NA	Mon 2/8/21	Fri 2/12/21	1 wk	333	NA	NA	0 days	Vendor Project Team, Sergeant, Officer, Auto Tech
395	1.2.18.3.9.2	801 Inland Division Office	0%	NA	NA	Mon 2/15/21	Mon 5/24/21	14 wks	394	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
396	1.2.18.3.9.3	820 Bridgeport**	0%	NA	NA	Mon 2/15/21	Tue 6/1/21	15 wks	394	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
397	1.2.18.3.9.4	825 Bishop** (Communications Center)	0%	NA	NA	Mon 2/15/21	Tue 6/1/21	15 wks	394	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
398	1.2.18.3.9.5	830 Mojave	0%	NA	NA	Mon 2/15/21	Mon 3/22/21	5 wks	394	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
399	1.2.18.3.9.6	834 Needles**	0%	NA	NA	Mon 2/15/21	Mon 3/22/21	1 wk	394	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
400	1.2.18.3.9.7	835 Barstow** (Communications Center)	0%	NA	NA	Mon 2/15/21	Tue 6/29/21	19 wks	394	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
401	1.2.18.3.9.8	840 Riverside	0%	NA	NA	Mon 2/15/21	Tue 6/29/21	19 wks	394	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
402	1.2.18.3.9.9	850 Victorville	0%	NA	NA	Mon 2/15/21	Mon 4/12/21	8 wks	394	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
403	1.2.18.3.9.10	855 Rancho Cucamonga	0%	NA	NA	Mon 2/15/21	Tue 6/8/21	16 wks	394	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
404	1.2.18.3.9.11	860 San Bernardino	0%	NA	NA	Mon 2/15/21	Mon 5/17/21	13 wks	394	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
405	1.2.18.3.9.12	865 Arrowhead	0%	NA	NA	Mon 2/15/21	Mon 5/3/21	11 wks	394	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
406	1.2.18.3.9.13	870 Morongo Basin	0%	NA	NA	Mon 2/15/21	Mon 3/22/21	5 wks	394	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
407	1.2.18.3.9.14	875 Mountain Pass Enforcement Facility	0%	NA	NA	Mon 2/15/21	Sat 3/27/21	6 wks	394	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
408	**1.2.18.3.10**	**Phase 2 Verification of Retrofit (Quality Control)**	**0%**	**NA**	**NA**	**Fri 10/1/21**	**Thu 4/7/22**	**129 days**		**NA**	**NA**	**0 days**	
409	**1.2.18.3.10.1**	**Northern Division**	**0%**	**NA**	**NA**	**Fri 10/1/21**	**Mon 12/20/21**	**54 days**		**NA**	**NA**	**0 days**	
410	1.2.18.3.10.1.1	Verify and validate retrofitted vehicles equipped with WMVARS	0%	NA	NA	Fri 10/1/21	Mon 12/20/21	54 days		NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
411	**1.2.18.3.10.2**	**Valley Division**	**0%**	**NA**	**NA**	**Fri 10/1/21**	**Fri 4/1/22**	**125 days**		**NA**	**NA**	**0 days**	
412	1.2.18.3.10.2.1	Verify and validate retrofitted vehicles equipped with WMVARS	0%	NA	NA	Fri 10/1/21	Fri 4/1/22	125 days		NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
413	**1.2.18.3.10.3**	**Golden Gate Division**	**0%**	**NA**	**NA**	**Tue 1/4/22**	**Fri 3/11/22**	**47 days**		**NA**	**NA**	**0 days**	
414	1.2.18.3.10.3.1	Verify and validate retrofitted vehicles equipped with WMVARS	0%	NA	NA	Tue 1/4/22	Fri 3/11/22	47 days		NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
415	**1.2.18.3.10.4**	**Central Division**	**0%**	**NA**	**NA**	**Thu 10/21/21**	**Wed 3/16/22**	**100 days**		**NA**	**NA**	**0 days**	
416	1.2.18.3.10.4.1	Verify and validate retrofitted vehicles equipped with WMVARS	0%	NA	NA	Thu 10/21/21	Wed 3/16/22	100 days		NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
417	**1.2.18.3.10.5**	**Southern Division**	**0%**	**NA**	**NA**	**Tue 11/9/21**	**Thu 4/7/22**	**102 days**		**NA**	**NA**	**0 days**	
418	1.2.18.3.10.5.1	Verify and validate retrofitted vehicles equipped with WMVARS	0%	NA	NA	Tue 11/9/21	Thu 4/7/22	102 days		NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
419	**1.2.18.3.10.6**	**Border Division**	**0%**	**NA**	**NA**	**Thu 10/7/21**	**Fri 3/25/22**	**117 days**		**NA**	**NA**	**0 days**	
420	1.2.18.3.10.6.1	Verify and validate retrofitted vehicles equipped with WMVARS	0%	NA	NA	Thu 10/7/21	Fri 3/25/22	117 days		NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
421	**1.2.18.3.10.7**	**Coastal Division**	**0%**	**NA**	**NA**	**Thu 1/27/22**	**Fri 3/18/22**	**36 days**		**NA**	**NA**	**0 days**	
422	1.2.18.3.10.7.1	Verify and validate retrofitted vehicles equipped with WMVARS	0%	NA	NA	Thu 1/27/22	Fri 3/18/22	36 days		NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
423	**1.2.18.3.10.8**	**Inland Division**	**0%**	**NA**	**NA**	**Fri 10/1/21**	**Mon 3/28/22**	**122 days**		**NA**	**NA**	**0 days**	
424	1.2.18.3.10.8.1	Verify and validate retrofitted vehicles equipped with WMVARS	0%	NA	NA	Fri 10/1/21	Mon 3/28/22	122 days		NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
425	**1.2.18.3.11**	**Final Verification (All Divisions)**	**0%**	**NA**	**NA**	**Fri 4/8/22**	**Wed 11/30/22**	**163 days**		**NA**	**NA**	**0 days**	
426	1.2.18.3.11.1	Verify and validate retrofitted and new build vehicles equipped wit	0%	NA	NA	Fri 4/8/22	Wed 11/30/22	163 days	408	NA	NA	0 days	Sergeant, Officer, ITA, Auto Tech
427	1.3	Policy Update/Memorandum	0%	NA	NA	Wed 11/30/22	Wed 11/30/22	0 days		NA	NA	0 days	Sergeant, Officer
428	1.4	Rollout Completion	0%	NA	NA	Wed 11/30/22	Wed 11/30/22	0 days	155	NA	NA	0 days	
429	1.5	**Project Closedown**	**0%**	**Tue 10/26/21**	**Tue 7/26/22**	**Thu 12/15/22**	**Wed 8/30/23**	**180 days**		**NA**	**NA**	**277 days**	
430	1.5.1	Post-Implementation Evaluation Report	0%	Tue 10/26/21	Tue 7/26/22	Thu 12/15/22	Wed 8/30/23	180 days	155FS+2 wks	NA	NA	277 days	ITM I, IT Spec I
431	1.5.2	Project Close	0%	Tue 7/26/22	Tue 7/26/22	Wed 8/30/23	Wed 8/30/23	0 days	430	NA	NA	277 days	ITM I, IT Spec I

Project Management Plan

California Highway Patrol

Wireless Video and Audio Recording System (WMVARS)

VERSION HISTORY

Version #	Date	Author	Key Differences
1	1/3/2019	D. Wanjiru	Original
2	1/14/2019	D. Wanjiru	Incorporated separate plans into the Project Management Plan (PMP)
3	5/8/2019	D. Wanjiru A. Kagiyama	Plan refinement
4	6/19/2019	D. Wanjiru A. Kagiyama	Revised Data Management Section Added Maintenance and Operation (M&O) Transition Plan. Minor clarifications
5	7/11/2019	D. Wanjiru A. Kagiyama	Updated based on comments received in California Department of Technology (CDT) Stage 4 Evaluation Scorecard and critical partner review Updated to reflect change in Project Manager (PM) and separate Technical PM rol
6	7/29/2019	A. Kagiyama	Updated based on second wave of California Department of Technology (CDT) Stage 4 comments.
7	12/11/2019	J. Leymaster H. Pabla	Updated Stakeholder Register
8	1/31/2020	A. Kagiyama	Updated section 4.2.2, Change Control Process, and section 4.3.2, Communications Matrix, and removed section 4.4.5, Configuration Management Plan Components Updated entire document to reference Stakeholder roles as opposed to named individuals. Removed Stakeholder Register section as it will be maintained

Version #	Date	Author	Key Differences
			as a separate document (WMVARS Stakeholder Register).
9	9/16/2020	A. Kagiyama	Updated section 4.3.2, Communication Matrix Updated section 4.8 to clarify governance bodies and removed reference to invalid section Updated section 4.9 to remove original implementation rollout approach and reference Implementation Plan Updated section 4.11 M&O transition task timeframes Revised Section 4.16 to clarify meeting occurrence
10	10/19/2020	A. Kagiyama	Minor grammatical edits throughout Updated section 4.2.3 to clarify PM authority to approve minor change Updated organizational charts in section 4.8. Minor clarification to section 4.16 based on Independent Project Oversight (IPO) feedback Updated section 4.19.1 to include IPO role
11	11/3/20	A. Kagiyama	Updated organizational charts in section 4.8, Governance Management
12	11/19/20	A. Kagiyama	Updated section 4.15.2, Project Staff Estimates

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1 Introduction

This Project Management Plan (PMP) and any subsidiary plans referenced seek to provide readers with a high-level understanding of the project, the scope of the effort, and the project management practices that will be used to manage various aspects of the project.

The Wireless Mobile Video and Audio Recording System (WMVARS) project proposes to replace the existing standalone DVD-based Mobile Video and Audio Recording System with a commercially available, high-resolution recording solution, capable of supporting integrated body worn cameras (BWC), for all officers. The new solution will allow the California Highway Patrol (CHP) to increase in-car usage in enforcement vehicles from 66 percent to 100 percent, including the ability to outfit motorcycles in the future. The project solution will eliminate patrol officer control of in-car data, which will reduce personnel hours expended handling data and increase evidence reliability. Additionally, the new solution will provide an integrated solution for all video evidence captured both via in-car and BWC.

Solution Project Scope

The project scope is limited to the acquisition and implementation of a Commercial Off-The-Shelf (COTS) Software as a Service (SaaS) WMVARS solution, including all hardware and software needed to meet project objectives. The overall solution shall support a direct-to-cloud environment, as well as a hybrid environment, where the solution supports inputs directly from the in-car recording systems and from a temporary local storage appliance from which digital evidence may be uploaded.

To help understand the project scope, the list below contains the major activities:

In Scope
Configuration of the COTS WMVARS
System Functionality Test (SFT)
Field Test at two sites (one on-premise appliance and one direct to cloud location)
Training (Train-the-Trainer, End-User and Installation, and Field Support)
Statewide Rollout

Out of Scope
The CHP to provide supporting network infrastructure
Data migration from existing DVD-based system and BWC system to new WMVARS

2 Approach

2.1 Project Management Approach

The California Department of Technology (CDT) has detailed the State of California policies regarding information technology (IT) project management within the State Administrative Manual (SAM) and the

California Project Management Framework (CA-PMF). The CA-PMF offers guidance and insight on project management methods and approach using resources, tools, and templates. In addition to the CA-PMF, CHP's Information Technology Section (ITS), Project Management Unit (PMU) has developed the CHP Project Management Framework (CHP-PMF) to streamline and tailor the project management framework such that it can be applied easily to CHP IT projects. Together these frameworks support project management practices that conform to industry standards and have been adapted to the context of California State government.

2.2 Assumptions

The following are the critical assumptions for this project:

Assumptions	Descriptions
Strong management engagement	California Highway Patrol senior management will actively support the direction and effort.
Proven methodologies	The project will use the CA-PMF and the CHP-PMF.
Strong user adoption	Users will accept the system when the acceptance test proves the system meets the requirements.
Subject Matter Expert (SME) availability	Resources will be allocated to the project when required.
Project Team empowerment	Project Team members with conflicting operational responsibilities will have a way to resolve conflicting time frames between an operational issue and project deliverable deadlines.

2.3 Constraints

The following triple constraints (scope, time, and cost) have been taken into consideration and identified for this project:

Constraint	Description
Scope	The project scope is limited to the implementation of in-car cameras. The introduction of BWCs to scope will occur if the Research and Planning Section (RPS) confirms the Department direction and funding becomes available.
Time	The schedule factor was chosen as constrained, because current aging hardware will not last beyond the initial projected end date of the project.
Cost	The project funding is limited to the approved Budget Change Proposal (BCP) monies of $52.53 million. A future BCP will be submitted to provide for the maintenance and operation (M&O) costs.

3 Planning Roles and Responsibilities

The Roles and Responsibilities table below identifies participant names, roles, and responsibilities related to key tasks within the Planning Process Phase.

Role	Planning Responsibility
Project Manager (PM) Technical PM	• Prepare all project management documentation and Project Approval Lifecycle (PAL) Stage Gate deliverables
Executive Sponsor	• Review and approve all project management documentation and/or PAL Stage Gate deliverables
Business Sponsor and Owner	• Provide input into project management documentation • Review and approve all project management documentation and/or PAL Stage Gate deliverables
IT Sponsor	• Provide overall direction with regards to technical architecture requirements • Review and approve all project management documentation and/or PAL Stage Gate deliverables
ITS Acquisitions and Project Management Oversight	• Liaison to CDT and the Department of General Services (DGS) • Review and approve all project management documentation and/or PAL Stage Gate deliverables
CHP Contract Manager	• Review and approve overall solicitation approach
DGS Contract Manager	• Assist CHP in developing solicitation package • Conduct solicitation
PAL Manager	• Assist CHP with PAL process • Review and approve all PAL Stage Gate deliverables
SMEs	• Provide input into project scope and requirements

4 Subsidiary Plans

4.1 Business Continuity Plan

Business Continuity is built into the project via the Enterprise Technology Recovery Plan (last updated October 2019). In addition, all business continuity requirements have been incorporated into the solicitation package and specifications.

4.2 Change Control Management

The purpose of the Change Control Management Plan is to document how project changes are to be requested, assessed, approved, monitored, and controlled. This plan defines the Change Control Process (CCP) to standardize the procedures for efficient and prompt handling of all project Change Requests (CR). A formal, repeatable process minimizes risk when introducing change to the project environment and helps preserve quality. The Change Control Management Plan defines the activities,

roles, and responsibilities necessary to effectively and efficiently manage and coordinate the change process.

4.2.1 Approach and Change Control Governance

In the project, the project-level Change Control Committee and the Project Team are one in the same. All change requests will be reviewed by the Project Team, which will include reviewing both technical and business impacts. If consensus cannot be reached, the request will be escalated to the Commanders of the respective groups and/or the Executive Steering Committee (ESC) to provide direction.

4.2.2 Change Control Process

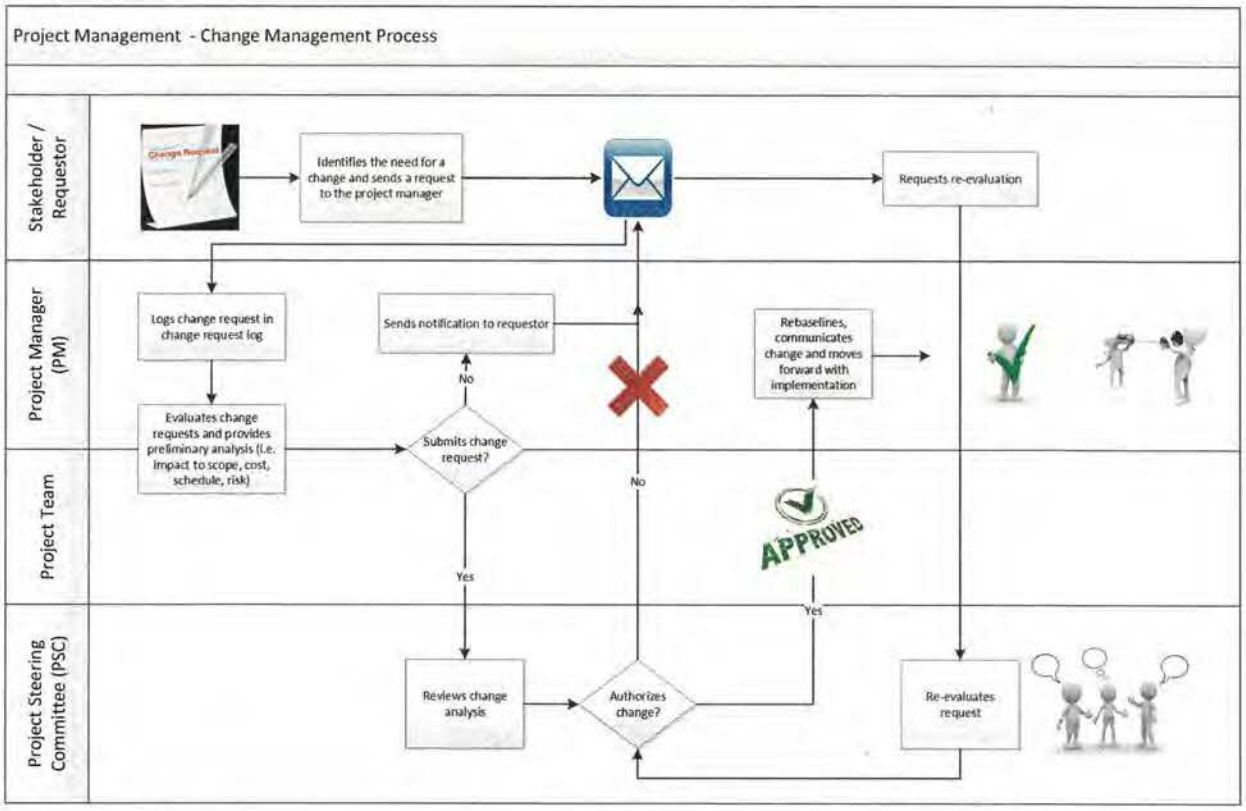
Project Change Request

The following project change request process will be used for managing major and minor changes that impact scope, schedule, and/or budget:

Type of Change	General Description	Criteria	Reviewer	Approver	CR Required?
Major	Represents significant change in project scope, schedule, or budget	Addition of a new requirement or expansion of an existing business requirement that has significant impact on scope, schedule, or cost.	ESC	CIO	Yes
		Schedule delay of more than 30 days or 10 percent delay to project end date.	ESC	CIO	Yes
		Requires additional funding of $100,000 or impact on total project budget is greater than 10 percent.	ESC	CIO	Yes
Minor	Routine change with little or no significant impact on project	Schedule delay of less than 30 days or less than 10 percent impact to project end date.	Project Sponsors	PM	No
		Impact on project budget is less than $100,000 or less than 10 percent of total project budget.	Project Sponsors	IT Project Sponsor	No

Change Request Initiation and Processing

The following process will be used for managing major changes that impact scope, schedule, and/or budget:



Step 1 Stakeholder/requestor identifies the need for a change and sends a CR to the PM via electronic mail (e-mail). The requestor must complete the "Change Request Submission Section" on Change Request Form (CRF) (see section 4.2.7).

Step 2 The PM logs the CR in the project Change Request Log (see section 4.2.5).

Step 3 The PM adds the CR to the Project Team meeting agenda.

Step 4 Project Team or assigned individual evaluates the CR and completes the "Change Request Analysis Section" on the CRF.

Step 5 Project Team determines if the CR moves forward for approval.

Step 5a If it is determined a change will not move forward, the PM will notify the requestor and complete the "Change Request Closing Section" on the CRF (see step 6).

Step 5b If it is determined a change will continue to move forward, the PM will schedule a review meeting with the Project Sponsors and/or ESC.

Step 5c The PM will complete the "Change Request Approval Section" on the CRF and obtain signature from the Project Sponsor.

Step 5d If CR is approved, PM will rebaseline the project and notify the requestor and Project Team.

Step 5e Upon completion of the project or upon confirmation the change was implemented, the PM will complete the "Change Request Closing Section" on the CRF.

Step 6 If the Project Team, Project Sponsors, or ESC do not approve the change, the requestor may escalate and request a re-evaluation by the committee. The PM will schedule a re-evaluation review meeting with the objective of obtaining final disposition.

Change Request Analysis

The Project Team analyzes the CR to determine the potential impact(s) of the requested change on the project. The team validates and verifies the information provided by the Requestor and makes updates as needed. The team analyzes the situation and the CR Owner documents the results of the analysis in the Analysis section of the CRF.

Change Request Approval

The Project Team reviews the recommended approach to implementing the change and determines next steps for the CR. If consensus cannot be reached by the Project Team, the PM will present the CR and recommendation to the Project Sponsors, Commanders of RPS and ITS, for direction. If more direction is needed, the Commanders will present the CR and recommendation to the ESC.

The PM notes the decision in the Change Request Disposition box of the "Change Request Approval Section" on the CRF. The CR disposition is typically accompanied by comments regarding the decision, signature, and signing date.

4.2.3 Roles and Responsibilities

The below table of Roles and Responsibilities provides a description of the duties of those involved in the CCP.

Role	Responsibility
ESC	• Review major CRs escalated by the Project Team • The CIO has final decision authority on major CR
Project Sponsors	• Review minor decisions on CRs escalated by the Project Team • The IT Sponsor has final decision authority on minor CRs
Project Team	• Primary decision-making body for CRs (i.e., acts as Change Control Committee) • Meet on a regular basis to address outstanding CRs and escalates to Project Sponsor(s) and/or the ESC, as necessary • Act on CR decisions by Project Sponsors and/or the ESC
PM	• Establish and maintain the Change Control Management Plan • An active sponsor of approved changes • Manage the CCP and any resistance to approved changes • Approve CRs for analysis

Role	Responsibility
	• Assign the CR analysis to a CR Owner • Review the scope, budget and schedule impacts • Assign project resources for CR analysis and, if approved, implementation • Review the CR implementation after it is deployed • Communicate CR status/decision back to Stakeholders • Vote as a member of the Project Team • Approve changes within designated authority • Initiate the escalation process to the Commander(s) and the ESC, as needed
CR Owner	• Identify possible solutions and their impact to the Project and its Stakeholders • Take ownership and work with the Project Team to analyze, evaluate, and, if approved, implement CRs • Complete the CRF • Prepare supporting documentation for the CR • Obtain manager approval to submit the CRF to the CR Coordinator (CRC) • Submit CRF to the CRC • Verify CRs are implemented correctly
CRC	• Single point of contact for CRs • Receive and record CRs in the chosen tracking tool • Perform initial CR risk assessment • Review the CR's impact to the project's scope, schedule and cost • Schedule and transcribe the project meetings in which the CRs are discussed • Maintain the CR tracking tool, monitors CR progress and reports status regularly • Measure the overall quality of the CCP to report trends and make recommendations for process improvement • Maintain project CR documentation in project library

4.2.4 Project Baselines

Project baselines will be finalized at the following points of the project:

- Scope and Cost – Upon completion of project planning and CDT PAL approval.
- Schedule – Expected to be within 30 days of contract execution; however, no later than 15 days after project kick-off.

4.2.5 Project Change Request Tracking

The project CRs will be tracked by the CRC in the Change Request Log.

4.2.6 Change Request Reporting

Change request reporting will be presented in Project Team meetings as well as ESC briefings. Change request information will be provided in the format below.

Title	Frequency	Content	Usage
Opened, Pending, and Approved CRs	Regularly Scheduled Team Meeting (Weekly)	Summary of the CRs that have been opened, still pending, and approved since the last reporting	Keeps the Project Team and Stakeholders informed about the changes being made
CR Implementation Status	As Completed	Lists all CRs approved for implementation, activities to implement, estimated completion date, and status	Used by management, the CRC, and CR Owners to track CR implementation.

4.2.7 WMVARS Change Request Form Example

<Project Name and/ or Logo>	Project Change Request (CR)		
Change Request Submission Section			
Change Request Title: *[Example: Addition of one full-time (FT) database administrator]*			CR Number: (PM Use Only)
Change Request Category	☐ – Scope ☐ – Time ☐ – Cost		
Originator Name	[Name]	Originator Organization	[Organization name]
Date Submitted	[XX/XX/XXXX]	Originator's Manager	[Manager name]
Primary Contact Person	[Name]	Backup Contact Person	[Name]
Primary Contact E-mail	[E-mail]	Backup Contact E-mail	[E-Mail]

Priority: (Check One):

☒ 1 – **Critical:** Work stoppage or severe impact on productivity has occurred; solution needed immediately.

