

California Assessor's Association (CAA)

California County Assessors' Information Technology Authority

EXEMPTIONS Advisory Committee

IT Prospectus

Enterprise Project Charter

Version 3.0

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1. DOCUMENT REVISION HISTORY AND APPROVALS

Project Name: Joint Powers Authority (JPA) Exemptions Project

Document Status: Draft

The following Change History log contains a record of changes made to this document:

Version Number	Date	Revised By	Section, Page(s), and Text Revised
1.00	Oct-2023	David Bruckmann, Israel Padilla, Xavier Flores	Initial Draft
2.00	Jan-2024	David Bruckmann, Israel Padilla, Xavier Flores & Matt Kissinger	Proof of Concept Project Charter
3.00	June-2024	Matt Kissinger, Israel Padilla, Shelley Frank, Xavier Flores & David Bruckmann	Enterprise Project Charter

2. PROJECT OVERVIEW

The State of California has allocated funds for the development of statewide systems to be shared by Assessor offices. One of the initiatives concerns management of Real Property Exemptions, for example welfare, educational, and religious uses, among others.

The purpose of this Charter is to present a strategic plan for modernizing property tax exemption management in California. By understanding the current challenges faced by Assessor's offices and claimants, this Charter aims to propose a transformative solution that enhances efficiency, accuracy, and stakeholder satisfaction.

A system will provide easy access for taxpayers to obtain and file the required forms, as well as provide access for County Assessors' staff to communicate about the information needed to process an application. Additionally, the system will be used to develop reports both for use by Assessor staff as well as for submission to State Agencies such as the Board of Equalization.

2.1. Project Vision:

The vision for the Exemption Management System is to improve the way property tax exemptions are managed in California. By leveraging technology, fostering collaboration, and promoting transparency, we seek to create a system that empowers claimants, optimizes efficiency, enables compliance, and drives value for all stakeholders involved.

2.2. Project Mission:

The mission of the Property Tax Exemption Management System is to develop a comprehensive and transformative solution that addresses the immediate needs outlined in the proposal while also tackling broader challenges and intricacies of property tax exemption management. Through empowerment, optimization, compliance, communication, and data-driven decision-making, our mission is to drive efficiency, accuracy, and stakeholder satisfaction.

2.3. Current State:

Currently, property tax exemption management in California faces significant challenges. Backlogs reveal prolonged claim processing times, with backlogs extending up to 12 to 18 months. Many offices predominantly rely on tools that were not developed with Business Outcomes in mind (i.e. Excel and Access), leading to inefficiencies and bottlenecks in the process. Both claimants and Assessors' offices encounter hurdles due to manual processing, lack of timely communication, and cumbersome paperwork. To address these challenges, a comprehensive approach is proposed, focusing on leveraging technology to streamline processes, enhance efficiency, and improve stakeholder and claimant satisfaction.

2.4. Objectives:

- 2.4.1. Empower Claimants:** We want to empower claimants by providing them with a user-friendly online portal where they can easily submit exemption claims, track their status, and communicate with the Assessor's office.
- 2.4.2. Optimize Efficiency:** Reduce the time and resources needed for manual tasks through automation, validation checks, and seamless integration with existing systems.
- 2.4.3. Ensure Accuracy and Compliance:** Ensure the accuracy of exemption calculations and compliance with property tax regulations.
- 2.4.4. Enhance Communication:** Enhance communication between claimants and Assessor offices through features such as 2-way communication feature, automated notifications, and comprehensive reporting.
- 2.4.5. Facilitate Data-Driven Decision Making:** Implement powerful analytics and reporting capabilities. Track exemption application statuses to analyzing exemption trends; empower Assessor staff with the tools needed to optimize workflows.
- 2.4.6. Promote Collaboration and Transparency:** Foster an environment of collaboration and transparency within the property tax exemption system with integrated communication platforms, standardized processes, and regular interdepartmental reviews, enable all

stakeholders to have access to accurate, up-to-date information and are able to be actively engaged in the decision-making process.

2.5. Benefits:

- 2.5.1. Efficiency and Productivity:** By automating manual processes, streamlining workflows, and centralizing data management and access, the system will significantly improve efficiency and productivity for property owners and Assessor's Office staff statewide. This will expedite claim processing and reduce processing times, benefiting claimants across California.
- 2.5.2. Accuracy and Compliance:** Advanced validation checks and assessment algorithms will ensure the accuracy and consistency of exemption assessments statewide. By adhering to regulatory requirements and assessment standards, the system will minimize errors and discrepancies in exemption processing, enhancing compliance and auditability. By implementing robust validation checks and reporting functionalities, the aim will be to uphold the highest standards of accuracy and compliance.
- 2.5.3. Transparency and Accountability:** Collaboration and transparency are fundamental to the benefits to be realized. Real-time access to application status updates and communication logs will promote transparency and accountability in the exemption management process statewide. Property owners will have greater visibility into the status of their applications, fostering trust and confidence in Assessor's Offices across California. Clear and timely communication is key to building trust and efficiency in the exemption management process. Self-service access to system data will enable Assessor staff to make informed decisions based on real-time data insights
- 2.5.4. Cost Savings and Resource Optimization:** By reducing manual intervention, minimizing errors, making data available and optimizing resource allocation, the system will result in cost savings for participating Assessor's Offices and property owners statewide. Operational efficiencies achieved through automation and streamlining will enable resources to be redirected to other critical tasks and initiatives.

3. PROJECT SCOPE:

3.1. Application Delivery Method:

- The Exemptions system will be a cloud-based enterprise solution.

3.2. County User Experience:

- User Interface templates for exchanging information with claimants validations on the user interfaces to enable complete and accurate requests.

3.3. Workflow:

- Generic Workflow Queue that will alert the County (designated pool of individuals) of the request in real-time.
- Work queues to facilitate the workflow and processes that are actionable by County staff.
- Ability to upload supporting documentation associated with the claims or certifications of the Exemptions determination.

3.4. User Management:

- Designated operational users represent assigned individual Exemptions processors, configured and maintained by each participating County.
- User administration capabilities will allow each County to manage the authentication and authorization of their operational users.
- Users will be assigned specific roles in the system based on their responsibilities in the Exemptions process and workflow.
- The solution will include an Identity and Access Management solution that allows for two-factor authentication.
- The Identity and Access Management solution needs to integrate with each individual County's existing directory services (e.g., Active Directory). (Note: County users will be managed by each individual County).

3.5. Monitoring and Control:

- Work queue alerts, such as email notifications and job queue notifications, will indicate the availability of actionable work or completed work received.

3.6. Reporting:

- A workflow dashboard and self-service analytical reports will be available to all Counties, displaying workflow data specific to each County. Metrics may include, but are not limited to; the number of Exemption applications started, pending in each queue, and completed by date.
- A centralized dashboard will track Exemption processing durations from start to completion, as well as the ageing metrics of activities (queues).
- Metrics related to cost drivers, such as compute, data transfer, and users, may be included.
- State required reports to include, but not limited to; R&T Section 214.18 (State Annual Report), R&T Section 214(g)(1)(C), 801 and 802.
- Below is a sample listing of questions that will be asked of the system:
 - o What Exemptions are in each state of work (Intake, Unassigned, Review,

- Processing, Approved, Denied, Waiting on Claimant....?)? (Internal)
- What is the average time to process an Exemption? (Internal)
- What is total property value loss/gain for the County?
- Which Claimants are 10 days from missing filing deadline? (Internal)
- Which counties are late, and by how many days, to commitment? (Internal)
- What are the oldest Exemption Cases in the queue? (Internal)
- As a Claimant, where is my Exemption in the process? (External)
- What is the total of exempt low income housing units?(Internal)
- What is the overall approval rate for property tax exemption claims? (Internal)
- How many claims required a field inspection? (Internal)
- What is the outcome of field inspections (Approved, denied, or additional information requested)? (Internal and External)
- How many claims approved or denied in a given timeframe? (Internal)

3.7. Administrative and Configuration Functionality

- Vendor will administer and configure the system workflow and onboard each participating County.
- Each County will be able to configure their own users for the Exemptions System. Modifications to the workflow configuration will require vendor interaction.

