

# Project Management Plan



**OREGON PUBLIC UTILITY COMMISSION**

**DOCKETS AND DISCOVERY SYSTEM**

## VERSION HISTORY

Version #	Date	Author	Key Differences
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## TABLE OF CONTENTS

### Contents

1	Introduction .....	6
1.1	Project Overview.....	7
2	Project Governance.....	8
2.1	Governing Bodies .....	9
2.2	Project Governance Structure .....	10
2.3	Roles and Responsibilities.....	11
3	Scope Management Plan .....	14
3.1	Scope Development .....	14
3.2	Roles and Responsibilities.....	15
3.3	Scope Definition .....	17
3.4	Work Breakdown Structure (WBS) .....	17
3.5	Scope Validation .....	18
3.5.1	Deliverable Tracking.....	19
3.5.2	Receive the Deliverable. ....	19
3.5.3	Prepare and Route Deliverable.....	19
3.5.4	Review of Deliverable. ....	20
3.5.5	Closing the Deliverable. ....	21
3.6	Scope Control.....	21
4	Schedule Management Plan .....	22
4.1	Schedule Development .....	22
4.2	Roles & Responsibilities .....	23
4.3	Schedule Control.....	24
4.4	Schedule Changes and Thresholds.....	25
5	Cost Management Plan.....	26
5.1	Roles and Responsibilities.....	27
5.2	Cost Management Approach .....	29
5.3	Cost Monitoring .....	29

Reporting Format.....	30
5.4    Cost Change Control Process .....	30
6    Stakeholder Management Plan .....	31
6.1    Responsibilities .....	31
6.2    Stakeholder Management Processes.....	32
6.2.1    Stakeholder Identification.....	32
6.3    Stakeholder Analysis .....	33
6.3.1    Stakeholder Engagement Assessment Matrix .....	33
6.4    Stakeholder Management Strategies .....	34
7    Resource Management Plan .....	35
7.1    Roles and Responsibilities.....	35
7.2    Project Organization Chart.....	36
7.3    Project Staffing Estimates .....	37
7.4    Staff Acquisition Strategy.....	37
7.5    Staff/Team Development Plan.....	37
7.5.1    Team Development.....	37
7.6    Project Orientation .....	38
7.7    Staff Transition and Replacement Plan.....	38
7.8    Transition at Project Completion .....	38
8    Procurement Management Plan.....	39
8.1    Roles and Responsibilities.....	39
8.2    Procurement Management Processes.....	40
8.2.1    Procurement Scope.....	40
8.3    Contract Type.....	41
8.4    Decision Criteria .....	41
8.5    Procurement Document Preparation .....	41
8.6    Vendor Management.....	41
9    Requirements Management Plan .....	43
9.1    Roles and Responsibilities.....	43
9.2    Requirements Management Approach .....	45
9.2.1    Requirement Types .....	45

9.3	Requirements Development.....	46
9.3.1	Requirements Elicitation.....	46
9.3.2	Requirements Analysis.....	46
9.4	Requirements Specification .....	47
9.5	Requirements Validation through Traceability.....	47
9.6	Requirements Change Management .....	48
10	Communication Management Plan .....	49
10.1	Roles and Responsibilities.....	49
10.2	Communication Management Process.....	50
10.2.1	Identify Stakeholder Communication Requirements .....	50
10.2.2	Identify Information Collection Sources and Responsibilities .....	52
10.3	Define Guidelines for Project Communication Meetings .....	53
10.4	Develop Project Meetings Schedule .....	53
10.5	Identify Communication Tools.....	54
10.6	Define Methods for Storage, Retrieval and Disposal.....	54
11	Risk Management Plan .....	56
11.1	Roles and Responsibilities.....	56
11.2	Risk Management Processes.....	57
11.2.1	Identify Risks .....	57
11.3	Analyze Risks .....	58
	Qualitative Risk Analysis.....	58
	Quantitative Risk Analysis .....	58
11.4	Risk Response Planning.....	58
11.5	Risk Monitoring and Control .....	59
12	Issue Management Plan.....	60
12.1	Roles and Responsibilities.....	60
12.2	Issue Identification.....	61
12.3	Issue Analysis .....	61
12.4	Issue Resolution and Escalation.....	62
12.5	Issue Control, Tracking, and Reporting .....	62
13	Change Management Plan .....	63

13.1	Roles and Responsibilities.....	63
13.2	Change Management Process Description .....	64
13.3	Change Request Identification .....	64
13.4	Analysis .....	65
13.5	Approval.....	65
13.6	Implement.....	65
13.7	Tracking & Reporting .....	66
14	Quality Management Plan .....	67
14.1	Roles and Responsibilities.....	67
14.2	Approach.....	68
14.3	Process Quality.....	69
14.4	Process Definition .....	69
14.5	Process Measurement .....	70
14.6	Process Improvement .....	70
14.7	Product Quality .....	70
14.8	Product Definition.....	71
14.9	Product Measurement.....	71
14.10	Product Improvement.....	72

## 1 Introduction

The Oregon Public Utility Commission (PUC or Commission) relies on a variety of applications to support its business functions related to the conduct of official proceedings. These include a custom-built legacy “BizApps” docketing system and Huddle, a third party service for eDiscovery. The PUC seeks to replace these systems with an integrated, cohesive, and efficient solution for internal and external stakeholders doing business with the Commission. By replacing the outdated and unsupported docketing system, PUC will be better equipped to serve stakeholders and the citizens of Oregon.

The Dockets and Discovery project management plan defines how the Dockets and Discovery project is executed, monitored and controlled, and closed.

Project elements includes:

- Project Governance
- Scope Management Plan
- Schedule Management Plan

- Cost Management Plan
- Stakeholder Management Plan
- Resource Management Plan
- Procurement Management Plan
- Requirements Management Plan
- Communication Management Plan
- Risk and Issue Management Plan
- Change Management Plan
- Quality Management Plan

## **1.1 Project Overview**

Currently, stakeholders use and access several distinct systems to participate in cases before the Commission. The current docketing system does not accommodate secure electronic records management for protected information or voluminous documents. Parties must provide the PUC and each other with physical copies of these protected or voluminous documents. While the current solution for eDiscovery is used for some dockets, because of the labor-intensive set up and maintenance, it has not been practical to use that solution for the electronic sharing of protected information. At a high level, significant risks of the existing system include major cybersecurity issues in the current architecture, outdated code, unsupported programming language, and 20 years of patchwork on the system.

Additionally, the current docketing system does not have the ability to accommodate secure electronic records management for protected information, the capacity to handle voluminous documents, or the ability to provide document access in native format. Parties must provide the PUC and each other with physical copies of these protected, voluminous, or native-format documents.

Although the use of a third party service (Huddle) for eDiscovery provides greater security, difficulties with set-up and maintenance have prevented its use for the electronic sharing of protected information. Further, since the current eDiscovery solution is a third-party service (Huddle) solution, records must be imported to a PUC or state-owned records management solution. Our current process is to collaborate with utility companies and intervenors using Huddle. We then export the files from Huddle to a PUC-owned file storage as the official record.

A new integrated solution for docketing and eDiscovery will increase efficiency for the PUC and its stakeholders. Currently, external stakeholders are required to use and access several distinct systems to participate in cases before the Commission. These systems include eDockets, eFiling through electronic mail, and eDiscovery (Huddle). Internal stakeholders, in addition to the systems accessed by external stakeholders, access three modules in BizApps: Dockets, List & Labels, and Data Requests. The targeted solution will integrate these systems, thus decreasing the number of systems stakeholders must learn

and use to submit and access documents. The proposed solution is designed to increase stakeholder convenience and efficiency and staff productivity because information will be available in a more timely fashion, will be easier to locate, and will be able to be stored and accessed in a variety of formats, such as providing complex economic forecasting models in their native Excel format.

BizApps modules not included in the project include Residential Service Protection Fund (Oregon Telephone Assistance Program and Telecommunications Devices Assistance Program) and Consumer Services. Agency personnel will examine these modules for improvements after completion of this project.

This investment in a new integrated solution will reduce vulnerability to cyber-attacks, streamline business processes for internal and external stakeholders, and allow for greater transparency as more documents will be accessible to the public.

Failure to act increases risk of the docketing system failure, cyber insecurity, improper records retention, and inadvertent allowance of utility actions without proper review. Relying on a system for case management when the system is based on source code that is no longer supported creates an immitigable risk of system failure that could impact residents statewide in relation to rates and services provided by regulated utility companies.

The project was split into two major phases. Phase 1 consisted of a Business Process Analysis of the system's current and future states. This phase is completed; and using the information gathered during this phase, solution requirements were identified and documented.

Phase 2 includes the design, development, and implementation of a new system that will replace the existing Docketing and eDiscovery systems. The PUC is in the process of contracting with a vendor for Phase 2.

In order to complete the project by a revised date of the end of October 2021, the project must move forward expeditiously. In order to achieve the desired results, the solution must meet the requirements identified in Phase 1 of this project, including security and accessibility.

The total purchased information technology solution product cost plus five years of support, and PUC staff time is estimated to be \$1.5 million including PUC employee time.

## 2 Project Governance

Project governance is an oversight function that is aligned with the PUC's governance model and that encompasses the project life cycle. Project governance framework provides the project manager and team with structure. Processes, decision making models and tools for managing the project, while supporting and controlling the project for successful delivery.



The governance process benefits projects by achieving the following objectives:

- Ensures timely decisions are made at the appropriate level.
- Ensures the project maintains sponsorship and funding.
- Provides strategic leadership and direction.
- Fosters a culture of accountability and transparency.
- Provides oversight and guidance to improve the potential for success.
- Promotes efficient and effective teams, reduced risks, and effective use of resources.
- Ensures needed resources are available.
- Ensures that business impacts are regularly identified, communicated, and understood by stakeholders and business partners.

## 2.1 Governing Bodies

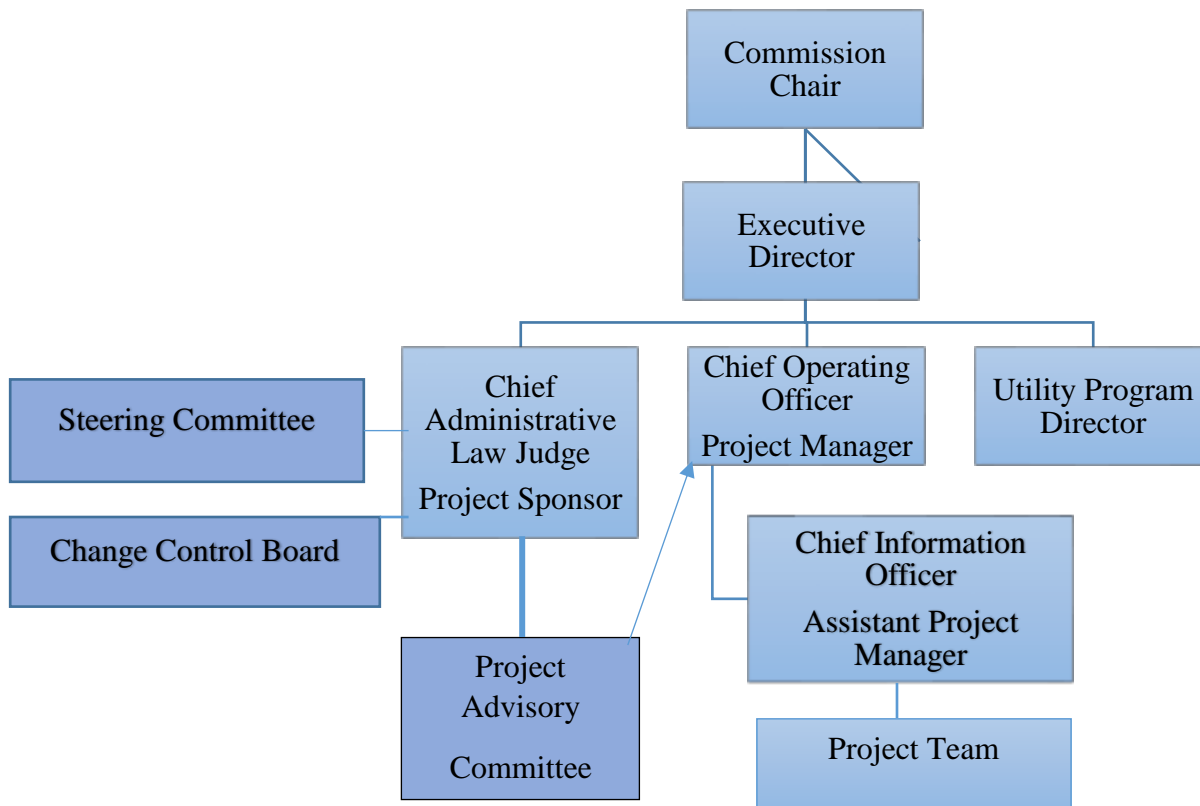
The following governing bodies have a role in governing the project, such as a Steering Committee and Change Control Board (CCB). The Steering Committee represents impacted stakeholders or units and provides strategic direction to the project to ensure fulfillment of its goals and objectives.

Committee Name	Responsibilities	Committee Type (Decision-Making, Advisory, Informational)	Meeting Frequency	Comments and Assignments
Steering Committee	Project Oversight	Decision-Making	Monthly	<ul style="list-style-type: none"> <li>• Governance of the project representing the interest of stakeholders.</li> <li>• Resolve Issues Escalated by Project Sponsor.</li> </ul>
Project Advisory Committee	Assist in the direction of the project	Advisory	Monthly	<ul style="list-style-type: none"> <li>• Advise the Project Sponsor on project requirements, project scope, and project progress.</li> </ul>

Committee Name	Responsibilities	Committee Type (Decision-Making, Advisory, Informational)	Meeting Frequency	Comments and Assignments
Change Control Board	Review and analyze change requests and ensure that scope/schedule/budget impacts are identified and acceptable	Decision-Making	Weekly	<ul style="list-style-type: none"> <li>Approve or reject change request. Some change requests may need to be escalated to the Project Sponsor and Steering Committee.</li> </ul>

## 2.2 Project Governance Structure

For this project, the PUC is utilizing a functional organization as shown in the following diagram. Because the Project Manager is also the Chief Operating Officer (COO), this structure maintains the advantage of “unity of command” without the disadvantage of slow communications within multiple functions to have input. The COO is a member of the agency’s Leadership Team, which also includes the Project Sponsor (Chief Administrative Law Judge) and Utility Program Director (a primary user). Additionally, the Chief Financial Officer reports to the COO and the COO is ultimately responsible for the finances of the agency.