☐ 2 – **High:** Work stoppage or severe impact on productivity is eminent; solution needed before impact occurs.

☐ 3 – **Medium:** Impact on productivity is expected; workaround has been identified and solution is needed.

☐ 4 – **Low:** Impact on productivity is minimal; solution is needed.	
Detailed Description of Proposed Change	*[Example: Data conversion is taking more time than planned due to the condition of the source data. Data conversion tasks are on the critical path and are at risk of slippage. Adding another full-time database administrator will add needed capacity to stay on schedule.]*
Justification for Change	*[Example: Change will prevent impact on project end date due to slippage of critical path data conversion tasks.]*
Current Workaround (if applicable)	*[Example: None]*
Potential Cost Considerations (if known)	*[Example: Staffing costs will increase by 1 full-time database administrator.]*
Additional Information / Comments	*[Example: None]*
Change Request Disposition (PM Use Only)	☐ Rework ☐ Not Accepted ☐ Withdrawn ☐ Deferred ☐ Approved for Implementation Disposition Comments: Signature: _____ Date: _____

Change Request Analysis Section

CR Analyst (CRA)	[CR Analyst Name]				
Date CRA Assigned	XX/XX/XXXX	Date CRA Due	XX/XX/XXXX	Date CRA Completed	XX/XX/XXXX

Impact Areas: (Check One or More)

☐ Project Cost Increase: Change will result in an increase to project costs.

☐ Project Cost Decrease: Change will result in a decrease to project costs.

☐ Scope Increase: Change will result in an increase to project scope of work.

☐ Scope Decrease: Change will result in a decrease to project scope of work. ☐ Schedule Change: Change will result in a change to the Master Project Schedule (MPS).	
How much was increased or decreased in Cost, Scope, or Schedule	*[Example: The project cost increased by 10%.]*
Solution Description and Impact on Baselined Items and the Project	*[Example: Recruit and hire one additional FT DBA, baseline budget will increase.]*
Implementation Risks and Mitigation	*[Example: None]*

4.3 Communications Management

The purpose of the Communications Management Plan is to define the project's communication requirements and how information will be distributed. Communication is fundamental in managing Stakeholder expectations regarding how the project is progressing. Most of a PM's time is spent on communications, including conducting and facilitating meetings; composing e-mails, documents, and plans; negotiating with team members, Stakeholders, and vendors; overseeing work; reporting performance; and escalating issues.

4.3.1 Approach

Use of this plan will ensure the communication needs and expectations for the project are clearly defined, helping to promote effective and efficient communications.

All project documentation will be stored on the shared file server under the ITS directory and documents that are to be project artifacts will be uploaded to the ITS, PMU SharePoint site. Project documentation that needs to be shared externally shall be made available via e-mail and/or external SharePoint site.

This section of the document will be reviewed throughout the lifecycle of the project and revised as necessary to ensure the communication needs of the project and Stakeholders are met.

This document includes these main sections:

- Communications Matrix – Identifies various communication types and the methods by which information will be distributed.
- Guidelines for Project Status Meetings – Outlines the communication expectations about Project Team meetings.

4.3.2 Communications Matrix

This table identifies the communication items that will be used for disseminating information. The following is included in the column guide:

- **Communication Type** – Provides a category for the type of information.
- **Description** – Provides a brief overview or purpose of the type of communication.
- **Stakeholder(s)** – Identifies the individuals or groups that require a communication.
- **Frequency** – Indicates the frequency with which information will be communicated.
- **Format/Distribution Method** – Describes the format and method(s) by which the communication is distributed.
- **Owner** – Specifies who is responsible for ensuring communication is distributed to stakeholders.

Communication Type	Description	Stakeholders	Frequency	Format / Distribution Method	Owner
Project Status Meeting	Purpose of this communication will be to discuss project status, including current activities, progress, risks, issues, and change requests.	• PM • Technical PM • IT Sponsor • Business Sponsors • Business Owner • CDT Project Oversight Manager • Independent Verification and Validation (IV&V) Contractor	Weekly	Meeting/In-person, Agenda, Meeting Minutes	State PM Vendor PM
Technical Team Meeting	Purpose of this communication will be to discuss day-to-day project activities and progress made against assigned tasks.	• PM • Technical PM • Project Team • CDT Project Oversight Manager • IV&V Contractor	As needed	Meeting/In-person	State Technical PM Vendor Technical PM

Communication Type	Description	Stakeholders	Frequency	Format / Distribution Method	Owner
ESC Briefings	Purpose of this communication will be to keep the ESC apprised of project progress, high impact issue, and risk(s).	• PM • Technical PM • Executive Sponsors • IT Sponsors • Business Sponsors • Business Owners • CDT Project Oversight Manager • IV&V Contractor	Monthly	Verbal/ In-person Report	State PM
Project Status (Project Management Office [PMO] Report) and PMO Status Meeting	Purpose of this communication will be to provide a short overview of the project and its health. The primary data source will be Project Team meeting discussions and meeting minutes. Other data sources will include informal status updates from Project Team members.	• Information Management Division (IMD) Executive Management • ITS Management • Other PMs • PMU (Oversight) • CDT Project Oversight (if requested)	Monthly	Report/ E-mail Verbal/ In-person	State PM

Communication Type	Description	Stakeholders	Frequency	Format / Distribution Method	Owner
Go/No Go Review	Purpose of this communication will be to review testing activities, implementation/ rollout, discuss overall production readiness, and decide whether to implement.	• PM • Project Team • ESC Members	After testing is complete and before the Field Tests begin	Meeting/In-person, Agenda, Meeting Minutes	State PM
CR	Purpose of this communication will be to present the proposed change to the ITS Change Control Board (CCB) and obtain approval for implementation.	• PM • Change Control Committee • CCB	One request to be submitted to CCB one month prior to the start of the planned rollout	Meeting/In-person, CRF	State PM
Policy/Process/Procedure/End User Communication	Purpose of this communication will be to communicate policy, process, or procedure updates because of this project.	• RPS • Project Team • ESC Members • All CHP Officers • Office of Employee Relations	Timing of communications will follow Communications Network (Comm-Net) guidelines for submission and publications	Comm-Net/E-mail/Intranet	Business Sponsor
Agency State Entity Portfolio Report Statewide Information Management Manual (SIMM) 19A.5	Purpose is to provide a summary of project status.	• Agency • Control Agency – CDT and Department of Finance (DOF)	Monthly	Report/Formal Submission	State PM

Communication Type	Description	Stakeholders	Frequency	Format / Distribution Method	Owner
IPO Report	Purpose of the communication is to independently review and report on the project management processes and deliverables.	• PM • ESC Members • Agency • Control Agency - CDT	Monthly	Report/Formal Submission	CDT Project Oversight Manager
Project Status Reports (PSR) SIMM 45E	Purpose of this communication is to convey overall status and progress of the project to CDT and other interested parties within the state and local government or the public.	• Control Agency – CDT	Monthly Fifth working day of the month	Report/Formal Submission	State PM
IV&V Status Report	Purpose of this communication is to supplement CDT Project Oversight reporting with focus on the technical assessment of the project deliverables.	• PM • ESC Members • Agency • Control Agency - CDT	Monthly	Report/Formal Submission	IV&V Contractor
Post Implementation Evaluation Report (PIER)	Purpose of the communication is to summarize the results of the project.	• PM • ESC Members • PMU (Oversight) • Agency • Control Agency – CDT, Legislative Analyst Office	Within six months of completed project activities	Report/Formal Submission	State PM

4.3.3 Guidelines for Project Status Meetings

The following guidelines will be used for project status meetings:

- All Project Team members will be invited to project status meetings.
- It is expected all Project Team members attend; if unable to attend, a notification to the PM is expected, and a delegate provided.
- All project status meetings will have an agenda and meeting minutes will be distributed within one to two business days of meeting.
- All meeting participants are expected to review meeting minutes within one to two business days of receipt; if there are any questions or concerns with the content, participants will contact the meeting minutes distributor immediately.
- Revised meeting minutes will be redistributed as needed.

4.3.4 Project Status Meeting Agenda/Minutes Template

WMVARS Project Status Meeting			
Date: mm/dd/yyyy	**Time: hh:mm - hh:mm**		**Location: TBD**
Meeting Organizer: Project Manager		**Type of Meeting:** Project Team Meeting	
Attendees			
Project Team Members			
Agenda / Minutes			
Discussion:	•		
CURRENT ACTIVITIES (ACTIVELY WORKING):			
Task Description	**Owner**	**Target Date**	**Comments**
UPCOMING ACTIVITIES (TO BE WORKED):			
Task Description	**Owner**	**Target Date**	**Comments**
RISKS AND ISSUES:			
R#/I#	**Title/Brief Description**	**Originator / Owner**	**Mitigation Strategy / Issue Resolution**
ACTION ITEMS:			
AI#	**Description**	**Owner / Due Date**	**Comments**

4.4 Configuration Management Plan

The Configuration Management Plan guidelines identified here will establish and maintain the integrity and control of software/hardware products and documents supplied by the WMVARS vendor during the configuration and implementation of the COTS solution and its M&O.

The plan will address the management and control of content, change, and status of shared information within the WMVARS development and implementation.

4.4.1 Roles and Responsibilities

The plan shall be developed in collaboration with the selected vendor during the early part of the system configuration/implementation phase.

Listed below are planned starting points for defining organizational responsibilities pertaining to the configuration management activities required to ensure program success.

4.4.2 Research and Planning Section

The RPS shall have full responsibility for all WMVARS configuration management activities and will work closely with ITS and consultant staff to ensure configuration management during the overall design, development, testing, installation, and deployment of the system. Configuration management will enable successful project completion and efficient ongoing support and maintenance for the duration of the project. The RPS shall have final approval of the plan.

4.4.3 Information Technology Section

The ITS staff shall have the following roles and responsibilities:

- Review the plan developed by the vendor for completeness and compliancy with the functional requirements presented in the Request for Proposal (RFP) and other contract documents.
- Audit the configuration management process developed by the vendor to ensure it is correct and there are built-in control mechanisms that will lead to a successful project.
- Establish a specific hierarchy of information for both project non-deliverables and deliverables.
- Create a configuration management process to support change evolution of the WMVARS software and hardware.
- Monitor the WMVARS COTS system delivery and release management procedures that shall be developed by the vendor.

4.4.4 Vendor Staff

Vendor personnel for the project shall have the following roles and responsibilities:

- Collaborate with CHP in developing a comprehensive plan for the project, configuration, implementation, and deployment phases.
- Identify and document the functional and physical characteristics of the system, software, hardware, and operational components so these relationships may be managed, maintained, controlled, and assured.
- Record and report the status of proposed changes consistent with the established change management process, approve any proposed changes, and the provide the status of the implementation of approved changes.
- Disseminate baseline information to project management personnel and establish and maintain a status accounting and reporting system that records the baseline, authorized changes to the baseline, and verification of changes incorporated into the documentation and/or COTS solution.

4.5 Contract Management

The project will utilize the following contract management processes to ensure the vendor complies with the terms and conditions of the contract and monitor that products and/or services meet the project's requirements. These processes pertain to the CHP contract(s), not the statewide contract vehicle to be used.

4.5.1 Roles and Responsibilities

Role	Responsibility
Project Sponsors	• Escalate material contract issues and concerns to the PM and ES • Review and approve the Contract Management Plan
Contract Manager	• Maintain the Contract Management Plan • Escalate issues and concerns to the PM • Ensure consistency and continuity of the contract management process and conformity to applicable processes, policies, standards, rules, and regulations • Approve invoices prior to processing • Responsible for all interactions with vendors in the event of a contract or invoice dispute • Approval of contracts and contract amendments • Manage all contracts to ensure compliance with state contracting requirements
IV&V Contract Manager	• Review IV&V status reports • Coordinate with the State PM, State Technical PM, and vendor to identify and address IV&V findings and recommendations
PM	• Review and approval of contracts and contract amendments • Participate in contract dispute resolution • Review and provide input to the Contract Management Plan • Escalate contract issues and concerns to executive management and Contract Manager • Approve contract deliverables • Review and validate invoices; notify Financial Analyst and Contract Manager of disputes • Facilitate vendor staff member onboarding
Financial Analyst	• Review deliverables for administrative contract requirements • Receive deliverables and review for administrative contract requirements • Facilitate the process to review deliverables • Confirm invoices with PM and submit to Contract Manager for approval • Send approved invoices to Accounts Payable Unit (APU) for processing • Research contract issues, monitor vendor compliance with terms and conditions of contract, and participate in negotiations • Develop and execute contract amendments • Escalate issues and concerns to the Contract Manager
Technical PM	• Review and approve the functional content of deliverables

Role	Responsibility
	• Escalate issues and concerns to the Contract Analyst
Functional Manager/ Business Owner	• Review and approve the functional content of deliverables • Escalate issues and concerns to the Contract Analyst
Purchasing Services Unit	• Oversee purchases executed via the statewide contract
Budget Development Unit	• Approve all purchase orders and purchase order amendments for availability of budget authority
APU	• Process invoices and send to State Controller's Office (SCO) for payment
Office of Legal Affairs	• Assist with the resolution of issues related to conflict of interest, confidentiality, contract terms and conditions, and contract disputes
DGS	• Approve statewide contract and contract amendments

4.5.2 New Contract Initiation

Notification of Contract Approvals

Upon award of the statewide contract, the DGS Contract Administrator will notify the CHP Contract Managers.

Upon award of the purchase order, hereinafter referred to as Contract, a copy of the executed Contract is provided to the Financial Analyst. At that time, the contract management responsibilities begin, and the PM coordinates with the vendor to determine a date to begin contract activities.

Onboarding Process

Once the start date for the vendor is determined, it is the responsibility of the PM to arrange for the needed resources before the arrival of vendor staff. Resources include seating, equipment, special software, building access, and network access. The PM is expected to brief the vendor staff regarding work hours, work location, and products and services to be delivered according to the Contract.

Conflict of Interest

All designated vendor staff members must sign a CHP 78V, Conflict of Interest and Confidentiality Statement – Vendor, before starting any project work and a California Fair Political Practices Commission Form 700, Statement of Economic Interest. This form will be completed before vendor staff is given access to project materials.

4.5.3 Invoice Processing

The vendor must comply with all invoice requirements as stipulated in the Contract. All invoices will be mailed to the ITS, Acquisition Services Unit. Upon receipt, the Financial Analyst will review the invoice and route it to the PM for review and validation. Upon validation, the Financial Analyst will route to the Contract Manager for approval. Upon approval, the Financial Analyst will receive the invoice in the Financial Information System for California and submit the invoice to the APU for payment.

Should an invoice need to be disputed, the PM will notify the Financial Analyst and Contract Manager as soon as possible. The Financial Analyst will draft a STD 209, Invoice Dispute, and upon Contract Manager approval send it to the vendor for resolutions. Once the issue is resolved, the vendor must resubmit an updated invoice for processing.

4.5.4 Contract Disputes

Should contract issues arise, the escalation process identified in the Statement of Work (SOW) will be followed. Should all efforts to resolve the issue following the escalation process be unsuccessful, the PM will draft a cure letter for IT Contract Manager approval. The CHP's Contract Manager in Business Services Section, Purchasing Services Unit (PSU) will send the cure letter to the vendor to formally notify them of the required steps to correct the issue.

4.5.5 Amendments

Consistent with the terms and conditions of the statewide contract, and upon mutual consent, DGS, CHP, and the vendor may execute amendments to the Contract. Any amendment or variation of the terms of the Contract will not be valid unless made in writing, and agreed upon by both parties and approved, as required. No verbal understanding or agreement not incorporated into the Agreement will be binding. Amendments to increase quantities of products/services will be at the same rates identified in Appendix E, Cost Worksheet, and must be approved through the CCP.

4.5.6 Work Authorization

All unanticipated tasks not specifically identified in the SOW must first be authorized via a Work Authorization. See SOW section 16, Unanticipated Tasks, for additional information.

4.5.7 Contract Closeout

The Contract will be considered closed when all work described in the SOW is completed, all Contract dollars have been expended, or when the project terminates the Contract. The below activities are to be performed at contract closeout.

Contract Audit

Approximately 60 to 90 days before the end of the Contract, the PM should review the status of contract activities and deliverables and determine if the vendor is on target to complete all obligations by the contract end date. At that time, contract documentation should be reviewed to ensure any discrepancies are resolved before the contract ends.

All deliverables listed in the SOW are verified to ensure they were either approved or cancelled by the project. Any overdue or pending deliverables or open items must be resolved prior to the end of the Contract. No vendor staff may continue to work past the Contract end date.

Contract Termination Process

The Contract may be terminated as allowed by the applicable GSPD-401IT, General Provisions – Information Technology. Should termination be deemed necessary, the PM and IT Contract Manager will draft the letter, to be reviewed and approved by IMD and PSU. The contract will be considered terminated when a letter of termination is sent to the vendor by PSU.

Vendor Evaluations

The PSU completes the STD 4, Vendor Evaluation Form. If a negative evaluation is made, a copy of the STD 4 must be forwarded to DGS within five (5) days of the evaluation. This evaluation is considered **confidential** and must be marked and stored accordingly. The evaluation is sent to DGS and a copy of the form with all pertinent Contract notes is filed in the Contract file.

Final Invoices

The vendor submits an invoice covering the final hours and/or deliverables completed under the Contract before termination/contract expiration. If a withhold has been used, the vendor also submits a bill for the withhold at this time using a separate invoice clearly marked as "withhold." The final invoice cannot be paid until the review of the contract file has been completed and all open issues from the audit are resolved. After the final invoices have been paid, APU will disencumber any remaining funds.

Archiving Contract Records

At the end of the Contract, all records will be archived in accordance with the State Contracting Manual. All Contract documents will be retained by PSU, while all invoices, deliverables, and Deliverable Acceptance Documents will be retained by the ITS Acquisitions Services Unit.

4.6 Cost Management

The CHP will utilize an approach that assigns expenditures to an appropriate project cost category to effectively manage project costs and simplify reporting requirements. The Project Team will account for all expenditures monthly and will be reported through the PSR. A Microsoft Excel spreadsheet will track the monthly and fiscal year-to-date totals.

4.6.1 Roles and Responsibilities

Role	Responsibility
Project Sponsor	• Provide overall business leadership to ensure cost and funding requirements are met • Ensure requests for cost and funding changes have followed the approved CCP, and approved changes have been incorporated into cost and funding documents in a timely manner • Review and approve cost and funding documents prior to sending to control agencies
PM	• Lead Project Team in the development of the Cost Management Plan • Provide regular status updates and make approval recommendations • Ensure the overall cost management effort is being executed in accordance with the plan • Ensure the entire Project Team, state, and vendor (if applicable) are following this plan • Ensure adherence to all project processes that interact with or provide input to the cost management effort • Ensure there are enough resources to execute this plan and the cost management activities are being performed in a timely manner
ITS Acquisitions Services Unit Manager	• Along with the PM and Financial Analyst, develop the Cost Management Plan • Has overall responsibility for managing processes and activities outlined in the Cost Management Plan • Responsible for the overall cost management effort and the cost repository containing the cost and funding documents • Ensure the cost processes are organized, managed, and controlled and all issues are identified and resolved in a timely manner to minimize rework • Contribute to the development of cost and funding documents
Financial Analyst	• Assist in the development of the Cost Management Plan • Considered the SME for cost management processes • Assist the PM and ITS Acquisitions Services Unit Manager in capturing, verifying, and communicating project cost and funding requirements

4.6.2 Cost Planning

Resource planning and cost estimating shall be performed early in the project lifecycle. High-level estimates shall be obtained feeding into the overall project initiation phase and continuously refined throughout the planning phase as more detailed analysis and research is completed. As part of the CDT PAL, financial worksheets will be developed and used to assist with the cost planning and budgeting process.

4.6.3 Cost Tracking

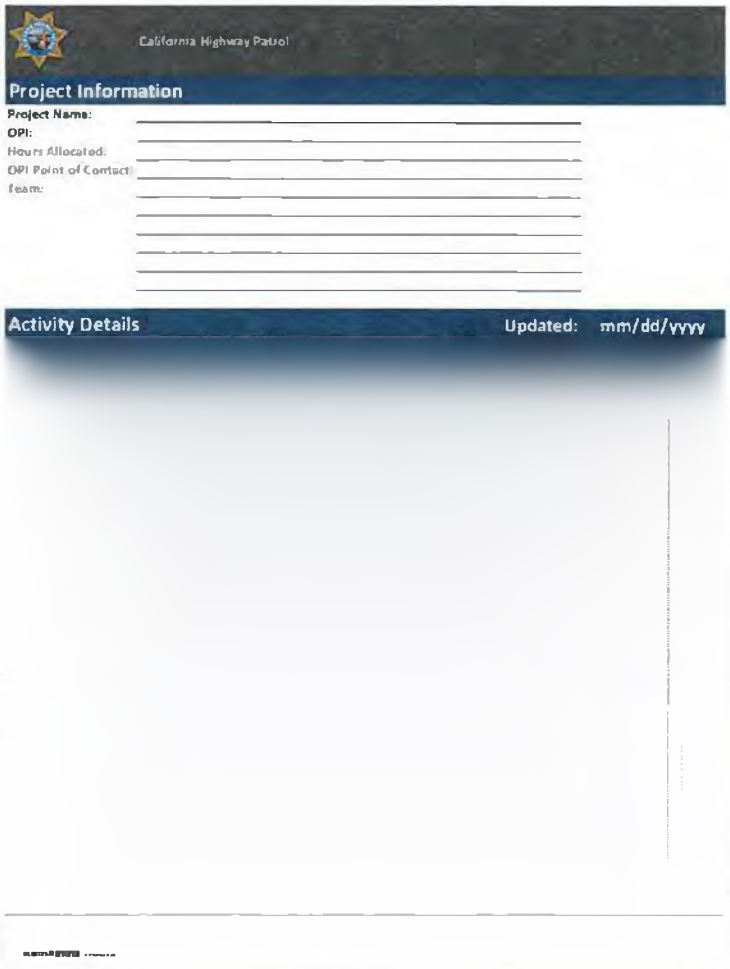
The ITS Acquisitions Services Unit will send the PM and ITS Acquisitions Services Unit Manager/IT Contract Manager a copy of all invoices received and approved for the prior month by the 15th of each month. For example, by February 15, a copy of all invoices received and approved in January will be sent to the PM. These invoices will be used in preparing the PSR.

The Project Team will complete the following tasks:

1. Reconcile all invoices against the monthly expenditure report and resolve any discrepancies.
2. Log the actual costs for the current month and update fiscal year-to-date totals in the Microsoft Excel spreadsheet.
3. Map the reconciled costs to the project cost worksheet.
4. Complete the PSR using costs according to project cost worksheet categories.

Project Labor Hour Tracking

The CHP timekeeping and tracking systems do not provide for tracking work hours against projects. Project staff and participants will be requested to track time spent on the project using a template like the example below.


California Highway Patrol

Project Information

Project Name:
OPI:
Hours Allocated:
OPI Point of Contact:
Team:

Activity Details Updated: mm/dd/yyyy

Resource Costs

Individual resources involved in the project will submit monthly timesheets for approval. The Financial Analyst will keep a spreadsheet tracking the hourly expenditures and provide a copy when submitting the monthly hourly tracking to the PM and ITS Acquisition Services Unit Manager/IT Contract Manager for approval.

4.6.4 Cost Reporting

Monthly Cost Reporting

Each month, the PM will prepare a PSR using the invoiced costs provided by the ITS Acquisitions Services Unit. The PSR will be reviewed by the Project Sponsor and Executive Management prior to submittal to CDT.

Annual Cost Summary

At the end of each fiscal year (FY), the PM and ITS Acquisitions Services Unit Manager will prepare a summary of the actual costs expended against the FY baseline for reconciliation purposes. This report will be reviewed and approved by Executive Management.