3.8. Support & Maintenance

- Vendor will provide ongoing maintenance and support for the solution. Details will be negotiated in contract.

3.9. Data Security and Business Continuity

- Vendor will provide security, disaster recovery and business continuity as negotiated in the contract.

3.10. California R&T Code and Board of Equalization (BOE) Guidance

- The system will adhere to R&T Code relevant to Exemptions Processing and Claim Submittal
- The system will implement all relevant BOE forms including but not limited to 44 BOE Exemptions Forms (See Table 1):
- BOE guidance including but not limited to Assessor’s Handbook 260, 265 and 267

3.11. Board of Equalization (BOE) Exemption Forms:

Table 1:

Number	Name
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BOE-231-AH	Welfare Exemption/Section 231 Change in Eligibility or Termination Notice
BOE-236	Exemption of Leased Property Used Exclusively for Low-Income Housing
BOE-236-A	Supplemental Affidavit for BOE-236, Housing – Lower-Income Households
BOE-237	Exemption of Low-Income Tribal Housing
BOE-237-A	Supplemental Affidavit for BOE-237 Housing – Lower-Income Households Eligibility Based on Family Household Income (Yearly Filing)
BOE-260	Certificate and Affidavit for Exemption of Work of Art
BOE-260-A	Certificate and Affidavit for Exemption of Certain Aircraft
BOE-260-B	Exemption from Property Taxes of Aircraft of Historical Significance (Claim for)
BOE-261-D	Servicemembers Civil Relief Act Declaration
BOE-261-G	Disabled Veterans' Property Tax Exemption (Claim for)
BOE-261-GNT	Disabled Veterans' Exemption Change of Eligibility Report
BOE-262-AH	Church Exemption Claim
BOE-263	Lessors' Exemption Claim
BOE-263-A	Qualified Lessors' Exemption Claim
BOE-263-B	Lessee's Exemption Claim
BOE-263-C	Church Lessors' Exemption Claim
BOE-264-AH	College Exemption Claim
BOE-265	Cemetery Exemption Claim
BOE-265-NT	Cemetery Exemption Change in Eligibility or Termination Notice
BOE-266	Homeowners' Property Tax Exemption (Claim for)
BOE-266-E	Ownership Statement Cooperative Housing Corporation
BOE-266-Media	Media Transmittal for Homeowners' Exemption Claim Records
BOE-267	Welfare Exemption, First Filing (Claim for)
BOE-267-A	Welfare Exemption, Annual Filing (Claim for)
BOE-267-F	Assessor's Finding on Qualification of Property Use, Welfare or Veterans' Organization Exemption
BOE-267-FIR	Welfare Exemption Assessor's Field Inspection Report
BOE-267-H	Welfare Exemption Supplemental Affidavit, Housing - Elderly or Handicapped Families
BOE-267-H-A	Elderly or Handicapped Families, Family Household Reporting Worksheet
BOE-267-L	Welfare Exemption Supplemental Affidavit, Housing – Lower-Income Households
BOE-267-L-A	Lower Income Households Family Household Income Reporting Worksheet (140% AMI)
BOE-267-L-B	Lower Income Households Family Household Income Reporting Worksheet (100% AMI)
BOE-267-L1	Welfare Exemption Supplemental Affidavit, Low-Income Housing Property of Limited Partnership
BOE-267-L2	Welfare Exemption Supplemental Affidavit, Housing – Lower Income Households – Tenant Data
BOE-267-L3	Welfare Exemption Supplemental Affidavit, Households Exceeding Low-Income Limits – "Over-Income" Tenant Data (140% AMI)
BOE-267-L4	Welfare Exemption Supplemental Affidavit, Households Exceeding Low-Income Limits – "Over-Income" Tenant Data (100% AMI)

BOE-267-O	Welfare Exemption Supplemental Affidavit, Organizations and Persons Using Claimant's Real Property
BOE-267-R	Welfare Exemption Supplemental Affidavit, Rehabilitation – Living Quarters
BOE-267-S	Religious Exemption
BOE-267-SNT	Religious Exemption Change in Eligibility or Termination Notice
BOE-268-A	Public School Exemption
BOE-268-B	Exemption for Property Used by a Free Library or Free Museum
BOE-269-AH	Veterans' Organization Exemption (Claim for)
BOE-269-FIR	Veterans' Organization Exemption Assessor's Field Inspection Report
BOE-270-AH	Exhibition Exemption Claim from Property Taxes

4. SOFTWARE DEVELOPMENT METHODOLOGY AND PROJECT TIMELINE:

The Software Development Methodology is a crucial component of the project charter, providing a structured roadmap for all phases of the software development lifecycle. This section will outline the key milestones, deadlines, and critical path items necessary to achieve successful project completion. In the initial stages of planning, 3 primary project delivery methodologies are available: Waterfall, Agile and a Hybrid of both. Each approach offers distinct advantages and challenges, which should be carefully considered in the context of the project's unique requirements and constraints.

Waterfall Methodology: Known for its linear and sequential approach, the Waterfall model emphasizes thorough documentation and clear phase transitions. This methodology is advantageous for projects with well-defined requirements, those with extensive tooling or manufacturing investment and minimal expected changes. It ensures that each phase is completed before moving on to the next, providing a clear and structured pathway from initiation to deployment.

Agile Methodology: In contrast, Agile methodology promotes flexibility and iterative progress through short development cycles known as sprints. This approach is highly responsive to change and emphasizes continuous stakeholder engagement, making it ideal for projects where requirements are expected to evolve. Agile fosters a collaborative environment and allows for frequent reassessment and adaptation of plans.

Hybrid Approach: Extensive software development project success metrics has shown that a Hybrid approach elicits the highest chance for success. The final recommendation is to adopt a hybrid approach that combines the structured phases of Waterfall with the iterative and flexible nature of Agile. This hybrid methodology will enable the project team to leverage the strengths of both models, providing a clear initial structure and comprehensive documentation while maintaining the flexibility to adapt to changes and incorporate continuous feedback.

4.1. Project Phases

The initial phases of the timeline below, Project Initiation and Planning, will be followed and be designated at Sprint 0 (Zero). Sprint 0 will last 2 to 3 weeks and then the project will enter iterative

development cycles, Sprints 1-XX, where after each Sprint “shippable” software will be available for deployment to the production environment. Given the interdependent nature of most of the Exemption Forms a dependent deployment strategy has been developed for the Implementation Plan.

Sprint 0 (3-4 weeks)

- Project Initiation
 - **Objective:** Define project objectives, scope, stakeholders, and initial requirements associated with the first 3 sprints or 6 weeks of project.
 - **Activities:**
 - **Kick-off Meeting:** Align on project vision, mission, and high-level objectives.
 - **Stakeholder Identification:** Confirm previous identification and document all key stakeholders.
 - **Preliminary Requirements Gathering:** Socialize high-level requirements to understand the project scope.
 - **Project Charter:** Refine project charter to include the scope, objectives, and governance structure negotiated in the Enterprise Contract.
 - **Implementation Strategy:** Work with Enterprise Vendor to socialize, gather input and confirm Implementation Strategy.
 - **Key Deliverables:**
 - Refined Project Charter
 - Refined Stakeholder Analysis
 - High-Level Requirements Document
 - Confirmed Implementation Strategy
 - **Timeline:** Week 1-2
- Initial Planning Phase
 - **Objective:** Develop detailed project plans, including scope, schedule, and resources. The goal of this Initial Planning Phase should be to refine the scope into a prioritized backlog for the first 3 sprints (6 weeks). As soon as Sprint 1 starts regular meetings to refine the scope will commence with the minimum detail plan always covering the next 6 weeks of effort.
 - **Activities:**
 - **Detailed Requirements Gathering:** Engage stakeholders for detailed requirements.

