

Independent Review

Enterprise Content Management System

For the
State of Vermont Agency of Natural Resources, Department of Environmental
Conservation and
Department of Information and Innovation

Submitted to the
State of Vermont, Office of the CIO
By

Strategic Technology Services

4/7/2016

Attachments:

1. Project Costing Spreadsheet (FINAL-REVIEW-SOV-ANR-DEC-EnterpriseContentMgtSystem-STS_Cost_Detail_FINAL.xlsx)
2. Risk Register (FINAL-REVIEW-SOV-ANR-DEC-EnterpriseContentMgtSystem-STS_Risk_Register_FINAL.pdf)
3. Project Charter (CHRTR_Add_ANR_ECMS_20150917_Signed.pdf)
4. MS Office OnLine Service Level Agreement Summary (OnlineSvcConsolidatedSLA(WW)(English)(February2016)(CR).docx)
5. Description of Business Process Management (BPM), Case Management , and ECMS, and comparison of BPM to Case Management (BPM_CaseManagement_Definition_Examples.docx)
6. Checklist approach to implementing ECMS/BPM (BPM_Pave_the_Right_CowPath_Checklist.pdf)
7. Checklist approach to implementing ECMS (ECM_Checklist.pdf)
8. Description of Case Management, and comparison to Business Process Management (IW-CaseManagement-2014.pdf)

Table of Contents

TABLE OF CONTENTS.....	2
1. EXECUTIVE SUMMARY	3
<i>Project Summary.....</i>	<i>3</i>
<i>Vendor Profile</i>	<i>5</i>
1.1 <i>Cost Summary.....</i>	<i>6</i>
1.2 <i>Disposition of Independent Review Deliverables</i>	<i>7</i>
1.3 <i>Identified High Impact &/or High Likelihood of Occurrence Risks.....</i>	<i>7</i>
1.4 <i>Other Key Issues</i>	<i>7</i>
1.5 <i>Recommendation</i>	<i>8</i>
1.6 <i>Certification.....</i>	<i>9</i>
1.7 <i>Report Acceptance</i>	<i>9</i>
2. SCOPE OF THIS INDEPENDENT REVIEW	10
2.1 <i>In-Scope.....</i>	<i>10</i>
2.2 <i>Out-of-Scope</i>	<i>10</i>
3. SOURCES OF INFORMATION.....	11
3.1 <i>Independent Review Participants.....</i>	<i>11</i>
3.2 <i>Independent Review Documentation</i>	<i>13</i>
4. PROJECT INFORMATION	14
4.1 <i>Historical Background</i>	<i>14</i>
4.2 <i>Project Goal.....</i>	<i>17</i>
4.3 <i>Project Scope.....</i>	<i>19</i>
4.4 <i>Project Phases, Milestones and Schedule.....</i>	<i>22</i>
5. ACQUISITION COST ASSESSMENT	24
5.1 <i>Cost Validation</i>	<i>26</i>
5.2 <i>Cost Comparison</i>	<i>33</i>
5.3 <i>Cost Assessment.....</i>	<i>33</i>
6. TECHNOLOGY ARCHITECTURE REVIEW	34
7. ASSESSMENT OF IMPLEMENTATION PLAN	42
7.1 <i>Implementation Readiness.....</i>	<i>42</i>
7.2 <i>Risk Assessment & Risk Register</i>	<i>55</i>
8. COST BENEFIT ANALYSIS	56
9. IMPACT ANALYSIS ON NET OPERATING COSTS	60
APPENDIX 1 - ILLUSTRATION OF SYSTEM INTEGRATION	61
APPENDIX 2 - RISK REGISTER.....	62
APPENDIX 3 – LIFECYCLE COSTS AND CHANGE IN OPERATING COSTS.....	62
APPENDIX 4 – TECHNOLOGY INFRASTRUCTURE.....	63

1. Executive Summary

Provide an introduction that includes a brief overview of the technology project and selected vendor(s).

Project Summary

1. This project duration for ANR/DEC is expected to be 7 months of design/development/ implementation/training, 4.5 months of post-implementation support, and annual on-going vendor support.
2. Costs are as follows:
 - a. 10 Year Lifecycle Cost of **\$5.4M**
 - b. Out of Pocket Costs of **\$2.1M** including:
 - a. Vendor Project Costs of \$1.185M
 - b. New Vendor Operating Costs of \$106K annually, \$956K over project life cycle
 - c. Internal staffing of 4.25FTE at **\$323K annually, \$3.3M** over project life cycle (no additional budget impact, staff already budgeted)
3. Services related to designing, developing, testing, implementing, training, and post-implementation support for an Enterprise Content Management System (ECMS) solution to be built on the Microsoft SharePoint OnLine platform to provide functionality for **6 ANR business areas functioning as pilots** to support a proof of concept ECMS solution across all of ANR.
 - a. **Technology Platform:**
 - a. ANR/DEC will use existing State of Vermont DII contract with Microsoft Office365 G1 and G3 licenses, which include SharePoint OnLine, as the platform upon which the solution is built.
 - b. **Business Areas to be piloted include:**
 - a. Watershed Management Division – Stormwater (Multi-sector; construction and impervious surfaces)
 - b. Agency Level - Legal Services
 - c. Drinking Water Groundwater Protection Division - Regional Office permitting program
 - d. Department of Fish and Wildlife - Fish and Wildlife Permitting – Endangered Threatened Species
 - e. Waste Management and Prevention Division - Hazardous Sites Remediation program
 - f. Waste Management and Prevention Division - Waste Haulers permit program
 - c. **Specific functionality to be developed includes:**
 - a. Content/Document Management including Outlook email and images
 - b. Business Process Management (Workflow)
 - c. Document and workflow tracking
 - d. Document Capture
 - e. Records Management
 - f. Public search portal of records and documents
 - g. Integration with external applications, databases and websites
 - d. **Additional 3rd party software includes:**
 - a. PsiGen® Capture to implement document capture and OCR capabilities for the ECMS solution.
 - b. Nintex forms and workflows (Standard edition) tools to build forms and workflows within the SharePoint environment.

c. Collabware or Knowledge Lake Records Management to support records management rules and processes.

e. **Data Migration:**

a. No data or documents are expected to be migrated from current file shares to the new solution.