4.6.5 Cost Controlling

A project cost baseline will be established upon project approval and contract execution. The PM shall use cost reports to monitor the project throughout its lifecycle. In addition, the PM shall monitor project schedule and scope changes that may have financial impact to the overall project. Any cost changes expected to have a material impact on the overall project shall be handled by the project CCP. The project cost will be modified/re-baselined upon change approval.

4.6.6 Cost Changes

If the cost change is less than 10 percent, and the overall cost baseline is not impacted, no additional action will be required. However, if the overall cost baseline is affected, the change will be communicated to Executive Management as defined in the Communications and Governance Management Plans. The Project Team will review and discuss the change and options for mitigation, including the possibility of re-planning and/or re-baselining, which would require an approved CR and updates to the appropriate sections of the PMP. Refer to the Change Control Management Plan for more information regarding the project's CCP.

If re-planning is deemed necessary, the PM will prepare a proposal for the re-planning effort. Once the change is approved through the CCP, the PM will work with the ITS Acquisitions Services Unit Manager to re-baseline the cost data and estimates in alignment with approved funding. As needed, the PM, ITS Acquisitions Services Unit Manager, and Financial Analyst will work with the PSU and other Administrative Services Division units to adjust purchase documents and encumbrances to reflect the re-plan.

4.7 Data Management Plan

4.7.1 Overview

The WMVARS includes a central video storage system to store, manage, and retrieve video evidence from the CHP's statewide in-car camera system. Management of the videos shall include, but not be

limited to, categorization (or tagging), viewing, and data retention and purging according to the Department's data retention policies. The primary goal of the system will be to facilitate the collection, tracking, and management of in-car camera video and audio data for evidence, retention, and chain of custody purposes.

4.7.2 Data Migration

The Department will not be migrating data from the legacy MVARS DVD-based system.

4.7.3 Data Storage

The WMVARS data will be stored in a centralized cloud-based and secured data repository compliant with California Department of Justice Criminal Justice Information System requirements. All WMVARS data will uploaded either directly to the cloud from the in-car WMVARS or to the on-premise appliances. Information will be systematically synchronized at least daily to the centralized data repository in the cloud.

The data storage retention will be governed by CHP evidence retention policies. Current polices require the retention of media for a minimum of one year. Certain recorded incidents deemed to be a significant event may require longer retention. This will vary from three, five, ten, and thirty days, or indefinite depending on the media content. Less than five percent of CHP's enforcement activities will require a video to be held for a court case beyond one year.

4.7.4 Data Ownership

The information collected and maintained by the WMVARS is the exclusive property of the CHP. The WMVARS data is treated as evidentiary information for law enforcement purposes. The primary CHP business owner for the WMVARS data is RPS.

4.7.5 Data Access and Controls

The WMVARS data access and control will be centrally managed using role-based privilege permissions by a CHP applications administrator. Data access and control will be provided based on user group functional needs as follows:

Stakeholder Group	Functional Needs
CHP Executives	Authorized users who will only view video, such as CHP Commanders and executives
Patrol Officer	Authorized users who will record, view, and categorize video evidence
Evidence Officers	Evidence officers and their backups. Shall have elevated rights to determine if digital evidence should be purged or retained in the WMVARS
Sergeant and Middle Management	Authorized users who will view video of the officers who report to them during an investigation, to research citizen complaints or for report writing
Public Record Act Processing	Authorized users with access to perform redaction activities
Application Administrator	Authorized users in IMD with elevated rights to serve as Application Administrators

Upon conclusion of the Contract, the Department will work with the systems contractor/vendor to extract and transition the WMVARS data in a predetermined format to a predetermined location in a manner that will permit future usage and access.

4.8 Governance Management

Project governance establishes the structure and processes for making decisions during the normal course of the project. Governance establishes who has the authority to make different types of decisions as well as how those decisions are made. For a project to be successful, decisions must be made in a timely manner and at the right authority level. A well-defined and active governance structure helps to develop more efficient and effective teams, improve results, reduce risks, and support healthy resource use.

The governance process is intended to benefit projects by achieving the following objectives:

- Ensure timely decisions are made at the appropriate project level.
- Ensure the project maintains sponsorship and funding.
- Provide strategic leadership and direction.
- Foster a culture of accountability and transparency.
- Provide oversight and guidance to improve the potential for success.

To achieve these objectives, ITS has devised a governance framework to aid Project Teams in defining how project decisions are made. Having a structured and documented approach provides confidence that projects are being managed and overseen in an effective manner.

4.8.1 Approach

Governing Bodies

The following governing bodies are active within ITS and are responsible for some portion of IT decision-making within the Department, not specific to a particular project.

Governing Body Name	Description
IT Governance Board (ITGB)	The ITGB is responsible for establishing enterprise-wide technology standards and leading the Department in the implementation and sustained use of such standards. The ITGB provides governance over the establishment of IT models, standards, and best practices that represent the current-state and future-state architectures of the enterprise. The ITGB will also provide governance over the development, dissemination, maintenance, and use of the set of models, standards, and best practices collectively known as the Enterprise Architecture by adopting and developing formal methodologies and policies. The board is chaired by IMD and is comprised of IT professionals within the ITS and Information Security Office (ISO). Core board members include, but are not limited to, individuals from Infrastructure, Technology Services, Applications Development, Customer Services, and Information Security. The board convenes monthly or as needed.

Governing Body Name	Description
PMU Oversight	The PMU is responsible for establishing and maintaining departmental IT project management practices and procedures such that projects align with statewide policies and standards. The PMU provides internal project oversight over all CDT reportable projects and internal IMD reportable projects. The ITS PMU IT Manager is responsible for the oversight function and reviewing and ensuring necessary processes are followed for IT contracts, purchase requisitions, and inter-agency documentation (e.g., PAL documents). There is no set schedule for PMU Oversight meetings as the need will vary by project. Meetings are coordinated by the PM and assigned ITS PMU Oversight staff as needed.
CCB	The CCB is responsible for overseeing all changes being made to the production environment. The CCB ensures all changes are properly controlled, maintained, and protected. The board is chaired by ITS PMU. Core board members include Chiefs and Assistant Chiefs from IMD, in additional to ITS Information Technology Supervisor IIs and above. The board convenes weekly.

Regarding the WMVARS project specifically, an ESC will be established, and the Project Team will serve as the Change Control Committee.

Project Governing Body Name	Description
ESC	The ESC is an advisory or decision-making body including the Project Sponsors. The committee provides guidance to the PM and to the Project Team and can provide approval on project scope, schedule, and budget changes. The committee is comprised of individuals from both business and IT. Core committee members include, but are not limited to, Business Project Sponsor(s), IT Sponsor(s), Business Owner(s), Project Management Oversight, and PM. Monthly committee meetings will be scheduled and held on an as needed basis. Meetings are typically coordinated by the PM on behalf of the Executive Sponsors and/or ESC.
Change Control Committee	The Change Control Management process and all project change requests are managed by the PM. The PM is responsible for facilitating change request discussions and analysis with the Project Team on an as needed basis.

Decision-Making Authority

Decision-making authority for projects is often related to decisions regarding cost, schedule, or scope. The range of authority is usually translated into the percentage variance a decision maker can authorize without approval from a higher authority. For this project, the following thresholds will be utilized.

Decision Maker	Description Type	Variance Threshold
PM	Minor project scope, schedule, or budget changes	< 10 percent baseline variance*
CIO	Major project scope, schedule, or budget changes	≥ 10 percent baseline variance*
Agency and CDT	California Department of Technology reportable projects	

* A baseline is captured after the project planning phase has been completed.

Project Governance Structure

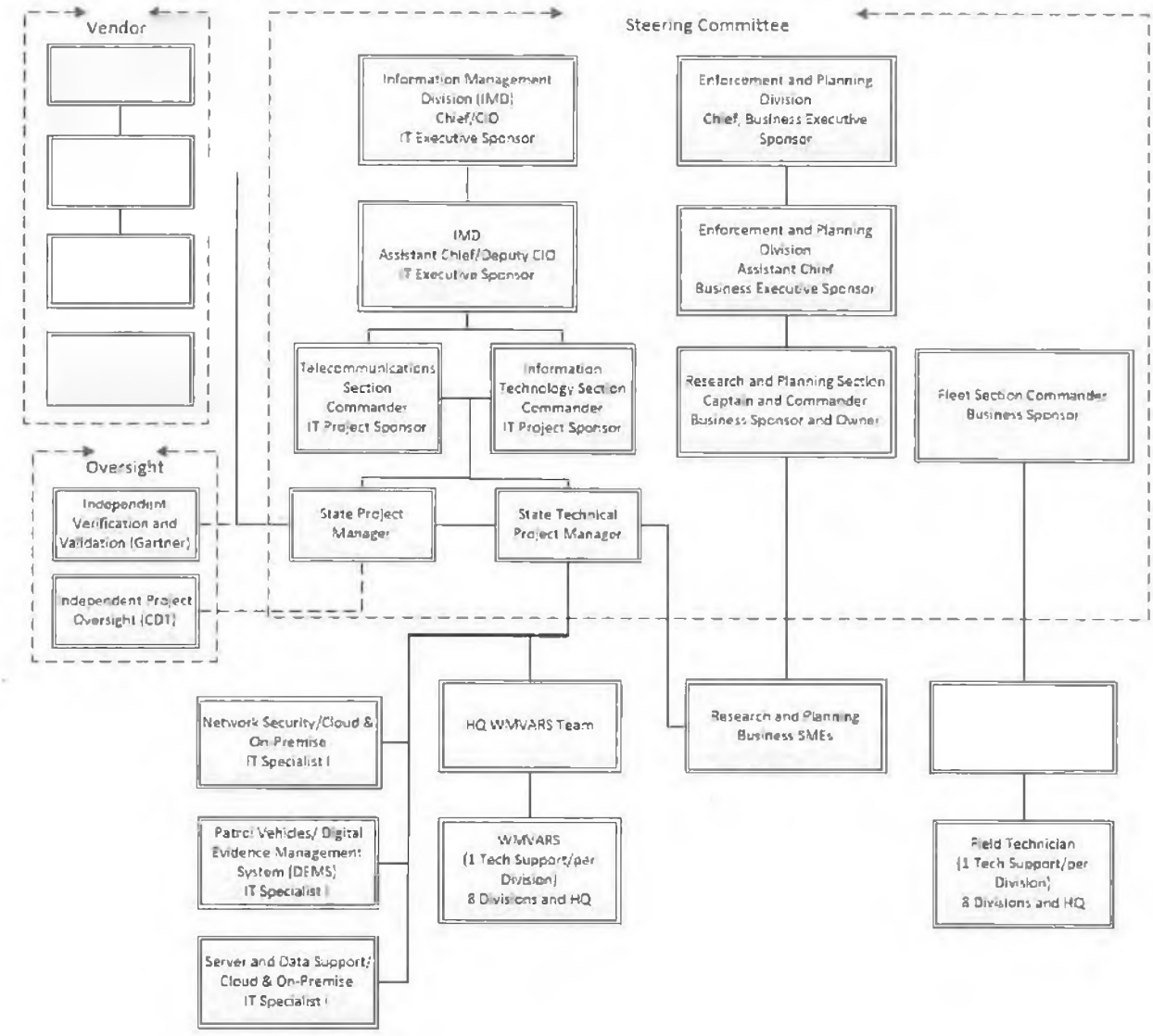
The CHP governance structure for this project will be comprised of Executive/Business Sponsors and Business Owner for the project in addition to the Executive/IT Sponsors. (See Stakeholder Register for a list of ESC members.) The CIO, Chief, or his designee will chair the ESC.

The committee will meet monthly to review the project status and costs. The CDT Project Oversight representative will be invited to the meeting.

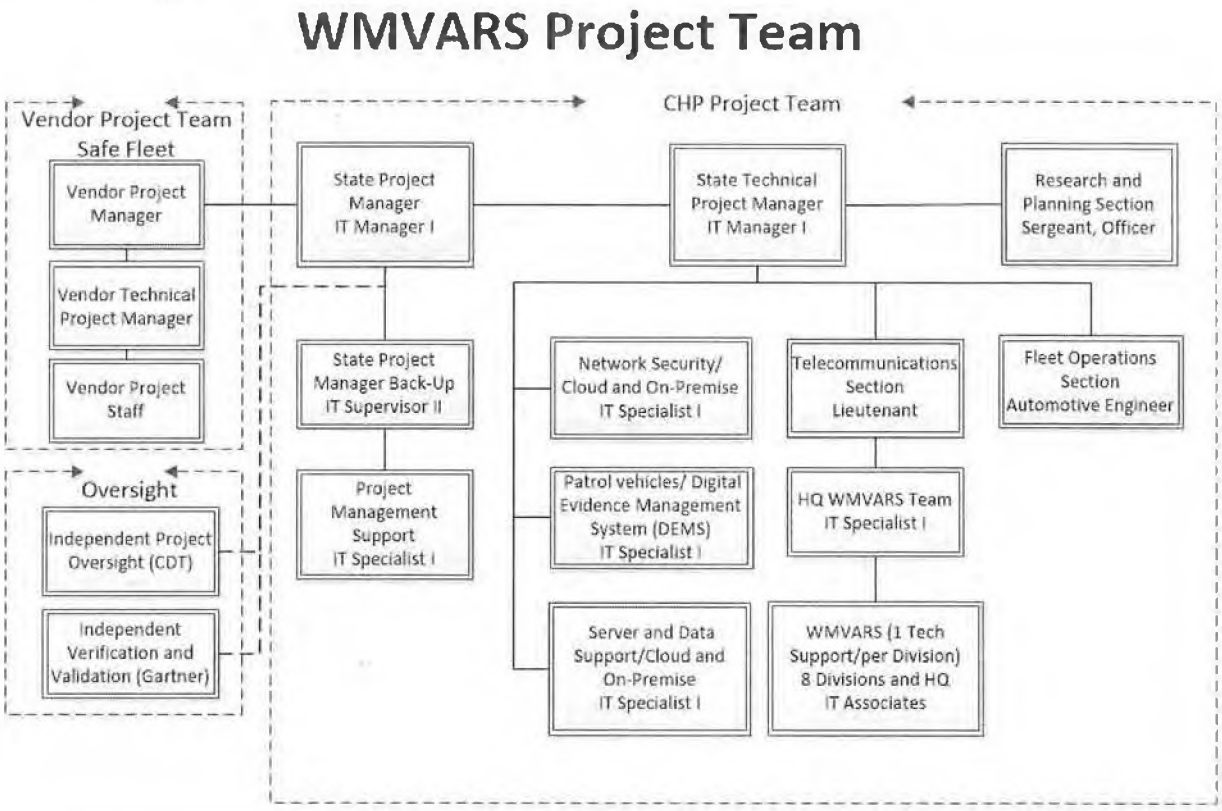
The agenda for the meetings will originate with the PM and be supplemented by any of the committee members.

WMVARS Executive Steering Committee and Project Management

WMVARS Steering Committee and Project Management



WMVARS Project Team



4.8.2 Roles and Responsibilities

The table below provides the roles and description of duties common to governing CHP IT projects.

PROJECT ROLES	
Role	**Responsibility**
Executive Sponsors	Provide executive-level sponsorship, support the need and business value, ensure project funding is available, and ensure resources are made available to support objectives. • Chair the executive-level meeting or ESC • Ensure external governing entities are properly consulted and engaged to provide timely approval of changes where required • Ultimate responsibility for overseeing project governance

PROJECT ROLES	
Role	**Responsibility**
Business Project Sponsor(s)	Provide project-level Office of Primary Interest (OPI) sponsorship, support the need and justify business value, ensure project funding is available, and ensure resources are made available to support objectives: • Make decisions on scope, schedule, or budget changes when these elements change beyond specified percentages (e.g., 5%, 10%) • Ensure decision items are properly analyzed before presenting them for decision • Ensure Stakeholders are engaged and those who need to provide advice about decisions have opportunity for meaningful input • Monitor risks and issues to ensure matters are appropriately referred for decision on a timely basis
IT Sponsor	Provide IT sponsorship, support the business need, ensure IT project funding is available, and ensure IT resources are made available to support objectives: • Ultimate responsibility for ensuring project aligns with enterprise technology strategy • Ensure Stakeholders are engaged and those who need to provide advice about decisions have opportunity for meaningful input • Monitor risks and issues to ensure matters are appropriately referred for decision on a timely basis
ESC	The ESC will act as an advisory body and as the final project authority. Advisory: • Provide advice to the Project Sponsor(s) and recommendations regarding any pending decisions Decision-Making: • Approve or reject requested changes. Final approval may also need to be ratified by the Project Sponsor and external control agencies if the decision results in a cost or change in Contract terms. • Make decisions on scope, schedule, or budget changes when these elements change beyond specified percentages (e.g., 5%, 10%). • Monitor risks and issues to ensure matters are appropriately referred for decision on a timely basis.

PROJECT ROLES	
Role	**Responsibility**
PM	Lead the team responsible for achieving the project objectives and ensure project is managed according to state and departmental policies and procedures: • Make daily decisions based on direction provided by the Project Sponsor or when changes are within the agreed-upon delegated authority • Ensure other Stakeholders have opportunities to provide advice regarding pending decisions • Communicate with the Project Sponsor regarding decisions made • Escalate issues for resolution to the Project Sponsor when they are outside the PM's span of control • Monitor risks and issues to ensure matters are appropriately referred for decision on a timely basis
Business Owner(s)	Own the business processes being impacted, provide input into the project objectives and scope of work, and ensure business resources are actively engaged throughout the project lifecycle to support objectives: • Make daily decisions regarding business aspects of the project as requirements are defined and design is developed • Provide timely analysis and recommendations regarding issues that require decisions by the PM or the Project Sponsor • Escalate issues to the attention of the PM and the Project Sponsor
PMU	Monitor the overall status of the project, provide guidance on project documentation, and ensure compliance with internal and external project management policies and practices: • Oversee the IT PAL • Provide ongoing project oversight and support

CONTROL AGENCIES	
Role	**Responsibility**
California State Transportation Agency (CSTA)	Develop and coordinate the policies and programs of the state's transportation entities. • Review and approve all Stage 1 Business Analysis submissions: • Review and approve all PAL documentation submitted to CDT
CDT	• Review and approve projects as part of the PAL process • May conduct IT procurements • Approve IT contracts and related amendment • Provide ongoing project support and oversight
DGS	• Conduct non-IT procurements, including approving solicitations through Leveraged Procurement Agreements (e.g., California Multiple Award Schedules)

PROJECT ROLES	
Role	**Responsibility**
DOF	• Approve project resources, via a BCP or Spring Finance Letter, for inclusion in the sponsoring organization's budget • Advocate for the budget request before the Legislature • Review and approve contract changes that result in additional project costs • Prepare a notification of changes to contracts for the Legislature
Legislature	• Approve the sponsoring organization's budget including resources supporting the project • Review Section 11.00 requests to increase future costs via a contract. Can request DOF not approve the amendment

4.8.3 Project Monitoring

The following are important to the Monitoring and Controlling aspects of managing a project and should be included as part of the project:

Project Management Controls

Project Management Controls are checkpoints to ensure expectations are in alignment and there is agreement before proceeding to the next phase of the process.

There are five phases to the project management lifecycle (PMLC): 1) Concept, 2) Initiating, 3) Planning, 4) Executing, and 5) Closing. During each phase there are tasks/activities and deliverables being produced. In general, the checkpoint is to ensure tasks have been completed, the budget and schedule are validated, and project risks and issues are reviewed before fully engaging in the next phase of the project lifecycle.

Phase	PM Controls CDT Reportable	Purpose
Concept	• CHP 53, Request for Information Technology Services, IMD Project Approval	Acknowledge the request, agree there is a project need and determine project priority
Initiating	• Project Charter Review Approval • Stage 1 Business Analysis Review and Approval	Agree on objective, scope and whether the project is worth the investment

Phase	PM Controls CDT Reportable	Purpose
Planning	• Kick-off Meeting • Stage 2 Alternatives Analysis Review and Approval • Stage 3 Solution Development Part A Solicitation Prep Review and Approval • Stage 3 Solution Development Part B Solicitation Package Readiness Review and Approval • Stage 4 Project Readiness and Approval	Agree on what it will take to complete the project; verify the project is still worth the investment; and ensure all plans are in place and project is ready to move forward with execution activities
Executing	• Go/No Go Decision • CCB Review and Approval • Executing Phase Gate Review and Approval	Confirm the project is ready to move to a production environment
Closing	• Post Implementation Evaluation Report Review and Approval	Review and confirm all activities related to the project have been completed, review lessons learned and benefits realization, and agree project can be closed

Project Status Meetings

Status meetings are a project management tool to assist with monitoring the project. They allow project stakeholders the opportunity to discuss project goals, tasks, progress, risks and issues. The various types of project meetings are to be outlined as part of the project Communication Management Plan.

Project Reporting

Status reports are a project management tool to assist with communicating project status on a regular basis. They provide project stakeholders with enough information necessary to keep a pulse on the project. The various types of project reporting and communications are outlined as part of the project Communication Management Plan.

4.9 Implementation Management

The Implementation Management Plan is a planning and management tool designed to illustrate the critical steps necessary for implementing WMVARS project deliverables (product or system) and describes the operational preparation steps that are necessary. It guides project staff by proactively developing the operational program necessary to support both the Stakeholders and the resulting system. It also helps identify any risks or challenges along the way. It is especially helpful in providing Project Team members and Stakeholders, regardless of their level of involvement, with an

understanding of the project goals and how they will be accomplished. It ensures everyone working on the project is on the same page and any discrepancies are resolved before they become costly to the project or Stakeholder being served.

The WMVARS project involves many components that must be tightly coordinated to ensure a successful deployment and ongoing support and maintenance. The project scope to be implemented involves the following:

- Vendor selection and procurement
- Configuration and installation
- Training
- SFT
- Field test and phased rollout

The project includes the purchase of a cloud-based digital evidence software application, in-car recording equipment, configuration (on-premise appliances and in-car systems), in-car system installation, functionality testing, field testing, and a statewide rollout to all CHP Area offices. The vendor must also meet with the CHP's Fleet Operations Section (FOS) to collaborate on the appropriate mounting hardware (i.e., brackets, wiring).

The WMVARS implementation approach resembles past statewide patrol vehicle deployments (e.g., modem upgrade project, computer operating system upgrades, mobile Computer Aided Dispatch application deployment).

The project execution phase includes receipt of test units from the vendor to install and configure, and unit test. During this stage, CHP's technical and support staff will be trained by the vendor to operate and train field staff on the use of the WMVARS. The unit testing will be followed by a full (SFT). The CHP and the vendor will collaborate on the test cases to be executed in the SFT to affirm all requirements have been met by the selected WMVARS solution. Each requirement will be tracked in a Requirements Traceability Matrix (RTM). If any requirements fail the SFT, the vendor will be provided the opportunity to correct the defect. The project will remain in SFT until all requirements have passed the associated tests.

Once SFT has been completed, the project will enter Field Testing to ensure the solution performs as expected in a production setting. The CHP will select two Area offices to conduct the Field Test. One Area office will be configured to transmit the in-car video evidence to the cloud directly and the other will be configured to transmit its data to an on-premise appliance; therefore, transmitting the evidence to the cloud in the background as bandwidth allows. Vehicles will transmit data through their 4G cellular modem throughout their shift then switch to the CHP Area's Wireless Fidelity to complete the transmission at a faster rate. The criteria for selecting these two Field Test sites is as follows:

Direct to Cloud Field Test Location	On-Premise Appliance Field Location
Strong cellular coverage throughout the CHP Area's territory	Weak cellular coverage throughout the CHP Area's territory
Bandwidth to the cloud that is > 20 Megabits per second (Mbps)	Bandwidth to the cloud that is < 20 Mbps

Direct to Cloud Field Test Location	On-Premise Appliance Field Location
Estimated transmission time is < 30 minutes (50 percent of the Area's vehicles are uploaded at once during shift change)	Estimated transmission time is > 30 minutes (50 percent of the Area's vehicles are uploaded at once during shift change)

The Field Test duration is defined as:

	Field Test	Burn-in Period
Field Test #1	10 calendar days	15 calendar days
Field Test #2	10 calendar days	15 calendar days

If the solution experiences problems such as downtime or features that are nonoperative, the vendor shall be allowed to correct the problems and the ten day period will restart when the problem is resolved.