## 2.3 Roles and Responsibilities

The table of Roles and Responsibilities provides a description of duties for project roles governing the project.

Name	Role	Responsibility
Michael Grant (Executive Director)	Executive Sponsor	<ul style="list-style-type: none"> <li>Provides leadership on culture and values.</li> <li>Owns the business case.</li> <li>Keeps project aligned with organization's strategy and portfolio direction.</li> <li>Governs project risk.</li> <li>Works with other sponsors.</li> <li>Focuses on realization of benefits.</li> <li>Recommends opportunities to optimize cost/benefits.</li> <li>Ensures continuity of sponsorship.</li> <li>Provides assurance.</li> <li>Provides feedback and lessons learned.</li> </ul>

Name	Role	Responsibility
Nolan Moser	Project Sponsor	<ul style="list-style-type: none"> <li>Oversee project governance and serve as final arbiter on disputes among stakeholders.</li> <li>Approve any changes in scope, schedule, or budget when these change beyond percentages specified in their individual sections of this document.</li> <li>Ensure that external governing entities are properly consulted and engaged to provide timely approval of changes where required.</li> <li>Ensure that Stakeholders who need to provide advice about decisions have opportunity for meaningful input.</li> <li>Maintain a shared vision among steering committee members inside and outside the meetings.</li> <li>Monitor risks and issues to make sure that matters are appropriately referred for decision promptly.</li> <li>Remove obstacles.</li> <li>Chair the Steering Committee.</li> </ul>
Bryan Conway Diane Davis Lori Koho John Crider Jonathan Felling Michael Dougherty (non-voting) Qing Liu (non-voting)	Steering Committee	<ul style="list-style-type: none"> <li>Recommend to the Project Sponsor any changes in scope, schedule, or budget when these change beyond percentages specified in their individual sections of this document.</li> <li>Simultaneously provide global governance of the project and represent the interest of internal and external stakeholders.</li> <li>Review and address project audit, quality assurance and risk assessment findings.</li> <li>Actively engage in project status reviews to ensure the control of the scope, schedule and budget</li> <li>Identify and resolve conflicts between project objectives/activities and other factors, such as organizational policies, business practices, standards, or relevant requirements.</li> <li>Ensure compliance with relevant regulatory and contractual requirements and organizational policies.</li> </ul>

Name	Role	Responsibility
Michael Dougherty	Project Manager	<ul style="list-style-type: none"> <li>• Make daily decisions based on direction provided by the Project Sponsor or when changes are within the agreed upon delegated authority.</li> <li>• Ensure that other Stakeholders have opportunities and information necessary to provide advice regarding pending decisions.</li> <li>• Communicate with the Project Sponsor regarding decisions made.</li> <li>• Escalate issues for resolution to the Project Sponsor when they are outside the Project Manager's span of control.</li> <li>• Ensure that decision items are properly analyzed before presenting them for decision.</li> <li>• Compile and track requested changes to scope, requirements, or design details.</li> </ul>
Qing Liu	Assistant Project Manager	<ul style="list-style-type: none"> <li>• Make recommendations based on direction provided by the Project Manager or when changes are within the agreed upon delegated authority.</li> <li>• Ensure that other Stakeholders have opportunities and information necessary to provide advice regarding pending decisions.</li> <li>• Escalate issues for resolution to the Project Manager.</li> <li>• Ensure that decision items are properly analyzed before presenting them for recommendation.</li> <li>• Assist in compiling and tracking requested changes to scope, requirements, or design details.</li> </ul>
Sarah Rowe Caroline Moore Kimberly Toews	Project Advisory Committee	<ul style="list-style-type: none"> <li>• Advise the Project Sponsor, Project Manager, and Assistant Project Manager on project requirements, project scope, and project progress.</li> </ul>
Qing Liu Diane Davis Jonathan Felling Michael Dougherty Lori Koho John Crider	Change Control Board (CCB)	<ul style="list-style-type: none"> <li>• Analyze the requested changes.</li> <li>• Approve or reject requested changes. Final approval may also need to be ratified by the Project Sponsor and Steering Committee.</li> </ul>

### 3 Scope Management Plan

Scope Management is the collection of processes to ensure that the project includes all the work required to complete it while excluding all work that is not necessary to complete it. The Scope Management Plan describes how the project will control the activities and deliverables and the roles and responsibilities of everyone involved.

The Scope Management addresses the following:

- Who has authority and responsibility for scope management
- How the scope is defined (i.e. Requirements, Scope Statement, WBS, WBS Dictionary, Statement of Work, etc.)
- How the scope is measured and verified (i.e. Quality Checklists, Scope Baseline, Work Performance Measurements, etc.)
- Who is responsible for final acceptance of project scope

#### 3.1 Scope Development

The project's Scope Management will follow a five step process: Collect Requirements, Define Scope, Create WBS, Verify Scope, and Control Scope.

1. **Collect Requirements** – The project team will define and document the requirements needed to meet all project objectives. After the requirements have been identified and documented, the team will collectively discuss details associated with meeting each requirement, conduct interviews and follow-on discussion to clarify the requirements, and document the requirements in sufficient detail to measure them once the project begins the execution phase. This documentation also serves as an input to the next step in the process which is to define scope.
2. **Define Scope** – The project team will develop a project scope statement that includes deliverables, assumptions, and constraints and establishes the framework within which project work must be performed.
3. **Create WBS** – The project team will create a WBS by breaking project deliverables down into work packages.
4. **Verify Scope** – The project team will follow the documented deliverable acceptance process to review and accept all deliverables.
5. **Control Scope** – The project team will follow the change management plan if there are any changes to the scope baseline.

For this project, scope management will be the sole responsibility of the Project Manager. The Project Manager, Sponsor and Stakeholders will establish and approve documentation for defining and measuring project scope that includes deliverable quality checklists and work performance measurements. Scope verification happens at the end of each project phase-or as major deliverables are created. Scope verification is ensuring that the deliverables the project creates are in alignment with the

project scope. Quality checklists will be developed for each deliverable. Based on feedback and input from the Project Manager and Stakeholders, the Project Sponsor is responsible for the acceptance of the final project deliverables and project scope.

Proposed scope changes may be initiated by any member of the project team. All change requests will be managed through the project change control process.

### 3.2 Roles and Responsibilities

This section defines the role of the Project Manager, Project Team, Stakeholders and other key persons who are involved in managing the scope of the project. It should state who is responsible for scope management and who is responsible for accepting the deliverables of the project as defined by the project's scope. Any other roles in scope management are also be stated in this section.

Name	Role	Responsibility
Nolan Moser	Project Sponsor	<ul style="list-style-type: none"> <li>• Approve Scope Management Plan.</li> <li>• Provide and approve high-level scope definition (Project Charter).</li> <li>• Review escalated scope issues and provide direction for resolution.</li> <li>• Approve major scope change requests.</li> <li>• Confirm all Scope Management decisions.</li> <li>• Approve or deny scope change requests as appropriate.</li> <li>• Evaluate need for scope change requests.</li> <li>• Accept project deliverables.</li> </ul>
Bryan Conway Diane Davis Lori Koho John Crider Jonathan Felling	Steering Committee	<ul style="list-style-type: none"> <li>• Participate in Scope definition activities.</li> <li>• Review major scope change requests and makes final decision or recommendations to the Project Sponsor.</li> </ul>

Name	Role	Responsibility
Michael Dougherty	Project Manager	<ul style="list-style-type: none"> <li>• Oversee the development of the Scope Management Plan.</li> <li>• Assume overall responsibility for scope management.</li> <li>• Manage deliverable verification and acceptance.</li> <li>• Measure and verify project scope.</li> <li>• Facilitate scope change requests.</li> <li>• Facilitate impact assessments of scope change requests.</li> <li>• Approve scope change requests within their authority.</li> <li>• Escalate scope and change issues as necessary.</li> <li>• Organize and facilitate scope change control meetings.</li> <li>• Communicate outcomes of scope change requests.</li> <li>• Update project documents upon approval of all scope changes.</li> </ul>
Qing Liu	Deliverable Lead	<ul style="list-style-type: none"> <li>• Review deliverable for alignment to requirements.</li> <li>• Forward deliverable for review to appropriate groups.</li> <li>• Track deliverable status in log.</li> <li>• Compile written feedback from reviewers.</li> <li>• Work with PM to determine if deliverable should be accepted or rejected.</li> </ul>
Diane Davis Lori Koho John Crider Don Arct	Project Team Members and Subject Matter Experts (SMEs)	<ul style="list-style-type: none"> <li>• Help develop the project scope statement.</li> <li>• Submit scope change requests.</li> <li>• Review scope change requests when assigned.</li> <li>• Provide feedback as and when required.</li> <li>• Participate in team-level scope change reviews.</li> <li>• Participate in defining change resolutions.</li> <li>• Evaluate the need for scope changes and communicate them to the project manager as necessary.</li> </ul>



### 3.3 Scope Definition

The project was split into two major phases. Phase 1 consisted of a Business Process Analysis of the system's current and future states. This phase is completed; and using the information gathered during this phase, solution requirements were identified and documented.

The scope for this project was defined through a comprehensive requirements collection process. First, a thorough analysis was performed on the agency's current software applications based on employee and user feedback. From this information, the project team developed the project requirements documentation, the requirements management plan, and the requirements traceability.

The project description and deliverables were developed based on the requirements collection process and input from subject matter experts in software design, technical support, programming and business applications. The approved scope statement baselines the scope and is located in the project repository, [DD Project Scope Management Plan - 11.16.2020.docx](#).

### 3.4 Work Breakdown Structure (WBS)

Create WBS is the process of subdividing project deliverables and project work into smaller, more manageable components. The key benefit of this process is that it provides a structured vision of what has to be delivered.

The WBS for this project was established during Quarter 1 by the CIO, Public Records Request Officer, and Chief Administrative Law Judge and all team members who brainstormed all work required to complete project deliverables successfully.

First all project deliverables/milestones were identified and then decomposed one at a time into a detailed and sequential list of activities required to complete the deliverable or milestone.

To effectively manage the work required to complete this project, it will be subdivided into individual work packages. This will allow the Project Manager to more effectively manage the project's scope as the project team works on the tasks necessary for project completion. The project is broken down into three phases: the design phase, the programming phase, and the testing phase. Each of these phases is then subdivided further down to work packages. Once all the work packages and tasks are defined, the task durations, resources and dependencies will be documented in the schedule.

### 3.5 Scope Validation

The project's deliverables will be reviewed by the project team and accepted through the project's formal acceptance process. Any comments or revisions will be communicated directly to the vendor with a response managed against the project timeline identified in the SOW. A "user acceptance" form will be used to verify the deliverable acceptance by the project team and vendor. Any disputes will be resolved according to the stated contract. All deliverables will only be accepted if they meet the respective acceptance criteria identified in the contract.

#### Deliverable Review Process Details

Process Step	Description	Primary Responsible Party	Available Tools/ Templates
1	Deliverable is submitted. Submissions should be clearly labeled according to the approved Deliverable Formatting Guidelines.	Vendor	Vendor Contract
2	Acknowledge receipt of deliverable to vendor and forward to deliverable lead for review.	PM	
3	Review deliverable and forward to other reviewers for feedback with a feedback log.	Deliverable Lead	
4	Review deliverable.	Deliverable Lead and Reviewers	
5	Record feedback in the Feedback Log and email Deliverable Lead when done.	Reviewers	Feedback Log
6	Make recommendation with compiled written feedback to project manager via the Deliverables Control mailbox. Record all feedback in Feedback Log.	Deliverable Lead	Feedback Log Deliverables Control mailbox developed by IS
	If deliverable is rejected, proceed to step 9. If approved, proceed to step 11.	PM	
9	Prepare letter of rejection and send letter with Deliverable Lead's compiled written feedback to vendor.	PM	Deliverable Rejection Letter, Deliverables Control mailbox, Feedback Log
10	Address feedback and return to step 1.0.	Vendor	

Process Step	Description	Primary Responsible Party	Available Tools/ Templates
11	Prepare letter of approval, obtain signature of project team member with sufficient signature authority, and e-mail to vendor along with Deliverable Lead's compiled written feedback.	PM	Deliverable Approval Letter, Deliverables Control mailbox, Feedback Log
12	File all submissions of deliverable, all feedback and recommendations, and all approval and rejection letters.	PM	

### 3.5.1 Deliverable Tracking.

Schedules of deliverables are maintained by the PM. They are saved in the following location: <P:\Agency Projects\BizApps Dockets and Discovery Replacement/Tools>

The deliverable schedule tracks deliverable due dates, the receipt date of deliverables, and their associated invoices, and both due dates and receipt dates for agency feedback. The schedule also identifies who the Deliverable Lead is as well as additional reviewers. A task will be identified for each deliverable in the schedule to track the entire review process. The task will be updated by the Deliverable Lead at each step of the process to ensure the review is on schedule and due dates are met.

The Project Sponsor and Project Manager will assist the Deliverable Lead in identifying other reviewers for deliverables. Additional reviewers review the deliverable based on their specific area of expertise and provide feedback to the Deliverable Lead.

### 3.5.2 Receive the Deliverable.

All deliverables are sent electronically in Word to the Deliverables Control Microsoft OneDrive:

[https://opucteams-](https://opucteams-my.sharepoint.com/personal/qingliu_opucteams_onmicrosoft_com/_layouts/15/onedrive.aspx?id=%2Fpersonal%2Fqingliu%5Fopucteams%5Fonmicrosoft%5Fcom%2FDocuments%2FBizApps%20D%26D%20P)

[my.sharepoint.com/personal/qingliu\\_opucteams\\_onmicrosoft\\_com/\\_layouts/15/onedrive.aspx?id=%2Fpersonal%2Fqingliu%5Fopucteams%5Fonmicrosoft%5Fcom%2FDocuments%2FBizApps%20D%26D%20P](https://opucteams-my.sharepoint.com/personal/qingliu_opucteams_onmicrosoft_com/_layouts/15/onedrive.aspx?id=%2Fpersonal%2Fqingliu%5Fopucteams%5Fonmicrosoft%5Fcom%2FDocuments%2FBizApps%20D%26D%20P)roject.