Vendor Profile

1. Tallan, Inc.
 - a. Tallan, Inc. is a professional services firm specializing in software solutions, custom application development, and software integration services. Tallan is headquartered in Rocky Hill, CT with additional offices in Boston, New York City, Tampa, and Santa Ana, CA. Tallan has more than 130 consultants in these offices who are full-time employees. More than 15 of these consultants are in the SharePoint practice and more have experience with SharePoint.
 - b. Tallan is a Microsoft Certified Gold Partner in these areas:
 - i. Application Development
 - ii. Collaboration and Content
 - iii. Application Integration
 - iv. Business Intelligence
 - v. Application Lifecycle Management
 - vi. Tallan is recognized by Microsoft as a trusted Government partner. This close relationship, as an Azure Government Managed Solutions Provider (MSP), means that Tallan developers and company leaders have advanced expertise on the Azure Cloud for Government, and across the Microsoft technology stack.
 - c. Financial Information:
 - i. Not provided during proposal process and not available in the public domain, as it is a privately held company.
 - d. **Additional Information:**
 - i. On 1/2/2000, CMGI, an Internet venture fund, bought Tallan, a privately held company, for \$920M for 80% of the company, from Jack Hughes (now founder and Chairman of Top Coder: www.topcoder.com as of November, 2000) See <http://www.topcoder.com/tc?module=Static&d1=about&d2=management> for more information).
 - ii. By 2003, CMGI sold their interest in Tallan to a group led by the management team, including CEO Peter Bourdon (now CFO for Top Coder) for i) approximately \$7.1 million in cash, (ii) a senior secured promissory note due in March 2008 in the principal amount of \$3 million made by the Buyer, and (iii) a warrant for the purchase of 9% of the issued and outstanding shares of Tallan Common Stock, at an exercise price of \$.01 per share. In addition, Tallan agreed to pay to CMGI an additional \$5 million in earn out payments commencing in fiscal 2004.

1.1 Cost Summary

1. 10 Year Lifecycle Cost of **\$5.4M**
2. Out of Pocket Costs of **\$2.1M** including:
 - a. Vendor Project Costs of \$1.185M
 - b. New Vendor Operating Costs of \$106K annually, \$956K over project life cycle
3. Internal staffing of 4.25FTE at **\$323K annually, \$3.3M** over project life cycle (no additional budget impact, staff already budgeted)

IT Activity Lifecycle:	10 Years		
Total Lifecycle Costs:	\$ 5.4M		
PROJECT COSTS (1 year):	PROJECT COSTS (1 year):	TOTAL OPERATING COSTS (9 years):	NEW OPERATING COSTS (9 years):
Software Costs:	\$135K	\$42K	\$42K
Vendor Implementation/Support Costs:	\$1.03M	\$43K	\$43K
DII PM/EA Costs:	\$36K	\$0K	\$0K
Hardware:	\$5K	\$5K	\$5K
Hosting:	\$14K	\$14K	\$14K
Internal Staffing Costs:	\$323K	\$323K	\$0K
TOTAL:	\$1.54M	\$3.8M total; \$430K annually	\$956K total; \$106K annually
Difference Between Current and New Operating Costs:			Increase of \$106K annually
Funding Source(s) and Percentage Breakdown if Multiple Sources:	See chart below, Project Related section: \$1.5M funding source to cover \$1.5M project costs	See chart below	See chart below

		Expected Program Splits	Actual Program Splits
FUNDING SOURCES:			
Project Related:			
Existing one-time balance of Special funds (permit fee) available for allocation for this purpose	\$200,000		5.4%
Existing one-time Federal funds already obtained	\$1,300,000		35.0%
TOTAL	\$1,500,000		
Operations Related (Annual Funding):			
General Fund #10000	\$32,138	14%	10.1%
Special Fund #21295	\$101,006	44%	31.8%
Interdepartmental Fund #21500	\$39,025	17%	12.3%
Normal Federal funds part of ANR/DEC budget; Fund #22005	\$57,390	25%	18.1%
TOTAL	\$429,960	100%	100%

1.2 Disposition of Independent Review Deliverables

Deliverable	Highlights from the Review <i>Include explanations of any significant concerns</i>
Acquisition Cost Assessment	Costs appear to be relatively high per cost comparison details noted in Section 5 of this report.
Technology Architecture Review	The Technology Architecture appears sound per the report details in Section 6 .
Implementation Plan Assessment	The approach to defining and implementing the solution appears sound per the report details in Section 7 .
Cost Analysis and Model for Benefit Analysis	Cost analysis provides accurate annual cost. No explicit monetary benefits defined. Monetary benefits do not justify the cost. See Section 8 for details.
Impact Analysis on Net Operating Costs	Increase in operating costs per cost spreadsheet detail in Appendix 3 .

1.3 Identified High Impact &/or High Likelihood of Occurrence Risks

Risk Description	State's Planned Risk Response	Reviewer's Assessment of Planned Response
See Risk Register		

1.4 Other Key Issues

Recap any key issues or concerns identified in the body of the report.