Once the Field Tests are complete and accepted, the statewide rollout will begin. The CHP organization is divided geographically into eight field divisions and the CHP Headquarters (HQ). The rollout schedule will be structured to assemble Area officer trainers and Automotive Technicians to meet at their Division location for training. The Automotive Technicians will bring one or two patrol vehicles to complete the removal of the old MVARS then install and test the new WMVARS equipment. Meanwhile, officers will be trained on the use of the WMVARS. This training will include end user training, evidence officer training, and sergeant training. The CHP and the vendor will each train a portion of the class: the vendor will train on system use and the CHP will train on policies surrounding digital evidence handling. Once Division training is complete, the Automotive Technicians will return to their Area and complete the WMVARS installation on the rest of the vehicles and the training officers will train the rest of the Area office staff on the use of, and policy around, the new WMVARS.

Throughout the project, 12 approved person-years (PY) will be added the CHP support team. Eight will be located at the Divisions (one per Division) as frontline support to the local Areas within that Division. One PY will be located at HQ as frontline support to the local Areas and eight Division support staff. Three PYs will be technical staff added to ITS to support the WMVARS backend (i.e., network connectivity, database maintenance).

A more detailed Implementation Plan has been developed. It is represented as a separate plan and is not included as part of this plan.

4.10 Issue Management

The purpose of an Issue Management Plan is to ensure issues are properly managed to reduce negative impacts on the project. Issues are defined as something in dispute or something to be resolved. The resolution of issues may have an impact on the project's scope, schedule, cost, or quality. Successful projects rely on understanding, documenting, and addressing project issues diligently.

The PM is responsible for overall issue management and ensuring any issues are acknowledged and addressed in a timely manner. As part of the monitoring and controlling of the project, the PM will document and track issues as well as the actions taken within an issues log. Many of the issues will be addressed during project status meetings. Typically, issues will be addressed at the Project Team level;

however, critical issues or those deemed of high importance and not addressed in a timely manner will be escalated to CHP management and vendor management as appropriate.

4.10.1 Issue Identification

Issue identification is a recurring event. It consists of Project Team members determining if potential issues are truly issues or should be tracked as risks or changes. A potential issue is any concern a team member or Stakeholder would like to address. Adopted issues are documented in the Issue Log and assigned a unique number for tracking through the life of the project.

Issue identification is an integral process to ensure successful delivery of any project. Issues arise throughout the project lifecycle and require swift recognition, attention, and resolution to minimize their impact to the project. Any Project Team member can identify an issue. Issues should be raised to the team lead, the PM.

4.10.2 Issue Analysis

Issues are initially submitted to the PM. The issue is then entered in the Issue Log and assigned an Issue Owner. Identified issues and potential issues are reviewed in a regularly scheduled status meeting. This provides a consistent and ongoing evaluation of issues and strategies to resolve them. Some issues may require more in-depth evaluation and analysis to clearly understand the issue and impact to the project.

4.10.3 Issue Resolution and Escalation

Depending on the nature of the issue, the PM may directly address the issue by working with the Project Sponsor when appropriate. The PM may also assign an Issue Owner, who is a Project Team member assigned to resolve the issue.

The escalation process ensures critical issues are resolved in a timely manner and reach the necessary decision-making authority for issue resolution. The PM, Issue Owner, and Project Team should strive to make decisions and address issues at the lowest possible level. Issues that cannot be resolved at the project level are escalated to the Project Sponsors, who are responsible for escalating resolution of the issue to the Executive Sponsor and/or the ESC when appropriate.

As each issue is resolved, the solutions are incorporated into the project plans, project schedule, project policies, processes or procedures, and/or business rules as appropriate.

4.10.4 Issue Control, Tracking, and Reporting

The PM shall update and track issues using an Issue Log. The log is used to review outstanding issues with the Project Team on a weekly basis. The Issue Owner is responsible for reporting to the Project Team about progress on the issue and any other relevant information during regularly scheduled Project Team meetings or ad hoc as requested. Updates are noted in the Issue Log, including the date of the update and the location of any additional information related to the issue. Critical issues require closer review and are monitored more frequently.

All progress of the issue resolution will be captured and reviewed by the Project Team. The need for escalation will be captured, if required, within the Issue Log. Once the issue is resolved or deemed no longer an issue, the Issue Log will be updated, and the issue will be closed.

4.10.5 Issue Tracking Log Sample

Issue Identification						Issue Resolution				Issue Control			
ID #	Issue Title	Issue Statement or Description	Date Issue Identified	Issue Originator	Impact Rating	Issue Owner	Date Assigned	Target Resolution Date	Issue Resolution Description	Priority	Issue Status	Issue Closure Date	Comments

4.11 Maintenance and Operations Transition Management

Onboarding of CHP WMVARS support staff is critical to realizing the long-term business value of the WMVARS solution. The WMVARS BCP provided for the addition of State staff in support of the new WMVARS statewide. The new WMVARS staff will be hired as the project progresses through the planned three-year implementation effort (see table below). Throughout the configuration and testing phases, CHP staff will be tightly coupled with the vendor to learn the system.

Essentially, Project Team members will transition all post-project responsibilities to assigned resources for future operational support. The are no plans to transition operational WMVARS responsibilities to new organizational team members.

One of the Contract document deliverables is an WMVARS Configuration Summary that outlines all the system settings selected by CHP with the vendor's guidance. This document will serve as the configuration baseline CHP will manage going forward. Also expected from the vendor are the System Administration Manual, Training Outlines, Troubleshooting Manual, Installation Guides, and Software Maintenance Manuals that will facilitate effective use of the system for the life of the Contract. All WMVARS project members must have the requisite knowledge to help ensure the continuation of critical processes and the proper transfer of institutional knowledge.

Task Deliverable	Description	Timeframe
New Staff	Onboarding of new staff will be phased in during the life of the project and staff will begin to participate in project activities shortly after hire. Resources will begin to immediately support the WMVARS system once training has been received.	FY 18/19 – Four resources FY 19/20 – Five resources FY 20/21 – Four resources
System Documentation and Training Guides	Project documentation to be completed as part of the design and configuration stage. Final documents to be developed by the vendor, then reviewed and approved by CHP. Upon CHP approval, RPS shall be responsible for maintaining.	June 2019 – November 2019
Train the Trainer and Supporting Documentation	Vendor-supported Division train-the-trainer sessions will be conducted. At the completion of each training, CHP shall be responsible for training respective Area offices, including providing any training material.	January 2021 – March 2021

Task Deliverable	Description	Timeframe
M&O Software	Upon completion of successful pilot, there shall be a Go/No Go decision point and software shall be considered production. Any configuration changes following pilot shall be considered part of M&O. The RPS shall be primary owner. A COTS application is a SaaS solution and the vendor shall be responsible for software updates per the term of the Contract. The ITS shall be responsible for validating software updates once available and reporting any issues to the vendor.	Beginning January 2021
M&O Hardware (Appliance)	Upon completion of each successful on-premise appliance, the vendor shall be responsible for support per the term of the Contract. The ITS will provide technical assistance as needed.	Beginning January 2021
M&O Hardware (In-Car Camera System)	Upon receipt, in-car camera system hardware shall be under warranty for a fixed period. At the end of the warranty period, replacement may be required. The RPS shall be responsible for managing maintenance and replacement of in-car systems.	Beginning January 2021

4.12 Procurement Management

4.12.1 Roles and Responsibilities

Role	Responsibility
Project Sponsors	• Provide overall business leadership to ensure the procurement requirements are met • Ensure requests for procurement changes have followed the approved Change Control Management Process, and approved changes have been incorporated into procurement documents in a timely manner • Review and approve procurement documents prior to sending to control agencies

Role	Responsibility
PM Technical PM	• Ensure the overall Procurement Management effort is being executed in accordance with the plan • Ensure the entire Project Team, state, and vendor (if applicable) are following this plan and all project processes that interact or provide input to the Procurement Management effort are being adhered to • Ensure there are enough resources to execute this plan and the Procurement Management activities are being performed in a timely manner
ITS Acquisitions Services Manager	• Overall responsibility for managing processes and activities outlined in the Procurement Management Plan • Responsible for the overall Procurement Management effort and the procurement repository containing the procurement documents • Ensure the procurement process is organized, managed, and controlled and all issues are identified and resolved in a timely manner to minimize rework • Contribute to the development of procurement documents • Review and approve all procurement associated with the project and future operational procurement efforts
Procurement Analyst(s) and/or Acquisition Specialist	• Assist the PM and Procurement Manager in the capturing, verifying, and communicating of project procurement requirements • Handle procuring a contract by performing the following: • Submit purchase requisitions. • Review the purchase requisition documents, including the SOW • Distribute copies of the signed executed Contract to the appropriate parties • Inform final approval of the Contracts with the Procurement/Contract Manager and advise the project of new or modified state procurement policies and regulations
Financial Analyst	• Receive and coordinate approvals of invoices and processing invoice disputes • Send approved invoices to the APU for processing
Accounting Analyst (Accounts Payable Unit)	• When approved invoices are received, create a request for payment and send the request to SCO • Verify the invoice funds versus fund availability
DGS Contract Manager	• Review and provide feedback on the procurement process and documents. May undertake the conduct of the procurement itself, depending on the scale of the Contract and the sponsoring entity's delegated authority for procurements • Coordinate DGS approvals of Contract and Contract-related amendments

Role	Responsibility
DOF	• Audit procurements as necessary • Review and approve project financials as they relate to PAL • Work with CHP Budgets to ensure the BCP funding is allocated according to approved requests
SCO	• Receive check requests for invoice payment from the Department, write the associated check for payment, and mail the check to the vendor

4.12.2 Procurement Scope

The project procurement items are defined/identified as part of the RFP and SOW.

4.12.3 Contract Type

All WMVARS products and services for this project will be purchased via the statewide contract.

4.12.4 Procurement Risk Management

To ensure project success, potential procurement risks must be managed. All risks will be managed according to the project Risk Management Plan; however, the following specific procurement risks have been considered:

- Unrealistic vendor schedule and cost expectations
- Possible conflicts with current contracts
- Configuration management for upgrades and improvement of already purchased technology
- Potential delays in procurement process
- Potential shipping delays
- Potential final product does not meet specified requirements

The specified procurement risks are not all inclusive and the Risk Management will be used to identify, document, analyze, manage, and mitigate risks.

4.12.5 Procurement Document Preparation

Role	Responsibility
Technical PM PM	• Obtain and review quotes • Draft SOW • Prepare Bill of Materials (BOM)
Procurement Analyst	• Review quotes, BOM, and SOW • Prepare Certification of Compliance with IT Policies • Complete and submit purchase requisition
Buyer (PSU)	• Prepare purchase order

4.12.6 Procurement Constraints and Assumptions

Several project constraints exist and must be considered in the Procurement Management Plan. These constraints will be included in the RFP and communicated to the vendor, so they can determine their ability to work within the constraints. The constraints are as follows:

- **Schedule** – The schedule is not flexible and the procurement activities, contract administration, and contract fulfillment must be completed within the established project schedule.
- **Cost** – The project is funded by a BCP and is, therefore, inflexible. The project budget has contingency and management reserves built in; however, these reserves may not be applied to procurement activities. Reserves are only to be used in the event of an approved change in project scope or at management's discretion.
- **Scope** – All procurement activities and contract awards must support the approved project scope statement. Any procurement activities or contract awards which specify work which is not in direct support of the project's scope statement will be considered out of scope and disapproved.
- **Technology** – Parts specifications have already been determined and will be included in the SOW as part of the RFP. While proposals may include suggested alternative material or manufacturing processes, parts specifications must match those provided in the SOW exactly.

4.12.7 Vendor Management

To ensure a successful relation between the CHP and selected WMVARS vendor, the following is planned.

- **Identification of clear rules of engagement:** This will involve setting expectations and performance guidelines at the beginning of the relationship and revisiting and reporting on them periodically.
- **Ethics**: It will be critical to define the expectations about competition, nondisclosure, and other requirements that apply to the CHP and WMVARS project and ensure the vendor accepts these and hold to the standards.
- **Consistent, easy-to-follow bidding processes:** It will be important for the CHP team and the vendor team to work together to set realistic timelines for the entire WMVARS project. Both teams will be accountable to the project timelines for making decisions and performance.
- **Regular schedules, milestones, and check-ins**: At the project kickoff, communications regarding the established timeline and completion of the PMP with the vendor onboard will be done. This will address milestones, deliverables, and costs. In addition, regular check-ins to allow both sides to course-correct if needed and to identify potential points as well as new opportunities discovered during the project work will occur.

4.13 Quality Management

4.13.1 Process Quality

The WMVARS project has the following processes built into the project's management processes to help drive quality throughout the project.

Phase	Process	Activity
All	Staff Acquisition	• Staff acquired has the necessary skill set for their role • Staff acquired align with Resource Management Plan
Initiating	PAL	• Completion of the PAL Stage Gate Deliverable (Stage 1) • Approval of the PAL Stage Gate
Planning	Project Planning	• Completion of the PAL Stage Gate Deliverables (Stages 2-4) • The PMP meets applicable standards and approved by appropriate Stakeholder(s)
Executing	Testing	• Full SFT • Two Field Tests: direct to cloud and on-premise locations
Executing	Change Control Management	Go/No Go decision based on: • Number of outstanding critical defects • Number and severity of open/unresolved defects
Executing	Verification	• Verify all vehicles identified during Phase 1 have been prewired for WMVARs installation; if not, complete prewire • Verify and validate Phase 2 vehicles have WMVARS components installed correctly • Final verification and validation all vehicles identified during Phase 1 and Phase 2, including any prewired new builds, have a WMVARS components installed correctly

4.13.2 Process Measurement

The project will conduct the following reviews to assess process quality and identify defects.

Review Type	Review Goal	Deliverables/Artifacts	Responsibility	Timing
Project Review	Review of project management documentation and status reports to ensure project is moving forward as planned	Project Management Planning Documents Issue Log Risk Register Change Request Log PMO Status Reports	Project Oversight (CHP and CDT) IV&V	As needed

Review Type	Review Goal	Deliverables/Artifacts	Responsibility	Timing
Documentation Review	Review of the project's management plans and other project documentation to determine if the project's documentation standards are being followed	Project Management Planning Documents Issue Log Risk Register Change Request Log	PM	When moving to a new project phase When a risk related to one or more of the processes has been identified As needed
Managerial Review	Evaluate and determine the overall efficacy of project quality management. This includes both quality assurance (process quality) and quality control (product quality)	Defect reports Audit results CRs Quality Management Plan	Project Sponsor(s) PM	Quarterly

4.13.3 Product Quality

The following table shows the product and product-related items that will be measured for quality throughout the project and the criteria by which they will be measured.

Product/Deliverable	Criteria
Requirements Specification	All business, functional, and nonfunctional requirement specifications adhere to the needs of CHP. Reviews have been conducted through SFT and the specification is deemed to be complete.
Recording Equipment	Equipment design specifications adhere to departmental standards. Reviews have been conducted by FOS, RPS, and ITS and are deemed to be complete. The RTM mapping from requirements to design components is complete and addresses all requirements. Further review will take place during the SFT phase.
Centralized Cloud-Based Evidence Management System	Technical and functional WMVARS requirements reviews have been conducted through SFT and the Field Test is deemed to be complete.

4.13.4 Product Measurement

All products will be evaluated for quality. The project will conduct the following reviews to assess product quality and identify defects.

Review Type	Review Goal	Deliverables/ Artifact	Responsibility	Timing
System Requirements Specification Review	Check the adequacy of the requirements. Verify/validate the requirements. Determine if any additional requirements.	RTM CR	PM Project Team Members RPS ITS	Upon initial submittal of the requirements Upon initial submittal of the requirements
Architecture Design Review	Evaluate the technical adequacy of the preliminary design for the WMVARS components, sub-components, software, and services depicted in the preliminary design description	Requirements Matrix High-Level Design CR Quality Management Plan	PM IT Sponsor	Upon initial submittal of the preliminary design Upon a change in the preliminary design baseline When a risk related to the design has been identified. As needed.

4.13.5 Product Improvement

Project quality is the responsibility of every Project Team member; however, there are specific roles and responsibilities among various Stakeholders. Below are specific roles and essential responsibilities of various Stakeholders related to the project's quality management efforts.

Role	Responsibility
Executive Sponsor	• Set the tone and expectations for project and product quality • Overall decision-making responsibility for Quality Management activities
PM	• Oversee overall project quality management process and deliverables • Ensure quality management activities are being conducted per the plan • Develop and tracks project metrics • Oversee vendor activities • Promote quality culture
Technical PM Representatives from: ITS RPS FOS Telecommunications Section	• Participate in quality definition activities • Review major quality issues and approve or make recommendations to the Project Sponsor(s) and/or ESC • Monitor and resolve quality issues that are escalated to them • Promote the quality culture • Ensure adherence to process standards • Ensure deliverables meet quality standards • Participate in team-level quality reviews

4.14 Requirements Management

The project assembled functional, nonfunctional, and project-related requirements from the following sources:

- Project Charter
- Market research
- Body worn camera pilot in Stockton and Oakland Area offices
- Office of Primary Interest – RPS
- Fleet Operations Section
- Project Sponsors
- Lessons learned from past statewide solution implementations

4.14.1 Requirements Definition

The Project Team assembled the equipment specifications through market research, analysis of the existing MVARS system, and interviews with the MVARS and FOS SMEs. In addition, the technical and security specifications were compiled based on input from the CHP's Network Security Group as well as the CHP's ISO. The Project Team also leveraged the technical requirements from the BWC pilot project. Lastly, the Project Management Institute-certified project members of the Project Team drew on their experience planning and implementing large, statewide CHP projects to document project-related requirements. Together, all four areas formed the WMVARS requirements. These requirements were compiled in a Microsoft Excel spreadsheet so they can be easily transformed into the RTM. The RTM will be managed and updated as necessary by the PM and Technical PM as the project progresses.

4.14.2 Requirement Types

The table below defines the types of requirements that will be used.

Requirement Type	Definition
User Requirements	User requirements define requirements from the user's point of view, describing tasks users need to accomplish with the product, and the users' quality requirements. Users can be broadly defined to include not only people who access the system, but also inanimate users, such as hardware devices, databases, and other systems.
Product Requirements	Product requirements are detailed descriptions of all functional and nonfunctional requirements that must be fulfilled to meet business and user needs. Examples of nonfunctional requirements include software design constraints, external interfaces, and quality attributes, such as performance, security, installation ability, availability, safety, and reusability. Product requirements establish an agreement among technical specialists and business managers on what the product must do.

4.14.3 Requirement Assumptions and Constraints

The table below identifies requirement assumptions and constraints.

Name or Title	Type (Assumption or Constraint)	Description
Law Enforcement Standards	Assumption	The requirements will be gathered from certified law enforcement sources, such as the Commission on Accreditation for Law Enforcement Agencies
Security Standards	Assumption	The requirements will be in alignment with federal and state law enforcement security standards
Government Transition	Assumption	The direction of the project will remain the same after the new Governor is in place
Transparency	Assumption	The project will include requirements that promote transparency with the public and other government entities (e.g., courts)
Scope	Assumption	The requirements are final

4.14.4 Roles and Responsibilities

The table below contains the Project Team member, their role, and associated responsibilities as they pertain to performing various Requirements Management activities.

Role	Responsibility
Sponsor	• Provide overall business leadership to ensure baseline requirements are accurately captured
PM	• Responsible for the overall Requirements Management Plan • Ensure the entire Project Team, state, and vendor are following this plan • Ensure there are enough resources to execute this plan and requirements management activities are being performed in a timely manner • Ensure the overall requirements management effort is being executed in accordance with the plan
Technical PM	• Responsible for the requirements management effort, including the solicitation and documentation of requirements • Maintain the requirements repository containing the requirements baseline • Ensure requirements are organized, managed, and controlled, and issues are identified and resolved in a timely manner to minimize rework • Develop and maintain the RTM
Business Owners	• Review and recommend approval of the Functional Requirement Document and the RTM • Participate in the requirements analysis status review • Review requirements management reports to ensure the requirements baseline is complete, all approved changes have been incorporated, and impacts caused by changes are identified within the repository

Role	Responsibility
Business SME	• Participate in process to define Business and User Functional Requirements. • Review communications in accordance with the Communication Management Plan • Work with the Project Team to identify and document all functional requirements • Attend the requirements analysis and development status reviews
Vendor PM	• If applicable, ensure the vendor team is complying with the requirements management process, procedures within this Plan, and in accordance with requirements in the vendor's Contract • Perform reviews of the requirements management work performed by the vendor team and verify work complies with the requirements management process described in this plan and requirements in the vendor's Contract • Identify issues to the PM in a timely manner to minimize the amount of rework necessary for state and vendor teams

4.15 Resource Management (Human Resources and Staff Management) Plan

Due to the scope and complexities envisioned with the project, dedicated resources will be required. Some of these resources will be provided by the solution vendor. The CHP will provide resources to oversee this project and provide ongoing support for the WMVARS. The solicitation will include a section describing a high-level view of the expected workload the project will represent. The staffing and workload are presented in two phases:

- One-time resources that start at the onset of the project and are released upon project closeout.
- Continuing resources that start at the onset of the project and increase over the course of three years as the WMVARS is rolled out to more vehicles and Area offices and will remain in place to provide continuing support.

When the selected WMVARS vendor begins work on the project (i.e., FOS consultations, system tests), members of the continuing technical support and system administration team will need to be brought onboard and trained in the system, then provide technical support and system administration. Technical support and system administration must cover the entire span of the project.

4.15.1 Roles and Responsibilities

The table below outlines the project participants who are expected to collaborate on project staff management activities and their associated responsibilities.

Role	Responsibility
Executive Sponsors	• Provide overall guidance and direction to the Project Team • Acquire the resources or funding for the resources

Role	Responsibility
Project Sponsor Business Owner	• Provide operational direction for business/technical staffing • Provide approval and commitment of business/technical resources
PM Technical PM	• Develop the Resource Management Plan • Escalate staffing-related issues to the Project Sponsors and ESC • Present the final staffing plan to the Project Sponsor for approval • Attend Control Agency review and approval sessions and support the Sponsor in addressing Control Agency questions
Selection Standards and Examinations Section	• Assist the PM in identifying HR-related policies, constraints, and processes for hiring required staff • Support the PM in developing job descriptions and navigating the State hiring process
Functional Managers	• Provide input on the staff estimating process • Provide input on the staff skill requirements • Provide requirements for staff availability and agreements

4.15.2 Project Staffing Estimates

As mentioned above, the staffing and workload are presented in two phases:

- Project Implementation – This phase includes one-time resources that start at the onset of the project and are released upon project closeout.
- Future Operations – This phase includes continuing resources that start at the onset of the project and increase over the course of three years as the WMVARS is rolled out to more vehicles and Area offices and will remain in place to provide continuing support.

The project has allocated a total of 61.8 fulltime equivalent (FTE) resources to the project's three-year implementation. Twelve FTE resources have been allocated to future operations. The resources allocated to the project implementation are expected to participate at the start of project kick-off or upon hire until the WMVARS rollout is complete. Upon rollout completion, all but the project management staff and 12 operations support staff are expected to transition off the project. Project management staff will remain on the project until project closeout activities have been completed. Operations support staff will remain onboard permanently.