- **Breakdown Work into Backlog:** Decompose the project into manageable and prioritized tasks.
- **Project Schedule:** Refine the schedule into a comprehensive plan with milestones.
- **Resource Planning:** Allocate resources to the first 3 sprints and define roles and responsibilities.
- **Risk Management Plan:** Continually, no less than monthly, refine the potential risks and develop mitigation strategies.
- **Key Deliverables:**
 - Detailed Requirements Document
 - Project Schedule
 - Resource Plan
 - Risk Management Plan
- **Timeline:** Weeks 2-3
- Initial Design Phase:
 - **Objective:** Create detailed system and software designs for the first 3 sprints.
 - **Activities:**
 - **Drafting System Architecture Design:** Define the overall system architecture utilizing the first 3 sprints knowing this architecture will be iterated.
 - **Detailed Design Specifications:** Develop detailed design documents for each component.
 - **Prototyping:** Build prototypes for key system components if necessary.
 - **Design Reviews:** Conduct design review sessions with non-technical and technical stakeholders.
 - **Key Deliverables:**
 - Draft System Architecture Document
 - Detailed Design Specifications
 - Prototypes (if applicable)
 - **Timeline:** Runs in parallel with Planning Phase 2-3 weeks
- Iterative Development, Testing and Deployment
 - **Objective:** Develop, test and make shippable the software in iterative cycles, incorporating feedback from each iteration
 - **Activities:**
 - **Sprint Planning:** Plan and prioritize work for each sprint.

- **Sprint Execution:** Develop, test, and integrate software components in each sprint.
- **Daily Standups:** Hold daily meetings to discuss progress and obstacles.
- **Sprint Review and Retrospective:** Review work completed in the sprint and identify improvements.
- **Key Deliverables:**
 - Incremental software builds
 - Test results and bug reports
 - Sprint review documentation
- Timeline: Every 2 weeks

4.2. Project Estimation Framework:

As we move forward with the enterprise implementation of the Exemption Claims System, it is crucial to establish a robust estimation framework to guide our project planning and resource allocation. To achieve this, we employed a T-shirt sizing approach for estimating the complexity and associated effort required for developing and deploying each claim form. This approach is grounded in the actual observations and data gathered during the Proof of Concept (POC) phase.

4.2.1. Purpose of T-Shirt Sizing

T-shirt sizing is a relative estimation technique commonly used in Agile project management. It involves categorizing tasks or user stories into predefined size categories, such as Small (S), Medium (M), Large (L)... based on their complexity and effort required. This method simplifies the estimation process, making it easier for teams to grasp and communicate the scope of work. The size categories were translated into a point system based on the Fibonacci Sequence. Integrating the Fibonacci sequence into T-shirt sizing use cases in Agile projects brings structure, clarity, and improved accuracy to the estimation process. It aligns with natural growth patterns in complexity, facilitates better team communication, and supports effective project management.

4.2.2. Benefits of T-Shirt Sizing

Simplicity: Provides an easy-to-understand framework for estimating tasks.

Consistency: Enables a uniform approach to estimation across different teams and tasks.

Scalability: Allows for quick adjustments and scalability as project requirements evolve.

Historical Data Utilization: Leverages real-world data from the POC phase to enhance accuracy.

4.2.3. Framework Development

Step 1: Data Collection from POC

During the POC phase, the Vendor recorded the time, resources, and challenges encountered while developing and testing various claim forms. This historical data forms the foundation of the translation of Vendor Points and Time Spent to the T-shirt sizing estimates our team created.

Step 2: Define Size Categories

The team categorized the claim forms into T-shirt sizes based on their observed complexity and development effort:

- **Tiny (T):** Report or Cover Letter with little to no effort.
- **Small (S):** Simple forms with minimal fields and straightforward logic.
- **Medium (M):** Moderately complex forms with several fields and conditional logic.
- **Large (L):** Complex forms with multiple sections, intricate logic, and integrations.
- **Extra-Large (XL):** Highly complex forms with extensive fields, advanced logic, multiple integrations, and significant validation requirements.
- **Enormous (E):** The most complex form with the most associated sub-forms requiring advanced logic, integrations and validation requirements.

Step 3: Assign Sizes Based on POC Data

Each claim form was reviewed by the POC Product Owners, Shelley Frank and Israel Padilla, and assigned a T-shirt size based on it's complexity and informed by the results observed during the POC.

This included analyzing the development time, testing duration, incorporation of feedback and resource utilization for each form.

Step 4: Review and Adjust

Regular reviews will be conducted to refine the estimates as the project progresses. This iterative process enables our estimates to remain accurate and reflective of the current project state.

Step 5: Continuous Improvement

We will continuously collect data from ongoing development to enhance the accuracy of our T-shirt sizing framework. Lessons learned and feedback will be incorporated to improve future estimates.

Conclusion

By employing a T-shirt sizing approach based on empirical data from the POC, we aim to create a reliable and scalable estimation framework. This method not only streamlines the estimation process but also enhances the accuracy and consistency of our project planning. As we transition into the enterprise phase, this framework will play a pivotal role in ensuring efficient resource allocation, timely delivery, and successful project execution.

4.3. Implementation Strategy:

The Exemptions software development project will consist of deployment of multiple interdependent components and so a well-structured implementation plan is crucial for success. This section outlines the implementation plan where deployments will be organized into dependent Exemption forms. This approach enables each deployment to build on the preceding ones, allowing for a controlled, phased rollout that maintains system integrity and functionality.

The primary purpose of this implementation plan is to provide a clear, step-by-step guide for deploying the exemption forms in a sequence that respects their dependencies. By chunking the deployments into manageable phases, we mitigate risks, streamline the testing and validation processes, and enable a smooth transition for all stakeholders involved.

4.3.1. Objectives:

- 4.3.1.1. **Enable Sequential Integrity:** Deploy exemption forms in a logical sequence that respects their interdependencies, ensuring that each form can function correctly upon deployment.
- 4.3.1.2. **Minimize Risk:** Implement robust testing and validation at each deployment stage to identify and address issues early.
- 4.3.1.3. **Facilitate User Adoption:** Provide comprehensive training and support to end-users for each newly deployed form, ensuring they are well-prepared to use the system effectively.
- 4.3.1.4. **Maintain Flexibility:** Allow for adjustments in the deployment plan based on real-time feedback and testing outcomes.

4.3.2. Proposed Implementation Phases:

The project phases were collaboratively developed with the Product Owners representing the Proof-of-Concept Counties, El Dorado and Alameda. The primary goal was to maximize the speed to benefit realization and Return on Investment (ROI). This prioritization was achieved by focusing on

foundational use cases and forms first, progressively adding complexity, and grouping similar forms for quicker deployment. This approach enables delivery of project benefits and ROI as swiftly as possible.

Key Points:

Collaborative Development:

The phases were developed in collaboration with Product Owners from El Dorado and Alameda Counties, ensuring that they reflect real-world needs and priorities.