1. No other issues identified.

1.5 Recommendation

Provide your independent review recommendation on whether or not to proceed with this technology project and vendor(s).

It is recommended the project not proceed until the following items are satisfactorily addressed:

1. Allocate dedicated staff to this project and organize into a formal project team, with at least full time project management, business analyst, and data quality/testing roles, and at least half time subject matter experts when each department/division/program is undertaking the ECMS implementation.
 - a. Note: This staff allocation *may* have a project budget impact that needs to be accounted for.
2. Develop a decision-making model where people closest to the decision have the responsibility and authority to make decisions that impact their specific operational areas. Ensure all decisions are communicated to the project governance committee that is currently in place. The governance committee would now be responsible for having a “review” vs. “decide” role on operational decisions, with the ability to override decisions that fall outside the overall project strategy. This will streamline the project timeline and not delay decisions that currently require most if not all governance committee members to be present and to weigh in on decisions.
3. Leadership discussed with the Legal Services Division of ANR the differences between case management solutions and business process management (BPM) solutions, and Legal Services agrees that their needs are met by BPM and that case management is not needed.
 - a. Additional detail: EMCS solutions may be comprised of **business process management (BPM) workflow** functionality, **legal case management workflow** functionality, or a combination of both. There are several resources on the web that describe the differences. The links below do a good job explaining the differences in short order. Additionally, as this project is named an ECMS project (Enterprise Content Management System), a link is provided for that definition as well. You will find a document attached to this report which contains the content from each of the links below titled: “*BPM_CaseManagement_Definition_Examples.docx*”.
 - i. <http://www.aiim.org/What-is-BPM-Business-Process-Management>
 - ii. <http://www.aiim.org/What-is-Case-Management>
 - iii. <http://www.aiim.org/What-is-ECM-Enterprise-Content-Management>
 - iv. <http://www.entellitrak.com/blog/detail/case-management-vs.-business-process-management>
4. In keeping with the position that State of Vermont does not undertake software development work for major projects and relies on COTS (Commercial Off The Shelf) solutions, Tallan indicated in an email from Joe Giessner on 4/26/2016 that not more than 15% is considered custom coding. Recommend including that email in the contract and recommend including contract language indicating that Tallan guarantees that the solution does not have any custom coding that impacts or compromises the ability of State of VT to upgrade to new versions of SharePoint on a go forward basis. If Tallan is not willing to make that guarantee, get Tallan to agree to complete any work to upgrade their solution to new versions of SharePoint at no cost to State of VT.
5. Consider negotiating further with Tallan regarding the level at which Project Management fees are applied, as noted in the Cost Validation Section 5.1.
6. Resolution of the items in the attached Risk Register.

1.6 Certification

I certify that this Independent Review Report is an independent and unbiased assessment of the proposed solution's acquisition costs, technical architecture, implementation plan, cost-benefit analysis, and impact on net operating costs, based on the information made available to me by the State.

David Gadway

Digitally signed by David Gadway
DN: cn=David Gadway, o=Strategic Technology Services, Inc., ou, email=dgadway@techstrategy.biz,
c=US
Date: 2016.05.03 14:26:01 -04'00'

Signature

Date

1.7 Report Acceptance

The electronic signatures below represent the acceptance of this document as the final completed Independent Review Report.

DII Oversight Project Manager

Date

State of Vermont Chief Information Officer

Date

2. Scope of this Independent Review

Add or change this section as applicable.

2.1 In-Scope

The scope of this document is fulfilling the requirements of Vermont Statute, Title 3, Chapter 45, §2222(g):

The Secretary of Administration shall obtain independent expert review of any recommendation for any information technology initiated after July 1, 1996, as information technology activity is defined by subdivision (a)(10), when its total cost is \$1,000,000 or greater or when required by the State Chief Information Officer.

The independent review report includes:

- An acquisition cost assessment
- A technology architecture review
- An implementation plan assessment
- A cost analysis and model for benefit analysis
- An impact analysis on net operating costs for the agency carrying out the activity
- A procurement negotiation advisory services contract (as needed)

2.2 Out-of-Scope

If applicable, describe any limits of this review and any area of the project or proposal that you did not review.

- Review of/comments on/recommendations regarding the vendor contract.

3. Sources of Information

3.1 Independent Review Participants

List the individuals that participated in this Independent Review.

Name	Employer and Title	Participation Topic(s)
Joanna Pallito	Director of Admin and Innovation; EXECUTIVE PROJECT SPONSOR	Discussed functional requirements, desired outcomes, project management, staffing, funding, and risk register
Jean Nicolai	Environmental Program Manager	Discussed functional requirements, desired outcomes, project management, staffing, funding, and risk register
Jennifer Loughran	Project Manager	Discussed project management, vendor technology, vendor approach, product solution features, how product is to be leveraged into the business and desired outcomes, funding, staffing, and risk register
Peter Telep	ANR IT Manager	Discussed functional requirements, desired outcomes, project management, staffing, risk register, and technology infrastructure
Greg Lutchko	DEC Systems Coordinator	Discussed functional requirements, desired outcomes, project management, staffing, funding, and risk register
Seamus Loftus	DII Enterprise Architect	Discussed risk register and underlying technology platform
Nick Conizzo	Digital Archivist, Sec. of State Office	Discuss document archiving functional requirements
Mary Clark	Environmental Analyst – Drinking Water	Discussed high level business requirements how to leverage the proposed solution to improve current processes
Elizabeth Stratton	Financial Manager - ANR Department Fish & Wildlife	Discussed high level business requirements how to leverage the proposed solution to improve current processes
Jon Kart	ANR Department Fish & Wildlife	Discussed high level business requirements how to leverage the proposed solution to improve current processes
Jen Duggan	ANR General Counsel	Discussed high level business requirements how to leverage the proposed solution to improve current processes
Helen Carr and Kelly Bixby	Stormwater Construction General Permit	Discussed high level business requirements how to leverage the proposed solution to improve current processes
James Donaldson	Environmental Analyst - Waste Management (Hazardous Sites)	Discussed high level business requirements how to leverage the