The following table is a breakdown of the resources allocated to the project and the percentage allocated by FY:

			Project Implementation														Future Operations				
Resource Type	Roles	Budgeted FTE FY 19/20	FY 19/20 - 1Q	FY 19/20 - 2Q	FY 19/20 - 3Q	FY 19/20 - 4Q	Budgeted FTE FY 20/21	FY 20/21 - 1Q	FY 20/21 - 2Q	FY 20/21 - 3Q	FY 20/21 - 4Q	Budgeted FTE FY 21/22	FY 21/22 - 1Q	FY 21/22 - 2Q	FY 21/22 - 3Q	FY 21/22 - 4Q	Budgeted FTE FY 22/23	FY 22/23 - 1Q	FY 22/23 - 2Q	FY 22/23 - 3Q	FY 22/23 - 4Q
IT Manager	Project Manager Technical Project Manager	0.28	28	28	28	28	2.5	250	250	250	250	2.5	250	250	250	250					
IT Specialist	Project Management Support	0.75	75	75	75	75	1.5	150	150	150	150	1.5	150	150	150	150					
IT Associate	IT Subject Matter Expert (SME) Support	0.06	6	6	6	6	0.5	50	50	50	50	0.5	100	100							
Sergeant	Business SME Support	0.22	22	22	22	22	1.5	150	150	150	150	1.5	300	300							
Officer	Business SME Support	0.18	18	18	18	18	0.2	16	16	16	16	0.2	32	32							
Officer	General Implementation Support (e.g., SME support, WMVARS installation support, training)	0.09	9	9	9	9	1.5	150	150	150	150	1.5	300	300							
Associate Governmental Program Analyst	General Implementation Support (e.g., SME support, training)	0.33	33	33	33	33	4.0	400	400	400	400	4.0	800	800							
Total Redirect		1.9					11.7					11.7									
IT Associate	Headquarters and Field Division Support	6.0	600	600	600	600	9.0	900	900	900	900	9.0	900	900	900	900	9.0	900	900	900	900
IT Specialist	Patrol Vehicle and Digital Evidence Management System Support Server and Data Support Network Security Support	3.0	300	300	300	300	3.0	300	300	300	300	3.0	300	300	300	300	3.0	300	300	300	300
Total New		9.0					12.0					12.0					12.0				
Cumulative Grand Total		**10.9**					**34.6**					**58.2**					**12.0**				

4.15.3 Staffing Skills and Competencies

The CHP organization leading the solicitation and implementation is the ITS. Also playing a critical role in the project is RPS, which is the OPI for in-car video systems. The RPS has been involved in the planning process from the beginning of the Feasibility Study Report (FSR) effort and remains a guiding force. The RPS brings the hands-on experts from the field into the project and functions as the application administrators of the existing systems; however, this role will transition to ITS due to the databases involved in the new system.

The CHP's IT staff can support this project with a slight augmentation; therefore, the CHP is requesting twelve new PYs with this project to handle all eight field Divisions, HQ, and the new WMVARS infrastructure. A cross-divisional team will be resourced for this effort. The CHP leadership is fully committed to this project and has received WMVARS BCP approval and funding to acquire the twelve PYs. Eight of the PYs will act as dedicated support to each of the eight CHP field Divisions. One of the PYs will act as the HQ-dedicated support to each of the eight CHP field Divisions. The other three PYs will increase CHP's ability to support server and network infrastructure; these additional PYs are needed due to the size of the infrastructure increase brought about by this project.

The table below provides a definition of the project staffing roles, the responsibilities, and any specific skills sets that may be required to support the project.

Role	Responsibilities	Skills/Proficiency
CHP PM	Responsible for the overall success of the project. The PM is responsible for ensuring work activities meet established acceptability criteria and fall within acceptable variances. The PM will be responsible for reporting project status in accordance with the Communications Management Plan. The PM will evaluate the performance of all Project Team members and communicate their performance to functional managers. The PM is also responsible for acquiring human resources for the project through coordination with functional managers. The PM must possess the following skills: leadership/management, budgeting, scheduling, and effective executive communication.	• Leadership/management • Budgeting • Scheduling • Executive communication
Vendor Technical Consultant/SME	Responsible for gathering business and technical requirements for the project. The business analyst is responsible for analyzing current and planned workflow and developing appropriate use cases. Assist PM in managing facilitated sessions and information gathering from project Stakeholders. The business analyst must be proficient in the Department's requirements management workbench, communication, business process analysis, and session facilitation.	• Requirements management workbench • Communication • Business process analysis • Session facilitation

Role	Responsibilities	Skills/Proficiency
CHP Technical Leads	A CHP SME in data storage, retrieval, system backups, and user system authentication A CHP SME in enterprise network infrastructure and security, and data transmission	• Knowledge of design and documentation of backup/restore strategies • Storage management in virtualization environments • Knowledge of and experience supporting or implementing one or more Microsoft enterprise services, such as: Exchange, SharePoint, Structured Query Language, Active Directory, and Windows server • Ability to plan, document, and effectively implement projects and systems
WMVARS Technical Support	Responsible for the technical aspects of WMVARS. Liaison to the vendor to resolve technical system issues	• Strong communications skills • Knowledge of hardware and software • Knowledge of the latest IT and software trends • Strong customer service ethos • Ability to work well with people • Excellent organizational skills
System Administrator	Responsible for effective provisioning, installation/configuration, operation, and maintenance of system's hardware, software, related infrastructure	• Installing and configuring software, hardware, and networks • Monitoring system performance and troubleshooting issues • Ensuring security and efficiency of IT infrastructure
Area Office Trainers	Responsible for training officers and staff in the Area office	• Communicating to identify training needs • Mapping out development plans or teams and individuals • Ability to manage, design, develop, coordinate, and conduct all training programs
WMVARS and CHP Policy SME	Responsible for the application configuration and support of user experiences. Expert at troubleshooting issues. First line of support for the field.	• Ability to support in system design, development, testing and implementation activities • Knowledge of best practices to improve integrity and quality of application configuration processes • Knowledge and ability to evaluate configuration management processes and recommend improvements

Role	Responsibilities	Skills/Proficiency
CHP Automotive Technicians	Train Area Automotive Technicians on in-car installation processes	• Communicating to identify training needs • Mapping out development plans or teams and individuals • Ability to manage, design, develop, coordinate and conduct all training programs
Local Area Network (LAN) Coordinators	Installation, testing, and maintenance of the on-premise appliances	• Strong communications skills • Knowledge of hardware and software • Knowledge of the latest IT and software trends • Strong customer service ethos • Ability to work well with people • Excellent organizational skills

4.15.4 Staffing Assumptions and Constraints

As planning activities continue, the table below captures the project assumptions and constraints as they apply to staff management:

Staff Management Plan Assumptions and Constraints	
Topic	**Assumption/Constraint**
Staff Participation	Resources will be allocated to the project when required
Staff Participation	Project Team members with conflicting operational responsibilities will have a way to resolve conflicting time frames between an operational issue and project deliverable deadlines
Regular Work Week	A regular work week is Monday through Friday and 40 hours in duration

4.15.5 Staff Acquisition Strategy

The resource requirements for the project are multi-fold: existing and new CHP staff and vendor staff. Existing field staff will be trained to assist with the implementation of WMVARS and to provide technical support. However, existing CHP personnel will need to be augmented with new, permanent positions during the project implementation timeframe and beyond. The training of existing and new technical support and system administration staff will be a requirement in the solicitation. These support and system administration staff will stay on after the implementation phase of the project.

For the life of the project and beyond, CHP will need 12 new positions (as shown in the Financial Analysis Worksheet [FAW] and approved BCP) to implement and then support the WMVARS effort. From the field perspective, CHP needs nine new Information Technology Associates to support the eight field Divisions and HQ. With so few new personnel being requested, each new position will support hundreds of vehicles and more than 1,000 users. These nine new positions will coordinate installations

and maintenance of WMVARS while also coordinating training for all new users on-going. The new positions will also be the application administrators allocating user access to the field, including mass transfers which occur each quarter. The CHP Division Network Administrators are already overloaded and cannot absorb this new work without the new positions.

From a technical perspective, CHP needs three new IT staff members to support many new servers, databases, workstations, and complex applications in the field. The CHP is requesting three Information Technology Specialists to support the application software in 124 locations and support the servers and databases in approximately 50 locations. The CHP IT staff is already overloaded and cannot absorb this new work without the new positions.

The CHP has also allocated the equivalent of 10 PYs to the project (not the operations). The CHP will use existing staff from the OPI and portions of personnel with expertise in IT project management, security, network, servers, databases, software distribution, workstations, and assorted other technical expertise.

Some project staff will be supplied by the winning vendor. The vendor will be contractually obligated to meet the implementation requirements regardless of the number of staff they need to provide.

The CHP will provide a State PM, Technical PM, WMVARS technical support, and system administrator staff; therefore, increasing in numbers as the project transitions from the publication of the WMVARS solicitation to full implementation. During the project, new personnel will be added to the team to assist with and support sites as they begin WMVARS production use. When the project is complete, the 12 new CHP staff will be available for support in the field and within the CHP, ITS.

Continuing Workload

The continuing workload will be supported by the 12 new PYs and the existing LAN coordinator at each Area office. The table below outlines the following new positions that were included in the FAW:

Title	Workload Description	Starts in Project Phase
Information Technology Associate	Valley Division WMVARS support of software, users, and hardware in the field	As Valley Division begins rollout
Information Technology Associate	Northern Division WMVARS support of software, users, and hardware in the field	As Northern Division begins rollout
Information Technology Associate	Golden Gate Division WMVARS support of software, users, and hardware in the field	As Golden Gate Division begins rollout
Information Technology Associate	Central Division WMVARS support of software, users, and hardware in the field	As Central Division begins rollout
Information Technology Associate	Southern Division WMVARS support of software, users, and hardware in the field	As Southern Division begins rollout

Title	Workload Description	Starts in Project Phase
Information Technology Associate	Inland Division WMVARS support of software, users, and hardware in the field	As Inland Division begins rollout
Information Technology Associate	Coastal Division WMVARS support of software, users, and hardware in the field	As Coastal Division begins rollout
Information Technology Associate	Border Division WMVARS support of software, users, and hardware in the field	As Border Division begins rollout
Information Technology Associate	HQ WMVARS support of software, users, and hardware in HQ	As HQ begins rollout
Information Technology Specialist I	Patrol vehicle technical support of WMVARS software at HQ	As project begins
Information Technology Specialist I	Network support (this project will stress the new wireless 802.11x access points and the CHP wide area network at HQ)	As project begins
Information Technology Specialist I	Server support. This project will add new servers and an increase in data passing through HQ	As project begins

4.15.6 Staff/Team Development Plan

Skill and Competency Development

The project will be staffed with personnel well versed in their respective area of expertise. Throughout the project all are expected to grow more proficient in the winning vendor's system. The PM and Executive Sponsors will support this expansion of institutional knowledge throughout the Execution and Close-down phases while staff transitions out of the project and into the M&O stage of the WMVARS program.

Team Development

Successful projects rely on a Project Team who work toward shared goals. It is essential that the Project Team members view the Project Team members as one team with aligned purposes. It is not only the PMs but also the entire chain of command that must share and promote this mindset to foster teamwork and develop a high-performing team. A high-performing Project Team can be formed by:

- Using open and effective communication
- Creating team-building opportunities
- Developing trust among team members
- Establishing team norms, values, and guiding principles
- Establishing rewards and recognition for positive contribution
- Managing conflicts in a constructive manner

- Encouraging collaborative problem-solving and decision-making

4.15.7 Project Orientation

The project orientation process for both State and contracted team members will contain the topics below and new team member onboarding will consist of collaboration between CHP and vendor PMs. This collaboration will be driven by the desire to enable a cohesive Project Team with shared project goals. A typical project orientation will include, but not be limited to, the following topics:

- Background and project purpose
- Project status
- Review of the project organization chart
- Specific job duties and expectations
- Introduction to the Project Team (management, staff, and consultants)
- Review project policies, standards, and tools
- Review approaches to governance, communications, and change control management
- Review the project calendar, including status meetings and team meetings
- Sign required forms such as confidentiality, conflict of interest, network access, and security policies
- Overview of the facility, amenities, nearby restaurants, parking, and transportation

4.15.8 Administrative and Performance Management Approach

Day-to-day management of assigned project staff is the responsibility of the CHP PM and designated team leaders. Performance evaluations, performance issues and recognition, promotions, and disciplinary actions are the responsibility of the State functional manager and the vendor for their respective staff.

4.15.9 Staff Transition Plan

Staff attrition is a reality in any project, especially projects that are long in duration. In addition, sometimes Project Team members take on new roles or join new sub-teams within the project. The PM will collaborate with the functional managers to ensure replacement staff has the requisite expertise with the technology and CHP policies and practices. The PM oversees the new staff onboarding, including a one-on-one project orientation and applicable SME partnerships to facilitate knowledge transfer.

4.15.10 Staff Replacement

State staff vacancies are filled through the state hiring processes. Staff may also be replaced by redirecting resources from within or outside of the project, or their workload may be absorbed by other staff. The PM will work with the functional manager to identify any project work that needs to be absorbed by interim resources until the vacancies are filled and the onboarding process is complete.

Contracted vendor staff may be replaced according to procedures specified in the vendor SOW and the associated contract terms and conditions. Résumés for proposed replacements should be submitted to the PM for State approval. Replacement staff must meet the original minimum position qualifications, references should be checked, and an interview process should be conducted. Where possible,

replacement staff should begin work prior to the original staff departure to ensure appropriate transition of responsibilities and knowledge.

4.15.11 Transition at Project Completion

All CHP personnel will remain devoted to the WMVARS program and serve as the primary support for WMVARS. The CHP PM, Technical PM, and augmented vendor implementation staff will roll off the project once it is deployed. The Project Team will help lead the transition from project activities to operational tasks. Since WMVARS deployment is expected to cover multiple years, CHP staff will be performing both roles throughout the rollout. They will be providing operational support to the Area offices live on the system as well as project support as new offices come on-line; thus, the transition to operations at project completion will be minimal.

The CHP PM will be responsible for project closeout activities including the project closeout report and the PIER.

4.16 Risk Management

Risk management can be defined as the processes and structures directed towards realizing potential opportunities, while simultaneously managing possible adverse impacts. From a project management perspective, risk management is a continuous activity conducted throughout the life of the project. It seeks to identify potential risk, evaluate impact, develop mitigation plans, and monitor progress.

4.16.1 Roles and Responsibilities

The table below outlines the project participants who are expected to collaborate on project risk management activities.

Role	Responsibility
ESC Member	• Review the Risk Register and/or risk reports provided to the committee in accordance with this plan • Responsible for understanding the possible effects and impacts of identified risks • Ensure the PM has a sound plan for mitigating the impacts of risks that have been escalated to the ESC
Project Sponsor	• Provide the necessary support to the PM to ensure state and vendor resources are available to support the execution of this plan • Provide the necessary support to ensure that state and vendor resources commit to the risk management efforts • Monitor efforts to address risks and provides leadership to focus resources on resolving open unplanned risk events • Provide guidance on escalated risk events and assists in their resolution

Role	Responsibility
CHP PM	• Maintain the overall risk management process and the Risk Register containing the risk details • Ensure the risks managed by this plan are organized, managed, communicated and controlled • Ensure project-related risks are identified and mitigated in a timely manner to minimize impact; to be discussed at regular Project Team meetings and ESC briefings as included in the Communication Management section • Periodically obtain status from Risk Owners on mitigation progress • Track progress of the risk management effort by reviewing the Risk Register and/or risk management reports • Escalate mitigation approaches for identified high severity risks that are beyond the PM's span of control and decision authority • Ensure the entire Project Team, state, and vendor are following this plan • Ensure all other project processes that interact or provide input to the risk management effort are being adhered to • Ensure there are enough resources to execute this plan and the risk management activities are being performed in a timely manner • Assign risks to owners
Vendor PM	• Perform reviews of the risk management work being performed by the vendor team • Verify the work complies with the risk management approach described in this Plan and the requirements in the vendor's Contract • Share responsibility for identifying risks and risk events in a timely manner to mitigate the risk and minimize impact to the project
Risk Owner	• Responsible for management, administration and delivery of assigned risks, including monitoring and controlling risk activities, and updating the Risk Register, the mitigation plan, and contingency plan details in the Risk Register • Shared responsibility with the PM for ensuring that risks are organized, managed, and controlled and that risks are identified and mitigated in a timely manner to minimize impact to the project • Provide status updates to PM

4.16.2 Risk Management Processes

The CHP will hold an initial risk brainstorming session to establish a risk list early in the project (i.e., in the planning stages, after project approval). Each risk on the Risk Register will be graded high, medium or low for both impact and probability of occurrence. The project will track the high-high, medium-high and high-medium risks monthly.

Identify Risks

Risk identification is the first step in the risk management process that projects should employ. Risk identification involves identifying risks, identifying which of those risks are likely to affect the project

and documenting characteristics of those risks. Spotting a potential risk is accomplished by recognizing an event, state, or condition within the boundaries of a project may occur with unplanned consequences. While these consequences are usually undesirable, they may lead to positive opportunities. All Project Team members, including Stakeholders, end users, SMEs, and sponsors, are encouraged to identify and report potential risks to the project immediately upon detection to the PM.

Identifying risks is an iterative process because new risks may become known as the project progresses through its project lifecycle. Risk information can initially be gathered from the business case, accumulated lessons learned and an initial risk brainstorming session.

Crucial to risk identification is the input of Project Team members and other Stakeholders to recognize and report risks as soon as possible. Risks can also be identified during Project Team meetings and will be incorporated into the meeting agenda and minutes templates for all project meetings.

Risk Register

The Risk Register is a tool used to document potential risks (risk candidates). The project's Risk Register will be created in Microsoft Excel.

Risk Register Template

Risk Identification						Risk Analysis				Risk Prioritization		Risk Response			Risk Control		
ID #	Risk Title	Risk Statement or Description	Date Risk Identified	Risk Originator	Risk Category	Probability	Impact	Timeframe	Exposure	Severity	Risk Owner	Date Assigned	Risk Response Strategy	Risk Response Plan Description	Contingency Plan Description	Risk Status	Risk Resolution	Risk Closure Date
									0	0								
									0	0								
									0	0								
									0	0								
									0	0								
									0	0								
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									0	0								
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Analyze Risks

The focus of analyzing risks is to examine each identified risk to assess the likelihood of the risk event occurring, and the probability of outcomes associated with the risk to determine its potential impact on the success of the project. This, in turn, provides the ability to prioritize each risk to ensure the risks with the greatest potential impact to the project are dealt with first. The CHP will focus on risks which score as a combination of high or medium project impact and high or medium probability of occurrence. The PM and risk owner will review all risks regularly to identify any low risk items whose circumstances have changed resulting in the elevation of the impact/probability score. Any risks categorized as high impact high probability will be escalated by the PM and discussed with Project Sponsors and/or ESC.

Risk Response Planning

Risk Response Planning is the process of selecting the appropriate response strategy for each identified risk. This, in turn, helps the project avoid risks, transfer responsibility for risks, mitigate the consequences of risks, reduce the probability of occurrence of risks, accept the consequences of risks or

enhance the opportunity to benefit from positive risks. Strategies for both negative and positive risks include:

Strategies for Negative Risks

- **Avoid:** Risk Avoidance involves changing the PMP to eliminate the threat posed by the risk. Some risks can be avoided by clarifying requirements, obtaining additional information, improving communication, or acquiring expertise.
- **Transfer:** Transferring a risk requires moving, shifting or reassigning some or all negative impact and ownership to a third party. This does not eliminate the risk but gives another party the responsibility to manage it.
- **Mitigate:** Risk Mitigation implies a reduction in the probability and/or impact of a negative risk. Reducing the probability and/or impact of a risk occurring is often more effective than dealing with the risk after it has occurred.
- **Accept:** This strategy indicates the Project Team has decided not to change the PMP (i.e., schedule, approach, or reduce project scope) or is unable to identify another suitable response strategy.

Strategies for Positive Risks or Opportunities

- **Exploit:** This strategy may be selected for risks with positive impacts where the organization wishes to ensure the opportunity is realized and eliminates the uncertainty associated with a positive risk by ensuring the opportunity happens.
- **Share:** Sharing a positive risk involves allocating some or all ownership of the opportunity to a third party who is best able to capture opportunity for the benefit of the project.
- **Enhance:** This strategy is used to increase the probability and/or positive impact of an opportunity, identifying and maximizing key drivers of positive risks.
- **Accept:** Accepting a positive risk or opportunity is being willing to take advantage of it should the opportunity come along.

The project risk response planning will be documented by the PM in collaboration with key project stakeholders. Then status will be presented to the Project Team during project status and ESC meetings.

Risk Monitoring Activities

Once a risk is established, it is monitored on an ongoing basis:

- Monitor if a risk escalation trigger has occurred
- Monitor if risk response actions are as effective as anticipated
- Monitor if risk responses are implemented as planned
- Monitor for Residual Risks (element of a risk that remains once the risk assessment has been made and responses implemented)
- Monitor systematically to:
    - Assess currently defined risks
    - Determine actions to be taken
    - Evaluate effectiveness of actions taken
    - Report on the status of actions to be taken

- Validate previous risk assessment (likelihood and impact)
- Validate previous assumptions
- State new assumptions
- Identify new risks

Risk Control Activities

Once a risk is established, it is controlled on an ongoing basis:

- Validate mitigation strategies and alternatives
- Assess impact on the project of actions taken (scope, cost, time, schedule, and resources)
- Identify new risks resulting from risk mitigation actions
- Ensure the project's Risk Management Plan is maintained
- Revise Risk Response plan(s)

The Project Team will review risks during Project Team meetings, update existing risks, and discuss potential risks that need to be accounted for. It is important to note that any member of the Project Team or stakeholder group can raise a potential risk to the PM for evaluation at any time. If needed, the PM will schedule a separate risk review session independent of Project Team meetings.

4.17 Schedule Management

The project will use the CHP's file share system as the repository for all project schedule-related artifacts. The schedule will be developed in Microsoft Project, CHP's standard project schedule tool. The schedule will be managed by the process defined in this schedule management plan.

4.17.1 Roles and Responsibilities

Below is a table listing the project participants and their role in schedule management throughout the life of the project.

Role	Responsibility
Project Sponsor	• Review and approve final schedule baseline and schedule progress reports prior to sending to control agencies • Provide overall guidance and mentoring • Escalation point for project schedule issues from a business perspective
PM	• Develop the Schedule Management Plan • Responsible for daily schedule-related analysis and update activities • Lead schedule management activities, communicate schedule status, maintain the project schedule, and provide updates • Considered the SME for the Schedule Management process • Lead the team in the development of the Schedule Management Plan and the Project Schedule • Review, evaluate, and provide feedback on schedule progress reports and time-risk recommendations from the Project Team • Provide regular status information in meetings with the Project Sponsor and ESC

Role	Responsibility
Functional Managers	• Review and approve time estimates for staff reporting to them • Notify the PM of workload changes that may affect the schedule • Work with the PM on resource schedule-related items for risks, issues, and possible changes
Project Team Members	• Notify the PM about possible schedule risks and issues • Assist with schedule estimating activities • Provide accurate time estimates for project work packages • Provide accurate progress reporting during the project

4.17.2 Schedule Management Process

The schedule for this project will be managed at the individual task level, where task durations will be measured in terms of 40 hours or one business week, as appropriate. Weekly schedule meetings will be conducted to review completed work, any work behind schedule, and upcoming work. If the project begins to fall behind, the Project Team will concentrate on ways to bring the project back in line with the schedule.

Schedule Development

Due to the size, cost, and complexity of the project, the schedule requires CDT project approval and oversight. The project was approved through the FSR process. The FSR process involves the level of analysis and planning needed to ensure a project achieves success. An output of the FSR process is a draft project schedule developed by CHP and reviewed by the CDT PAL Manager. This draft schedule serves as a framework to forecast how much and which FY funding will be needed to complete the project. Since the draft schedule in the FSR, a Budget Change Request was approved causing an adjustment to the project duration.

Project Year Summary:

FY 2018/19	FY 2019/20	FY 2020/21	FY 2022/23
Write RFP and conduct procurement Complete procurement	Configure, test, and test in production Conduct Field Testing, and rollout three Divisions, and begin operations on rolled out sites	Rollout remaining five Divisions and HQ Continue operations on live sites	First full year of operations (no project activities) Completion of PIER

The final project schedule will be derived from the draft project schedule from the FSR and augmented by additional information made available during planning sessions with impacted business units. A high-level master schedule will be developed to support the PAL. Upon CDT project approval the schedule will be baselined; however, additional schedule changes may be required after vendor collaboration. The CHP shall work with the vendor immediately after Contract execution to begin

finalizing the schedule. The CHP and vendor PMs will collaborate to identify task durations associated with each task. The CHP and the vendor will also conduct a dependency analysis to determine the order in which the work must occur. Tasks, associated activities, and durations will be entered into Microsoft Project with both predecessor and successor tasks assigned at the activity. Named resources will be assigned to each task and rolled up to the team responsible for task completion. Once completed, the PM will examine the schedule to ensure it is technically correct and reasonable. In addition, the schedule shall be reviewed by project oversight parties both internally and externally and feedback incorporated as needed. After the schedule is reviewed and/or approved, the project may require change management.