Iterative Approach:

By building foundational use cases and forms first, we can layer additional complexity incrementally, which supports a more manageable and effective development process.

Speed to Benefit/ROI:

Prioritizing phases based on their potential to quickly deliver benefits and ROI was a chief consideration in our planning.

NOTE: Refinement Needed:

It's important to note that these phases were developed without considering technical constraints. Therefore, they will need to be refined with the Vendor once the Enterprise Project kicks off.

NOTE: HOX Claims: (NEEDS TO BE CONFIRMED BY STAKEHOLDERS)

Home Owners Exemptions (HOX) claims were deprioritized based on the assumption that current county systems sufficiently cover the functionality req. This assumption will be revisited in meetings planned for July 2024. If needed, HOX claims will be prioritized after the Welfare use cases.

This structured and collaborative approach enables focus on delivering tangible benefits as quickly as possible while remaining flexible to refine our plan based on technical feasibility and evolving needs.

4.3.2.1. Phase 1 – Disabled Veterans Claims

Number	Name
BOE-261-G	Disabled Veterans' Property Tax Exemption (Claim for)
BOE-261-GNT	Disabled Veterans' Exemption Change of Eligibility Report

4.3.2.2. Phase 2 – Foundational Welfare Claims

Number	Name
BOE-267	Welfare Exemption, First Filing (Claim for)
BOE-267-A	Welfare Exemption, Annual Filing (Claim for)
BOE-267-F	Assessor's Finding on Qualification of Property Use, Welfare or Veterans' Organization Exemption

BOE-267-FIR	Welfare Exemption Assessor's Field Inspection Report
BOE-267-O	Welfare Exemption Supplemental Affidavit, Organizations and Persons Using Claimant's Real Property

4.3.2.3. Phase 3 – Welfare Housing

Number	Name
BOE-267-H	Welfare Exemption Supplemental Affidavit, Housing - Elderly or Handicapped Families
BOE-267-H-A	Elderly or Handicapped Families, Family Household Reporting Worksheet
BOE-267-L	Welfare Exemption Supplemental Affidavit, Housing – Lower-Income Households
BOE-267-L-A	Lower Income Households Family Household Income Reporting Worksheet (140% AMI)
BOE-267-L-B	Lower Income Households Family Household Income Reporting Worksheet (100% AMI)
BOE-267-L1	Welfare Exemption Supplemental Affidavit, Low-Income Housing Property of Limited Partnership
BOE-267-L2	Welfare Exemption Supplemental Affidavit, Housing – Lower Income Households – Tenant Data
BOE-267-L3	Welfare Exemption Supplemental Affidavit, Households Exceeding Low-Income Limits – "Over-Income" Tenant Data (140% AMI)
BOE-267-L4	Welfare Exemption Supplemental Affidavit, Households Exceeding Low-Income Limits – "Over-Income" Tenant Data (100% AMI)
BOE-267-R	Welfare Exemption Supplemental Affidavit, Rehabilitation – Living Quarters

1.1.1.1. Phase 3.5 – HOX (After confirmation by Stakeholders)

BOE-266	Homeowners' Property Tax Exemption (Claim for)
BOE-266-E	Ownership Statement Cooperative Housing Corporation
BOE-266-Media	Media Transmittal for Homeowners' Exemption Claim Records

1.1.1.2. Phase 4 – Church and Religious Claims

Number	Name
BOE-262-AH	Church Exemption Claim
BOE-263-C	Church Lessors' Exemption Claim
BOE-267-S	Religious Exemption
BOE-267-SNT	Religious Exemption Change in Eligibility or Termination Notice

1.1.1.3. Phase 5 – Non-Profit/Charter/Public/Higher Education School Claims

Number	Name
BOE-263	Lessors' Exemption Claim
BOE-263-A	Qualified Lessors' Exemption Claim
BOE-263-B	Lessee's Exemption Claim
BOE-264-AH	College Exemption Claim
BOE-268-A	Public School Exemption

1.1.1.4. Phase 6 – Cemetery Claims

Number	Name
BOE-265	Cemetery Exemption Claim
BOE-265-NT	Cemetery Exemption Change in Eligibility or Termination Notice

1.1.1.5. Phase 7 – Balance of Welfare Claims/Affidavits

Number	Name
BOE-260	Certificate and Affidavit for Exemption of Work of Art
BOE-260-A	Certificate and Affidavit for Exemption of Certain Aircraft
BOE-260-B	Exemption from Property Taxes of Aircraft of Historical Significance (Claim for)
BOE-261-D	Servicemembers Civil Relief Act Declaration
BOE-268-B	Exemption for Property Used by a Free Library or Free Museum

1.1.1.6. Phase 8+ - Private Work of Art, Free Museum & Other

Number	Name
BOE-260	Certificate and Affidavit for Exemption of Work of Art
BOE-260-A	Certificate and Affidavit for Exemption of Certain Aircraft
BOE-260-B	Exemption from Property Taxes of Aircraft of Historical Significance (Claim for)
BOE-261-D	Servicemembers Civil Relief Act Declaration
BOE-268-B	Exemption for Property Used by a Free Library or Free Museum
BOE-270-AH	Exhibition Exemption Claim from Property Taxes

1.2. Project Timeline:

The project timeline for implementation of the Exemption Forms is rooted in the framework detailed above. It provides a solid process for creation of an initial project timeline, enabling us to iterate it as assumptions are confirmed and additional work completed is recorded. During the POC, the vendor tracked the time taken to develop, test, and deploy each exemption form. This real-world data has been employed as input to the initial framework for estimating and delivering the remaining forms.

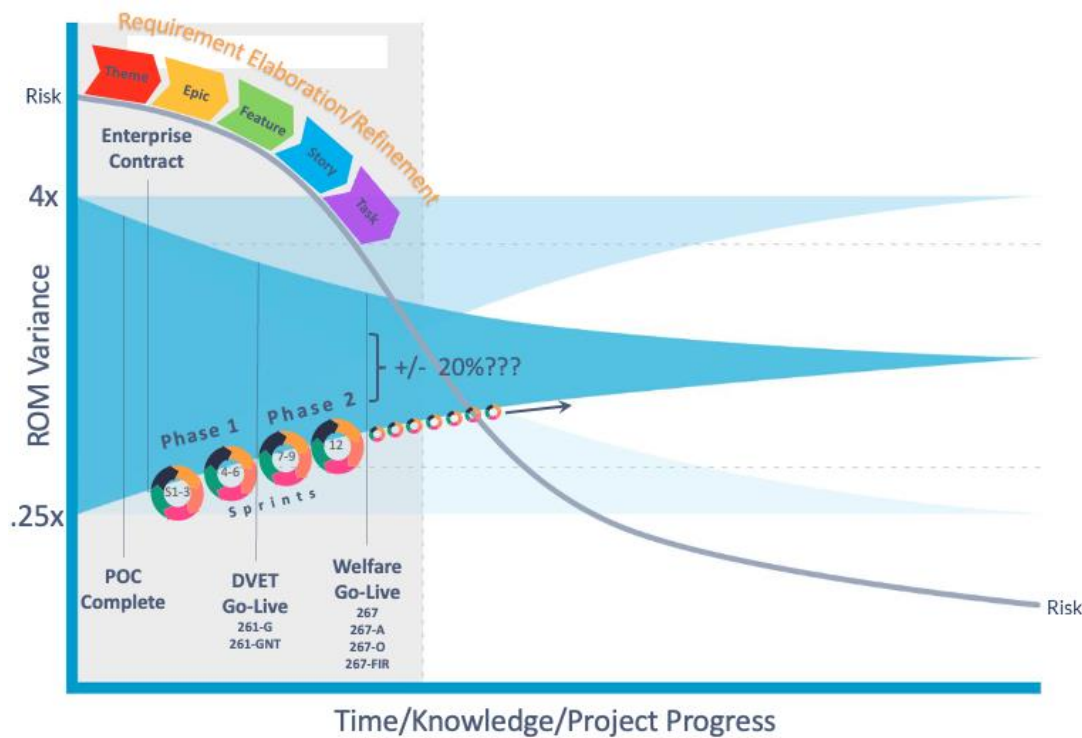
To enable consistency and accuracy, we have extended the observed durations from the POC to all remaining forms in the project.