Name	Employer and Title	Participation Topic(s)
		proposed solution to improve current processes
Aric Brown	Environmental Analyst - Waste Management (Waste Haulers)	Discussed high level business requirements how to leverage the proposed solution to improve current processes
Joe Giessner	Tallan Regional Director	Discussed roles, responsibilities, pricing model, comparable projects, how VT pricing compares to comparable projects, ability to meet security requirements, technical architecture, PM approach, Training approach, Implementation approach, Deployment Approach, Risk Management Approach
Mike Gerety	Tallan Technical Delivery Manager (i.e. Project Manager)	Ditto
Rick Oliva	Tallan Technical Manager (i.e. Project Manager)	Ditto

3.2 Independent Review Documentation

Complete the chart below to list the documentation utilized to compile this independent review.

Document Name	Description	Source
RFP_DEC_ECMS20150309_F.pdf and RFP_DEC_ECMS20150309_F.pdf	RFP and related documents	Project SharePoint Site
ECMS_Reqs_Agnostic.xlsx and ECMS_Reqs_SharePnt.xlsx	Functional Requirements	Project SharePoint Site
DEC SharePoint 2013 Enterprise Content Management System RFP - Tallan Response.pdf and Tallan - VendorCostInfo5yrs_F.pdf and Tallan Answers to Questions from BAFO.pdf	Vendor Proposal	Project SharePoint Site
VTDEC-Questions.pptx And Tallan Answers to ECMS Questions.docx	Follow up Q&A	Project SharePoint Site
CHRTR_ANR_ECMS_20150501_Signed.pdf and CHRTR_Add_ANR_ECMS_20150917_Signed.pdf	Project Charter	Project SharePoint Site
DECStrategicPlan2013-2015.pdf	DEC Strategic Plan	Project SharePoint Site
EA_Assessment_v6.docx	EA Vendor Assessment	Project SharePoint Site
IT-ABC.pdf	IT ABC Form	Project SharePoint Site
ProjectTeamDirectory_ANR_ECMS_20150430_F.docx	Project Team Directory	Project SharePoint Site
ANR Org Charts	Org Charts	ANR Web Site
Various documents	Business Flow Descriptions for each of the 6 pilot programs	Project SharePoint Site
Updated_Timeline_20151109.docx and Updated_Timeline_20151216.docx	Project timeline snapshots	Project SharePoint Site
ANR_IR_Statement_of_Work_12Oct2015.docx	SOW for Independent Review	Peter Kipp
Various other documents	ANR Web Site	ANR Web Site

4. Project Information

4.1 Historical Background

Provide any relevant background that has resulted in this project.

The Vermont Agency of Natural Resources (ANR) promotes the sustainable use of Vermont's natural resources, protects and improves the health of Vermont's peoples and ecosystems, and promotes sustainable outdoor recreation.

Three departments comprise ANR:

1. Environmental Conservation (the Department sponsoring this project):

- a. The Department of Environmental Conservation's mission is to preserve, enhance, restore and conserve Vermont's natural resources and protect human health for the benefit of this and future generations.

2. Fish and Wildlife:

- a. F&W exists to conserve the fish, wildlife, plants and their habitats for the people of Vermont. It meets these goals by providing a broad range of services to the public, including wildlife management, fisheries management, law enforcement, search and rescue, threatened and endangered species monitoring and restoration, habitat conservation, and educational programs for hunters, anglers, young people and teachers.

3. Forest, Parks, and Recreation:

- a. Forests, Parks and Recreation is responsible for the conservation and management of Vermont's forest resources, the operation and maintenance of the State Park system, and the promotion and support of outdoor recreation for Vermonters and our visitors. In addition, FPR is responsible for the acquisition, planning coordination and administration of all Agency of Natural Resources lands.

DEC's mission is noted above. Specific details for how this mission is fulfilled is described as follows:

1. Manages air, soil and water resources for environmental and public health.
2. Measures environmental conditions for status and trends.
3. Issues licenses and permits, and enforce environmental regulations to ensure compliance with state and, in many cases, federal law.
4. Collects, interprets and communicates environmental scientific information to Vermonters, and provides a forum for public comment on their work.
5. Provides technical assistance to landowners, businesses, municipalities and individuals regarding environmental issues and resource management.
6. Manages funding and support for environmental projects including site clean-up, recreational access, and infrastructure including water supply, storm water and wastewater systems.
7. Scientists, managers, and field staff provide expert testimony and assistance to other organizations, partners, and sister agencies at the state, federal, local and regional levels to advance the mission and people's understanding of our natural environment, its importance and relevance.

The Agency of Natural Resources Department of Environmental Conservation Enterprise Content Management System (ECMS) Permit Processing Project is a priority to the DEC and **Goal #1** within the DEC Strategic Plan for 2013-2015:

GOAL #1: In all grant-making and permitting programs, implement continuous improvement methods that will systematically assess existing business practices for efficiency, transparency, and fairness, taking full advantage of advances in technology, without compromising our vision and statutory obligations to protect the environment.

An Enterprise Content Management System (ECMS) was deemed by DEC to be crucial to the process of streamlining DEC's permitting, licensing, and certification programs. It is expected that an ECMS will integrate with existing Agency web form and website technologies to receive documents and forms and leverage metadata from external tables.