Units of Measure and Level of Accuracy

The project defines human resource measurements in which the unit of measure is one business week or 40 hours. No other fractions or portions of identified measures will be used for the project.

Schedule and Model Maintenance

The CHP Project Team members will report their progress weekly to the CHP PM and the vendor Project Team members will report their work package progress to the vendor PM. The CHP and vendor PMs will review the project status and report progress in the weekly status meeting.

Control Thresholds

This section describes the schedule variance thresholds agreed upon for the project. If a team member identifies an issue that has the potential to impact the schedule, the PM and the Project Team will meet to review and evaluate the change per CCP. The Project Team determines which tasks are affected, calculates the variance, and generates a list of possible alternatives for consideration. If, after the evaluation is complete, the PM determines any change exceeds the established thresholds or boundaries, a CR is created by the Project Team and submitted to the ESC.

A CR is necessary if either of the following two conditions is true:

- The proposed change is estimated to increase or reduce the work package duration by 10 percent or more when compared against the baseline
- The proposed change is estimated to increase or reduce the overall project duration by 10 percent or more when compared against the baseline

Once the schedule CR is reviewed and approved, the PM records the CR result, stores the documents in the project repository, modifies and re-baselines the schedule (once the Special Project Report [SPR] is approved by CDT), and communicates the change and impact to the Project Team and Stakeholders.

Reporting Formats

The following scheduled reports will be available at the specified time intervals during the project:

Report	Frequency	Author	Reporting Responsibility
Project Schedule Report	Weekly	PM	Generate the schedule progress report for use in the project status meeting

Report	Frequency	Author	Reporting Responsibility
Project Schedule Report	Monthly	PM	Generate the schedule progress report for use in the ESC meeting
PSR (SIMM 45E)	Monthly	PM	Generate the PSR for submission to CDT IPO for review

Performance Measurement Rules

Performance measure calculations are made using the project schedule software, Microsoft Project.

Schedule Activity and Progress Update

Activity and progress updates are entered by Project Team members on a weekly basis into Microsoft Project. The information is reviewed by the functional manager to confirm the accuracy of the information provided. The PM verifies updates are complete and reviews the results with the Project Team. Any input errors are provided to the functional managers for correction by the Project Team member.

Schedule Monitoring

Project Team members will report task progress on a weekly basis to the PM, who will update the project schedule with weekly actuals of team member effort. The PM will also report on positive or negative trends regarding schedule performance.

Schedule Control

The PM will control the project schedule in collaboration with the vendor PM through weekly schedule review meetings. Project schedule risks or issues identified in these reviews will be logged on the Risk Register and Issue Log respectively.

The control methods that will be used are described in the table below.

Technique	Definition
Performance Reviews	Performance reviews measure, compare, and analyze schedule performance such as actual start and finish dates, percentage complete, and remaining duration for the work in progress
Critical Path Method	Critical Path is used to predict project duration by analyzing the sequence of activities (network path) with the least amount of scheduling flexibility. Earlier dates are calculated by a forward pass using a specified start date. Later dates are calculated by a backward pass starting from a specified completion date.
Adjust Leads and Lags	**Lead** – A modification of a logical relationship that allows an acceleration of the successor activity. For example, when a task has a finish-to-start dependency with a 10-day lead, the successor activity can start as much as 10 days before the predecessor activity has finished. **Lag** – A modification of a logical relationship that directs a delay in the successor activity. For example, when a task has a finish-to-start dependency with a 10-day lag, the successor activity cannot start until 10 days after the predecessor activity has finished. Adjusting leads and lags is

Technique	Definition
	used to find ways to bring lagging project activities into alignment with the plan.

The Critical Path and Lead/Lag Methods will be used for schedule control. The CHP and vendor PMs will review the schedule:

- Weekly
- When a new baseline is required
- When entering a new project phase
- When mitigating schedule-related risks
- As needed to ensure the critical path is maintained

4.18 Scope Management

The processes defined in the following sections provide a blueprint for how the project scope was defined, developed, verified, and controlled. It documents the scope management approach, defines the roles and responsibilities, processes, and procedures for managing scope, and serves as a guide for managing and controlling the project scope.

4.18.1 Approach

This Scope Management Plan addresses the following processes:

- Scope Definition
- Work Breakdown Structure (WBS) Creation
- Scope Validation
- Scope Control

These processes interact with each other and with the processes in the other management plans defined in the PMP. When implemented properly, the scope management processes will help effectively manage the Triple Constraint elements of time, schedule, and cost to support a high-quality project.

4.18.2 Roles and Responsibilities

Below is a table listing the project participants and their role in scope management throughout the life of the project.

Role	Responsibility
Project Sponsor	• Participate in scope definition activities • Approve the Scope Management Plan • Review escalated scope issues and provide direction for resolution • Approve major scope CRs • Overall decision-making responsibility for Scope Management activities
ESC Member	• Provide high-level scope definition (Project Charter) • Provide final approval of Scope Management Plan (if decision-making committee)

Role	Responsibility
	• Review major scope CRs and make final decision or recommendations to the Project Sponsor
PM	• Overall responsibility for scope management • Oversee the development of the Scope Management Plan • Oversee the scope change management process • Approve scope CRs within authority • Escalate scope and change issues • Ensure scope changes are incorporated into appropriate project documents
Contract Manager	• May have a role in deliverable verification and acceptance when the deliverable is required under contract terms
Project Team Members and SMEs	• Review scope CRs when assigned • Participate in team-level scope change reviews • Provide feedback when required

4.18.3 Scope Management Processes

Work Breakdown Structure

The project WBS, as defined during the planning phase, is listed below. The WBS is subject to change during the life of the project and will be reflected in the master project schedule.

Level 1	Level 2	Level 3
1. WMVARS Solution	1.1 Initiating	1.1.1 Evaluation and Recommendations 1.1.2 Develop Project Charter 1.1.3 Deliverable: Submit Project Charter 1.1.4 Project Sponsor Reviews Project Charter 1.1.5 Project Charter Signed and Approved
	1.2 Planning	1.2.1 Create Preliminary Scope Statement 1.2.2 Determine Project Team 1.2.3 Project Team Kickoff 1.2.4 Develop Project Plan 1.2.5 Submit Project Plan 1.2.6 Milestone: Project Plan Approval
	1.3 Executing	1.3.1 Project Kickoff Meeting 1.3.2 Verify and Validate User Requirements 1.3.3 Procure Hardware/Software/Services 1.3.4 Install system for testing 1.3.5 Testing Phase 1.3.6 Install Live System 1.3.6 Field Testing 1.3.7 User Training 1.3.8 Statewide Rollout

Level 1	Level 2	Level 3
		1.3.8 Go Live – Three CHP Divisions at a Time
	1.4 Closeout	1.4.1 Audit Procurement 1.4.2 Document Lessons Learned 1.4.3 Update Files/Records 1.4.4 Gain Formal Acceptance 1.4.5 Archive Files/Documents

WBS Dictionary

WBS Level	WBS Code	WBS Element Name	Description of Work	Deliverable(s)	Committed Resources
1	1	WMVARS Solution	Procure, configure, test, and deploy a WMVARS solution.	N/A	N/A
2	1.1	Initiating	Initiation of project to procure a WMVARS solution (Completed CHP 53).	Approved CHP 53	Business Owners Project Sponsors
3	1.1.1	Evaluation and Recommendations	Evaluation of options and recommendations.	Evaluation and Recommendations Report	PM Business Owners
4	1.1.2	Develop Project Charter	Collaborate with Stakeholders to define high-level scope, schedule, and cost estimates.	Project Charter	PM
5	1.1.3	Deliverable: Project Charter	Route the Project Charter for review and approval.	N/A	PM
6	1.1.4	Project Sponsor Reviews Project Charter	Validates the Project Charter meets expectations and accurately delineates the project.	N/A	Project Sponsors PM
7	1.1.5	Project Charter Signed and Approved	Ask any questions of the Project Team.	Executed Project Charter	Project Sponsors
8	1.2	Planning	N/A	N/A	PM
9	1.2.1	Create a Preliminary Scope Statement	Gather input from Stakeholders.	Preliminary Scope Statement	PM
10	1.2.2	Determine Project Team	Evaluate the complexity, scale, and risk of the project to select the appropriate staff.	Assemble the Project Team	Project Sponsors
11	1.2.3	Project Team Kickoff	Prepare overview of the project, schedule, cost, resources, and risks.	Conduct Project Team Kickoff	Project Sponsors PMs
12	1.2.4	Develop Project Plan	Gather necessary information to create a Project Plan.	Project Plan	Project Team

WBS Level	WBS Code	WBS Element Name	Description of Work	Deliverable(s)	Committed Resources
13	1.2.5	Submit Project Plan	Obtain approvals from RPS/ITS Commanders and then Project Sponsors.	Project Plan Approval	Project Sponsors Business Owners Project Team
14	1.2.6	Milestone: Project Plan Approval	N/A	N/A	N/A
15	1.3	Executing	N/A	N/A	N/A
16	1.3.1	Project Kickoff Meeting	Assemble information to be presented at the kickoff meeting.	Agenda PowerPoint Slide Deck Schedule	Project Team SMEs Other Stakeholders
17	1.3.2	Verify and Validate User Requirements	Conduct Requirements Review workshops with Stakeholders.	Finalized Requirements	Project Team SMEs Other Stakeholders
18	1.3.3	Procure Hardware/Software /Services	Conduct a competitive procurement.	Executed Contract	DGS CDT CHP Procurement PM

WBS Level	WBS Code	WBS Element Name	Description of Work	Deliverable(s)	Committed Resources
19	1.3.4	Install System for Testing	Configure and install the WMVARS in-car system in test patrol vehicles. Configure BWCs. Configure and install on-premise appliances. Configure necessary network configuration. Configure Digital Evidence Management System application. Train Application and System Administrators on the use and maintenance of the system.	Completed system ready for SFT.	Technical SMEs Business SMEs PM Vendor
20	1.3.5	Testing Phase	Train testers (SMEs, Office of Risk Management). Conduct unit testing. Conduct SFT.	Solution Acceptance	Technical SMEs Business SMEs PM Vendor
21	1.3.6	Field Testing	Configure BWCs. Configure and install on-premise appliances. Configure network to provide secure connections to both field sites.	Completed demonstration that the WMVARS solution performs as expected.	Technical SMEs Business SMEs PM Vendor Field Test Office #1 Field Test Office #2

WBS Level	WBS Code	WBS Element Name	Description of Work	Deliverable(s)	Committed Resources
22	1.3.7	User Training	At each CHP Division Office: • Train Auto Technicians on in-car installation procedures. • Train CHP Office Trainers on the use of the WMVARS system (both in-car and BWC). • Transition support to CHP.	Demonstrated competence in the training objectives. Training of all officers at the Area Offices.	Vendor Business SMEs PM Evidence Officers Trainers/ Installers from each Area within the Division
23	1.3.8	Go Live: Statewide Rollout	Three CHP Divisions in parallel.	Complete installations and productive use in each Area.	Area office Trainers Evidence Officers Installers from each Area within the Division
24	1.4	Closeout	NA	NA	NA
25	1.4.1	Audit Procurement	Gather data necessary to compare project actuals with the original baselines of cost and schedule.	Draft PIER	Project Team
26	1.4.2	Document Lessons Learned	Conduct a Lessons Learned session to capture what the project participants learned from the project, both positive and negative.	List of lessons learned	All project participants
27	1.4.3	Document Lessons Learned	Review lessons learned. Pursue clarifications, if needed. Remove duplicates. Route to the team for agreement.	Formal document of lessons learned Include in PIER	PM

WBS Level	WBS Code	WBS Element Name	Description of Work	Deliverable(s)	Committed Resources
28	1.4.4	Gain Formal Acceptance	Complete the PIER and route through CHP Management.	PIER Approval	Project Sponsors PM
29	1.4.5	Archive Files/Documents	Compile/organize project artifacts. Determine where the documents will be stored and for how long.	All artifacts saved in a central location	PM

Deliverable Validation and Acceptance

The project's deliverables and products will be accepted through the project's formal acceptance processes. These processes are designed to ensure individual deliverables and products are accepted only if they meet their respective acceptance criteria.

Document deliverables are to be completed by the vendor and provided to the WMVARS Project Team for review covering clarity and completeness. If edits are needed to achieve this objective, the documents will be returned to the vendor with a detailed description of the modifications needed to be acceptable to the CHP.

Product deliverables will be accepted using the following project gates:

- System Functionality Testing.
- Field Testing at two CHP locations.

Formal deliverable acceptance shall be realized with the completion and signing of a Deliverable Acceptance Document (see template below). If a deliverable is not accepted, the Department shall provide the rationale in writing within five (5) days of receipt of the deliverable or upon completion of the mutually agreed upon acceptance testing period.

California Highway Patrol
[Insert Project Name]

Deliverable Acceptance Document

GENERAL INFORMATION			
Prepared By:	First Last	**Date:**	mm/dd/yyyy
Contractor Name:	Contractor Name	**Agreement #:**	041D#### or ##CD41###
	Name	**Phone**	**E-mail**
Project Manager	First Last, Classification	(###) ###-####	first.last@chp.ca.gov
OPI Sponsor	First Last, Classification	(###) ###-####	first.last@chp.ca.gov
IT Sponsor	First Last, Classification	(###) ###-####	first.last@chp.ca.gov
Executive Sponsor	First Last, Classification	(###) ###-####	first.last@chp.ca.gov
☐ Phase or major deliverable acceptance ☐ Final product acceptance			

DELIVERABLE(S)		
Deliverable Name: Deliverable Name		
Description: Describe the deliverable being submitted. If you know the Task ID or if it's a milestone, be sure to include that information here.		
Sub-Deliverables/Tasks	**Approver**	**Date Approved**
[Insert Sub-Deliverable/Task Name]	[Insert Approver Name]	[Enter the approval date]
Concept Phase Checklist		[XX/XX/XXXX]
Initiating Phase Checklist		[XX/XX/XXXX]
Planning Phase Checklist		[XX/XX/XXXX]

APPROVALS		
☐ Approved ☐ Accepted with changes ☐ Rejected	**Comments:** *Any pertinent comments shall be documented here. If, particularly, if the deliverable is rejected, the specific reasons shall be listed here. Include and reference attachments if necessary.*	
[Acceptor's Role] Signature:		**Date:** mm/dd/yyyy
☐ Approved ☐ Accepted with changes ☐ Rejected	**Comments:** *Any pertinent comments shall be documented here. If, particularly, if the deliverable is rejected, the specific reasons shall be listed here. Include and reference attachments if necessary.*	
OPI Sponsor Signature:		**Date:** mm/dd/yyyy

Control Scope

Any request for change in project scope will be processed through the project's change management procedure. Proposed scope changes will be reviewed. If the PM and Project Sponsor determine the request has merit, it will be analyzed for its impact to project time and costs and a risk assessment of the scope change will be conducted. If the change is approved, the project's WBS and WBS dictionary will be updated, the project schedule will be updated and may be re-baselined, and the project's requirements set will be updated.

4.19 Stakeholder Management

4.19.1 Roles and Responsibilities

The following is a list of general roles and responsibilities for the project. Additional responsibilities may be called out separately in the various subsidiary project management plans.

Role	Responsibility
ESC Member	• Provide project-level governance • Assist in resolving issues beyond PM's authority • Provide recommendations on or approve CRs • Participate in internal Stage Gate reviews (Committee may also include PMs and sponsors from outside agencies/state entities)
Project Sponsor	• Provide either business or IT project sponsorship • Support the need and justify business value • Ensure business resources are made available to support objectives
Business Owner	• Own the business processes being impacted • Provide input into the project objectives and scope of work • Ensure business resources are made available to support objectives
State PM	• Lead the team responsible for achieving the project objectives • Ensure project is managed according to state and departmental policies and procedures • Oversee the project at a high-level working closely with the CHP Technical PM and the vendor PM
State Technical PM	• Oversee and manage the day-to- day tasks associated with project implementation • Work closely with the Project Team, CHP PM, vendors PM, and assigned solution and implementation consultants
Project Team Member	• Support the PM by performing the work needed to achieve its objectives (i.e., business and technical)
Procurement and Project Management Oversight	• Provide guidance on IT project management practice • Ensure project follows established policies and procedures • Liaise with control agencies as required • Provide project engagement oversight and review/approve engagement activity and invoice payments • Ensure engagement hours and SOW deliverables and requirements are satisfactorily met
Vendor/Contractor	• Complete deliverables per the SOW

Role	Responsibility
Vendor PM	• Lead the vendor team responsible for completing project tasks. Ensure project is managed effectively • Oversee the project at a high-level, working closely with the CHP project management team
Vendor Technical PM	• Oversee and manage the day-to-day tasks associated with project implementation • Work closely with the Project Team and both the vendor and CHP project management team
IV&V Team	• Perform a granular level of oversight and review CHP and vendor plans and processes to ensure the WMVARS solution meets the requirements and specifications and project objectives are met • Collaborate with the State PM for required project documentation and reports
CDT IPO	• Responsible for approval and oversight of IT projects, including the establishment and enforcement of IT policies and procedures • Provide "an independent review and analysis to determine if the project is on track to be completed within the estimated schedule and cost and will provide the functionality required by the sponsoring business entity. Project oversight identifies and quantifies any issues and risks affecting these project components"

Please refer to the WMVARS Stakeholder Register document for a list of individuals currently involved with the project, including their role, influence over the project, level of impact, and anticipated level of engagement.

4.19.2 Responsibility Matrix

Defines high-level project activities/tasks and Stakeholder involvement.

Activity/Task	Stakeholder Individuals or Groups							
	PM	ESC	Business Sponsor / Owner	Network and Security	Information Security	Technical Services	COTS Vendor	PMU
Create Project Charter	R	A	C	I	I	I		C
Define Communication Plan	R	C	C/A	C	C	C	C	C
Collect project requirements	R	C	C/A	C	C	C	C	C
Estimate time to complete activities	I	A	R	R	R	R	R	C
Secure project resources	I	A	R	R	R	R	R	
Develop Project Schedule	R	I	C/A	C	C	C	C	C

Activity/Task	Stakeholder Individuals or Groups							
	PM	ESC	Business Sponsor / Owner	Network and Security	Information Security	Technical Services	COTS Vendor	PMU
Document risks/issues/ changes	R	I	C/A	C	C	C	C	C
Document technical design/ architecture	I	I	I	C	C	C	R/A	I
Document installation/ configuration instructions (Administrative. Manual)	I			I	I	R/A	R	I
Document Test Plan	I		R/A	C		C	C	I
Execute Test Plan	I		R/A	C	I	C	C	I
Document Test Summary Documentation	I		R/A		I	I	C	I
Create End-User Documentation	I		R/A				R	
Update Policies, Processes, and Procedures	I	I	R/A	R	R	R		I
Create Implementation /Deployment Plan	R	I	R/A	C		C	R	I
Document Lessons Learned	R	C	C/A	C	C	C	C	C
Create PIER	R/A	C	C	C	C	C	C	C
	R = Responsible for completing task A = Accountable for final decision and ownership C = Consult before decision or task completion I = Inform after decision or task completion							

4.20 Testing Master Plan

The project Test Plan is represented as a separate plan and is not included as part of this PMP.

4.21 Security Management Plan

Information security is built into the project via the defined subsidiary project management plans. In addition, all security requirements have been incorporated into the solicitation package and specifications. The following table highlights the ISO's general responsibilities as they relate to the project.

Role	Responsibilities
ISO: Information Security Officer Privacy and Risk Management Administrator Security Engineer Continuity/ Recovery Coordinator	• Provide policy compliance oversight and recommendations • Provide subsidiary plans oversight and recommendations (Business Continuity Plan, Change Control Management, Communications Management, Configuration Management Plan, Data Management Plan, Governance Management, Issue Management, Risk Management, Scope Management, and Security Management Plan) • Participate in ESC meetings • Participate in Project Team/Status meetings • Participate in CCB/committee meetings • Participate in Go/No Go Review

Risk Register

Updated 12/6/2019

Risk Identification						Risk Analysis					Risk Prioritization		Risk Response			Risk Control		
ID #	Risk Title	Risk Statement or Description	Date Risk Identified	Risk Originator	Risk Category	Probability	Impact	Timeframe	Exposure	Severity	Risk Owner	Date Assigned	Risk Response Strategy	Risk Response Plan Description	Contingency Plan Description	Risk Status	Risk Resolution	Risk Closure Date
1	Contract Execution is Late	Cannot execute contract this fiscal year (FY), cannot encumber funds.	8/1/18	D. Wanjiru	Budget	Low	High	Short	3	3	D. Wanjiru	8/1/18	Mitigate/Enhance	Attempt to speed up the solicitation process. Submit Project Approval Lifecycle (PAL) Stage 3 A and B together.	Attempt to re-appropriate funds for FY 19/20.	Closed	Purchase Order 5490 issued in FY 18/19.	6/27/19
2	Out Year Operations Funding	Not funded beyond third year (both Wireless Mobile Video Audio Recoding System [WMVARS] and operations).	8/14/18	D. Wanjiru	Budget	Medium	High	Long	6	6	M. Viloria	12/31/19	Mitigate/Enhance	Submit Budget Change Proposal (BCP) to cover maintenance and operations (M&O) Budget Change Request (BCR) to be initiated in Fall 2020.	Need to find funds internally.	Open	The BCP is at the Department of Finance (DOF) for approval. The California Highway Patrol (CHP) is working with the Department of Technology (CDT) on Special Project Report (SPR) approval. 9/16/19: The BCP is at the California Transportation Agency for approval. Submitted BCP in June 2020. Submitted BCR in February 2020.	
3	Body Worn Camera (BWC) Funding	Requirements currently include future BWC integration; however, there is no identified future BWC funding.	8/14/18	D. Wanjiru	Stakeholders	Medium	Medium	Long	4	4	M. Viloria	12/31/19	Mitigate/Enhance	Submit BCP. A BCR to be initiated in March 2020.	Need to find funds internally. Escalate to the all sponsors (Executive & Project) for review.	Open	Awaiting funding decision from Executive Management.	
4	Replacement Modems	There is no funding for the replacement modems.	1/24/19	D. Wanjiru	Technology	Low	High	Short	3	3	D. Wanjiru	1/24/19	Mitigate/Enhance	Work with Information Management Division (IMD) to develop a plan to obtain funding.	Project will continue with legacy modems and lower data transfer efficiencies; may require the implementation of more on-premise appliances.	Closed	Funding identified.	2/20/19
5	Wireless Modem Data Transfer Efficiency	The new modems and anticipated medium media (video) data transfers rates and capabilities, both cellular and WiFi, may not be as efficient as projected.	8/1/19	D. Wanjiru	Technology	Low	Low	Medium	1	1	C. Lambert	8/1/19	Watch	Project will implement/deploy more on-premise appliances as needed.	Project monies will need to be redirected and/or additional funding solicited.	Closed	As of December 2019, the number of sites requiring on-premise appliances was lowered. No not anticipate the need to implement above and beyond original plan number. Risk impact lowered.	1/9/20
6	WiFi Installations	Additional: Several CHP locations do not have external wireless access points (WAP) installed, needed for video upload via WiFi.	1/24/19	D. Wanjiru	Technology	Low	Medium	Long	2	2	J. Holcomb	1/24/19	Mitigate/Enhance	Work with IMD to obtain funding and complete the WAP installations.	Wide Area Network team to install (need to provide cables, patch panels, rent lifts, etc.)	Closed	Funding was folded in FY 2021. Unanticipated Task cost (refer to Financial Analysis Worksheet [FSW] in SPR). Funds from the WMVARS BCP have been allocated to network. Sites identified and in the process of being scheduled.	6/23/20
7	Public Safety Communications (PSC) Certification	Certification takes longer than expected.	1/24/19	D. Wanjiru	Schedule	Low	High	Short	3	3	C. Lambert	1/24/19	Mitigate/Enhance	Work closely with the Telecommunications Section (TS) and PSC to keep the work on track.	Project will stop until certification is received.	Closed	Vehicle sent for testing in January 2020. Per TS, shared PSC Report dated 3/13/20 with Project Management Unit on 3/19/20.	3/19/20