However, it is important to recognize that this initial framework is not static and until the assumptions below are confirmed and more data is gathered the Project Timeline should be considered a Rough Order of Magnitude (ROM) with a +/-25-75% variance. In line with Agile principles, we will refine our estimates and delivery timelines after every sprint. This iterative approach allows us to incorporate feedback, address unforeseen challenges, and continuously improve our accuracy. By doing so, we aim to enhance our agility and responsiveness, ensuring the project stays on track and meets its objectives.

1.2.1. Cone of Uncertainty/Cone of Probability:

To illustrate how we will drive risk out of the project and subsequently how our estimates will increase in fidelity it is helpful to consider the diagram below. The cone of uncertainty was originally developed in the late 50's by the American Association of Cost Engineers, later adopted in the software world by Barry Boehm at the University of Southern California and since validated with data from the US Airforce and NASA Software Engineering Labs. The cone of uncertainty is a visual representation of how uncertainty diminishes over the course of a project as more information becomes available. Initially, project estimates are based on limited information, leading to a wide range of possible outcomes. As the project progresses, more details and data are gathered, allowing for more accurate estimates and narrowing the range of uncertainty.

We've referenced 2 major milestones below that will provide significant data/knowledge toward increasing the reliability of our estimates. Once the project is confirm the assumptions below and able to launch the DVET and initial Welfare forms into production we will take the observed results and lessons learned to provide a project timeline with a high likelihood of completion within +/- 20% of our estimate.



1.2.2. Key Assumptions to Confirm:

Unknown Work Accomplished Prior to the Beginning of the POC

Assumption: There is an unknown amount of pre-existing work that was accomplished before the Proof of Concept (POC) phase was started that will impact the current project timeline and resource allocation. It is assumed that once the pre-existing work is identified the project timeline can be shortened.

Actions to Confirm Assumption:

- **Complete Review with Vendor:** Request additional information from the Vendor and/or complete a thorough audit of the existing system to identify any foundational work that can be leveraged in the current project.
- **Documentation Review:** Assess all available documentation to identify any completed tasks, development efforts, or configurations that were done prior to the POC.

Unknown Reusability of Development and Configuration Work Completed

Assumption: The development and configuration work completed on the initial Forms during the POC is reusable in the enterprise project, but to a level not understood at this time. It is assumed that once the reusable code is estimated the project timeline can be shortened.

Actions to Confirm Assumption:

- **Code Review:** Request Just Appraised completes a detailed review of the code and configurations developed during the POC to evaluate their reusability in the enterprise project.
- **Compatibility Assessment:** Assess the compatibility of the POC work with the current enterprise architecture and technology stack.
- **Pilot Testing:** Implement pilot tests to determine the extent to which POC components can be reused without significant modifications.

Unknown Effort Needed to Put a Form into Production

Assumption: The effort required to move a form from development through User Acceptance Testing into production is not fully known and may vary based on several factors. It is assumed that once this efforts is uncovered it will lengthen the project timeline.

Actions to Confirm Assumption:

- **Deployment Process Review:** Request details from Just Appraised on the deployment processes used during previous implementations and identify any gaps or additional steps required for full-scale production.
- **Effort Estimation:** Develop detailed effort estimations based on historical data from similar projects, adjusting for scale and complexity.
- **Environment Readiness:** Evaluate the readiness of the production environment, including infrastructure, tools, and processes.
- **User Acceptance Testing (UAT):** Conduct comprehensive UAT to identify any additional efforts needed for ensuring that the forms function correctly in the production environment.

Confirmation Methods:

The following additional methods will be utilized to validate these assumptions:

- **Workshops and Meetings:** Facilitate workshops and meetings with relevant stakeholders to discuss and validate the assumptions.
- **Prototyping:** Create prototypes to test the feasibility and reusability of the POC components in the enterprise project.
- **Pilot Deployments:** Conduct pilot deployments of selected forms to gather data on the actual effort required for production.

Conclusion:

Confirming these assumptions is crucial for accurately planning and executing the enterprise project. By addressing these unknowns early in the project, we can mitigate risks, enable efficient resource

allocation, and enhance the overall success of the project. Regular reviews and iterative feedback loops will help in refining these assumptions and adapting the project plan accordingly.

1.2.3. Projected Phases & Sample Project Schedule

The project timeline for the enterprise-wide deployment of the California Exemptions Forms software is designed to optimize resource utilization and provide options for accelerating delivery. During the POC phase, the project was executed with a team of 4.5 Full-Time Equivalents (FTEs) Software Developers, 1 FTE Product Owner with several Subject Matter Experts (SMEs) providing UAT type testing support. The POC was successful in delivering key functionalities and validating core assumptions. As we transition to the enterprise phase, the project could scale the team size relative to the additional scope and achieve a more rapid deployment across all 58 counties. Retaining the same sized team employed in the POC and considering the outstanding assumptions above the Enterprise schedule calculates out to 38 months with a ROM variance of 50% providing a range of 19 to 57 months to completion.

POC Phase Overview:

- **Team Composition:** 4.5 FTEs Developers, 1 FTE Product Owner
- **Duration:** 16 Weeks - Defined based on initial pilot requirements
- **Key Activities:** Development, testing, and validation of core exemption forms
- **Outcome:** Establishment of baseline functionality, insight into success of POC Objectives; Software, Vendor/Market and Team feasibility.

Enterprise Phase Strategy with Duration

The following phases and associated durations highlight the strategic adjustments for the enterprise project:

Table 2:

Phase Focus	Implementation Phases	Sprints	Form Number
DVET	Phase 1	3	BOE-261-G
DVET	Phase 1	2	BOE-261-GNT
Welfare	Phase 2	2	BOE-267
Welfare	Phase 2	3	BOE-267-A
Welfare	Phase 2	1	BOE-267-F
267 - Housing	Phase 2	3	BOE-267-O
Welfare	Phase 2	1	BOE-267-FIR
267 - Housing	Phase 3	1	BOE-267-H

267 - Housing	Phase 3	1	BOE-267-H-A
267 - Housing	Phase 3	2	BOE-267-L
267 - Housing	Phase 3	1	BOE-267-L-A
267 - Housing	Phase 3	1	BOE-267-L-B
267 - Housing	Phase 3	3	BOE-267-L1
267 - Housing	Phase 3	1	BOE-267-L2
267 - Housing	Phase 3	1	BOE-267-L3
267 - Housing	Phase 3	1	BOE-267-L4
Welfare	Phase 3	2	BOE-267-R
HOX	Phase 3.5	2	BOE-266
HOX	Phase 3.5	1	BOE-266-E
HOX	Phase 3.5	1	BOE-266-Media
Welfare	Phase 4	2	BOE-262-AH
Welfare	Phase 4	2	BOE-263-C
Non-Welfare	Phase 4	1	BOE-267-S
Non-Welfare	Phase 4	1	BOE-267-SNT
Non-Profit/Charter/Public ED Lessor	Phase 5	1	BOE-263
Non-Profit/Charter/Public ED Lessor	Phase 5	1	BOE-263-A
Non-Profit/Charter/Public ED Lessor	Phase 5	1	BOE-263-B
Non-Profit/Charter/Higher ED	Phase 5	1	BOE-264-AH
Non-Profit/Charter/Higher ED	Phase 5	1	BOE-268-A
Cemetery	Phase 6	1	BOE-265
Cemetery	Phase 6	1	BOE-265-NT
Welfare	Phase 7	1	BOE-231-AH
Welfare	Phase 7	1	BOE-236
Welfare	Phase 7	1	BOE-236-A
Welfare	Phase 7	1	BOE-237
Welfare	Phase 7	1	BOE-237-A
Welfare	Phase 7	1	BOE-269-AH
Welfare	Phase 7	1	BOE-269-FIR
Private Work of Art	Phase 8+	1	BOE-260