The Deliverable Lead will receive notice of the deliverable through the file sharing location and logs receipt of all deliverables in the Deliverable Tracking Spreadsheet when received. The Deliverable Lead assignees access to users with access to this file sharing location.

### 3.5.3 Prepare and Route Deliverable.

Once a deliverable has been received, the Deliverable Lead notifies the identified reviewers by e-mail. Refer to the Deliverable Tracking Spreadsheet for the names of Deliverable Leads and reviewers. The Deliverable Checklist will also be located at the file share location along with a due date to the reviewers

of when their feedback along with their recommendation is due. The Deliverable Lead will email the reviewer of the deliverable to allow timely response. Refer to the schedule for feedback due dates.

#### **3.5.4 Review of Deliverable.**

Any submitted deliverable will first be reviewed by the Deliverable Lead measured against the Deliverable Checklist, any applicable contract requirements, or industry standards, as well as adherence to mandated templates or formats. All pre-defined acceptance criteria will be referenced and used in the review. This preliminary review will be supplemented as necessary by involved stakeholders.

While performing a review, feedback is recorded on the Feedback Log in the project repository. Providing written feedback is a critical and mandatory piece of the deliverable management process. Feedback provides a written record of the review and establishes due diligence by project staff.

When rejecting a deliverable the state provides the feedback recorded in the feedback log to the vendor, who must modify the deliverable based on feedback prior to resubmitting. Examples of feedback are corrections of information within the deliverable, disagreement on items within the deliverable, needed clarification on items, or missing items that the state thinks should be included in the deliverable.

The Deliverable Lead will conduct a group walkthrough with all reviewers to discuss their feedback as a group after doing the initial individual review.

The Deliverable Lead will:

- Determine what feedback needs to be included with the recommendation for approval or rejection of the deliverable.
- Consolidate and compile all the feedback from the Feedback Log.
- Upload the final feedback and recommendation to the Control Deliverables file share location.
- Makes the final recommendation on whether to approve or reject the deliverable.

A group walkthrough may also include the vendor to discuss the feedback or the basis for a rejection of a deliverable.

If the deliverable is rejected, the Deliverable Lead will:

- Prepare the rejection letter using the Deliverable Rejection Letter Template.
- Obtain the appropriate signature for the rejection letter.
- E-mail the rejection letter to the vendor along with the feedback outlining the basis for the rejection.

The vendor will modify the deliverable based on the feedback and resubmit the deliverable to the Deliverables Control Microsoft OneDrive for another review. In all cases, the Deliverable Lead will expeditiously (within 24 hours) email the identified reviewers. This process needs to be repeated until the deliverable meets the criteria for approval.

The Deliverable Lead may choose to conditionally approve a deliverable to move forward. Conditional acceptance is only used for minor corrections. The vendor will have TBD days to make the needed changes or provide additional materials before resubmitting the deliverable. The deliverable may not need to go through a full review again.

The Deliverable Lead may only need to perform a review of the corrections and a spot check of the rest of the deliverable to ensure no other errors are introduced. The deliverable is not considered closed until all the corrections are made. A letter is sent to the vendor with the conditional approval terms using the Deliverable Conditional Approval Letter Template.

### **3.5.5 Closing the Deliverable.**

When a deliverable is approved it can be closed. The PM will prepare the approval letter using the Deliverable Approval Letter Template, get the appropriate signature on the approval letter and e-mail the signed letter to the vendor.

The Deliverable Lead will upload the final approved deliverable and approval letter to the project repository under P:\Agency Projects\BizApps Dockets and Discovery Replacement\D&D Project Replacement Forms and Logs and record the date of approval in the corresponding tracking tool.

## **3.6 Scope Control**

The Project Manager and the project team will work together to control the scope of the project. The project team will ensure that they perform only the work described in the WBS and scope. The Project Manager will oversee the project team and the progression of the project to ensure that the scope control process is followed.

Any request for change in project scope will be processed through the project's change management process. Proposed scope changes will be reviewed. If the Project Manager and Project Sponsor determine that the request has merit, it will be analyzed for its impact to project time and project 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 and re-baselined, the project schedule will be updated and may be re-baselined, and the project's requirements set will be updated.

## 4 Schedule Management Plan

The Schedule Management Plan is a component of the project management plan that establishes the criteria and activities for developing, monitoring, and controlling the schedule. The PUC will be using Microsoft Project to create and maintain the project schedule. Any change will be discussed at the weekly status update meeting.

It is important to note that this project requires EIS Stage Gate approval. PUC will endeavor to meet every EIS request with quality submission as to keep momentum on this project. The project schedule contemplates EIS involvement and adherence to the schedule should be maintained by the project team for project integrity.

### 4.1 Schedule Development

Project schedules will be created and managed using MS Project starting with the deliverables identified in the project's Work Breakdown Structure (WBS). Activity definition will identify the specific work packages which must be performed to complete each deliverable. Activity sequencing will be used to determine the order of work packages and assign relationships between project activities. Activity duration estimating will be used to calculate the number of work periods required to complete work packages. Resource estimating will be used to assign resources to work packages to complete schedule development.

Once a preliminary schedule has been developed, it will be reviewed by the project team and any resources assigned to project tasks. The project team and resources must agree to the proposed work package assignments, durations, and schedule. Once this is achieved the project sponsor will review and approve the schedule and it will then be baselined.

The following will be designated milestones for the project schedule:

- Completion of scope statement and WBS/WBS Dictionary
- Baselined project schedule
- Approval of final project budget
- Project kick-off
- Approval of roles and responsibilities
- Requirements approval
- Completion of data mapping/inventory
- Project implementation
- Acceptance of final deliverables

## 4.2 Roles & Responsibilities

The following table describe the Roles and Responsibilities of team members involved in the Schedule Management process.

Name	Role	Responsibility
Nolan Moser	Project Sponsor	<ul style="list-style-type: none"> <li>Review proposed schedule.</li> <li>Approve final schedule before it is baselined.</li> </ul>
Bryan Conway Diane Davis Lori Koho John Crider Jonathan Felling	Steering Committee	<ul style="list-style-type: none"> <li>Review schedule.</li> </ul>
Michael Dougherty	Project Manager	<ul style="list-style-type: none"> <li>Facilitate work package definition, sequencing, and estimating durations and resources with the project team.</li> <li>Create project schedule.</li> <li>Validate schedule with project team, stakeholders and project sponsor.</li> <li>Obtain schedule approval from project sponsor and baseline schedule.</li> <li>Lead the project team in Schedule Management related activities.</li> <li>Review, evaluates and provides feedback on schedule progress reports and time-risk recommendations from the Project Coordinator.</li> <li>Provide regular status information in meetings with the Project Sponsor and steering committees.</li> </ul>
Diane Davis JP Batmale John Crider Lori Koho Roger White	Functional Managers	<ul style="list-style-type: none"> <li>Review and approves time estimates for staff reporting to them.</li> <li>Notify the Project Manager and Project Coordinator of workload changes that may affect the schedule.</li> <li>Work with the Project Manager and Project Coordinator on resource schedule-related items for risks, issues, and possible changes.</li> </ul>

Name	Role	Responsibility
Qing Liu	Project Coordinator	<ul style="list-style-type: none"> <li>Assist in the development of the Schedule Management Plan.</li> <li>Perform daily schedule-related analysis and update activities.</li> <li>Lead schedule management activities, communicates schedule status, maintains the project schedule and provides updates.</li> <li>Make schedule risk, issue and change recommendations to the Project Manager.</li> </ul>
Diane Davis Lori Koho John Crider Don Arct	Project Team Members	<ul style="list-style-type: none"> <li>Participate in work package definition, sequencing, and duration and resource estimating.</li> <li>Review and validate proposed schedule.</li> <li>Notify the Project Manager and Project Coordinator about possible schedule risks and issues.</li> <li>Provide accurate progress reporting during the project.</li> </ul>

### 4.3 Schedule Control

The project schedule will be reviewed and updated as necessary on a bi-weekly basis with actual start, actual finish, and completion percentages which will be provided by task owners.

The project manager is responsible for holding bi-weekly schedule updates/reviews, determining impacts of schedule variances, submitting schedule change requests, and reporting schedule status in accordance with the project's communication plan.

The project team is responsible for participating in bi-weekly schedule updates/reviews, communicating any changes to actual start/finish dates to the project manager and participating in schedule variance resolution activities as needed.

The project sponsor will maintain awareness of the project schedule status and review/approve any schedule change requests submitted by the project manager.

To ensure the objectivity of status reporting, a consistent performance assessment methodology determines activity percent complete. For activities with planned durations of 10 working days or less,

- 0%
- 25%
- 50%
- 100%



Milestones always use a 0/100 methodology. For tasks with more than 10 working days of planned duration, the performance measurement methodology must be documented in the task Notes field.

As part of the status cycle, the Project Manager will conduct a health assessment and address any red flags that violate the guidelines laid out in the schedule management standard. The health assessment also indicates the project's Baseline Execution Index (BEI), which is the total number of tasks completed divided by the total number of tasks expected to be completed. This is calculated weekly.

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

Report	Frequency	Author	Reporting Responsibility
Resource Task Lists and Work Packages	Weekly on Mondays	Project Coordinator	Generate individual resource task lists and work packages from the scheduling tool and make them available to project team members
Project Schedule Report	Monthly on the 4 <sup>th</sup> of each month	Project Coordinator	Generate the schedule progress report for use in the project status meeting
Project Master Schedule (Gantt chart)	Monthly	Project Coordinator	Generate the updated schedule Gantt chart for use in the project status meeting
Steering Committee Project Report	3 days before each Steering Committee Meeting	Project Manager	Generate the Steering Committee project status report for presentation

#### 4.4 Schedule Changes and Thresholds

If any member of the project team determines that a change to the schedule is necessary, the project manager and team will meet to review and evaluate the change. The project manager and project team must determine which tasks will be impacted, variance as a result of the potential change, and any alternatives or variance resolution activities they may employ to see how they would affect the scope, schedule, and resources. If, after this evaluation is complete, the project manager determines that any change will exceed the established boundary conditions, then a schedule change request must be submitted.

Submittal of a schedule change request to the steering committee for approval is required if the change is estimated to reduce the duration of the overall baseline schedule by 10% or more, or increase the duration of the overall baseline schedule by 10% or more.

If the project's BEI dips below 0.85 or a deliverable is forecasting beyond its contractual due date, the Project Manager will develop a corrective action plan. The schedule status is yellow with a BEI of 0.90 and red at 0.85.

Any change requests that do not meet these thresholds may be approved by the project sponsor after vetting by the Change Control Board.

Once the change request has been reviewed and approved, the project manager is responsible for adjusting the schedule and communicating all changes and impacts to the project team, project sponsor, and stakeholders.

## 5 Cost Management Plan

Project Cost Management includes the processes involved in planning, estimating, budgeting, financing, funding, managing, and controlling costs so that the project can be completed within the approved budget.

The cost management plan is a component of the project management plan and describes how the project costs will be planned, structured, and controlled. The cost management plan includes life cycle costs, value analysis, and risk. The following project cost estimates establishes the budget for this project. As previously mentioned, time spent on project by members will be tracked in MS Project and costed at the fully loaded rate.

Spending for the project will be reported to and approved by the Project Manager. The estimated cost for a Docket and eDiscovery project of \$1,518,693 is based on the selected vendor cost; and by calculating the fully loaded rates of PUC personnel. All spending will be recorded by the PUC business office and available for audit purposes.

The Project Manager (PUC COO) is responsible to deliver the project on time and on budget. Budget or timeline changes / concerns are first discussed with the Project Manager when they occur. The Project Manager will notify agency leadership of any change in budget or timeline that affects the budget.

The legislature approved a \$400,000 Policy Option Package for AY 17-19. Because of project timing and actual quotes, the PUC will go to the E-Board to request an increase in limitation to approximately \$584,951 for one-time implementation cost and the prorated first year ongoing cost that will incur in this current biennium 2019-2021 (AY21).

Staff time for the PUC SQL DBA and two developers and members of the project (\$472,636) is calculated separately (as they are not incremental costs) and is not included in the vendor cost of the Docket and eDiscovery product. The estimated five-year cost for this project is \$1.046 million, which includes \$116,000 annual ongoing costs (non-incremental).

The current budget for the project is \$1,518,693. Although EIS procedure currently allows this to be +/- 10%, (up to \$1,670,562); the PUC as an Other Funded agency will have to consider budget limitation and cash flow to determine if we will proceed at greater stated costs. Although EIS maintains the standard, EIS is not involved in deciding if the OPUC can go over the project budget

## 5.1 Roles and Responsibilities

Name	Role	Responsibility
Nolan Moser	Project Sponsor	<ul style="list-style-type: none"> <li>• Provide overall business leadership to ensure that cost and funding requirements are met.</li> <li>• Ensure requests for cost and funding changes have followed the approved Change Control Process, and that approved changes have been incorporated into cost and funding documents within the assigned timeframe.</li> <li>• Review and approve cost and funding documents prior to sending to control agencies.</li> <li>• Manage project budget to avoid cost overruns.</li> </ul>
Bryan Conway Diane Davis Lori Koho John Crider Jonathan Felling	Steering Committee	<ul style="list-style-type: none"> <li>• Actively engage in project status reviews to ensure the control of the budget.</li> </ul>

Name	Role	Responsibility
Michael Dougherty	Project Manager	<ul style="list-style-type: none"> <li>• Lead team in the development of the Cost Management Plan.</li> <li>• Provide regular status information and makes approval recommendations</li> <li>• Ensure the overall cost management effort is being executed in accordance with the plan.</li> <li>• Ensure the entire project team, State, and contractor (if applicable) are following this plan.</li> <li>• Ensure adherence to all of the other project processes that interact with or provide input to the cost management effort.</li> <li>• Ensure there are sufficient resources to execute this plan.</li> <li>• Ensure cost management activities are being performed within the assigned timeframe.</li> <li>• Manage and reports on the project's costs.</li> <li>• Present and lead the review of project's cost performance for preceding month at monthly project status meeting.</li> <li>• Account for cost deviations and presents project sponsor with options for getting project back on budget.</li> </ul>
Barbara Seaman	Financial Lead and/or Financial/Budget Manager	<ul style="list-style-type: none"> <li>• Work with the Project Manager and Financial Analyst to develop the Cost Management Plan.</li> <li>• Manage processes and activities outlined in the Cost Management Plan.</li> <li>• Lead overall cost management effort and the cost repository containing the cost and funding documents.</li> <li>• Ensure cost processes are organized, managed, and controlled and that all issues are identified and resolved in promptly to minimize rework.</li> <li>• Contribute to the development of cost and funding documents.</li> </ul>

Name	Role	Responsibility
Mia Seo	Financial Analyst(s) and/or Budget Specialist	<ul style="list-style-type: none"> <li>Assist in the development of the Cost Management Plan.</li> <li>Serve as subject matter expert for the cost management processes.</li> <li>Assist the Project Manager and Financial Lead in capturing, verifying, and communicating project cost and funding requirements.</li> </ul>
Legislative Fiscal Officer  Chief Financial Office Analyst	Funding Partners (such as state, local, or federal governments)	<ul style="list-style-type: none"> <li>Approve significant cost variances via Special Project Reports in cases where such reporting is necessary.</li> </ul>

## 5.2 Cost Management Approach

The Project Manager will be responsible for managing and reporting on the project's cost throughout the duration of the project. During the monthly project status meeting, the Project Manager will meet with management to present and review the project's cost performance for the preceding month. The Project Manager is responsible for accounting for cost deviations and presenting the Project Sponsor with options for getting the project back on budget. The Project Sponsor has the authority to make changes to the project to bring it back within budget.