Risk Register

Updated 12/6/2019

9	Independent Verification and Validation (IV&V) Services	Required per State Administrative Manual 4940.3 and included as part of CDT Stage 3 approval conditions.	6/6/19	M. Viloria	Schedule	High	High	Short	3	27	M. Viloria	8/30/19	Mitigate/Enhance	The CHP to work expeditiously with CDT, the Statewide Technology Procurement Division, and the CHP Contracts Unit to develop and publish Request for Offer.	The CHP to transition procurement to CDT should Master Service Agreement procurement yield no results. The CDT will conduct the formal procurement on behalf of CHP utilizing California eProcure.	Closed	Services acquired and onboarded December 2019.	12/6/19
9	Implementation Rollout	Delay in WMVARS project implementation jeopardizes ability to replace existing MVARS systems that are currently failing. Unable to replace existing systems puts officer safety at risk, increases potential liability, and possibly jeopardizes some criminal prosecutions.	8/30/19	M. Viloria	Schedule	Medium	High	Short	6	18	M. Viloria	8/30/19	Mitigate/Enhance	Obtain CDT agreement to move forward with project activities while waiting for formal project approval.	Delay project activities until IV&V vendor is onboard and strategize on how to make up time (i.e., adjust implementation plan to target critical areas first).	Closed	Planning and preimplementation discussions commenced prior to IV&V allowing project to remain on schedule.	1/24/19
10	Part Number Amendments	Coban and the Fleet Operations Section (FOS) have been working to finalize the parts list for the new WMVARS system. Customizations to parts have been identified and Coban is working with the Department of General Services (DGS) to make a catalog update. The DGS has pushed back on making additional contract amendments. All parts needed to make WMVARS complete must be available via contract.	12/17/19	A. Kagiyama	Technology	Medium	High	Short	6	18	J. Song	12/20/19	Avoid/Exploit	Obtain DGS and Coban agreement that CHP customizations to parts are included as part of overall contract and do not require amendment.	The DGS to amend contract based on CHP input.	Closed	Catalog has been updated by Coban and approved by DGS.	12/27/19
11	Staff Attrition	The CHP Chief Technology Officer (CTO)/Commander, CHP Technical Project Manager (PM), and Fleet Engineer promoted and retired, respectively. The CTO and Technical PM are currently vacant while the new Fleet Engineer just started.	1/29/20	M. Viloria	Resources	Low	Medium	Medium	3	12	M. Viloria	1/30/20	Avoid/Exploit	The CHP assigned both Acting Commander and Acting Technical PM temporarily until replacements are hired. The Fleet Engineer is currently being trained.		Closed	Commander/CTO Kim Holder effective 4/6/20. Back-up Technical PM role assigned to John Batarseh; vacancy will be posted on 5/1/20. Fleet Engineer is currently being trained to support the project.	6/29/20
12	Extend System Functionality Testing	The technical team requested to extend the System Functionality Test from 10 days to 20 days to have sufficient time for testing based on the number of specifications identified per the Requirements Traceability Matrix (RTM).	2/21/20	M. Viloria	Schedule	Medium	High	Medium	6	17	C. Lambert	2/24/20	Accept	Technical team is reviewing specifications identified per RTM and creating additional test scenarios and test scripts.	Extend the System Functionality Test timeline to additional required days.	Closed	Project schedule has been extended to extend the testing for an additional 10 days.	3/18/20
13	RTM Completion	The RTM is currently being finalized by the project team. Validating/aligning specifications and Statement of Work (SOW) requirements feedback from IV&V.	1/28/20	Technical PM		Medium	High	Medium	6	12	C. Lambert	2/21/20	Mitigate/Enhance	Finalized/completed the RTM, incorporating SOW specifications in Appendix B, and requirements embedded in Appendix C.		Closed	The RTM and test scripts were completed and submitted to Safe Fleet on 3/6/20 and 3/13/20, respectively.	3/13/20
14	Focus H1 Cable (Modification of Standard Length)	Coban and FOS have been working to ensure cabling compatibility for CHP vehicles. Original standard cable length was 16 feet (ft); CHP requested to modify to 20 ft. However, Tahoe vehicles will require 25 ft cables. Coban is currently testing the 25 ft cable to ensure functionality to avoid poor connection, interference, etc. Testing will be completed by end of March.	2/21/20	M. Viloria	Technology	Medium	High	Medium	6	12	Coban/ C. Lambert	2/24/20	Mitigate/Enhance	Utilize this document as a way of reaching agreement the solution has successfully satisfied all requirements related to the various project phases.	The CHP will try a 20 ft cable on a Tahoe to test the compatibility.	Closed	During Safe Fleet internal testing, the 25 ft cable length caused signal degradation and random noise room and would impact Focus H1 performance. This detail was shared with CHP and it was determined the 20 ft cable is sufficient for all vehicle types.	3/1/20
15	**Coronavirus (Parts Delay)** ***Note: No impact to delivery schedule but will leave open***	**Safe Fleet/Coban's manufacturers/partners for WMVARS parts are located overseas and most businesses are closed due to the Coronavirus outbreak.**	**2/21/20**	**M. Viloria**	**Resources**	**Medium**	**High**	**Long**	**6**	**18**	**Safe Fleet**	**2/24/20**	**Watch**	**Coban has all parts in stock for the delivery of the 100 Focus H1 units. For the remaining 340 units, there are no obvious risks from the Safe Fleet supply chain; will keep CHP informed as the Coronavirus situation progress.**	**Safe Fleet/Coban mitigation plan and updates are ongoing. Alternate parts sources are identified/validated. Enough parts inventory are in stock and ready for delivery. However, due to the PSC Office (PSCO) issue, all hardware deliveries are on hold until issue is resolved.**	**Open**	**Note: No impact to delivery schedule but will leave open. Parts deliveries have resumed since the Memorandum of Acceptance for electromagnetic interference/radio frequency interference (EMI/RFI) was sent to Safe Fleet on 9/16/20.**	

Risk Register

Updated 12/6/2019

16	Retrofit Build Time	A newly hired Fleet Engineer is being trained to assist in the retrofitting and hardware configuration of CHP vehicles. There is a concern about the timely completion of the WMVARS vehicles. (e.g., the Information Technology Section vehicle was completed in 24 days).	2/21/20	M. Viloria	Technology	Medium	High	Medium	6	12	FOS/ Research and Planning Section/TS	2/24/20	Watch	The CHP TS will be assisting FOS by taking the lead in processing the retrofit builds to alleviate resource issues.	The TS, RPS, and technical teams will align new retrofit schedule with current project schedule.	Open	Awaiting Pilot testing results to determine retrofit build time is proven to work. Revised Implementation Plan from a staggered three-phase to a retrofit two-phase approach. Project team is currently finalizing the rollout plan and schedule. Training plan will be incorporated to alleviate retrofit build time.	
17	Active Directory Federated Services (ADFS) Integration	The CHP prefers to use full ADFS for authentication and permissions; however, the WMVARS solution does not integrate with ADFS. This feature is under development by Safe Fleet and will not be delivered until August.	2/20/20	C. Lambert	Technology	Medium	High	Medium	6	12	Safe Fleet	3/2/20	Watch	Safe Fleet is actively working on ADFS integration and providing a weekly status update in every Friday meeting. There is progress; however, there is possible project schedule impact.	Safe Fleet provided two Project Schedule Options to CHP for review on 3/20/20. 1. 5/4/20 - Authentication Only - Software Release 2.6.1 2. 8/3/20 - Addition of Roles/ Groups/User Permissions Software release 2.7.	Closed	1. Authentication software release 2.6.1 completed on 5/19/20. 2. Roles/Groups/User Permissions software release 2.7 completed on 8/17/20.	8/24/20
18	PSCO Certification	The PSCO report indicates the WMVARS solution is interfering with some of the CHP radios and creating interference far above the specified threshold. If hardware changes are required, it could delay the project depending on the nature of the hardware issue.	2/28/20	M. Firkins	Schedule	Medium	High	Medium	6	12	Safe Fleet/TS	3/19/20	Mitigate/Enhance	The CHP TS, technical team, Safe Fleet, and PSCO are working collaboratively to isolate the hardware causing the interference. Safe Fleet developing a mitigation strategy for reducing the level of interference.	While PSCO is isolating hardware issues and retesting, report will be available by 04/17/20. Safe Fleet continues to conduct internal testing and plan mitigation strategies.	Closed	Final PSCO testing results received on 9/11/20. The CHP issued a memorandum to Safe Fleet on 9/10/2020, meeting their contractual obligations relating to the WMVARS-H1 Unit and is within acceptable levels for EMI/RFI emissions.	9/11/20
19	Budget Letter 20-11	Under direct executive authority of the Governor, all agencies and departments must take immediate action to reduce current year expenditures regardless of funding source.	5/8/20	M. Viloria	Budget	Low	High	Long			PM	5/8/20	Watch	The CHP will include the WMVARS project on the list of critical projects in CHP's request for exemption.	Escalate to all sponsors (Executive and Project) for review.	Closed	All FY 19/20 funds were encumbered on 6/30/20.	6/30/20
20	ADFS Integration Software 2.7	Delay in the delivery of Roles/Groups/User Permissions software release 2.7 on 8/3/20.	6/25/20	M. Viloria	Schedule	Low	High	Medium			Safe Fleet	6/29/20	Watch	Safe Fleet and CHP are consistently working together on mitigation strategies and work-around plans in case software release 2.7 is delayed or potential problems occur.	Escalate to all sponsors (Executive and Project) for review. System Test Part 2 will move forward as planned and all ADFS-related testing will be moved to the later part of System Test Part 2 (built up in the schedule). A list of tasks/testing scripts to move forward with System Test Part 2 is complete and ready.	Closed	ADFS integration software release 2.7 demonstration, and formal software handoff completed on 8/17/20.	8/24/20
21	Delay in the processing and approval of SPR	The current project schedule, FAW, and implementation approach is not consistent or aligned with original CDT PAL-approved documents, therefore causing a variance of over 10 percent. Also impacts approval of BCP request for M&O.	9/18/20	M. Viloria	Budget	Medium	High	Medium			PM	9/18/20	Mitigate/Enhance	CHP will continue to collaboratively work with CDT and DOF to successfully complete the SPR package.	Escalate to all sponsors (Executive and Project) for visibility.	Open	10/29/20: The CDT moved SPR approval from 10/2020 to 11/2020.	

Change Request Log						
Date of Request	CR#	Change Request Title	Assigned To	Description of Change	Current Status	Implementation Date
12/24/2019	1	New Car Builds	Audrey Kagiyama	Request to procure additional hardware to support 2020 new car builds.	Approved	11/30/2022
9/18/2020	2	Requirements Matrix Edits	John Batarseh	Request to make minor changes to the detailed requirements in the Requirements Matrix.	Approved	11/2/2020
9/22/2020	1	New Car Builds (Revised)	Audrey Kagiyama	This was previously approved in March 2020; however, the cost of implementation has been reduced since then. The Change Request update is needed so it aligns with the current Financial Analysis Worksheet (FAW) and the Special Project Report (SPR) we have submitted to the Department of Technology.	Approved	11/30/2022

Issue Log

Issue Identification						Issue Resolution				Issue Control			
ID #	Issue Title	Issue Statement or Description	Date Issue Identified	Issue Originator	Impact Rating	Issue Owner	Date Assigned	Target Resolution Date	Issue Resolution Description	Priority	Issue Status	Issue Closure Date	Comments
1	Public Safety Communications (PSC) Certification	The PSC Office (PSCO) report indicates the Wireless Mobile Video Audio Recording System (WMVARS) solution is interfering with some of the California Highway Patrol (CHP) radios and creating interference far above the specified threshold. If hardware changes are required, it could delay the project depending on the nature of the hardware issue	5/5/2020	Telecommunications Section (TS)/PSCO	Medium	Safe Fleet/TS	3/19/2020	6/30/2020	Safe Fleet developed a mitigation strategy to reduce level of interference. The California Highway Patrol (CHP) will collaborate the mitigation process with Safe Fleet and PSCO.	1	Closed	9/16/2020	Final PSCO testing results received on 9/15/20. The CHP issued a memorandum to Safe Fleet on 9/16/20, meeting their contractual obligations relating to the WMVARS H1 Unit and is within acceptable levels for electromagnetic interference/radio frequency interference emissions. Final H1 production board testing by PSCO is scheduled for the second week of August. Safe Fleet H1 production board ship date is 8/7/20. Third PSCO testing results, received on 6/25/20, indicate major improvements. Safe Fleet will continue mitigation efforts. Two updated power boards were received for testing to further improve desense issues. The PSCO testing results will be available by 7/17/20. As part of the mitigation process, Safe Fleet sent two sets of corrected hardware samples to CHP for the third PSCO re-testing. The PSCO testing and results will take approximately three-to-four weeks from 5/18/20. First set of solution unit samples delivered to CHP on 5/8/20 for PSCO validation and testing.

Decision Log

ID #	Decision Title	Decision Description	Date Decision Added	Decision Originator	Decision Owner	Target Decision Date	Record of Decision Made	Decision Status	Decision Closure Date	Comments
1	Change Request - Additional Components	Fleet Operations Section (FOS) has requested to procure additional Wireless Mobile Video Audio Recording System (WMVARS) cables, mounting equipment, and telecommunication components for new car builds.	12/24/2019	FOS/Research and Planning Section	Lori Dong	2/28/2020	Total cost is $7.5 million for the 1,000 WMVARS units (cables, mounting equipment, and telecommunication components, which includes 1,000 modems and 2,000 antennas to support the new vehicles).	Closed	3/2/2020	To date, project focus has been on retrofitting existing vehicles. Coban contract negotiations and estimated numbers have been based on this number. However, additional units would ultimately need to be procured to ensure all new enforcement vehicles are outfitted with the new WMVARS system as funds are available.
2	Active Directory Federated Services (ADFS) Integration	The California Highway Patrol (CHP) prefers to use full ADFS for authentication and permissions; however, the WMVARS solution does not integrate with ADFS. This feature is under development by Safe Fleet and will not be delivered until August.	3/2/2020	CHP Technical Team	John Batarseh	3/31/2020	Safe Fleet will be working on ADFS integration and providing a weekly status update. There is possible project schedule impact.	Closed	3/27/2020	Safe Fleet provided two Project Schedule Options to CHP for review on 3/20/20: 1. 5/4/20 - Authentication Only - Software Release 2.6.1. 2. 8/3/20 - Addition of Roles/ Groups/User Permissions - Software release 2.7.
3	New Antennas	Adding the newly enhanced Shepherd antenna with current Rottweiler antenna.	5/12/2020	Telecommunications Section (TS)	Lt. Mark Firkins	6/8/2020	Once TS took over the retrofit responsibilities, they requested we find a way to reduce the number of antennas needed to be installed per vehicle to reduce the labor needed to retrofit vehicles and limit the number of antennas on the roof, as CHP already uses four antennas on the roof for radio needs.	Closed	6/8/2020	This effort helped mitigate project risks on FOS resources and retrofit build time.
4	Final Public Safety Communications Office September 2020 Results	Safe Fleet has successfully mitigated and improved receiver degradation issues on the WMVARS H1 units.	9/14/2020	TS	Lt. Mark Firkins	9/18/2020	Overall report result shows significant improvement of one-to-two decibels (dB) on Low Band and two-to-three dB on High Band radio frequency, which is acceptable to CHP.	Closed	9/16/2020	The CHP issued a memorandum of acceptance to Safe Fleet dated 09/16/20.
5	Revision of Change Request (CR) #1	Request to amend CR #1 to align with the Special Project Report (SPR) to rebaseline the project cost and schedule, and align with the Financial Analysis Worksheet (FAW) and Budget Change Proposal for maintenance and operations. In addition, provide clarity in verbiage description about retrofit and new builds.	9/22/2020	Project Team	Myrna Viloria	10/7/2020	The change request has been reviewed in the Executive Steering Committee meeting on 9/30/20.	Closed	10/16/2020	Approval received from Chief Information Officer (CIO) and Executive Sponsor on 10/12/20. Copy of CR #1 (Amended) was sent to the Executive Steering Committee (ESC) for further review and approval. Feedback is due 10/7/20.
6	CR #2 - Requirement Updates	Request for minor changes to the Requirements Matrix. The proposed changes are in the best interest of CHP and the project. Some of the changes are simple errors in the requirements. Other changes are minor variations that are of little impact to the project.	9/22/2020	Technical Team	John Batarseh	9/30/2020	The change request was reviewed in the ESC meeting on 9/30/20. Changes do not increase project cost, scope, or schedule.	Closed	10/16/2020	Approval received from CIO and Executive Sponsor on 10/12/20. Copy of CR #2 was sent to ESC for further review and approval. Feedback is due 10/7/20.
7	Special Project Report (SPR)	Department of Technology (CDT) Independent Project Oversight (IPO) approval moved from 10/2020 to 11/2020.	10/29/2020	CDT IPO	Anooja Tandon	10/29/2020	Due to delays caused by ongoing SPR reviews and feedback between CHP and CDT IPO, the IPO advised CHP the SPR approval will be moved from 10/2020 to 11/2020.	Open		10/30/20: Received additional feedback from CDT IPO/Project Approval Office at 5:06pm. The CHP will review and respond to the additional items (#14 through #32) and send to CDT as soon as possible.

Risk Register Template

1 Introduction

[The Risk Register is a tool to capture project risks and supports the Risk Management processes the Project Manager uses throughout the project. The Risk Register supports the five Risk Management processes listed as follows:

- Risk Identification
- Risk Analysis
- Risk Prioritization
- Risk Response
- Risk Control

The following sections describe the attributes used in each of the five sections listed above and provide instruction and guidance for how to fill in the Risk Register tool. See the Risk Management Plan for more detailed information about the Risk Management processes.]

2 Risk Identification

[The Risk Identification section of the Risk Register consists of the following attributes. Attribute descriptions are provided to help understand usage.]

- **ID #** - A unique identifier used to reference the risk.
- **Risk Title** – The title appears on risk reports. It should be brief but also convey the risk threat or opportunity.
- **Risk Statement or Description** – The description should contain detail sufficient to assess risk impact and provide project Stakeholders with an understanding of risk to the project. Risk Statement = Concern + Likelihood + Consequence.
- **Date Risk Identified** – Enter the date the risk was added to the Risk Register.
- **Risk Originator** – Enter the person(s) who identified the risk.
- **Risk Category** – List the risk category. Categorizing risks provides a grouping mechanism to help identify potential source or causes of risks. This is a drop-down list containing, but not limited to, the following selections: Budget, Environment, Processes, Resources, Schedule, Stakeholders, and Technology.

- **Note:** *The Statewide Information Management Manual (SIMM) Section 45, The Information Technology Project Oversight Framework, Appendix C* provides a list of risk categories and examples of risk. The Project Management Institute's (PMI) Project Management Body of Knowledge (PMBOK) also contains a hierarchical Risk Breakdown Structure (RBS) example, which provides a list of categories.

Example:

Risk Identification					
ID #	Risk Title	Risk Statement or Description	Date Risk Identified	Risk Originator	Risk Category
1	*Competing Team Member Priorities*	*Team Members are not fully dedicated to the project and have multiple competing assignments.*	*2/1/2016*	*Project Manager*	*Resources*
2	*Current costs are outpacing budget*	*The current project costs are ahead of the planned cost for this period in the project.*	*3/15/2016*	*Project Sponsor*	*Budget*
3	*Schedule is Aggressive and High Risk*	*The current project schedule baseline is aggressive and considered high risk for completing project work on time.*	*4/1/2016*	*Technical Manager*	*Schedule*

3 Risk Analysis

[The Risk Analysis section of the Risk Register consists of the following attributes. Attribute descriptions are provided to help understand usage. Reference the Risk Management section of the California-Project Management Framework (CA-PMF) for more details on how to

• **Probability** - Probability is a quantitative or qualitative expression of the chances or odds a risk will occur. The value is used in calculating risk exposure level.

High – Very likely or almost certain (66% – 99%) risk will occur
Medium – A likely chance (33% – 66%) risk will occur
Low – Unlikely or will probably not (1% – 33%) occur

• **Impact** – This element is used to describe the impact to the project should the risk occur. The value is used in calculating risk exposure level.

High – The Risk presents a significant negative impact on project budget, schedule, or quality.
- Project cost increase of 10% or more
- Project schedule increase of 10% or more
- Failure to meet required performance
- Failure to provide required functionality

Medium – The Risk presents a material impact that would significantly affect users, clients, or key Stakeholders.
- Project cost increase between 5% and 10%
- Project schedule increase between 5% and 10%
- Significant discrepancies in desired system-wide performance
- Significant discrepancies in desired system-wide functionality

Low – The Risk does not present a significant or material impact on project budget, schedule, or quality.
- Project cost increase of less than 5%
- Project schedule increase of less than 5%
- Minor discrepancies in desired performance
- Minor discrepancies in desired functionality

• **Timeframe** – This element indicates when a risk response must be performed in order to be effective. The value is used in calculating severity. It indicates how quickly action must be taken on the risk. For example (timeframes are examples only and can be decided by the Project Sponsor):

High – Risk Management action required within [two weeks]
Medium – Risk Management action required within [30 days]
Low – Risk Management action required within [90 days]

• **Exposure** – This is a calculated field. Exposure level = Probability multiplied by Impact. Risk level is reviewed by the Risk Manager on a periodic basis based on input from the Risk Owner.

High = 3
Medium = 2
Low = 1

Example:

Risk Identification						Risk Analysis			
ID #	Risk Title	Risk Statement or Description	Date Risk Identified	Risk Originator	Risk Category	Probability	Impact	Timeframe	Exposure
1	*Competing Team Member Priorities*	*Team Members are not fully dedicated to the project and have multiple competing assignments.*	*2/1/2016*	*Project Manager*	*Resources*	*High*	*High*	*Medium*	*9*
2	*Current costs are outpacing budget*	*The current project costs are ahead of the planned cost for this period in the project.*	*3/15/2016*	*Project Sponsor*	*Budget*	*Medium*	*Medium*	*Short*	*4*
3	*Schedule is Aggressive and High Risk*	*The current project schedule baseline is aggressive and considered high risk for completing project work on time.*	*4/1/2016*	*Technical Manager*	*Schedule*	*Medium*	*High*	*Short*	*6*

4 Risk Prioritization

[The Risk Prioritization section of the Risk Register consists of the following attributes. Attribute descriptions are provided to help understand usage. Reference the Risk Management section of the CA-PMF for more details on how to perform the risk prioritization process.]

- **Severity** - This is a calculated field. Severity level = Risk Exposure multiplied by Time Frame. The severity level is reviewed by the Risk Manager on a biweekly basis based on input from the Risk Owner.
- **Risk Owner** – The Risk Owner is responsible for managing assigned risks, including monitoring and development of mitigation strategies and contingency plans.
- **Date Assigned** – Reflects the date the Risk Owner was identified and assigned to the risk.

Example:

Risk Identification						Risk Prioritization		
ID #	Risk Title	Risk Statement or Description	Date Risk Identified	Risk Originator	Risk Category	Severity	Risk Owner	Date Assigned
1	*Competing Team Member Priorities*	*Team Members are not fully dedicated to the project and have multiple competing assignments.*	*2/1/2016*	*Project Manager*	*Resources*	*18*	*Project Manager*	*2/8/2016*
2	*Current costs are outpacing budget*	*The current project costs are ahead of the planned cost for this period in the project.*	*3/15/2016*	*Project Sponsor*	*Budget*	*4*	*Project Sponsor*	*3/22/2016*
3	*Schedule is Aggressive and High Risk*	*The current project schedule baseline is aggressive and considered high risk for completing project work on time.*	*4/1/2016*	*Technical Manager*	*Schedule*	*6*	*Project Manager*	*4/8/2016*

5 Risk Response

[The Risk Response section of the Risk Register consists of the following attributes. Attribute descriptions are provided to help understand usage. Reference the Risk Management section of the CA-PMF for more details on how to perform the risk prioritization process.]

• **Risk Response Strategy** - Identifies a strategy for attempting to reduce negative impacts of risk occurrence or increase the potential for an opportunity. The project risk management team jointly determines the risk response strategy for each risk. This is a drop-down list including, but not limited to, Accept, Avoid / Exploit, Mitigate / Enhance, and Watch.