Private Work of Art	Phase 8+	1	BOE-260-A
Private Work of Art	Phase 8+	1	BOE-260-B
Servicemember	Phase 8+	1	BOE-261-D
Free Museum	Phase 8+	1	BOE-268-B
Private Work of Art	Phase 8+	1	BOE-270-AH

2. RESOURCE REQUIREMENTS

The successful execution of a software development project hinges on the careful allocation and management of resources. These resources span across various domains, including technical and non-technical personnel, technology, infrastructure, and regulatory requirements. This section outlines the key resources necessary for the project, highlighting their roles and importance, as well as any dependencies or constraints that may impact resource allocation and project timelines.

2.1. Non-Technical Personnel

- **Project Managers:** Oversee the project timeline, resources, and overall progress.
- **Business Analysts:** Gather requirements, facilitate communication between stakeholders and the development team, and enable alignment with business objectives.
- **Product Owners:** Define the product vision, prioritize the product backlog, and enable the development team is building the right product.
- **User Acceptance Testers:** Test the software meets the end-user requirements and functions correctly in a real-world environment.
- **Training and Support Team:** Develop training materials and provide user training and support.

2.2. Technical Personnel

- **User Experience (UX) Designers:** Focus on the usability and user interface design, ensuring a positive user experience.
- **Software Developers:** Responsible for coding, implementing, and debugging the software.
- **System Architects:** Design the overall system architecture, ensuring scalability and performance.
- **Quality Assurance (QA) Engineers:** Conduct various levels of testing, including unit, integration, system, and user acceptance testing.
- **DevOps Engineers:** Manage continuous integration and continuous deployment (CI/CD) pipelines, ensuring smooth code deployment.
- **Database Administrators (DBAs):** Manage database setup, optimization, and maintenance.
- **Technical Support Staff:** Provide ongoing technical support and troubleshoot issues post-deployment.

2.3. Technology

- **Development Tools:** Integrated Development Environments (IDEs) like IntelliJ IDEA, Eclipse, or Visual Studio.
- **Version Control Systems:** Git repositories managed via platforms like GitHub, GitLab, or Bitbucket.
- **CI/CD Tools:** Jenkins, GitLab CI, CircleCI for continuous integration and deployment.
- **Testing Tools:** Selenium, JUnit, TestNG for automated testing; Postman for API testing.

- **Project Management Tools:** JIRA, Trello, or Asana for task management and tracking.
- **Collaboration Tools:** Slack, Microsoft Teams, or Zoom for communication and collaboration.

2.4. Infrastructure

- **Servers and Networking Equipment:** Cloud-based servers and Networking Equipment for hosting development, testing, and production environments.
- **Databases:** SQL and NoSQL databases as per project requirements.
- **Cloud Services:** AWS, Azure, or Google Cloud for scalable and flexible infrastructure.

2.5. Regulatory Requirements

- **Compliance Standards:** Ensure adherence to relevant California Revenue and Taxation code, BOE Guidance, industry standards and regulations such as HIPAA, etc.
- **Security Protocols:** Implement security measures to protect data and ensure system integrity.

2.6. Dependencies and Constraints

- **Resource Availability:** Availability of skilled personnel can impact project timelines.
- **Budget:** Financial constraints may limit the resources and technologies that can be employed.
- **Regulatory Compliance:** Ensuring compliance with all regulatory requirements can be time-consuming and resource-intensive. Fortunately, the Exemptions Project seeks to only ease the intake, creation and processing of BOE Forms without altering them and therefor seeks to avoid overly onerous regulatory compliance requirements.
- **InterCounty/Departmental Coordination:** Effective communication and collaboration across Counties/departments are essential but can be challenging.
- **Technology Integration:** Integrating new technology with existing systems may present technical challenges.

2.7. Resource Scaling

Given the POC was executed with one team (effectively 4.5 Developers and 1 PO), a plan to scale the resources and reduce the time to recognize benefit/ROI for the enterprise project has been summarized below. As the software development team expands, it is crucial to manage resources effectively to maintain productivity and project coherence. This plan outlines the strategy for scaling resources, particularly focusing on increasing Product Owners (POs) to manage the growing development teams, while keeping project management resources lean.

Current Structure

- **Project Managers (PMs):** 1
- **Product Owners (POs):** 1
- **Development Teams:** 1 team of 4.5 developers

Scaling Strategy**- Development and PO Team Growth**

- For every additional development team (6 developers), add one Product Owner.
- Maintain a ratio of 1 PO per development team to enable close alignment with product vision and stakeholder requirements, but for a short period 1 PO can handle 2 development teams. Keeping the ratio of 1:1 will enable the work to be sufficiently broken down to keep developers at full capacity for initial build and to keep the feedback cycle as short as possible.

- Project Management

- Increase project management resources only when the number of development teams exceeds 6 or an additional Software Vendor is introduced.
- Adopt agile tools and methodologies to streamline project management processes and reduce the need for additional PMs.

Resource Allocation Plan**- Development Teams and Product Owners**

# of DEV Teams	# of Developers	# of PO's	# of PM's
2	12	2	1
3	18	3	1
4	24	4	1
5	30	5	1
6	36	6	1
7	42	7	2

Roles and Responsibilities**- Product Owners**

- Define and prioritize product backlog items.
- Collaborate closely with development teams to enable clear understanding of requirements.
- Act as the primary point of contact for stakeholder communications.

- Project Managers

- Oversee project timelines, budgets, and resources.
- Facilitate cross-team coordination and remove impediments.
- Confirm adherence to project management methodologies and best practices.

Tools:

- **Agile Tools:** Jira, Trello, Asana for task and project management.
- **Communication Tools:** Slack, Microsoft Teams, Zoom for effective team communication.
- **Documentation:** Confluence, Google Docs for maintaining project documentation and knowledge sharing.

Benefits of the Scaling Plan

- **Enhanced Focus:** Each PO can dedicate their full attention to their respective development team; enabling greater effectiveness, better product alignment and faster decision-making.
- **Reduced Overheads:** Minimizing the increase in PM resources helps control project costs.
- **Improved Collaboration:** Clear roles and responsibilities foster better collaboration and accountability.

Monitoring and Evaluation

- Conduct quarterly reviews to assess the effectiveness of the resource scaling plan.
- Adjust the plan based on team feedback, project requirements, and performance metrics.

Conclusion

This resource scaling plan aims to support the growth of the software development team by strategically increasing the number of Product Owners while keeping project management resources lean. By doing so, we enable the development process remains efficient, focused, and aligned with business goals.

3. STAKEHOLDER ANALYSIS:

This stakeholder analysis identifies key groups impacted by the Exemptions Project. It outlines their roles, responsibilities, expectations, and proposes communication and engagement strategies to enable successful project execution.