## 5.3 Cost Monitoring

A variance of up to 15% of original or re-baselined cost will change the status of the cost to cautionary and the value will be changed to yellow in the project status report. A variance of more than 15% of original or re-baselined cost will change the status of the cost to alert and the value will be changed to red in the project status report. Corrective actions will require a project change request and must be approved by the Project Sponsor.



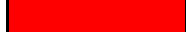
Managing the total cost of ownership for the project will include building a total cost of ownership model for the life of the project. It will establish the total project baseline budget and a time-phased baseline budget by month and fiscal year for all phases. Inputs are vendor software and implementation costs, contract deliverable payments, project team staffing costs, budgeted amounts for infrastructure costs, and all other anticipated costs to the project.

The activities in the table below will be used to manage project costs:

Cost Management Activity	Date(s) Administered	Participant Roles	Name of Facilitator/Decision Maker
Monthly project budget review	12/03/2020 and first week of every month	Project Manager Project Financial Lead	Michael Dougherty Barbara Seaman
Quarterly project cost forecast	01/16/2021 and third week of every quarter	Project Sponsor Project Manager Project Financial Lead	Nolan Moser Michael Dougherty Barbara Seaman
Change Request budget impact analysis	As required	Project Financial Lead Change Request Analyst	Barbara Seaman Qing Liu

## Reporting Format

Cost management measures will be reported in the monthly status report. All cost variances outside of the thresholds identified in this Cost Management Plan will be identified, along with any planned corrective actions. Change requests triggered by project cost overruns will be identified and tracked in the monthly status report.

	At or under Original or Re-baselined Cost
	Within 0-15% of Original or Re-baselined Cost
	More than 15% of Original or Re-baselined Cost

The Project Manager will be responsible for managing and reporting on the project costs throughout the duration of the project. During the monthly project status meeting, the Project Manager will present and review the project's cost performance for the preceding month.

## 5.4 Cost Change Control Process

The Project Manager will present the Project Sponsor with options for corrective actions within five business days from when the cost variance is first reported. Within three business days from when the Project Sponsor selects a corrective action option, the Project Manager will present the Project Sponsor with a formal Cost Variance Corrective Action Plan. The Cost Variance Corrective Action Plan will detail the actions necessary to bring the project back within budget and the means by which the effectiveness of the actions in the plan will be measured. If the corrective actions to be taken result in a change, the project's overall Change Control Process must be followed as well. Upon acceptance, the project will be updated to reflect the corrective actions.

## 6 Stakeholder Management Plan

Stakeholder Management includes the processes required to identify the people, groups, and organizations that could impact or be impacted by the project, to analyze stakeholder expectations and their impact on the project, and to develop appropriate management strategies for effectively engaging stakeholders in project decisions and execution.

During Strategic Plan stakeholder sessions in 2018 and 2019, multiple stakeholders commented on the need for a web-based filing system similar to the one used by the California Energy Commission. Numerous stakeholders were also frustrated with the limitation of the third-party Huddle system in terms of handling protected information. A goal for the Commission was to update to an integrated system to handle filings and discovery and allow for convertibility (Excel, Word, etc.) of different files.

Because Stakeholders are completely engaged in PUC's processes, we plan to work with a major customer group (Citizens' Utility Board) and a major utility (PGE) during development and testing of the Dockets and eDiscovery system. This will include uploading dockets, receiving notification of uploads, viewing of all document, downloading documents, authentication, integration, and time stamping. We have selected these two groups based on long-term relationships and docketing activity of these two groups.

### 6.1 Responsibilities

Name	Role	Responsibility
Nolan Moser	Project Sponsor	<ul style="list-style-type: none"> <li>Identify Stakeholders.</li> <li>Provide input into categorization of Stakeholders.</li> <li>Provide advice in preparation strategies to be included in the Stakeholder Management Plan.</li> <li>Approve the Stakeholder Management Plan.</li> <li>Play a lead role in representing the project to external Stakeholders.</li> </ul>
Bryan Conway Diane Davis Lori Koho John Crider Jonathan Felling	Steering Committee	<ul style="list-style-type: none"> <li>Provide advice and review the Stakeholder Management Plan.</li> <li>Assist in identification and classification of Stakeholders.</li> <li>Assist in development of management strategies.</li> <li>Act as a key point of contact with other program representatives regarding business aspects of the project.</li> </ul>

Name	Role	Responsibility
Michael Dougherty	Project Manager	<ul style="list-style-type: none"> <li>Initiate effort to develop the Stakeholder Management Plan.</li> <li>Guide Stakeholder analysis.</li> <li>Complete the Stakeholder Management Plan</li> <li>Manage the schedule and activities related to stakeholder communication and engagement.</li> </ul>
Diane Davis	Stakeholder Manager	<ul style="list-style-type: none"> <li>Undertake the stakeholder analysis in consultation with the project team and the sponsoring organization's staff.</li> <li>Write the Stakeholder Management Plan.</li> <li>Review with the project team and the sponsoring organization's staff.</li> <li>Lead the effort to complete the approach identified in the Stakeholder Management Plan.</li> </ul>
Diane Davis JP Batmale John Crider Lori Koho Roger White	Business Lead(s)	<ul style="list-style-type: none"> <li>Provide advice and review the Stakeholder Management Plan.</li> <li>Assist in identification and classification of Stakeholders.</li> <li>Assist in development of management strategies</li> <li>Provide information to support Stakeholder communication.</li> </ul>
Jonathan Felling Don Arct	Technical Lead	<ul style="list-style-type: none"> <li>Provide advice and review the Stakeholder Management Plan.</li> <li>Assist in identification and classification of Stakeholders.</li> <li>Assist in development of management strategies</li> <li>Provide information to support Stakeholder communication.</li> </ul>

## 6.2 Stakeholder Management Processes

### 6.2.1 Stakeholder Identification

The project team will conduct a brainstorming session to identify stakeholders for the project. The brainstorming session will include the primary project team and project sponsor. The session will be broken down into two parts. The first part will focus on internal stakeholders. The second part of the session will focus on external stakeholders.

The following criteria will be used to determine if an individual will be included as a stakeholder:

- Will the person or their organization be directly or indirectly affected by this project?
- Does the person or their organization hold a position from which they can influence the project?
- Does the person have an impact on the project's resources (material, personnel, funding)?
- Does the person or their organization have any special skills or capabilities the project will require?
- Does the person potentially benefit from the project or are they in a position to resist this change?



Any individual who meets one or more of the above criteria will be identified as a stakeholder. Stakeholders from the same organization will be grouped to simplify communication and stakeholder management. As stakeholders are identified the stakeholders' information will be recorded in the stakeholder register, [DD Project Stakeholder Register - 11.16.2020.docx](#).

As a follow on to identifying stakeholders, the project team will identify key stakeholders who have the most influence on the project or who may be impacted the most by it. These key stakeholders are those who also require the most communication and management which will be determined as stakeholders are analyzed. Once identified, the Project Manager will develop a plan to obtain their feedback on the level of participation they desire, frequency and type of communication, and any concerns or conflicting interests they have.

Based on the feedback gathered by the project manager, the determination may be made to involve key stakeholders on steering committees, focus groups, gate reviews, or other project meetings or milestones. Thorough communication with key stakeholders is necessary to ensure all concerns are identified and addressed and that resources for the project remain available.

### **6.3 Stakeholder Analysis**

Once all project stakeholders have been identified, the project team will categorize and analyze each stakeholder. The purpose of this analysis is to determine the stakeholders' engagement level, plan the management approach for each stakeholder, and to determine the appropriate levels of communication and participation each stakeholder will have on the project.

The project team will categorize stakeholders based on their organization or department. Once all stakeholders have been categorized, the project team will utilize a Stakeholder Analysis Register to document the current stakeholder engagement level.

#### **6.3.1 Stakeholder Engagement Assessment Matrix**

The project team will use information from the Stakeholder Register to document "current" stakeholder engagement level with a "C" and "desired" stakeholder engagement with a "D." The following stakeholder participation descriptions will be used:

- Unaware. Unaware of the project and its potential impacts.
- Resistant. Aware of the project and potential impacts and resistant to the change.
- Neutral. Aware of the project yet neither supportive nor resistant.
- Supportive. Aware of the project and potential impacts and supportive of change.
- Leading. Aware of the project and potential impacts and actively engaged in ensuring project is successful.

Stakeholder	Unaware	Resistant	Neutral	Supportive	Leading
Nolan Moser (Sponsor)				C	
Michael Dougherty (PM)				C	C
Qing Liu (Assistant PM)				C	C
Diane Davis (SME)				C	

C = Current level of engagement      D = Desired level of engagement

Note: This table is not inclusive and complete table is a stand-alone document.

## 6.4 Stakeholder Management Strategies

To effectively manage stakeholder engagement, the project will communicate project related information to key stakeholders in a proactive and timely manner. In line with the matrix above, the project team will also be actively listening and soliciting input and feedback to make sure communications are being received and understood, and also to capture important information to help make adjustments and to respond to problem areas.

Other project artifacts will factor into Stakeholder Management as well, including Business Process Changes and the Change Control process, both of which consider the impact on stakeholders. The project issue log will be used to collect, document, and address concerns raised by stakeholders and stakeholder management risks that have materialized into issues that must be managed.

The Stakeholder Management Plan will be reviewed and assessed on a regular basis to determine:

- If the project team is effectively engaging Stakeholders.
- If the Stakeholder levels of engagement has changed.
- If additional stakeholders have been identified.
- Whether more needs to be done to obtain the needed level of Stakeholder engagement or support.

## 7 Resource Management Plan

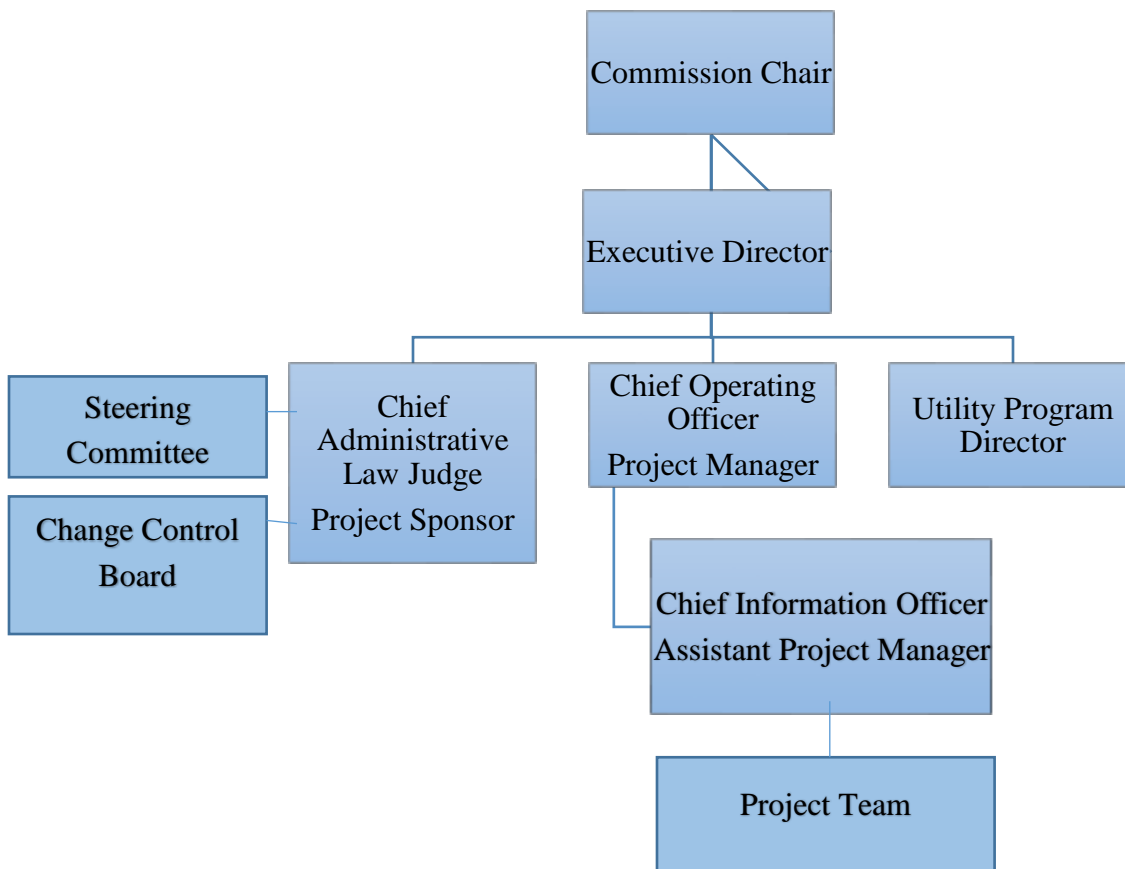
### 7.1 Roles and Responsibilities

Name	Role	Responsibility
Nolan Moser	Project Sponsor	<ul style="list-style-type: none"> <li>Provide overall guidance and direction to the project team.</li> <li>Provide final approval on project milestones and deliverables.</li> <li>Direct the acquisition of resources or funding for resources.</li> </ul>
Qing Liu	IT Sponsor	<ul style="list-style-type: none"> <li>Provide overall guidance and direction for technical staffing.</li> <li>Provide final approval for commitment of technical resources.</li> </ul>
Bryan Conway Diane Davis Lori Koho John Crider Jonathan Felling	Steering Committee	<ul style="list-style-type: none"> <li>Ensure participation, collaboration, and commitment from all impacted organizational units.</li> </ul>
Michael Dougherty	Project Manager	<ul style="list-style-type: none"> <li>Either develop the plan or lead the team in the development of the HR and Staff Management Plan depending on the complexity of these plans.</li> <li>Escalate staffing-related issues to the Project Sponsor or the steering committee.</li> <li>Present the final staffing plan to the Project Sponsor for approval.</li> <li>Attend oversight review and approval sessions and supports the sponsor in addressing oversight questions.</li> </ul>
Stacy Traxler	Human Resources (HR) Lead	<ul style="list-style-type: none"> <li>Assist the Project Manager in identifying HR-related policies, constraints, and processes for hiring required staff.</li> <li>Support the Project Manager in developing job descriptions and navigating the State hiring process.</li> </ul>
Diane Davis	Business Transition Lead	<ul style="list-style-type: none"> <li>Assist the Project Manager in identifying training and organization change management resources and associated costs.</li> </ul>