DEC is organized as following and described in some detail below:

1. Commissioner's Office
2. Air Quality & Climate Division
3. Drinking Water and Groundwater Protection Division
4. Facilities Engineering Division
5. Watershed Management Division
6. Waste Management & Prevention Division

Note: Areas highlighted in green are participants in the project pilot.

Commissioner's Office

The Commissioner is responsible for all Department activities. To support the overall function of the Department and the work of individual divisions, the Commissioner's Office encompasses several programs. The Business Office handles fiscal matters and personnel administration. The Administration and Innovation Division includes the Finance Office and the Planning and Innovation Office, as well as Permit Coordination, Vermont Geological Survey, Compliance and Enforcement, and Environmental Assistance.

Air Quality & Climate Division

The Vermont Air Quality & Climate Division (AQCD) of the Department of Environmental Conservation (DEC) implements state and federal Clean Air Acts. As part of this implementation, the AQCD monitors air quality and air pollution sources, proposes regulations to improve existing air quality, ensures compliance with the regulations, and issues permits to control pollution from sources of air contaminants across the state.

Drinking Water and Groundwater Protection Division

In the fall of 2011, the Water Supply Division and parts of the Wastewater Management Division merged to become **the Drinking Water & Groundwater Protection Division (DWGWPD)**. The Division's central office is located in the National Life Building in Montpelier, and there is also staff located in five regional offices.

Regulatory programs managed by the Division include, but are not limited to:

1. Public Drinking Water Supply
2. Groundwater Withdrawal (water)
3. Wastewater System and Potable Water Supply (**Regional Offices** – drinking water and wastewater)
4. Indirect Discharge (wastewater)
5. Underground Injection Control (wastewater)

The Division also certifies/licenses:

1. Public Drinking Water System Operators
2. Wastewater & Potable Water Supply Designers
3. Well Drillers

Facilities Engineering Division

The Facilities Engineering Division administers state and federal pollution control funding programs, assists municipalities through the planning and construction of pollution control projects, provides fund administration for other Department of Environmental Conservation grant and loan programs, and provides project engineering and implementation services to the agency for a variety of projects, including construction and maintenance of state park facilities, fish culture stations, access areas, and dams. The division also includes the Dam Safety Section, which is responsible for programs related to the safety of dams.

Waste Management & Prevention Division

The Waste Management Division oversees the use, treatment and handling of hazardous and solid wastes. The Division performs emergency response for hazardous materials spills, issues permits for federal and state programs regulating hazardous wastes, solid wastes, and underground storage tanks, and manages cleanup at hazardous sites under state and federal authorities, including the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response Compensation and Liability Act (CERCLA, also known as Superfund).

Program Areas include:

1. Solid Waste
2. Contaminated Sites and Brownfields (**Site Management Section**)
3. Storage Tanks
4. Hazardous Waste (**Waste Hauler's Permitting**)
5. Salvage Yards
6. Spills Response Team

Watershed Management Division

The Watershed Management Division's primary mission is to protect, maintain, enhance and restore the quality of Vermont's surface water resources. Inherent in this effort is the support of both healthy ecosystems and public uses in and on 800 lakes and ponds; 23,000 miles of rivers and streams; and, 300,000 acres of wetlands that exist within the State of Vermont.

To accomplish its mission, the Division comprises three media-specific programs that provide for the comprehensive management of Wetlands, Rivers, and Lakes. The Division also supports the integrity of surface waters by administering programs to regulate wastewater discharges and stormwater runoff.

Program Areas include:

1. Monitoring Assessment and Planning
2. Ecosystem Restoration Program
3. Lakes and Ponds
4. Wetlands
5. **Stormwater**
6. Rivers

Currently, the DEC uses a software product named "Windsor Solutions nFORM" for on-line licensing and ESRI GIS software mapping data which is stored in SQL.

Additionally, **Office of General Counsel** (legal services), an Agency Level department, will participate in the pilot as will Department of Fish and Wildlife, Fish and Wildlife Permitting, **Endangered Threatened Species**.

4.2 Project Goal

Explain why the project is being undertaken.

The ECMS will address needs in the following requirements:

1. Content/Document Management including Outlook email and images
2. Business Process Management (Workflow)
3. Document and workflow tracking
4. Document Capture
5. Records Management
6. Public search portal of records and documents
7. Integration with external applications, databases and websites
8. Training for users and system administrators.

The number of users supported are as follows:

- The total number of users across the six pilot programs: 60
- DEC staff: 300
- Agency staff: 600

The primary objectives of this initiative are noted in the table below:

#	Strategy	Objective	Success Criteria <i>(must be SMART: Specific, Measurable, Attainable, Realistic, and Time-bound)</i>
1	Make ANR public records accessible.	Make ANR public records easily accessible "on-line" for all ECMS pilot programs during the time-period of the project (no more than 2 years). "Easily" is defined as being able to access public records with the "Time on Task" (standard UX metric) to be no greater than 1 minute. (Time on Task – time for average user to locate material, 'search and click').	The ANR public records for the pilot programs are accessible "on-line" with an average "Time on Task" of less than 1 minute during the time period of the project, Yes or No?
2	Automate workflows to improve the timeliness of document review, approvals, and document tracking.	Automate workflows for the ECMS pilot programs during the implementation time-period for the project.	Are all workflows automated for the pilot programs during the implementation time-period of the project, Yes or No?
3	Acquire new ECMS (modernize) and leverage ANR's current IT investments. NOTE: Leverage is hard to measure and only applies where it makes sense.	Integrate the new ECMS with current ANR applications to create a seamless experience for the public and ANR users during the implementation time-period for the project.	Has new ECMS been implemented and made operational leveraging some of ANR's current IT investments for all pilot programs during the time period of the project, Yes or No?
4	Reduce manual labor in the permitting process.	Reduce manual labor in the permitting process by 10% (or more) within the pilot programs during the time period of the project programs.	Has there been a 10% reduction in manual labor in the permitting process within the pilot programs during the time-period of the project, Yes or No?
5	Automate initial response notice.	Automate response thereby reducing response time for each pilot program during the implementation time-period for the project.	Have all the pilot program's response notifications been automated, during the implementation time-period for the project, Yes or No?