3.1. JPA Board:

Strategic Guidance and Oversight

The JPA Board provides high-level direction and acts as the project's governing body. Their responsibilities include:

Strategic Decision-Making: Guiding the Program's overall direction and ensuring alignment with the County Assessor's Office's strategic goals.

Budget and Resource Allocation: Approving new projects, their associated budgets and allocating necessary resources to enable project completion.

Program/Project Governance: Providing ongoing oversight and holding the program/project team accountable for meeting milestones and deliverables.

The JPA Board expects:

Transparency: Regular updates on project progress, including risks, budgets, and key milestones achieved.

Clear Accountability: Well-defined ownership for project deliverables and a transparent decision-making process.

Success Measurement: Demonstrable metrics outlining project success and return on investment for the County Assessor's Office.

Communication and Engagement Strategies:

Weekly Reports: Detailed project status reports delivered weekly; highlighting progress, challenges, and upcoming milestones.

Quarterly Board Meetings: Regular presentations and updates provided to the board during quarterly meetings.

Executive Summaries: Concise summaries of key project developments and decisions for easy digestion by the board.

3.2. Project Advisory Committee:

Expertise and Collaboration

The Project Advisory Committee serves as the project level steering committee. They make key decision at the project level and act as sounding board, offering valuable expertise and guidance throughout the project lifecycle. Their key functions include:

Expert Project Advice: Providing insights and recommendations on project direction, technical solutions, and potential risks.

Risk Management: Identifying potential risks and collaborating with the project team to develop mitigation strategies.

Stakeholder Liaison: Acting as a bridge between the project team and other stakeholders, ensuring clear communication and information flow.

The Project Advisory Committee expects:

Active Participation: To be actively involved in key decision-making processes and contribute their expertise.

Regular Consultation: To receive consistent updates on project progress, challenges, and critical decisions.

Feedback Integration: That their feedback is valued and considered during project planning and execution.

Communication and Engagement Strategies:

Monthly Meetings: Regular project update meetings to discuss progress, challenges, and solicit committee advice.

Quarterly Release Planning Meeting: Quarterly workshop focusing on the upcoming deliveries into production to enable alignment and leverage committee expertise.

3.3. Exemptions Project Team:**Delivering the Solution**

The Exemptions Project Team is responsible for the day-to-day execution of the project. Their core functions include:

Project Implementation: Leading the software implementation process, ensuring it aligns with project scope, timelines, and budget.

Technical Expertise: Providing technical solutions and developing the software application to meet functional requirements.

Testing and Validation: Conducting rigorous User Acceptance Testing to confirm the software functions as intended and meets all technical and user needs.

3.4. The Exemptions Project Team (SMEs):

Clear Requirements: Well-defined project requirements and specifications to guide development efforts.

Supportive Environment: Adequate resources and support to address technical challenges that may arise during development.

Continuous Feedback: Regular feedback from stakeholders on project progress and the software's functionality.

Communication and Engagement Strategies:

Daily Stand-up Meetings: Brief daily meetings for team members to discuss progress, roadblocks, and task dependencies.

Bi-weekly Sprint Showcases: Meet with project team – with all Stakeholders invited – to view demonstrations of advancements in working software and discuss goals and plan for next 2 weeks of effort.

Project Execution Documentation: Comprehensive project execution documents and testing guidelines to enable consistent practices.

Issue Tracking System: Utilizing a project management tool like Jira to track tasks, issues, and development progress.

3.5. Exemptions User Group:

Shaping the User Experience

The Exemptions User Group comprises individuals who will directly utilize the new software. Their roles are critical in ensuring the software meets their needs and streamlines their workflows. Key functionalities include:

User Input: Providing valuable insights and feedback on software features and user interface design during development stages.

User Acceptance Testing (UAT): Participating in UAT to validate the software's functionality and usability before deployment.

Feedback Mechanism: Offering ongoing feedback on software performance and identifying areas for improvement after deployment.

The Exemptions User Group expects:

User-Centric Design: A software solution designed with their needs in mind, prioritizing an easy-to-use and intuitive interface.

Reaction to Feedback: Once feedback is provided a process for tracking, addressing and if appropriate incorporating it into the software.

3.6. Claimants (Individuals and Institutions)

Roles and Responsibilities:

End Users: Use the software to submit and manage exemption claims.

Feedback Providers: Offer feedback on software usability and performance.

The Claimants Expect:

Ease of Use: Expect the software to be intuitive and easy-to-use.

Efficiency: Want the software to streamline the claims process and reduce administrative burdens.

Security: Require assurance that their data is secure and protected.

Communication and Engagement Strategies:

User Guides: Detailed user guides and manuals to assist with software use.

Help Desk Support: Access to a help desk for real-time support and issue resolution.

Feedback Mechanism: Regular surveys and feedback forms to capture user experiences and suggestions.

Conclusion:

The stakeholder analysis for the Exemptions Project will identify and categorize the key groups impacted by the project. By outlining their roles, responsibilities, and expectations, we will establish clear communication and engagement strategies to enable the project's success.

4. RISK MANAGEMENT PLAN:

This Risk Management Plan outlines the strategies and resources for identifying, analyzing, and mitigating potential risks associated with the adoption and transition to a new system. It is designed to enable all stakeholders and end-users are well-prepared to handle uncertainties and challenges, thus facilitating a smooth and successful implementation of the system. The plan includes comprehensive methodologies, risk assessment tools, and contingency measures to address a wide range of possible risks identified through a detailed risk analysis.

In today's dynamic environment, the use of web-based guided workflow systems has made certain processes more self-service oriented. However, to enable all users, regardless of their proficiency levels, are adequately prepared for potential risks, this risk management plan is designed to be thorough and all-encompassing. It aims to address various needs that may arise during the project lifecycle, ensuring a proactive approach to risk management.

4.1. Objectives and Benefits

The objectives of this Risk Management Plan are multifaceted, focusing on minimizing potential disruptions, facilitating smooth transitions, enhancing user satisfaction, reducing the likelihood of errors, providing ongoing risk awareness, supporting organizational goals, improving communication, ensuring compliance with regulatory requirements, providing robust risk mitigation strategies, and gathering feedback for continuous improvement. By achieving these objectives, the organization can maximize the benefits of the new software system, leading to improved efficiency, productivity, and overall success.

4.2. Risk Management Approach

The risk management approach for the Exemptions project is designed to systematically identify, assess, and mitigate potential risks to enable successful project completion and the smooth delivery of high-quality software that meets user requirements and expectations. By following the Agile development framework, the project aims to avoid untimely delays and enable continuous progress.

Communication and Stakeholder Engagement

The purpose is to keep appropriate stakeholders informed of progress and any blockers. Should unexpected blockers arise, they will be communicated during the specific sprint in which the issue occurs, along with the appropriate documentation and adjustments to the project schedule. Documentation will be created and be available to stakeholders after team stand-ups, sprint retrospectives, and demos to provide additional channels of communication.

Impact Management

Should deviations from the agreed-upon project schedule occur, these will be documented and communicated to stakeholders via regular meetings and email. Stakeholders must review and approve any deviations before the schedule milestones can be replanned. Schedule reserve of a minimum of 15% will be built into the schedule to accommodate unforeseen delays.

Feedback Integration

Implementing feedback is critical to ensuring that the software meets user requirements and expectations. When feedback is communicated, it will be documented and incorporated into the sprint schedule to enable continuous improvement and alignment with user needs.

4.3. Risk Management Methodology

The risk management methodology for this IT project involves leveraging a suite of specialized tools and frameworks to systematically identify, assess, and mitigate risks throughout the project lifecycle. This approach enables thorough testing, continuous integration, and proactive monitoring to maintain high-quality standards and minimize potential delays or issues.