Name	Role	Responsibility
Diane Davis JP Batmale John Crider Lori Koho	Project Team	<ul style="list-style-type: none"> <li>• Provide input on the staff estimating process.</li> <li>• Provide input on the staff skill requirements.</li> <li>• Provide requirements for staff availability and agreements.</li> </ul>
Diane Davis Lori Koho	Business Owner(s)	<ul style="list-style-type: none"> <li>• Provide input on the staff estimating process.</li> <li>• Provide input on the staff skills requirements.</li> <li>• Provide requirements for staff availability and agreements.</li> </ul>

## 7.2 Project Organization Chart

The project organizational chart below provides a graphical representation of the project's hierarchical reporting relationships. See the above for the chart representing governance of the project.



### 7.3 Project Staffing Estimates

Staffing estimates were determined from an analysis of the WBS and schedule, also taking into consideration the roles and skill sets needed to complete tasks.

Role/Responsibility	Number of Staff Required	Timeframe Needed	% of Time Needed
Project Manager	1	Project Duration	50%
Assistant Project Manager	1	Project Duration	50%
Business Analyst	1	Project Duration	25%
Policy SME	4	Project Duration	25%

### 7.4 Staff Acquisition Strategy

Project staff will consist entirely of internal resources. The project manager, with support from the project sponsor, will negotiate with department managers to identify and assign resources. All resources must be approved by appropriate manager before they begin any project work. The project team will be working on-site and remotely due to COVID-19 restrictions.

Staff will be requested using a staff resource request form that includes:

- Objective of the activity
- Knowledge, skills and abilities
- Duties
- Number of staff needed
- Specific named staff as appropriate
- Number of hours per week required
- Duration
- Start date

### 7.5 Staff/Team Development Plan

#### 7.5.1 Team Development

The Project Manager should allocate adequate time for team development activities. 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 recognition for positive contribution
- Managing conflicts in a constructive manner
- Encouraging collaborative problem-solving and decision-making

The following are the project team's guiding principles:

- Collaboration: Be adaptive and open-minded.
- Growth: Learn from our mistakes and forgive others for their mistakes. Take chances even though we might fail.
- Respect: Assume good intent and deal with disagreements compassionately, immediately and directly.
- Leadership: Lead by example, model best practice, and work closely with team members and partner with authentic, transparent relationships.
- Spirited: Create fun and very little weirdness.

## **7.6 Project Orientation**

- The project manager will provide project orientation related to the following topics:
- Background of the project
- Current status of the project
- 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, Communication, and Change Control management
- Review the project calendar, including status meetings and team meetings
- Overview of the facility, amenities, nearby restaurants, parking, and transportation

## **7.7 Staff Transition and Replacement Plan**

The project manager will manage all staff transitions and document in the staffing plan and schedule. The project manager will also notify all stakeholder and project staff of staffing changes as needed. Project manager will work with vendor to review resumes for key person replacements.

If there are vacant positions that are not able to be filled it will be documented as a risk or issue.

## **7.8 Transition at Project Completion**

Project staff not associated with the transition to operations and maintenance (O&M) will be reassigned to other projects or positions within their department per normal processes. This will include communication and the close-out or transition of tasks.

## 8 Procurement Management Plan

### 8.1 Roles and Responsibilities

Name	Role	Responsibility
Nolan Moser	Project Sponsor	<ul style="list-style-type: none"> <li>Provide overall business leadership to ensure the procurement requirements are met.</li> <li>Review and approves procurement documents.</li> <li>Coordinating the encumbrance of funds for contract.</li> </ul>
Bryan Conway Diane Davis Lori Koho John Crider Jonathan Felling	Steering Committee	<ul style="list-style-type: none"> <li>Provide SME expertise for proposal evaluation.</li> <li>Review high level purpose of RFPs and contracts.</li> </ul>
Michael Dougherty	Project Manager	<ul style="list-style-type: none"> <li>Ensure the overall Procurement Management effort is being executed in accordance with the Plan and promptly.</li> <li>Oversee Procurement Management effort and Procurement repository containing Procurement documents.</li> </ul>
Kimberly Mainwaring (DAS)  Rich Palmer	Contract Administrator  PUC Contract Administrator	<ul style="list-style-type: none"> <li>Manage processes and activities outlined in Procurement Management Plan.</li> <li>Coordinate with the Procurement Analyst that conducted the procurement to initiate a formal change to the contract.</li> <li>Recognize, investigate, document and act on emerging disputes or other risks, unique requirements, unusual situations or other issues that arise in managing any contracts.</li> <li>Ensure the Procurement process is organized, managed, and controlled and that any and all issues are identified and resolved within the assigned timeframe to minimize rework.</li> <li>Contribute to the development of Procurement documents.</li> </ul>
Kimberly Mainwaring (DAS)  Rich Palmer	Procurement Analysts	<ul style="list-style-type: none"> <li>Assist the Project Manager and Contract Administrator in capturing, verifying, and communicating project procurement requirements.</li> </ul>

Name	Role	Responsibility
		<ul style="list-style-type: none"> <li>Handle procuring a contract by performing the following:               <ul style="list-style-type: none"> <li>Solicitations.</li> <li>Contacting prospective contractor.</li> <li>Developing the solicitation packages, including the Scope of Work (SOW).</li> <li>Developing the contract including the SOW).</li> <li>Coordinates final approval of the contracts with the Contract Administrator.</li> <li>Distributing copies of the signed executed contract to the appropriate parties.</li> <li>Advising the Project Manager of new or modified state procurement policies and regulations.</li> </ul> </li> </ul>
Barbara Seaman	Agency Budget Office	<ul style="list-style-type: none"> <li>Receive and coordinate approvals of invoices and resolve invoice disputes.</li> <li>Verify the encumbrance funds versus the fund availability and the project cost account codes used.</li> </ul>
Jack McDonald	Department of Justice	<ul style="list-style-type: none"> <li>Review for legal sufficiency.</li> </ul>
Michael Dougherty Diane Davis John Crider Don Arct Jonathan Felling Michelle Scala Nolan Moser	Evaluation Committee	<ul style="list-style-type: none"> <li>Independently read and score all proposals according to the evaluation criteria set forth in the RFP.</li> <li>Complete an evaluation scoring sheet for each proposal prior to attending the score Tabulation Meeting.</li> </ul>

## 8.2 Procurement Management Processes

### 8.2.1 Procurement Scope

The following procurement items have been determined to be essential for completion and success of the project:

Item/Service	Justification	Category	Needed By
Project Manager	To manage project	Project Resource	04/16/2019
Solution/tool	SaaS	Software	12/09/2020



iQA	Utilize InfoTech subscription in the review of contract to ensure accuracy and optimizing cost	Independent QA	11/30/2020
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### 8.3 Contract Type

All products and services for this project will be solicited under firm fixed-price contracts. The project team will work with DAS Procurement to define the items, types, quantities, services and required delivery dates. Once approved by the project Sponsor, EIS, and DSA PS, the request for proposal (RFP) will solicit bids from vendors to procure the required items, with the required time frame, and at the best value to the state under the firm-fixed price contract with the selected vendor. The contract will be awarded for one (1) years of Design, Development and Implementation (DD&I) and five (5) optional years of maintenance and operations.

### 8.4 Decision Criteria

The evaluation criteria for the selection and award of a contract for this project will be based on the following decision criteria:

- Mandatory Requirements
- Vendor financial documentation
- General Qualifications & Experience (vendor and proposed staff)
- Past performance Technical Qualifications
- Quality
- Ability of the vendor to provide all items by the required delivery date
- Software Demonstration and/or Oral Presentation
- System Infrastructure Impact
- Cost
- Key Persons

These criteria will be measured by the agency evaluation committee, Subject Matter Experts (SME), and the Project Manager. The final decision will be made based on these criteria as well as available resources.

### 8.5 Procurement Document Preparation

The project manager along with agency staff will meet with DAS Procurement Services (DAS PS) to determine the type of procurement model that best meets the need of the project. DAS PS and the Agency will determine that a RFP will be procurement process that must be followed.

### 8.6 Vendor Management

The Project Manager is responsible for vendor management and will oversee vendor performance for the project. The Project Manager will measure the ongoing performance of the vendor as it applies to the requirements and deliverables. To ensure acceptable vendor performance, service

level agreements (SLAs) will be included in the contract which must be met by the vendors. SLAs for vendor performance include:

- Delivery of item(s) on or before date as agreed upon in the contract
- Delivery of item(s) at or below cost as agreed upon in the contract
- Acceptable performance/quality of item as agreed upon in the contract

Failure of a vendor to adhere to these SLAs will result in the Agency submitting a formal dispute as appropriate.

The project team will monitor vendor performance and output daily by communicating approvals, disapprovals, changes, feedback and whatever else is necessary to deepen the relationship. The things that will be managed outside of contract deliverables are:

- Vendor responsiveness – responsiveness to general questions and follow up
- Training quality – quality of training material
- Vendor innovation – knowledge and adaptability of its services. Is the vendor knowledgeable regarding their service and how it relates to agency business?
- Key persons – any changes to key persons will be approved by the project manager.

The project team is committed to resolving any issues with open communication, personally interfacing with vendors, making mutually beneficial decisions, sharing critical information, solving problems jointly, collaborating with the project team and with others as needed to complete the project and collaboratively educating each other on aspects of the project and product.

## 9 Requirements Management Plan

### 9.1 Roles and Responsibilities

Name	Role	Responsibility
Nolan Moser	Project Sponsor	<ul style="list-style-type: none"> <li>• Approve the Requirements Management Plan.</li> <li>• Assure Business Owners and Subject Matter Experts are available for requirements development Review and approve requirements documentation.</li> <li>• Provide overall business leadership to ensure the requirements baseline is maintained.</li> </ul>
Bryan Conway Diane Davis Lori Koho John Crider Jonathan Felling	Steering Committee	<ul style="list-style-type: none"> <li>• Review requirements documentation and plans.</li> </ul>
Michael Dougherty	Project Manager	<ul style="list-style-type: none"> <li>• Lead a team in the development of the Requirements Management Plan.</li> <li>• Provide regular status on requirement efforts</li> <li>• Ensure the overall requirements management effort is being executed in accordance with the Plan.</li> <li>• Ensure there are sufficient resources to execute this Plan and that requirements management activities are being performed within the assigned timeframe.</li> <li>• Ensure requests for requirement changes have followed the approved Change Management Process, and that approved changes to the baseline have been promptly incorporated into the requirements baseline.</li> </ul>
Qing Liu	Requirements Lead	<ul style="list-style-type: none"> <li>• Along with the Project Manager and Business Analyst, develop the Requirements Management Plan.</li> <li>• Overall responsibility executing processes and activities outlined in the Requirements Management Plan.</li> <li>• Responsible for the overall Requirements Management effort and the requirements</li> </ul>

Name	Role	Responsibility
		<p>repository containing the requirements baseline.</p> <ul style="list-style-type: none"> <li>• Ensure requirements are organized, managed, and controlled as well as issues are identified and resolved within the assigned timeframe to minimize rework.</li> <li>• Contribute to development of the requirements documentation and the Requirements Traceability Matrix.</li> </ul>
<p>Diane Davis JP Batmale John Crider Lori Koho Roger White</p>	Business Owner(s)	<ul style="list-style-type: none"> <li>• Review and recommend approval of the requirements documentation and the Requirements Traceability Matrix.</li> <li>• Participate in the requirements status reviews.</li> <li>• Review requirements management reports to ensure the requirements baseline is complete, that all approved changes have been incorporated, and impacts caused by changes are identified within the repository.</li> </ul>
<p>Jonathan Felling Diane Davis Lori Koho</p>	Business Subject Matter Expert(s)	<ul style="list-style-type: none"> <li>• Participate in process to identify and document requirements.</li> <li>• Attend the requirements status reviews.</li> </ul>
<p>Diane Davis Sarah Rowe Lori Koho</p>	Business Analyst	<ul style="list-style-type: none"> <li>• Analyze, document and catalog the business processes for related business unit.</li> <li>• Define the data elements.</li> <li>• Document the relationships between business units, roles, capabilities, data elements, processes, systems, and technology.</li> <li>• Recommend changes in business processes.</li> <li>• Conduct interviews to gather and document user requirements via workshops questionnaires, surveys, site visits, workflow storyboards, use cases, scenarios, and other methods.</li> <li>• Communicate business requirement changes to project manager.</li> <li>• Work with the Enterprise Architecture (EA) team to apply a structured business capabilities architecture approach and methodology for capturing the key views of the business and IT.</li> </ul>

Name	Role	Responsibility
TBD	Contractor Project Manager	<ul style="list-style-type: none"> <li>Ensure the vendor team is complying with the requirements management process and procedures within this Plan and in accordance with requirements in the vendor's contract.</li> <li>Perform reviews of the requirements management work performed by the vendor team and verify that work complies with the requirements management process .described in this Plan and requirements in the vendor's contract.</li> <li>Identify issues to the Project Manager within the assigned timeframe to minimize the amount of rework necessary for state and vendor teams.</li> </ul>

## 9.2 Requirements Management Approach

The requirements management approach for the project specifies the development and change management processes. The development process includes elicitation, analysis, specification, and validation. Once validated and baselined, the change management section describes how requirement updates are managed.