6	Reduce risk in response to Public Information Requests.	Implement the formal Record Retention Policies and Procedures developed collaboratively with VSARA during the implementation time-period of the project.	Has there been implementation of the formal Record Retention Policies and Procedures during the time-period of the project, Yes or No?
7	Increase efficiency in the administration of records.	Automate file archival and destruction schedule for records in the ECMS solution. Simultaneously complying with the established "Record Retention Policies and Procedures" during the implementation time-period for the project.	Has compliance with the record schedule for the ECMS Pilot Programs been automated during the implementation time-period for the project, Yes or No?

4.3 Project Scope

Describe the project scope and list the major deliverables. Add or delete lines as needed.

The following pilot projects form the basis of the scope of work:

1. Watershed Management Division – Stormwater (Multi-sector; construction and impervious surfaces)
2. Agency Level – Office of General Counsel
3. Drinking Water Groundwater Protection Division - Regional Office permitting program
4. Department of Fish and Wildlife - Fish and Wildlife Permitting – Endangered Threatened Species
5. Waste Management and Prevention Division - Hazardous Sites Remediation program
6. Waste Management and Prevention Division - Waste Haulers permit program

At a summary level, the Project Scope is defined through FUNCTIONAL requirements as described below.

The FUNCTIONAL Requirements to be delivered include:

1. Cloud-based hosted managed ECMS environment
2. Content/Document Management including Outlook email and images
3. Business Process Management (Workflow)
4. Document Tracking
5. Capture
6. Records Management
7. Public search portal of records and documents
8. Integration with applicable external applications to ingest content and metadata as well as post content, reports and status updates
9. Training

The FUNCTIONAL Requirement Details include:

ECMS General Functionality (GEN.#)

- GEN.1 Ability to open and edit content from within the ECMS using the file's native program; ie. Word documents open in Word, PDFs open in Acrobat
- GEN.2 Ability to retain versions of document and files as they are edited
- GEN.3 Ability to control permissions to documents
- GEN.4 Ability to affix digital signatures or other stamps, comments, approvals, rejection graphics to document
- GEN.5 Ability to preview content, such as through thumbnail images, to expedite browsing and file recognition
- GEN.6 Ability to view and use the ECMS functionality for content stored in external locations such as file servers or external databases
- GEN.7 ECMS should have a mobile device optimized view or "app" to access ECMS content
- GEN.8 ECMS provides the ability to leverage workflows for document/document set routing, manipulation, approvals, and notifications
- GEN.9 ECMS includes out-of-the box workflows for standard document tasks such as approvals and notifications
- GEN.10 Users can set alerts on documents when content is added, changed, deleted. User is emailed an alert notice

ECMS Content Input Functionality (I.#)

- I.1 Ability to scan and index documents directly from a scanning device into the ECMS supporting OCR, ICR, rubber band OCR, zonal OCR, indexing, indexing with data from LOB systems, sticky fields, bar coding, document separation
- I.2 Ability to upload documents and files into the ECMS from a hard drive or network location
- I.3 Ability to integrate with Microsoft Office 365
- I.4 Ability to save or create Microsoft Office documents directly into/from the ECMS
- I.5 Ability to create Microsoft Office documents from within the ECMS that are pre- populated with data from line of business systems
- I.6 Ability to enter metadata for content during upload process into ECMS
- I.7 Ability to enter metadata for content during scanning process into ECMS
- I.8 Ability to upload or send content to the ECMS from Microsoft Outlook with attachments
- I.9 Ability to batch upload content from hard drive or network file server
- I.10 Ability to batch assign metadata tags to similar content upon upload process
- I.11 Ability to resize (reduce) photo files during upload process
- I.12 Ability to link to external file storage locations such as file servers or databases while maintaining metadata within the ECMS without uploading content
- I.13 Ability to right click on files, and "Send To" ECMS
- I.14 Ability to receive documents and files from Windsor Solutions nFORM application
- I.15 Ability to receive documents and files from ASP.NET applications

ECMS Metadata & Organization Functionality

- MO.1 Ability to organize content in the ECMS by metadata fields (such as grouping, sorting, filtering on field values)
- MO.2 Ability to save custom views of content
- MO.3 Ability to batch assign metadata tags to similar content within ECMS
- MO.4 Ability to batch edit (change) metadata to similar content within ECMS
- MO.5 Ability to trigger workflows based on metadata values
- MO.6 Ability to use look up tables for metadata field values
- MO.7 Ability to centrally manage metadata across ECMS environment
- MO.8 Ability to connect to external data sources for metadata values used in the ECMS

ECMS Records Management Functionality

- RM.1 Ability to apply policies to records such as retention schedules and security policies to automate records disposition
- RM.2 Ability to apply workflows to records to route content to appropriate storage locations
- RM.3 Ability to manage content as records "in place"
- RM.4 Ability to store records in separate storage hardware
- RM.5 Ability to notify staff when records are up for deletion or other change in status/location
- RM.6 Ability to redact sections of records
- RM.7 Ability to control permissions for record store locations from other ECMS content store locations
- RM.8 Ability to automatically convert records to another format (PDF or PDF/A)