• **Risk Response Plan Description** – Details the risk response plan to address the risk. Used to reduce probability of negative impacts of risk occurrence, or increase potential for an opportunity. This represents a set of actions and requires resource and timing considerations.

• **Contingency Plan Description** – Describes procedures to follow if a risk occurs. This represents an alternate set of actions and requires resource and timing considerations. The contingency plan is integrated into the project plan and evaluated for additional risks and impacts.

Example:

Risk Identification			Risk Response		
ID #	Risk Title	Risk Statement or Description	Risk Response Strategy	Risk Response Plan Description	Contingency Plan Description
1	*Competing Team Member Priorities*	*Team Members are not fully dedicated to the project and have multiple competing assignments.*	*Transfer / Share*	*Meet with team member organizational managers and set this project as highest priority.*	*Escalate to Executive Steering Committee for analysis and resolution.*
2	*Current costs are outpacing budget*	*The current project costs are ahead of the planned cost for this period in the project.*	*Mitigate / Enhance*	*Monitor actual costs on a bi-weekly basis. Work with financial manager on mitigation strategies.*	*Implement cost reduction strategies within 30 days.*
3	*Schedule is Aggressive and High Risk*	*The current project schedule baseline is aggressive and considered high risk for completing project work on time.*	*Watch*	*Carefully monitor work performance and search for opportunities to reduce risk.*	*Re-work and re-baseline the schedule to be less aggressive.*

6 Risk Control

[Risk Control is the process of implementing risk response plans, tracking identified risks, monitoring residual risks, identifying new risks, and evaluating risk process effectiveness throughout the project.]

Issue Log Template Instructions and Guidance

1 Introduction

[The Issue Log is a tool used to capture project issue information in support of the project's issue management process. Issue Management consists of the five processes listed below:

- Issue Identification
- Issue Resolution
- Issue Control
- Issue Tracking and Reporting
- Issue Escalation

The Issue Log is used to document the results of the activities within these five management processes with a particular focus on Issue Identification, Issue resolution, and Issue control.

The following sections describe the attributes used in each of the three sections listed above and provide instructions and guidance for how to fill in the Issue Log tool. See the Issue Management Plan for more detailed information about the Issue Management processes.]

2 Issue Identification

[Issue identification is an integral process to ensure successful delivery of any project. Issues arise throughout the project lifecycle, and require swift recognition, attention, and resolution to minimize their impact to the project. Any project team member can identify an issue and issues should be raised to the team lead, Project Manager, or Risk/Issue Manager. Project documents should indicate who has primary responsibility for issue management – beginning with identification activities and analyzing the issue's project impact. The Issue Identification section of the Issue Log consists of the following attributes. Attribute descriptions are provided to help understand usage.

- **ID #** - Enter a unique identifier used to reference the issue.
- **Issue Title** – Enter the issue title that will appear on issue reports. It should be brief but also convey the issue implications.
- **Issue Statement or Description** –Enter an issue description that contains enough detail to provide project Stakeholders with an understanding of the issue and its impact to the project.
- **Date Issue Identified** – Enter the date the issue was added to the issue log.
- **Issue Originator** – Enter the person(s) who identified the issue.
- **Impact Rating** – Enter the issue's impact to the project. In the sample table below, the project has defined impact ratings as High, Medium and Low and provided a definition for each.

Impact	Criteria
High	Issue presents a significant negative impact on project budget, schedule, or quality.
	• Project cost increase of 10% or more
	• Project schedule increase of 10% or more
	• Failure to meet required performance
	• Failure to provide required functionality
Medium	Issue presents a material impact that would significantly affect users, clients, or key Stakeholders.
	• Project cost increase of 5 - 10%
	• Project schedule increase of 5 - 10%
	• Significant discrepancies in desired system-wide performance
	• Significant discrepancies in desired system-wide functionality
Low	Issue does not present a significant or material impact on project budget, schedule or quality.
	• Project cost increase of less than 5%
	• Project schedule increase of less than 5%
	• Minor discrepancies in desired performance
	• Minor discrepancies in desired functionality

The following table provides a sample entry for Issue Identification.]

Example:

Issue Identification					
ID #	Issue Title	Issue Statement or Description	Date Issue Identified	Issue Originator	Impact Rating

1	Cur 's exceed project budget	The current project costs are 12% higher than budgeted	XX/XX/XXXX	Project Manager	High
2	Staff attrition	The project's Enterprise Architect has left the project leaving the position vacant	XX/XX/XXXX	Project Sponsor	High

3 Issue Resolution

[As they are determined, resolutions to specific issues are recorded in the issue log. Issue resolution begins with assigning an owner to the issue who is responsible for monitoring, and sometimes managing, issue resolution activities until the issue is resolved. The Issue Resolution section of the Issue Log consists of the following attributes. Attribute descriptions are provided to help understand usage.

- **Issue Owner** – Enter the name of the person assigned to resolve the issue.
- **Date Assigned** – Enter the date that the Issue Owner was assigned.
- **Target Resolution Date** – Enter the planned date for resolution.
- **Issue Resolution Description** – Enter a description of the plan for resolving the issue.

The following table shows an example of recording issue resolution information in the issue log. The resolution addresses issue #2 in the sample table above.]

Example:

Issue Resolution			
Issue Owner	**Date Assigned**	**Target Resolution Date**	**Issue Resolution Description**
[Name]	[Date]	[Date]	*The Department will re-assign an architect from a lesser priority project temporarily until a new architect is hired*

4 Issue Control

[Once a resolution plan has been determined, efforts to resolve the issue are monitored and the issue's status is documented. Suggested status entries include the following, but others could be added based upon project needs.

- **Assigned** – the issue has been assigned to an owner for resolution
- **Implementing** – A resolution plan has been developed and is being implemented
- **Escalated** – The issue has been escalated for resolution
- **Completed** – the resolution plan has been completed
- **Closed** – the issue has been closed

The Issue Control section of the Issue Log consists of the following attributes. Attribute descriptions are provided to help understand usage.

- **Issue Priority** – Ranks the importance of resolving the issue relative to other issues.
  - **1** – The issue must be resolved as quickly as possible
  - **2** – The issue should be resolved as quickly as possible
  - **3** – Issue resolution can be deferred
- **Issue Status** – a notation regarding the current state of the issue.
- **Issue closure date** – Enter the date that the issue was closed.
- **Comments** – enter clarifying information as needed.

The table on the following page shows an example of recording issue control information in the issue log which completes an issue log entry. This entry addresses Issue # 2 in the table above.]

Example:

Issue Control			
Priority	**Issue Status**	**Issue Closure Date**	**Comments**
1	*Closed*	*XX/XX/XXXX*	*New Architect hired and currently being on-boarded*

[The Issue Log incorporates Issue Identification, Issue Resolution and Issue Control.]

Example:

Issue Identification						Issue Resolution				Issue Control			
ID #	**Issue Title**	**Issue Statement or Description**	**Date Issue Identified**	**Issue Originator**	**Impact Rating**	**Issue Owner**	**Date Assigned**	**Target Resolution Date**	**Issue Resolution Description**	**Priority**	**Issue Status**	**Issue Closure Date**	**Comments**

1	Current costs exceed project budget	The current project costs are 12% higher than budgeted	XX/XX/XXXX	Project Manager	High	[Name]	[Date]	[Date]	Review existing budget Determine root cause for over budget condition and initiate a cost control strategy	2	Assigned		
2	Staff attrition	The project's Enterprise Architect has left the project leaving the position vacant	XX/XX/XXXX	Project Sponsor	High	[Name]	[Date]	[Date]	The Department will re-assign an architect from a lesser priority project temporarily until a new architect is hired.	1	Closed	XX/XX/XXXX	New Architect hired and currently being on-boarded

California Highway Patrol

Change Request Log Template

1 Introduction

The Change Request Log provides an at-a-glance view of the number and types of changes currently being considered by the project. Because it is a summary, it gives the project manager and other decision-makers a quick sense of how much change is occurring within the project. A significant number of high-impact changes could be a sign of a project at risk from a scope, time or cost perspective. It can also point out change requests that are not being addressed in a timely manner. Untimely decision making regarding changes can result in lost opportunities to improve overall probability of success and/or avoid negative project impacts.
The Change Request Summary Report consists of the following fields:

- **Date of Request** – The request date associated with the specific Change Request
- **Change Request Number** – The unique number assigned to identify the specific Change Request
- **Change Request Title** – The unique name for the change request
- **Assigned to** – The name of the lead Change Request Analysis / Implementation resource
- **Description of Change** – Narrative describing the requested change
- **Current Status** – The current workflow step or disposition for the change request. Typically, one of the following:
  - Submitted - The change request has been developed and submitted for consideration
  - Accepted - The Change Control Board has accepted the change request and has approved use of project resources for analysis
  - Assigned - The Change Request Analysis / Implementation team has been assigned to the Change Request
  - Rework - The Change Request has been sent back to a previous step for additional information
  - Withdrawn - The Change Request Originator has withdrawn the request
  - Deferred - The Change Request has been put on hold until later in the project
  - Approved - The Change Control Board has approved the Change Request and the Change Request Analysis / Implementation team's recommendation
  - Completed - the Change Request has been implemented

2 Creating the Change Request Log

2.1 Personalize the Change Request Log

Update the upper left corner of the Change Request Log with the project's specific logo or name.

2.2 Populate the Change Request Log

Transfer the Date of Request, Change Request #, Change Request Title, the resource assigned to the change request, the description of the change requested, current status and implementation date from the change request form for each specific change request. Add rows as needed.

2.3 Maintain the Change Request Log

As change requests progress through the change request process, keeping the log updated is critical to communicating accurately the state of change in the project. This task is typically handled by the Change Request Coordinator on behalf of the Change Management Lead.

3 Example

An example Change Log entry is provided on the Change Request Log tab in this workbook. The requested change is to add an additional technical resource to accommodate project workload.

Classification	Project/ Maintenance and Operation Support	Hiring Status	Information Technology Support Responsibilities	Implementation Duties	Post Implementation/Maintenance and Operation Duties
Information Technology Specialist I (ITS I)	Project/ Maintenance and Operation (M&O) Support	Hired - 08/19/2019	Technical Services Group (TSG) - Server and data support for Cloud and on-premise	As project lead, and in consultation with Wireless Mobile Video and Audio Recording System (WMVARS) In-Car Camera Division Administrators (DAdmin), and server and network staff, the incumbent performs complex analyses to identify the best information technology (IT) solutions to meet user-defined requirements. Assists with implementation and support of User Account Control to ensure basic user accounts cannot perform administrative functions and administrators can only perform privileged functions when they explicitly escalate their privileges. Implements and maintains functionality of physical and virtual servers. Performs computer device administration, configuration, security-hardening, event monitoring, and audit. Works independently as well in collaboration with other server and network support staff to design, develop, and implement the enterprise directory service components in the areas of identity and access management, directory services, work-flow, security, provisioning, and compliance. Creates, processes, and maintains required documentation to support hardware, application, and system functionality performance, following IT best practices. Applies experience across the computing infrastructure, including servers, firewalls, routers, switches, and network devices for capturing Internet Protocol (IP) traffic and analyzing the traffic detail.	The incumbent provides maintenance and support of virtual and physical servers in the Cloud and on-premise California Highway Patrol (CHP) data centers; maintains server configurations; reviews logs; troubleshoots and resolves Cloud, virtual machine, and physical server-related issues; and implements appropriate patches to the server environment. Works with the WMVARS in-car and body worn camera (BWC) vendor as necessary. Generates and retains server backups, and monitors Cloud storage utilization, logs, storage area network, and Cloud tenant health. Provides system administrative support to business partners and executes daily decisions affecting the overall design and implementation of the highly distributed, 24/7 local area network/wide area network (LAN/WAN) systems.
ITS I	Project/M&O Support	Hired - 11/12/2019	Network Security Group (NSG) – Network security for Cloud and on-premise	Acts as a senior technical specialist and performs lead functions in support of the WMVARS and in-car and BWC systems for mobile, wireless, and Internet of things technologies. Specifically, the incumbent will be critical in the planning, design, development, testing, security, and monitoring of assigned technology projects. Provides advanced techniques, experience, and best practices for the planning, design, definition, and configuration of the most complex network infrastructure software and hardware and provides direction and review for the application of updated network rules and policies, perimeter security, and implementation plans for capturing IP traffic and analyzing the traffic detail.	The incumbent provides and apply information security experience, complex rules and policies, and best practices to support the maintenance and configuration of the network to include, but not limited to, the following duties: perform the most complex, advanced, hands-on techniques and configuration of software and hardware across the CHP network computing infrastructure, including firewalls, routers, switches, servers, and network devices to protect the Department against threats, vulnerabilities, and risks; perform computer device administration, configuration, security-hardening, event monitoring, and audits; perform advanced specification, design, and security review of services, including Internet protocol (IP) communications, encryption, digital certificates and signatures, and Radio/Voice over IP technologies; assist Network Support Unit staff in the continued improvements of network infrastructure, network technologies, and the support utilities and applications for maintaining a highly available network; work closely with the Information Security Officer, performing cyber threat analysis, intrusion protection schemes, and layered network security models; and perform detail-level reviews and analyses of computer configurations, event logs, and network access and communication activity logs.
ITS I	Project/ M&O Support	Hired - 04/13/2020	Mobile Digital Computer (MDC) - Patrol vehicles/ Digital Evidence Management System (DEMS)	Performs lead functions and specializes in advanced technical support for the Department's MDC, WMVARS-and in-car and BWC systems infrastructure by planning, designing, developing, implementing, training, and providing ongoing support for all MDC projects. Implements software that adheres to organizational enterprise architecture ensuring secure, reliable, and accessible solutions. Designs testing methods, validation procedures, and execution plans to evaluate software functionality. Develops and maintains software documentation for each phase of the systems development life cycle to ensure maintainability. Develops and maintains software product documentation. Develops plans to execute WMVARS in-car, and BWC systems testing, defect management, system integration, implementation, and documentation of software components by outlining tasks and developing timelines and schedules.	The incumbent provides administrative and overall maintenance of the program; assists end-users with troubleshooting basic technical equipment issues; responsible for maintaining WMVARS/BWC equipment, including, but not limited to, cameras, docking stations, and cables to ensure adequate supplies are on hand; responsible for the replacement of damaged and/or lost equipment; and serves as liaison with the equipment provider and advises the Department on equipment upgrades and any equipment-related concerns or issues. Manages user permissions within the DEMS. Adds and removes users based on volume and administrative transfers. Provides support to users with DEMS login access problems or with accessing specific evidence within DEMS. Provides assistance to evidence officers with sharing, copying, and exporting evidence. Sets up and maintains initial system groups, rules, and permissions for users and evidence retention within DEMS. Oversees the Department's WMVARS-dedicated electronic mail.
Information Technology Associate (ITA)	Project/ M&O Support	Hired - 05/13/2019	Headquarters (HQ) DAdmin	Familiarizes and trains on the WMVARS. Develops and conducts end-user material and training for support staff, end-users, and field and division level coordinators in various skills pertaining to WMVARS, MDC, and BWC systems. Configures, deploys, and maintains devices. Serves as Division liaison with project members, HQ, Office of Primary Interest (OPI or Business), allied agencies, the public, and media users to support content development, enhancements, and modifications. Maintains, updates, and/or reviews MDC, in-car and BWC systems, and manuals, policies, and procedures. Prepares status or special reports concerning technical issues. Documents problem resolution activities. Advises program management on progress of assigned projects.	The incumbent will specialize in supporting the WMVARS, including but not limited to troubleshooting, maintenance, and administrative support statewide. The incumbent will provide continuous administrative support in a variety of responsibilities such as wireless access points (WAPs), on-premise servers, configuration, and maintenance for WMVARS hardware, depot maintenance, software configuration, user roles and permission maintenance, and WMVARS inventory. Assists in statewide LAN/WAN administration, training, troubleshooting issues, and technical support.

ITA	Project/ M&O Support	Hired - 07/31/2020	Valley Division DAdmin	Familiarizes and trains on the WMVARS. Develops and conducts end-user material and training for support staff, end-users, and field and division level coordinators in various skills pertaining to WMVARS, MDC, and BWC systems. Configures, deploys, and maintains devices. Serves as Division liaison with project members, HQ, OPI, allied agencies, the public, and media users to support content development, enhancements, and modifications. Maintains, updates, and/or reviews MDC, in-car and BWC systems, and manuals, policies, and procedures. Prepares status or special reports concerning technical issues. Documents problem resolution activities. Advises program management on progress of assigned projects.	The incumbent will specialize in supporting the WMVARS, including but not limited to troubleshooting, maintenance, and administrative support statewide. The incumbent will provide continuous administrative support in a variety of responsibilities such as WAPs, on-premise servers, configuration, and maintenance for WMVARS hardware, depot maintenance, software configuration, user roles and permission maintenance, and WMVARS inventory. Assists in statewide LAN/WAN administration, training, troubleshooting issues, and technical support.
ITA	Project/ M&O Support	Hired - 11/16/2020	Golden Gate Division DAdmin	Familiarizes and trains on the WMVARS. Develops and conducts end-user material and training for support staff, end-users, and field and division level coordinators in various skills pertaining to WMVARS, MDC, and BWC systems. Configures, deploys, and maintains devices. Serves as Division liaison with project members, HQ, OPI, allied agencies, the public, and media users to support content development, enhancements, and modifications. Maintains, updates, and/or reviews MDC, in-car and BWC systems, and manuals, policies, and procedures. Prepares status or special reports concerning technical issues. Documents problem resolution activities. Advises program management on progress of assigned projects.	The incumbent will specialize in supporting the WMVARS, including but not limited to troubleshooting, maintenance, and administrative support statewide. The incumbent will provide continuous administrative support in a variety of responsibilities such as WAPs, on-premise servers, configuration, and maintenance for WMVARS hardware, depot maintenance, software configuration, user roles and permission maintenance, and WMVARS inventory. Assists in statewide LAN/WAN administration, training, troubleshooting issues, and technical support.
ITA	Project/ M&O Support	Pending interviews	Coastal Division DAdmin	Familiarizes and trains on the WMVARS. Develops and conducts end-user material and training for support staff, end-users, and field and division level coordinators in various skills pertaining to WMVARS, MDC, and BWC systems. Configures, deploys, and maintains devices. Serves as Division liaison with project members, HQ, OPI, allied agencies, the public, and media users to support content development, enhancements, and modifications. Maintains, updates, and/or reviews MDC, in-car and BWC systems, and manuals, policies, and procedures. Prepares status or special reports concerning technical issues. Documents problem resolution activities. Advises program management on progress of assigned projects.	The incumbent will specialize in supporting the WMVARS, including but not limited to troubleshooting, maintenance, and administrative support statewide. The incumbent will provide continuous administrative support in a variety of responsibilities such as WAPs, on-premise servers, configuration, and maintenance for WMVARS hardware, depot maintenance, software configuration, user roles and permission maintenance, and WMVARS inventory. Assists in statewide LAN/WAN administration, training, troubleshooting issues, and technical support.
ITA	Project/ M&O Support	Pending interviews	Central Division DAdmin	Familiarizes and trains on the WMVARS. Develops and conducts end-user material and training for support staff, end-users, and field and division level coordinators in various skills pertaining to WMVARS, MDC, and BWC systems. Configures, deploys, and maintains devices. Serves as Division liaison with project members, HQ, OPI, allied agencies, the public, and media users to support content development, enhancements, and modifications. Maintains, updates, and/or reviews MDC, in-car and BWC systems, and manuals, policies, and procedures. Prepares status or special reports concerning technical issues. Documents problem resolution activities. Advises program management on progress of assigned projects.	The incumbent will specialize in supporting the WMVARS, including but not limited to troubleshooting, maintenance, and administrative support statewide. The incumbent will provide continuous administrative support in a variety of responsibilities such as WAPs, on-premise servers, configuration, and maintenance for WMVARS hardware, depot maintenance, software configuration, user roles and permission maintenance, and WMVARS inventory. Assists in statewide LAN/WAN administration, training, troubleshooting issues, and technical support.
ITA	Project/ M&O Support	Pending interviews	Northern Division DAdmin	Familiarizes and trains on the WMVARS. Develops and conducts end-user material and training for support staff, end-users, and field and division level coordinators in various skills pertaining to WMVARS, MDC, and BWC systems. Configures, deploys, and maintains devices. Serves as Division liaison with project members, HQ, OPI, allied agencies, the public, and media users to support content development, enhancements, and modifications. Maintains, updates, and/or reviews MDC, in-car and BWC systems, and manuals, policies, and procedures. Prepares status or special reports concerning technical issues. Documents problem resolution activities. Advises program management on progress of assigned projects.	The incumbent will specialize in supporting the WMVARS, including but not limited to troubleshooting, maintenance, and administrative support statewide. The incumbent will provide continuous administrative support in a variety of responsibilities such as WAPs, on-premise servers, configuration, and maintenance for WMVARS hardware, depot maintenance, software configuration, user roles and permission maintenance, and WMVARS inventory. Assists in statewide LAN/WAN administration, training, troubleshooting issues, and technical support.
ITA	Project/ M&O Support	Pending interviews	Inland Division DAdmin	Familiarizes and trains on the WMVARS. Develops and conducts end-user material and training for support staff, end-users, and field and division level coordinators in various skills pertaining to WMVARS, MDC, and BWC systems. Configures, deploys, and maintains devices. Serves as Division liaison with project members, HQ, OPI, allied agencies, the public, and media users to support content development, enhancements, and modifications. Maintains, updates, and/or reviews MDC, in-car and BWC systems, and manuals, policies, and procedures. Prepares status or special reports concerning technical issues. Documents problem resolution activities. Advises program management on progress of assigned projects.	The incumbent will specialize in supporting the WMVARS, including but not limited to troubleshooting, maintenance, and administrative support statewide. The incumbent will provide continuous administrative support in a variety of responsibilities such as WAPs, on-premise servers, configuration, and maintenance for WMVARS hardware, depot maintenance, software configuration, user roles and permission maintenance, and WMVARS inventory. Assists in statewide LAN/WAN administration, training, troubleshooting issues, and technical support.

ITA	Project/ M&O Support	Pending interviews	Border Division DAdmin	Familiarizes and trains on the WMVARS. Develops and conducts end-user material and training for support staff, end-users, and field and division level coordinators in various skills pertaining to WMVARS, MDC, and BWC systems. Configures, deploys, and maintains devices. Serves as Division liaison with project members, HQ, OPI, allied agencies, the public, and media users to support content development, enhancements, and modifications. Maintains, updates, and/or reviews MDC, in-car and BWC systems, and manuals, policies, and procedures. Prepares status or special reports concerning technical issues. Documents problem resolution activities. Advises program management on progress of assigned projects.	The incumbent will specialize in supporting the WMVARS, including but not limited to troubleshooting, maintenance, and administrative support statewide. The incumbent will provide continuous administrative support in a variety of responsibilities such as WAPs, on-premise servers, configuration, and maintenance for WMVARS hardware, depot maintenance, software configuration, user roles and permission maintenance, and WMVARS inventory. Assists in statewide LAN/WAN administration, training, troubleshooting issues, and technical support.
ITA	Project/ M&O Support	Pending interviews	Southern Division DAdmin	Familiarizes and trains on the WMVARS. Develops and conducts end-user material and training for support staff, end-users, and field and division level coordinators in various skills pertaining to WMVARS, MDC, and BWC systems. Configures, deploys, and maintains devices. Serves as Division liaison with project members, HQ, OPI, allied agencies, the public, and media users to support content development, enhancements, and modifications. Maintains, updates, and/or reviews MDC, in-car and BWC systems, and manuals, policies, and procedures. Prepares status or special reports concerning technical issues. Documents problem resolution activities. Advises program management on progress of assigned projects.	The incumbent will specialize in supporting the WMVARS, including but not limited to troubleshooting, maintenance, and administrative support statewide. The incumbent will provide continuous administrative support in a variety of responsibilities such as WAPs, on-premise servers, configuration, and maintenance for WMVARS hardware, depot maintenance, software configuration, user roles and permission maintenance, and WMVARS inventory. Assists in statewide LAN/WAN administration, training, troubleshooting issues, and technical support.