### 9.2.1 Requirement Types

Requirement Type	Definition
Business Requirements	<p>A business requirement is something that the business needs to do. Your business requirements change less than your functional requirements, and are typically more objective. The business requirement would read something like: "We need to contact the customer with xyz information", not "the system will...." Examples include:</p> <ul style="list-style-type: none"> <li>A process they must complete, a piece of data they need to use for that process, an Oregon Administrative Rule that governs that process and data.</li> </ul>
Functional Requirements	<p>Functional requirements define a function of a system or its component (what the system should do). Examples include:</p> <ul style="list-style-type: none"> <li>Authentication, authorization levels, audit tracking, business rules, calculations, external interfaces, historical data, reporting requirements, technical details, data manipulation and processing.</li> </ul>

Requirement Type	Definition
Non-functional Requirement	<p>Non-functional requirements specify criteria that can be used to judge the operation of a system (describe how a system should behave and what limits there are on its functionality). Examples include:</p> <ul style="list-style-type: none"> <li>Accessibility, availability, backup, data retention, disaster recovery, platform compatibility, reporting, security, supportability, testability, usability.</li> </ul>

## 9.3 Requirements Development

### 9.3.1 Requirements Elicitation

The project team will facilitate various methods to collect requirements which may include: interviews, focus groups, facilitated workshops, group creativity techniques, questionnaires and surveys, or product prototypes. These will be conducted among the Human Resource project stakeholders to ensure all requirements are captured.

The project team will facilitate requirements elicitation with project stakeholder groups to ensure all requirements are captured. The current state (as-is) business process flows will be captured and documented in various forms and formats. In the early iterations, it is anticipated that the documentation created will be primarily graphical in nature, such as flow charts, pictures from white boards, etc. These types of documents will be captured in the form that they were developed (e.g., Visio, PowerPoint, photo (jpeg), etc.). However, as the requirements are refined, they will be documented in a MS Word format to allow for later analysis. Additional meetings will be held to review processes and procedures, which will then be validated.

### 9.3.2 Requirements Analysis

Once the requirements have been elicited and defined, the project team will analyze and group requirements into subsets around common context. The project team will identify problems in the form of requirement gaps in completeness, conflicts or inconsistency, affordability, scope, etc.

These problems will be resolved with the stakeholder group that provided the requirement. Once the conflict is resolved each requirement set will be reviewed and validated with stakeholders. Additionally, this analysis will determine where in the WBS the requirements will fall or what work activities correspond to particular requirements.

The project manager will facilitate stakeholder meetings to establish priorities for all project requirements. This project will use a three-level scale to prioritize requirements.

- **Mandatory** – Indicates requirement is of the highest importance and critical to the success of the project.
- **Highly Desirable** – Indicates requirement would make the final product more appealing to end users and meet a useful but not mission critical request from business.
- **Desirable** – Indicates the requirement will add significant value to the project. However, if meeting the proposed requirement adds significant cost or duration to the project, it can be disregarded.

As the project moves forward and additional constraints are identified or there are issues with resources, it may be necessary for the project team and stakeholders to meet to determine what requirements must be achieved, which can be re-baselined, or which can be omitted. These determinations will be made in a collaborative effort based on the priorities of the requirements and which level they are assigned. As any changes in requirements are made, all project documentation must be updated, and changes communicated to all project stakeholders.

## **9.4 Requirements Specification**

Reviewing and approving requirements will include the following steps:

1. Determine distribution list of Reviewers, Approvers and Project Team
2. Distribute Requirements document to distribution list
3. Solicit feedback and document responses
4. Incorporate specific responses that do not impact other Stakeholders
5. Plan and schedule Requirements Approving Workshop
6. Conduct Requirements Approving Workshop
7. Address all responses received from Step 3 above

Once all the requirements have been reviewed and signed off, they will be “base-lined” and become the first official version of the project requirements. Any change to the requirements will require a change request. The baseline requirements will be the approved plan that maps out the development that will take place leading to delivery of the product.

The following documentation will be included in the baseline documentation:

- Use cases – Individual scenarios that describe the user’s requirements
- Data dictionary – The definition of all data items and structures so that all Stakeholders consistently use the same terminology and understand it
- Analysis models – Graphical analysis models such as class diagrams, entity-relationship diagrams, state-transition diagrams, object diagrams, domain model and/or data flow diagrams

Once approved, the baselined document will be the foundation of the requirements management process and is the agreement between the project team and the business. The documentation will have rigorous version control to ensure that all Stakeholders are working on the same version of the document.

## **9.5 Requirements Validation through Traceability**

The Requirements Traceability Matrix (RTM) is a tool to ensure that the PUC is not expanding the scope of the project by adding design elements, code, tests or other work products that are not called out in the requirements. Thus, it traces the deliverables by establishing a thread for each requirement- from the project’s initiation to the final implementation. This matrix is considered to be bi-directional. It tracks the requirement forward by examining the output of the deliverables and backward by looking at the business requirement that was specified for a particular feature of the product. The RTM is also used to verify that all requirements are met and to identify changes to the scope when they occur. The RTM can be used during all phases of a project to:

- Track all requirements and whether or not they are being met by the current process and design.
- Assist in the creation of the RFP, Project Plan Tasks, Deliverable Documents, and Test Scripts.
- Help ensure that all system requirements have been met during the Verification process.

The requirements traceability matrix will ensure the project team verifies all requirements are completed in accordance with the project charter. The traceability matrix provides a thread from all requirements through design, testing, and user acceptance. Any approved changes in project scope or requirements will result in changes to the traceability matrix. Based on impacts of the approved changes, the Project Manager will make the necessary changes to the matrix and communicate those changes to all project stakeholders.

## **9.6 Requirements Change Management**

Any proposed changes in project requirements must be carefully considered before approval and implementation. Requirements may need to be frozen during different phases of the project, but requirements may change for the following reasons:

- Requirement was missed
- Defect Identified
- Business did not understand actual need
- Political priorities
- Legislative changes

Such changes are likely to impact project scope, time, and/or cost, perhaps significantly. Any proposed changes to project requirements will be reviewed by the Change Control Board (CCB). The role of the CCB is to review and determine the impact of the proposed change on the project, and seek clarification on proposed change. The project sponsor is responsible for approving any changes in project scope, time, or cost and is an integral part of the change review and approval process.



## 10 Communication Management Plan

### 10.1 Roles and Responsibilities

The following table described the Roles and Responsibilities of those involved in the Communication Management process.

Name	Role	Responsibility
Nolan Moser	Project Sponsor	<ul style="list-style-type: none"> <li>Communicates project status with the executives and Stakeholders outside the sponsoring organization.</li> <li>Provides feedback to the Project Manager relative to communication issues.</li> <li>Communicates vision and direction to project team members.</li> </ul>
Bryan Conway Diane Davis Lori Koho John Crider Jonathan Felling	Steering Committee	<ul style="list-style-type: none"> <li>Review communication plan.</li> </ul>
Michael Dougherty	Project Manager	<ul style="list-style-type: none"> <li>Lead a team in the development of the Communication Management Plan.</li> <li>Provide regular status on communication.</li> <li>Ensure the overall communication management effort is being executed in accordance with the plan in a timely matter.</li> <li>Ensure there are sufficient resources to execute the plan.</li> </ul>
Kandi Young	Communication Lead	<ul style="list-style-type: none"> <li>Develops the Communication Management Plan.</li> <li>Assists the Project Manager in ensuring all communications are sent, received and understood based on Stakeholder needs and requirements.</li> <li>Distributes information using methods that reach Stakeholders most effectively.</li> </ul>
Diane Davis JP Batmale John Crider Lori Koho	Project Team Members	<ul style="list-style-type: none"> <li>Participate in defining communication needs and requirements.</li> <li>Participate in the dissemination of project information.</li> <li>Communicate progress and issues to the Project Manager.</li> </ul>

Name	Role	Responsibility
Utility Program Administrative Hearings Information Systems	Key Stakeholders	<ul style="list-style-type: none"> <li>Participate in defining communication needs and requirements.</li> <li>Provide feedback on all communications.</li> </ul>
Rich Palmer	Contract Manager	<ul style="list-style-type: none"> <li>Communicate contract status to the project management team.</li> <li>Communicate status and issues to contractors.</li> </ul>

## 10.2 Communication Management Process

### 10.2.1 Identify Stakeholder Communication Requirements

Stakeholder Group	Communication Items	Purpose
Steering Committee/Project Sponsor	Status reports	<ul style="list-style-type: none"> <li>Update management on project progress, risks, and issues.</li> <li>Provide project performance information (cost, schedule, and quality).</li> <li>Support decision-making.</li> <li>Provide summary information regarding proposed project changes.</li> </ul>
Enterprise Information Services (EIS)	Monthly project status reports	<ul style="list-style-type: none"> <li>Provide EIS with information such as project health, cost, schedule, scope and risk.</li> </ul>
Project Team	Project Announcements	<ul style="list-style-type: none"> <li>Communicate new information about project status, activities, and issues.</li> </ul>
Agency Leadership	Monthly project status reports	<ul style="list-style-type: none"> <li>Provide information such as project health, cost, schedule, scope and risk. <a href="#">This report will be presented at the first Executive Team Meeting each month.</a></li> </ul>
Administrative Management Group	Monthly project status reports	<ul style="list-style-type: none"> <li>Provide information such as project health, cost, schedule, scope and risk. <a href="#">This report will be presented at the first AMG meeting per month.</a></li> </ul>
PUC Staff	Monthly project status reports	<ul style="list-style-type: none"> <li>Provide Staff with general project information that may include information such as project health, cost, schedule, scope and risk. <a href="#">This report will be posted on the intranet 9Agency Information) and emailed to GR-PUC All.</a></li> </ul>

Stakeholder Group	Communication Items	Purpose
Utilities and Other Stakeholders	Monthly project status reports	<ul style="list-style-type: none"> <li>Provide Stakeholders general project information that may include information such as project health, cost, schedule, scope and risk. <a href="#">This will be posted on the Project Webpage.</a> External entities listed in the Stakeholder Registry will be sent an email update on any addition to the Project Webpage.</li> </ul>

### 10.2.2 Identify Information Collection Sources and Responsibilities

Communication Item	Data Sources (Frequency of Data Collection)	Distribution Responsibility	Distribution Channel	Target Audience(s)	Frequency
Status reports	<ul style="list-style-type: none"> <li>Project team individual status reports (weekly from all team members)</li> <li>Project schedule updates (weekly from Project Manager)</li> <li>Verbal progress reports (weekly from all team members)</li> <li>Change control requests (as identified by the Project Manager)</li> </ul>	Michael Dougherty	<ul style="list-style-type: none"> <li>Email</li> <li>Collaboration Site</li> <li>Project Status Meetings</li> <li>Project Intranet Site</li> </ul>	<ul style="list-style-type: none"> <li>All Stakeholders</li> <li>Project Team</li> </ul>	Monthly
Quarterly project updates	<ul style="list-style-type: none"> <li>Project status reports (weekly from the</li> </ul>	Michael Dougherty	<ul style="list-style-type: none"> <li>Email</li> <li>Collaboration Site</li> <li>Project Intranet Site</li> </ul>	<ul style="list-style-type: none"> <li>All Stakeholders</li> <li>Project Team</li> </ul>	Through-out the project

Communication Item	Data Sources (Frequency of Data Collection)	Distribution Responsibility	Distribution Channel	Target Audience(s)	Frequency
	Project Manager) • Project schedule updates (weekly from the Project Manager)				
Project announcements	• Project Manager (as needed)	Kandi Young	<ul style="list-style-type: none"> <li>Email</li> <li>Collaboration Site</li> <li>Instant Messaging</li> <li>Project Internet Site</li> </ul>	<ul style="list-style-type: none"> <li>Project Team</li> <li>All Stakeholders (or select groups)</li> </ul>	Throughout the project

### 10.3 Define Guidelines for Project Communication Meetings

Define guidelines for project meetings detailing expected meeting facilitation activities and participant expectations.

- A facilitator will be identified prior to each meeting.
- The meeting facilitator will distribute the agenda at least 24 hours prior to the meeting.
- All inputs and pre-read information will be distributed in advance with the agenda.
- The agenda will contain a description of the meeting purpose, topics for discussion, and expected outcomes.
- Minutes, including action items, will be delivered to team members within one business day after the meeting.

### 10.4 Develop Project Meetings Schedule

Communication	Target Audience	Purpose	Frequency
Project Kick-off Meeting	All Stakeholders	Communicate the project plan, and confirm project roles and responsibilities	On the project start date
Team Meetings	Project team members	Review detailed project schedule, tasks,	Weekly

Communication	Target Audience	Purpose	Frequency
		assignments, issues, risks, and action items	
Steering Committee Meetings	Project Sponsor	Update the Project Sponsor on the project status, budget, critical issues, and change requests	Monthly or as necessary to address significant project issues and/or decisions
Stakeholder Meeting	Project Sponsor/ project Manager	Update Stakeholders on progress	Monthly
Lessons Learned Meeting	All Stakeholders	Capture lessons learned that may benefit future project work and/or other projects	Upon completion of major project activities and during Post Implementation Review

### 10.5 Identify Communication Tools

Communication Tool	Tool Description
Email	<ul style="list-style-type: none"> <li>The project will use the state email system for general project correspondence and to send out formal messages to project Stakeholders.</li> </ul>
Project Website	<ul style="list-style-type: none"> <li>The project website will be used to post various types of project information, including: <ul style="list-style-type: none"> <li>Project Status Reports</li> <li>Project Communication Information</li> <li>Project Events</li> <li>Additional information as appropriate</li> </ul> </li> </ul>

### 10.6 Define Methods for Storage, Retrieval and Disposal

[\*Refer to Oregon Administrative Rules on record retention.\*](#)

Method	Electronic Media	Paper Media
Storage and Retrieval	Project information will be stored on the projects shared collaboration site.	Project information will be stored in the project team room in locked file cabinets.
Archive	Project information will be exported from the collaboration site, archived in compressed format, transferred to a removable storage device, and stored with the project's other historical artifacts at the Department's storage facility.	Project information will be removed from the project team room, boxed and sealed, and stored with the project's other historical artifacts at the Department's storage facility.
Disposal	All backup media containing project information not required for archival purposes will be collected and either physically destroyed or electronically shredded.	All project information will be collected and physically shredded.