ECMS Search Functionality

- SE.1 Ability to browse content via a map interface where location information is part of the metadata (such as latitude and longitude or addresses). Content is represented on the map by point locations where the user can click on the point location to reveal content referenced to that point.
- SE.2 Ability to search content via metadata tags and keywords
- SE.3 Ability to search content via content embedded metadata (PDF metadata for example)
- SE.4 Ability to search content via character recognition (full text search)

- SE.5 Ability to save search queries for popular or frequently run searches
- SE.6 Ability to return search results similar to a Google-like web search experience
- SE.7 Ability to refine search results based on metadata or keywords
- SE.8 Ability to search for documents from within line of business systems
- SE.9 Search of ECMS content by both Staff and the public with the ability to restrict the display of certain content to the public as required

ECMS Output Functionality (O.#)

- O.1 Ability to send content via email (attachments or links) from ECMS
- O.2 Ability to send content to records archive (assuming user permission allow)
- O.3 Ability to link to, search, or access content from external web pages and other web clients (web services)
- O.4 Ability to print content from ECMS

ECMS Security and Permission Management Functionality (S.#)

- PER.1 Ability to integrate with Active Directory to manage permissions for input, management and output of content
- PER.2 Ability for the public to access authorized documents through a web page, web search, and/or web services
- PER.3 Ability to control permissions at document store locations, content types, and document levels

CMS Backup/Restore Functionality (B.#)

- BU.1 Ability for the user to restore versions of documents
- BU.2 Backup and restore administration tools for IT staff including tools to do different levels of restore granularity
- BU.3 Ability to move content and associated metadata out of ECMS system
- BU.4 Ability to back up content to cloud-based storage or other off-site storage

ECMS Misc Functionality (M.#)

- MISC.1 Ability to handle large volumes of documents
- MISC.2 System runs on Windows OS and Windows Server
- MISC.3 Maintenance contract available to maintain ECMS through OS and server upgrades
- MISC.4 Support and management of ECMS from vendor
- MISC.5 ECMS is web-based client
- MISC.6 ECMS features a public facing web-based client
- MISC.7 ECMS customizable by State staff
- MISC.8 ECMS is cloud-based and managed by vendor
- MISC.9 ECMS can be managed on-site by a vendor on a yearly contractual basis

4.3.1 Major Deliverables

The Deliverables are described by the Detailed Functional requirements noted 4.3 above.

4.4 Project Phases, Milestones and Schedule

Provide a list of the major project phases, milestones and high level schedule. You may elect to include it as an attachment to the report instead of within the body.

The Implementation Schedule is a 7 month duration as outlined below.

Task Name	Duration	Start	Finish
Business Process Analysis	30 days	Mon 4/4/16	Fri 5/13/16
Environment Setup	5 days	Mon 5/9/16	Fri 5/13/16
SharePoint Base ECMS	60 days	Mon 5/16/16	Fri 8/5/16
SharePoint Document Capture	20 days	Mon 8/8/16	Fri 9/2/16
External Web Site	25 days	Mon 8/8/16	Fri 9/9/16
Records Management	25 days	Mon 9/12/16	Fri 10/14/16
SITE IS LIVE	0 days	Fri 10/14/16	Fri 10/14/16
Training	10 days	Mon 10/17/16	Fri 10/28/16

Time for QA and UAT are built into each of these major phases. The schedule will be refined at the completion of the planning phase when all requirements are defined, documented, and signed off by both Tallan and VT DEC.

Note that this schedule is dependent on key variables, such as: availability of VT DEC staff to review and approve deliverables, availability of stakeholders for requirements meeting, setup and availability of environments, etc.

Tallan utilizes an estimation process that takes into account scope as defined by the information provided by the client through in-person meetings and/or RFP documents, as well as previous experience and internal review to arrive at project and schedule estimates. As such, the schedule closely aligns with similarly scoped projects with similar staffing levels.

The schedule is based on Tallan's effort estimate to complete the requirements as defined in section 4.1 of the RFP. Additionally, effort to perform the following tasks are considered:

1. Define and document requirements
2. Perform development and unit testing
3. Configure appropriate environments
4. Deploy the site to all environments
5. Perform QA and parallel testing
6. Create documentation explained in Tallan's response to the RFP

All of the tasks are considered and estimated for this project. **In addition, the following key assumptions outlined in Tallan's pricing response to the RFP were made when pricing and scheduling this project.**

1. DEC staff will be accessible based on a mutually agreed upon project schedule.
2. DEC will make available to Tallan any current documentation on technical environments, business processes and other pertinent information related to this SOW.
3. DEC will work with Tallan to review progress during weekly status meetings.
4. Feedback and/or comments on deliverables will be supplied within a mutually agreed upon timeframe. Should comments not be provided within the agreed to timeframe, the deliverable will be deemed acceptable by default.
5. While the Tallan consultants are on-site, DEC will provide satisfactory physical workspace for the Tallan consultant.
6. The scope of this engagement is defined by the requirements in the RFP and Tallan's response.

7. Any scope item not explicitly in scope is out of scope by default.
8. This Pricing Response assumes that the State of Vermont (VT) will have an Office 365 subscription and that SharePoint Online is available on it.
9. This Pricing Response does not include costs for Office 365 since Tallan's understanding is that the State of VT plans to acquire this for Fiscal Year 2016.
10. This Pricing Response assumes that the Azure Government portion of the solution will be hosted in Tallan's Azure Government subscription since Tallan will be providing managed services. *The State of VT has the option to instead host that portion on its own Azure Government subscription. This option may save State of VT money, but Tallan would not be able to provide a fixed cost for Azure Government usage.*
11. This Pricing Response assumes that no content migration will be required.