4.3.1. Risk Identification and Documentation

Jira or Similar: Utilized for tracking risks, issues, and project progress. Jira will be the central repository for documenting identified risks, assigning risk owners, and tracking mitigation efforts.

Test Rail or Similar: Used for test case management, allowing the team to identify risks related to test coverage and track the status of test execution.

4.3.2. Initial Listing of Risks:

Risk	Potential Impact	Likelihood	Mitigation Strategies
Scope Creep	Increases project time and cost, and dilutes focus on core deliverables.	Medium-High	<ul style="list-style-type: none"> • Implement a robust change management process. • Clearly define project scope. • Regularly review and prioritize change requests with stakeholders.
Resource Availability	Delays project timelines and impacts deliverables.	Medium	<ul style="list-style-type: none"> • Secure commitments from key resources early. • Develop a resource management plan with contingencies. • Cross-train team members to handle multiple roles.
Technical Debt	Jeopardizes speed to delivery due to rework, reduces system	Medium	<ul style="list-style-type: none"> • Prioritize code quality and regular refactoring.

	performance and increases maintenance costs.		<ul style="list-style-type: none"> • Allocate time in each sprint for technical debt reduction. • Implement automated testing and continuous integration
Stakeholder Misalignment	Miscommunication and conflicting priorities leading to project delays.	Medium	<ul style="list-style-type: none"> • Conduct regular stakeholder meetings. • Enable transparent communication and documentation. • Align project goals with stakeholder expectations.
Data Security	Data breaches can lead to loss of trust and legal issues.	Low	<ul style="list-style-type: none"> • Ensure industry standard Cloud solution is utilized. • Conduct regular security training for team members. • Perform periodic security audits and vulnerability assessments.
Integration Issues	Delays and functionality issues due to incompatibility with existing systems.	Low	<ul style="list-style-type: none"> • Ensure QA Plan is implemented as written. • Maintain clear documentation of system interfaces. • Engage experienced integration specialists.
Inadequate User Training and Adoption (Moderate)	Limited user adoption will require additional training sessions leading to schedule impacts, cost increases and system modifications.	Medium	<ul style="list-style-type: none"> • Follow the detailed Training and support plan. • Utilize dedicated support team for easily accessible communication channels for user questions and feedback.

4.3.3. Risk Documentation Tool

To document and manage these risks effectively, the project can utilize a tool such as Jira. This tool will serve as the central repository for tracking identified risks, documenting their severity and priority levels, and monitoring the implementation of mitigation strategies. Regular updates and reviews will be conducted to enable all risks to be actively managed and communicated to stakeholders.

By identifying both technical and non-technical risks and employing a structured approach to documentation and management, the project aims to mitigate potential issues, ensuring timely delivery and high-quality software that meets user requirements and expectations.

4.4. Escalation Plan

4.4.1. Escalation Process

Identification

- Team members identify and log risks in Jira or similar.
- Risks are categorized by severity and priority.

Initial Review:

- The PM reviews new risks logged in system and assesses their potential impact and likelihood.
- The PM assigns risks to appropriate team members for mitigation.

Escalation Triggers:

- Risks with high severity (e.g., critical system crashes) are escalated immediately.
- Risks that remain unresolved beyond a certain time frame (e.g., two sprints) are escalated.

Escalation Levels:

- Level 1: Product Owner
 - Initial attempt to resolve the risk.
 - Updates Jira with actions taken.
- Level 2: Project Manager
 - If unresolved, the PM intervenes.
 - Updates and escalates within system.
- Level 3: Stakeholder
 - For risks that require higher-level decision-making.
 - Discussed in monthly stakeholder meetings.
 - Documented in system with decision outcomes.

Escalation Communication:

- Automatic System notifications for escalated risks.
- Escalation status updated in weekly and monthly meetings.
- Direct communication (email/phone) for critical risks.

4.5. Documentation Plan

Risk Logging:

- All risks are logged in system (ie Jira) with detailed descriptions, impact assessments, likelihood, and assigned severity and priority levels.

Risk Updates:

- Team members update risk status, mitigation actions, and outcomes in system regularly.

- Add comments and attachments (e.g., screenshots, reports) as necessary for clarity.

Mitigation Tracking:

- Use system's workflow capabilities to track the progress of risk mitigation.
- Status transitions (e.g., Open, In Progress, Resolved, Closed) documented in system.

4.6. Reporting:

- Generate regular risk reports from Jira for review in meetings.
- Use Jira filters and dashboards to create custom reports for different stakeholder needs.

4.7. Audit Trail:

- System maintains an audit trail of all actions taken on each risk, including changes in status, comments, and user activities.
- Enable compliance with project governance and audit requirements.

4.8. Roles and Responsibilities**4.8.1. Project Manager**

- Risk Mitigation and Planning: Coordinate mitigation identification, planning and execution.
- Evaluate and Prioritize Risks: Assess likelihood and impact of risks to prioritize them.
- Develop Risk Response Plans: Create mitigation strategies and contingency plans.
- Communication and Monitoring: Communicate risks and plans to stakeholders; monitor risk register and adjust as needed.
- Non-Technical Focus: Address non-technical risks like communication breakdowns and stakeholder resistance.

4.8.2. Developers

- Risk Identification: Identify technical risks in code, architecture, and integration.
- Mitigation Implementation: Implement mitigation strategies and follow best practices.
- Test Execution: Use tools like Junit, Nunit, pytest, FitNesse, SoapUI... to execute and identify risks.
- Code Reviews: Participate in code reviews to find and mitigate potential defects.
- Documentation: Document technical risks and mitigation strategies in system like Jira.
- Collaboration: Work with testers to identify and mitigate functionality and performance risks.

4.8.3. QA Testers

- Test Planning: Create comprehensive, risk-based test plans.
- Risk Identification: Identify risks related to functionality, performance, security, and usability.
- Test Execution: Use tools like Test Rail, Junit, and JMeter to execute tests and identify risks.
- Defect Reporting: Document and report defects, detailing their impacts.
- Mitigation Verification: Ensure that developers' mitigation strategies address identified risks.

- Continuous Testing: Perform ongoing testing to continually identify and mitigate risks.

4.8.4. Business Analysts/Stakeholders

- Requirement Analysis: Identify risks related to business requirements and feasibility.
- Stakeholder Communication: Communicate risks and impacts to stakeholders.
- Risk Prioritization: Help prioritize risks based on business objectives and user needs.
- Feedback Integration: Collect and document stakeholder feedback on risks, incorporating it into the project plan.

9. Conclusion

This Risk Management Plan is designed to systematically identify, assess, and mitigate potential risks to enable successful project completion and the smooth delivery of high-quality software. By leveraging a system (ie. Jira) for risk communication, escalation, and documentation, we establish a structured approach that supports timely and transparent management of both technical and non-technical risks.

Ensuring that the software meets all functional and non-functional requirements is critical to achieving the objectives of this project. The comprehensive Quality Assurance (QA) plan, integrated with the risk management strategy, helps to guarantee that the software is reliable, secure, and aligned with user needs. This holistic approach leads to improved user satisfaction, reduced risks, and better overall performance and maintainability.

As we proceed, the risk management process will remain dynamic and adaptable. Once the enterprise vendor is selected, their testing practices will be incorporated to enhance our QA efforts further. This continuous review and integration will enable our risk management and QA plans remain effective and aligned with the project's evolving needs.

By clearly defining and assigning responsibilities for risk assessment, the project team can proactively manage and mitigate risks, ensuring the project's success and delivering software that meets the high standards required by the Assessor Offices. This structured and collaborative approach supports our commitment to providing high-quality, reliable, and user-centric software solutions for all 58 California Counties.