## 11 Risk Management Plan

### 11.1 Roles and Responsibilities

Name	Role	Responsibility
Nolan Moser	Project Sponsor	<ul style="list-style-type: none"> <li>• Provide support to the Project Manager to ensure state and vendor resources are available to support the execution of this Plan.</li> <li>• Provide necessary support to ensure that state and vendor resources commit to the risk management efforts.</li> <li>• Monitor efforts to address risks and provide leadership to focus resources on resolving open unplanned risk events.</li> <li>• Provide guidance on escalated risk events and assists in their resolution.</li> </ul>
Bryan Conway Diane Davis Lori Koho John Crider Jonathan Felling	Steering Committee	<ul style="list-style-type: none"> <li>• Review the Risk Register and/or risk reports provided to the Committee in accordance with this Plan.</li> <li>• Understand and evaluate the possible effects and impacts of identified risks.</li> <li>• Ensure the Project Manager has a sound plan for mitigating the impacts of risks that have been escalated to the Steering Committee.</li> </ul>
Michael Dougherty	Project Manager	<ul style="list-style-type: none"> <li>• Track progress of the risk management effort by reviewing the Risk Register and/or risk management reports.</li> <li>• Escalate mitigation approaches for identified high severity risks that are beyond the Project Manager's span of control and decision authority.</li> <li>• Ensure the entire project team, state and vendor, are following this Plan.</li> <li>• Ensure all other project processes that interact or provide input to the risk management effort are being adhered to.</li> <li>• Ensure there are sufficient resources to execute this Plan and that the risk management activities are being performed promptly.</li> <li>• Assign risks to owners.</li> </ul>



Name	Role	Responsibility
TBD	Vendor Project Manager	<ul style="list-style-type: none"> <li>Perform reviews of the risk management work being performed by the vendor team.</li> <li>Verify the work complies with the risk management approach described in this Plan and the requirements in the vendor's contract.</li> <li>Share responsibility for identifying risks and risk events in a timely manner to mitigate the risk and minimize impact to the Project.</li> </ul>
Michael Dougherty	Risk Manager	<ul style="list-style-type: none"> <li>Maintain the overall risk management process and Risk Register.</li> <li>Ensure risks managed by this Plan are organized, managed, communicated and controlled.</li> <li>Ensure that project related risks are identified and mitigated promptly to minimize impact.</li> <li>Obtain status from Risk Owners on mitigation progress periodically.</li> </ul>
Qing Liu	Risk Owner	<ul style="list-style-type: none"> <li>Manage assigned risks, including updating the Risk Register, the mitigation plan, and contingency plan details in the Risk Register.</li> <li>Ensure (in combination with Risk Manager and the Project Manager) risks are organized, managed, and controlled and risks are identified and mitigated promptly to minimize impact to the project.</li> <li>Provide status updates to Risk Manager.</li> </ul>

## 11.2 Risk Management Processes

The project manager working with the project team and project sponsors will ensure that risks are actively identified, analyzed, and managed throughout the life of the project. Risks will be identified as early as possible in the project so as to minimize their impact.

### 11.2.1 Identify Risks

Risk identification was conducted in the initial project risk assessment meeting with the project team and stakeholders. This included an evaluation of environmental factors, organizational culture and the project management plan including the project scope. Careful attention was given to the project deliverables, assumptions, constraints, WBS, cost/effort estimates, resource plan, and other key project documents.

### 11.3 Analyze Risks

#### Qualitative Risk Analysis

All risks identified will be assessed to identify the range of possible project outcomes. Qualification will be used to determine which risks are the top risks to pursue and respond to and which risks are less concerning.

The probability and impact of occurrence for each identified risk will be assessed by the project manager, with input from the project team using the following approach:

#### Probability

- High – Greater than <70%> probability of occurrence
- Medium – Between <30%> and <70%> probability of occurrence
- Low – Below <30%> probability of occurrence

#### Impact

- High – Risk that has the potential to greatly impact project cost, project schedule or performance
- Medium – Risk that has the potential to slightly impact project cost, project schedule or performance
- Low – Risk that has relatively little impact on cost, schedule or performance

Impact	H			
	M			
	L			
		L	M	H
		Probability		

Risks that fall within the RED and YELLOW zones will have risk response planning.

#### Quantitative Risk Analysis

Analysis of risk events that have been prioritized using the qualitative risk analysis process and their effect on project activities will be estimated, a numerical rating applied to each risk based on this analysis, and then documented in this section of the risk management plan. The results of this analysis will be reviewed monthly to confirm the current state.

### 11.4 Risk Response Planning

Each major risk (those falling in the Red & Yellow zones) will be assigned to a project team member for monitoring purposes. For each major risk, one of the following strategies will be selected to address it:

- Avoid – eliminate the threat by eliminating the cause
- Mitigate – Identify ways to reduce the probability or the impact of the risk
- Transfer – Make another party responsible for the risk (buy insurance, outsourcing, etc.)
- Accept – Nothing will be done

For each risk that will be mitigated, the project team will identify ways to prevent the risk from occurring or reduce its impact or probability of occurring. This may include prototyping, adding tasks to the project schedule, or adding resources.

For each major risk that is to be mitigated or that is accepted, a course of action will be outlined for the event that the risk does materialize to minimize its impact.

## **11.5 Risk Monitoring and Control**

### ***Risk Monitoring Activities***

Risks will be assigned a Risk Owner who will track, monitor and control and report on the status and effectiveness of each risk response action weekly to the PM and Project Team. The level of risk on a project will be tracked, monitored and reported throughout the project lifecycle. All project change requests will be analyzed for their possible impact to the project risks. The top 10 risks will be reported as a component of the project status report. Management will be notified of important changes to risk status as a component to the. Risk activities will be recorded in the Risk Register located on the shared drive, P:\Agency Projects\BizApps Dockets and Discovery Replacement\D&D Project Replacement Forms and Logs.

The PM will:

- Review, reevaluate, and modify the probability and impact for each risk item every two weeks
- Analyze any new risks that are identified and add these items to the risk register
- Monitor and control risks that have been identified
- Review and update the top ten risk list weekly
- Escalate issues/ problems to management

The Risk Owner will:

- Help develop the risk response and risk trigger and carry out the execution of the risk response, if a risk event occurs
- Participate in the review, re-evaluation, and modification of the probability and impact for each risk item on a weekly basis
- Identify and participate in the analysis of any new risks that occur
- Escalate issues/problems to PM that:
  - Significantly impact the projects triple constraint or trigger another risk event to occur
  - Require action prior to the next weekly review
  - Has failed to respond to the planned risk strategy causing the need to execute the contingency plan

## 12 Issue Management Plan

### 12.1 Roles and Responsibilities

The following table describe the Roles and Responsibilities of those involved in the Issue Management process.

Name	Role	Responsibility
Nolan Moser	Project Sponsor	<ul style="list-style-type: none"> <li>Provide necessary support to the Project Manager to ensure state and vendor resources are available to support execution of this Plan.</li> <li>Provide necessary support to ensure state and vendor resources commit to issue management efforts.</li> <li>Monitor efforts to address project issues and provide leadership to focus resources on resolving open issues.</li> </ul>
Bryan Conway Diane Davis Lori Koho John Crider Jonathan Felling	Steering Committee	<ul style="list-style-type: none"> <li>Review issue reports provided to the Steering Committee and understand the effects of all open issues.</li> <li>Ensure the Project Manager has a sound plan for resolving open issues and for resolving issues escalated to the Steering Committee.</li> </ul>
Michael Dougherty	Project Manager	<ul style="list-style-type: none"> <li>Track progress of issue management efforts.</li> <li>Ensure other project processes that interact or provide input to issue management efforts are being adhered to.</li> <li>Ensure the project team executes this Plan and that issue management activities are being performed promptly.</li> </ul>
AeonNexus	Vendor Project Manager	<ul style="list-style-type: none"> <li>Perform reviews of issue management work performed by the vendor team.</li> <li>Verify work complies with this Plan's issue management approach and contract requirements.</li> <li>Share responsibility for identifying issues promptly to mitigate and minimize project impact.</li> </ul>
Qing Liu	Issue Manager	<ul style="list-style-type: none"> <li>Maintain the overall issue management process as well as Issue Log containing issue details.</li> </ul>

Name	Role	Responsibility
		<ul style="list-style-type: none"> <li>Ensure issues managed by this plan are organized, managed, communicated and controlled.</li> <li>Ensure all issues are resolved within the assigned timeframe to minimize project impact.</li> </ul>
TBD	Issue Owner	<ul style="list-style-type: none"> <li>Manage, administer and complete assigned issue management activities.</li> <li>Share responsibility with the Issue Manager and Project Manager to ensure issues are identified, managed, and resolved within the assigned timeframe to minimize project impact.</li> </ul>

## 12.2 Issue Identification

It is the responsibility of each team member and stakeholder to be vigilant in identifying and assessing Issues so decisions can be made promptly to reduce potentially negative impacts to project completion and program objectives. Issues can be created whenever a question, problem, or condition needing to be tracked to resolution is identified.

When a project issue is identified the issue originator will provide the pertinent information about the issue to the project manager. The project manager documents the issue in the issue log assign an issue owner.

## 12.3 Issue Analysis

The issue owner will analyze the issue and develop an issue action plan that describes the activities that need to be completed to address the issue. Analysis includes the following activities:

- Assessing the consequences of a delayed issue resolution on quality, cost, technical success, and schedule
- Assessing the impact of an outstanding issue on the overall project, not just the discrete issue
- Identifying potential risks associated with the issue

The initial assessment will include a recommendation on the decision or action that needs to be taken, the due date by which the decision or action is needed, and impact of the decision or action is not completed by the due date. The due date should be determined in relation to tasks or milestone dates in the schedule that are affected by the decision/action requested. As determined by a schedule event, the unique ID associated to that milestone task should be entered in the "Impact" field where it applies to the relevant schedule.

The issue owner will collaborate with the issue originator to obtain a mutually satisfactory description of the issue, priority, resolution plan, and due date and update the issue log.

## 12.4 Issue Resolution and Escalation

The Issue Owner will draft the Issue Resolution Plan by the 10th business day of the Issue entry into the system. Once the resolution plan is completed, the Issue is brought back to Steering Committee for approval of the resolution plan. If by the 10th business day, no resolution plan is documented with assigned target dates, the Issue is reviewed at Steering Committee to determine the delay.

In the event an issue remains unresolved an escalation process is to be used. Project issues unable to be resolved that will potentially cause project delay will need to be escalated to the next level in the governance structure. Exhausting all options for resolution at the current level is also a reason to escalate. Escalated issues will be documented in the issue log indicated as escalated. The issue escalation levels are shown in the following table:

Level	Role
1	Project Manager
2	Steering Committee (brief sponsor on escalation before steering committee meeting)
3	Project Sponsor

## 12.5 Issue Control, Tracking, and Reporting

The Issue Owner is responsible for actively managing and controlling the execution of the Issue Resolution Plan as well as taking the steps necessary to achieve the Due Date.

The project manager will have a weekly review with issue owners and determine whether specific direction, decision, or action is required from the Steering Committee to complete Resolution Plan steps.

## 13 Change Management Plan

### 13.1 Roles and Responsibilities

Name	Role	Responsibility
Nolan Moser	Project Sponsor	<ul style="list-style-type: none"> <li>Review and approve the Change Control Management Plan.</li> <li>Make decisions on change requests (CRs) escalated by the Change Control Board (CCB).</li> </ul>
Qing Liu Diane Davis Jonathan Felling Michael Dougherty	Change Control Board (CCB)	<ul style="list-style-type: none"> <li>Primary decision-making body for CRs.</li> <li>Meet on a regular basis to address outstanding CRs and escalates to Project Sponsor or Steering Committees, as necessary.</li> <li>Take action on CRs decisions by Project Sponsor or the Steering Committee.</li> </ul>
Michael Dougherty	Project Manager	<ul style="list-style-type: none"> <li>Create the Change Management Plan.</li> <li>Sponsor of approved changes.</li> <li>Oversee implementation of approved changes.</li> <li>Approves CR for analysis.</li> <li>Assign a Change Request Owner.</li> <li>Review the scope, budget and schedule impacts.</li> <li>Assign project resources for CR analysis and, if approved, implementation.</li> <li>Review the CR implementation after it is deployed</li> <li>Communicate CR status/decision back to Stakeholders.</li> <li>Vote as a member of the CCB. (May or may not be the CCB chairperson, depending on project size and complexity).</li> <li>Initiate the escalation process to the Steering Committee, as needed.</li> </ul>
TBD	Change Request Owner	<ul style="list-style-type: none"> <li>Identify possible solutions and their impact to the project and its Stakeholders.</li> <li>Work with the project team to analyze, evaluate, and, if approved, implement CRs.</li> <li>Prepare supporting documentation for the CR.</li> <li>Verify CRs are implemented correctly.</li> </ul>
Qing Liu	Change Request Coordinator (CRC) or Project Coordinator	<ul style="list-style-type: none"> <li>Serve as single point of contact for CRs.</li> <li>Receive CRs and record them in the tracking tool</li> <li>Perform initial CR risk assessment and follows up with the Risk Manager.</li> </ul>

Name	Role	Responsibility
		<ul style="list-style-type: none"> <li>Review CR's impact to the project's scope, schedule and cost.</li> <li>Schedule and transcribe the CCB meetings.</li> <li>Maintain the CR tracking tool.</li> <li>Monitors CR progress and report status of CRs monthly.</li> <li>Produce metrics on CRs.</li> <li>Maintain project CR documentation.</li> </ul>

### 13.2 Change Management Process Description

The Change Management Plan describes how changes will be managed, what defines a change, the purpose and role of the change control board, and the overall change management process. All stakeholders will be expected to submit or request changes to the project in accordance with this Change Management Plan and all requests and submissions will follow the process detailed below.

The following changes may be requested and considered for the project:

- **Scheduling Changes** — changes which will impact the approved project schedule. These changes may require fast tracking, crashing, or re-baselining the schedule depending on the significance of the impact.
- **Budget Changes** — changes which will impact the approved project budget. These changes may require requesting additional funding, releasing funding which would no longer be required, or adding to project or management reserves. Such changes may require changes to the cost baseline.
- **Scope Changes** — changes which are necessary and impact the project's scope which may be the result of unforeseen requirements which were not initially planned. These changes may also impact budget and schedule. These changes may require revision to WBS, project scope statement, and other project documentation as necessary.

The project manager will ensure that any approved changes are communicated to the project stakeholders. Additionally, as changes are approved, the project manager will ensure that the changes are captured in the project documentation where necessary. These document updates will be communicated to the project team and stakeholders.

### 13.3 Change Request Identification

Any project team member or stakeholder can submit a change request to the project manager using the change request form.

- The requestor completes the change request form and submits it to the project manager for review.



- The project manager records the request in the change log and assigns a change request number.
- The Project Manager reviews the change request form to confirm understanding and determines if:
  - Further analysis is needed
  - Change request should be rejected
  - Change request should be deferred for further investigation at a later time

### **13.4 Analysis**

If the request is approved for analysis, the Project Manager assigns a Change Request Owner. The Change Request Owner is responsible for completing the investigation analysis and updating the Change Request Log.

The Change Request Owner will develop a written response that will include a statement as to whether the change has any associated cost or schedule impact, and will include all project team entities so they are included in the analysis and sizing effort. The objective of the analysis is to make sure that the change is clearly understood to identify the total impact of the change, including rough order of magnitude costs, resources, schedule, performance, and risk impacts.

If the change request includes modification to the system, the analysis will specify which release the change could be scheduled into along with any other project impacts. If approval of a change request results in a change to the contract Maximum Payment Amount, that will be included in the investigation analysis results.

The Change Request Owner will present the analysis results at a subsequent Weekly Project Meeting.

### **13.5 Approval**

The CCB or Project Sponsor may decide to defer the change request, reject the change request, or approve the change request for implementation. Decision criteria that will be considered includes: impact on cost, schedule, operational benefits, system quality, performance, end-user satisfaction with the system, and policies.

The Change Log is updated by the Change Request Coordinator (CRC) or Project Coordinator with the decision, and uploaded to the shared drive, P:\Agency Projects\BizApps Dockets and Discovery Replacement\D&D Project Replacement Forms and Logs.

Change requests that alter the contract require an amendment cannot be implemented until the amendment process is completed. The Contract Change Management process is further discussed in the Procurement Management Plan.

### **13.6 Implement**

After the change request is approved for implementation the Project Manager will instruct the project team and vendor to implement the change. Each component of the change will be addressed and all

project baselines will be brought up to date with the change. Once all components of the change are implemented, the Change Request will be closed within the Log.

### 13.7 Tracking & Reporting

Title	Frequency	Content	Usage
Intake/Review/Approval	Change Control Board Meeting (CCB)	Review analysis and determine if change should be deferred, rejected, approved, or escalated.	Determine next steps on change requests
Opened, Pending, and Approved CRs	Weekly Team Meeting	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 current status.	Used by management, the CRC, and CR Owners to track CR implementation
Metrics Report	Monthly	Identifies the total number of CRs opened, approved and pending. Include aging statistics that show how long it takes to approve a CR, the duration at each phase of the process, the number of CRs referred to CCB and Steering Committee, and the number of rejected CRs.	Include as part of quality reporting

## 14 Quality Management Plan

Quality Reviews include the processes required for reviewing key product documents and deliverables, how quality will be assessed, timing of reviews, what resources are needed, and designing review procedures.

The PUC requires the vendor to deliver a functional product that meets all functional requirements listed in the RFP. All deliverables are reviewed against the functional requirement by the PUC core project team. All deliverables will be reviewed by the PUC core project team within two weeks of delivery. Any deliverable not meeting the functional requirement will be remedied by the vendor within two weeks of the finding.

User Acceptance Testing (UAT) will start when the vendor delivers a working solution. The UAT will be performed by the PUC core project team and stakeholders within four weeks of delivery. Any finding from the UAT will need to be remedied by the vendor within four weeks of the finding.

### 14.1 Roles and Responsibilities

Name	Role	Responsibility
Nolan Moser	Project Sponsor	<ul style="list-style-type: none"> <li>Set the tone and expectations for project and product quality.</li> <li>Provide final approval of the Quality Management Plan.</li> <li>Oversee Quality Management activities.</li> </ul>
Bryan Conway Diane Davis Lori Koho John Crider Jonathan Felling	Steering Committee	<ul style="list-style-type: none"> <li>Review quality management plan.</li> </ul>
Michael Dougherty	Project Manager	<ul style="list-style-type: none"> <li>Develop and maintain project management plans.</li> <li>Oversee overall project quality and deliverables.</li> <li>Ensure quality management activities are being conducted per the plan.</li> <li>Develop and track project metrics.</li> <li>Oversee contractor activities.</li> <li>Promote quality culture.</li> </ul>
Diane Davis JP Batmale John Crider Lori Koho	Project team	<ul style="list-style-type: none"> <li>Participate in quality definition activities.</li> <li>Review major quality issues and approve or make recommendation to the Project Sponsor (and/or Steering Committee).</li> </ul>

Name	Role	Responsibility
		<ul style="list-style-type: none"> <li>• Participate in quality review meetings.</li> <li>• Monitor and resolve quality issues that are escalated to them.</li> <li>• Promote the quality culture.</li> </ul>
Jonathan Felling	Quality Manager	<ul style="list-style-type: none"> <li>• Draft the Quality Management Plan.</li> <li>• Maintain the Quality Management Plan.</li> <li>• Identify project quality standards and metrics.</li> <li>• Manage day-to-day quality management activities.</li> <li>• Provide oversight and audits of project processes including, but not limited to, project office processes, development processes, business processes, and procedures.</li> <li>• Identify and escalate any critical quality issues to the Project Manager, executive committee, steering committee, and the Project Sponsor.</li> <li>• Collect and analyze project metrics.</li> <li>• Establish reporting standards that provide findings from quality measurements on a periodic basis. These findings identify areas where business, technical, and/or management quality objectives are or are not being met, or where trends in quality are moving in or out of control limits.</li> <li>• Establish and maintain a repository for quality measurement and tracking.</li> </ul>
Diane Davis JP Batmale John Crider Lori Koho	Project Team Members	<ul style="list-style-type: none"> <li>• Ensure adherence to processes standards.</li> <li>• Ensure deliverables meet quality standards.</li> <li>• Flag quality issues to the Quality Manager.</li> <li>• Participate in team-level quality reviews.</li> </ul>

## 14.2 Approach

- **Define Quality** – Quality definition is specific to a project process or project product. It sets the standard for acceptability
- **Measure Quality** – Quality Measurement is the combination of processes and tools that compare project processes and project products to their quality definitions

- **Improve Quality** - Quality Improvement is the set of steps a project takes to increase the quality of processes employed during the project and products resulting from the project

The scope of this quality management plan includes both Process Quality and Product Quality.

Process Quality focuses on the processes used to create the project deliverables. In this project, Process Quality also includes the project management plans. Process Quality ensures the project's policies and procedures are being adhered to by project participants. For each process, there is a plan. After the plan has been approved and implemented, the corresponding process is reviewed on a predetermined frequency, depending on its complexity and criticality, to ensure that the plan and process are being consistently followed. If the process is not being followed, a quality improvement corrective action plan is developed and implemented to realign the process with its quality definition.

Product Quality focuses on the project deliverables. Product Quality ensures the deliverables are of acceptable quality, meet their stated deliverable acceptance criteria and are complete and correct. Each work product is reviewed against the standard governing its production as well as against any applicable project practices. If the product does not meet its stated acceptance criteria, a quality improvement corrective action plan is developed and implemented to realign the product with its quality definition.

### 14.3 Process Quality

Process quality ensures that project participants follow applicable standards, processes, policies, procedures, and checks as they create project deliverables. During this process, audits are conducted against stated quality requirements. Audit results are presented to the Project Sponsor, the Steering Committee, and any other existing steering committees. Deficiencies in quality are flagged, and corrective actions are put in place. This ensures that the processes employed to produce project deliverables are sound and will improve chances of project success. For example, projects may have Independent Quality Assurance to perform the necessary quality processes mentioned earlier.

### 14.4 Process Definition

The following table shows the project management process-related items that will be measured for quality throughout the project, the criteria by which they will be measured, and the metrics that will be used.

Phase	Process	Metrics
Initiating	Project Charter development	<ul style="list-style-type: none"> <li>• The Project Charter scope and contents are compliant with the agencies standards.</li> <li>• The Project Charter is formally signed off by project sponsor.</li> </ul>
Planning	Project planning	<ul style="list-style-type: none"> <li>• PMP Meets applicable standards and approved by appropriate Stakeholder(s).</li> </ul>
Executing	Change Control management	<ul style="list-style-type: none"> <li>• Number of pending change requests.</li> <li>• Time to complete change request analysis.</li> <li>• Time to finalize decision on a change request.</li> </ul>

Phase	Process	Metrics
	Document Management	<ul style="list-style-type: none"> <li>Define periodic reviews of project documentation.</li> </ul>

## 14.5 Process Measurement

- **Documentation reviews** – Review of the project’s management plans and other project documentation to determine if documentation and PMBOK standards are being followed.
- **Project process reviews** – Review of PMP processes to determine if they are being followed or if there is a need for improvement.
- **Post-Implementation Review** – Review of project efforts and outcomes to capture lessons learned from the project. The information captured can be used by other projects to learn from the successes and avoid any pitfalls the project may have experienced. This review is held at the conclusion of the project.

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

Review Type	Review Goal	Deliverables/Artifacts	Review Team	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	<ul style="list-style-type: none"> <li>Project Management Plan</li> <li>Risk/Issue Log</li> <li>Stakeholder List</li> </ul>	<ul style="list-style-type: none"> <li>Project Manager</li> <li>Quality Manager</li> </ul>	<ul style="list-style-type: none"> <li>When a risk related to one or more of the processes has been identified</li> <li>As needed</li> </ul>

## 14.6 Process Improvement

As a means of responding to defect reports, project managers will process approved improvements through the project’s formal Change Control process. See the project’s Change Management Plan for additional details.

## 14.7 Product Quality

Product quality assessments ensure that deliverables meet quality standards as defined in the Quality Management Plan. The assessments also ensure that deliverables are complete and correct. Quality standards include such items as documentation standards, design and coding standards, testing standards, and test coverage requirements.

## 14.8 Product Definition

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

Product/Deliverable	Criteria	Metrics
Requirements Specification	Lists all business, functional, and non-functional requirements. Lists all business rules for functional requirements. Requirements are supported by use cases.	Requirements specification adheres to IEEE standards (cite the standard). Reviews have been conducted and the specification is deemed to be complete.
Detailed Design Specification (DDS)	The DDS is detailed to the module level. Follows architecture standards	Design specification adheres to Departmental standards. Reviews have been conducted and the DDS is deemed to be complete. The Requirements Matrix mapping from requirements to design components is complete and addresses all requirements.
System configuration	Unit, integration, system, and acceptance testing.	Critical test cases passed, achieving complete functional coverage, fixed all high-priority or critical defects, and regression testing complete.

## 14.9 Product Measurement

The following is a list of product quality reviews:

- **System Requirements Specifications Review** — Checks the adequacy of the requirements stated in the System Requirements Specifications (SRS). This review may not be necessary if the system requirements do not change significantly.
- **Architecture Design Review** — Evaluates the technical adequacy of the preliminary design (also known as top—level design) for the project’s components, sub—components, software, and services depicted in the contractor’s preliminary design description.
- **Detailed Design Review** — Determines the acceptability of the detailed designs, as depicted in the contractor’s Detailed Design Document, for satisfying the requirements specified in the SRS.
- **Functional Audit** — Verifies all requirements specified in the SRS document have been met. Functional Audits also include successful testing of the requirements.
- **Physical Audit** — Verifies internal consistency of the software and its documentation and its readiness for release.
- **In-Process Audits** — The consistency of the design including code versus design documentation, interface specifications (hardware and software), design implementations versus functional

requirements, and functional requirements versus test descriptions. The project will employ in—process audits on an as—needed basis.

- **Configuration Management Plan Review** – Evaluates the adequacy and completeness of the configuration management methods defined in the both the project’s and the contractor’s Configuration Management Plan.

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

Review Type	Review Goal	Deliverables/ Artifact	Review Team	Timing
System Requirements Specification Review	Checks the adequacy of the requirements stated in the System Requirements Specifications (SRS).	System Requirements Specification	<ul style="list-style-type: none"> <li>• Project Manager</li> <li>• Technical Lead</li> <li>• Testing Manager</li> <li>• Quality Manager</li> </ul>	<ul style="list-style-type: none"> <li>• Upon initial submittal of the SRS</li> <li>• Upon a change in the SRS baseline</li> <li>• When a risk related to the SRS has been identified</li> <li>• As needed</li> </ul>
Architecture Design Review	Evaluate the technical adequacy of the preliminary design for the project’s components, sub-components, software and services depicted in the preliminary design description.	<ul style="list-style-type: none"> <li>• SRS</li> <li>• High-Level Design</li> <li>• Change Requests</li> <li>• Quality Management Plan</li> </ul>	<ul style="list-style-type: none"> <li>• Project Manager</li> <li>• Project Architect</li> <li>• Testing Manager</li> <li>• Quality Manager</li> </ul>	<ul style="list-style-type: none"> <li>• Upon initial submittal of the preliminary design</li> <li>• Upon a change in the preliminary design baseline</li> <li>• When a risk related to the design has been identified</li> <li>• As needed</li> </ul>

### 14.10 Product Improvement

As a means of responding to defect reports, project managers will process approved improvements through the project’s formal Change Control process. See the project’s Change Management Plan for additional details.