As part of the IR, Tallan was asked whether the RFP provided adequate detail for them to understand the scope of work and deliver on that scope in the timeframe and budget proposed. Their response:

The business requirements in the RFP represent enough information for the high level architecture and solution design as presented in the Tallan proposal. Tallan has included 50 business days of effort for business process analysis to further define more granular requirements.

When Tallan was asked whether adding Legal to Pilot was a concern, they responded:

With Massachusetts Legislature client using similar functionality, there is no concern.

5. Acquisition Cost Assessment

List all acquisition costs in the table below (i.e. the comprehensive list of the one-time costs to acquire the proposed system/service). Do not include any costs that reoccur during the system/service lifecycle. Add or delete lines as appropriate. Based on your assessment of Acquisition Costs, please answer the questions listed below in this section.

The following chart represents the Project and Operating Costs. Detailed composition of these numbers are found in the attached project cost spreadsheet.

1. 10 Year Lifecycle Cost of **\$5.4M**
2. Out of Pocket Costs of **\$2.1M** including:
 - a. Vendor Project Costs of \$1.185M
 - b. New Vendor Operating Costs of \$106K annually, \$956K over project life cycle
3. Internal staffing of 4.25FTE at **\$323K annually, \$3.3M** over project life cycle (no additional budget impact, staff already budgeted)

IT Activity Lifecycle:	10 Years		
Total Lifecycle Costs:	\$ 5.4M		
PROJECT COSTS (1 year):	PROJECT COSTS (1 year):	TOTAL OPERATING COSTS (9 years):	NEW OPERATING COSTS (9 years):
Software Costs:	\$135K	\$42K	\$42K
Vendor Implementation/ Support Costs:	\$1.03M	\$43K	\$43K
DII PM/EA Costs:	\$36K	\$0K	\$0K
Hardware:	\$5K	\$5K	\$5K
Hosting:	\$14K	\$14K	\$14K
Internal Staffing Costs:	\$323K	\$323K	\$0K
TOTAL:	\$1.54M	\$3.8M total; \$430K annually	\$956K total; \$106K annually
Difference Between Current and New Operating Costs:			Increase of \$106K annually
Funding Source(s) and Percentage Breakdown if Multiple Sources:	See chart below, Project Related section: \$1.5M funding source to cover \$1.5M project costs	See chart below	See chart below

		Expected Program Splits	Actual Program Splits
FUNDING SOURCES:			
Project Related:			
Existing one-time balance of Special funds (permit fee) available for allocation for this purpose	\$200,000		5.4%
Existing one-time Federal funds already obtained	\$1,300,000		35.0%
TOTAL	\$1,500,000		
Operations Related (Annual Funding):			
General Fund #10000	\$32,138	14%	10.1%
Special Fund #21295	\$101,006	44%	31.8%
Interdepartmental Fund #21500	\$39,025	17%	12.3%

Normal Federal funds part of ANR/DEC budget; Fund #22005	\$57,390	25%	18.1%
TOTAL	\$429,960	100%	100%

5.1 Cost Validation

Describe how you validated the Acquisition Costs.

The Acquisition Costs were validated through the following methods:

1. Comparison of Hourly Rates of Similar Services
2. Comparison with Projects of Similar Scope
3. Comparison with Other Bidders

1. Comparison of Hourly Rates of Similar Services:

The hourly rate was not explicitly provided by the vendor as this was quoted as a fixed priced project, so the hourly rate was calculated as follows:

DAYS BY ROLE AND PHASE					
PHASE:	ROLE:	Senior Consultant	Consultant	Senior UX	Total Days by Phase
Business Process Analysis and Documentation		50			50
Office365 and Azure Setup		5			5
SharePoint ECMS Implementation and Migration		61	110	15	186
Document Capture and Process Workflow Updates		20			20
Records Management		25	50		75
Public Web Site		25	25	15	65
User and Administration Training		10			10
TOTAL DAYS OF EFFORT: BY ROLE		196	185	30	
TOTAL DAYS OF EFFORT: PROJECT					411
TOTAL FEES PROPOSED: LIST PRICE (excluding Project Management)		\$720,018			
AVERAGE HOURLY RATE LIST PRICE:		\$219			
PROJECT MANAGEMENT RATE APPLIED (\$296,887 Project Management Fee/ \$720,018 Service Fees):		41%			
TOTAL FEES PROPOSED: BAFO PRICE (excluding Project Management)		\$648,016			
AVERAGE HOURLY RATE BAFO:		\$197			
PROJECT MANAGEMENT RATE APPLIED (\$296,887 Project Management Fee/ \$648,016 Service Fees):		41%			

Summary:

- a. These rates are **comparable** when compared to other recently reviewed projects. Those rates range from \$150 - \$200.
- b. The application of Project Management overhead at 41% is **high** compared to other projects, where that overhead ranges from 30-35%.

2. Comparison with Projects of Similar Scope:

Tallan was asked to describe comparable projects in terms of cost, duration and scope of work.

Their response is as follows:

There are several common elements between this project and other similar projects Tallan has delivered. Those commonalities include:

- a. Enterprise SharePoint farm infrastructure and deployments*
- b. Information Architecture*
- c. Enterprise Search*
- d. ASP.NET / SharePoint integration*
- e. OCR*

*This project differs from other projects Tallan has completed mostly in the unique configuration of the individual components of the project. While Tallan has expertise in all areas mentioned above, we have not completed a project where **they are all aligned exactly** as laid out in the proposal. That said, Tallan has a history of successful enterprise-scale solutions utilizing all of the technology areas addressed by the proposed solution and is confident in the soundness of the design and the success of the final product.*

In summary, while Tallan has completed projects consisting of all items in a-e above, they have not completed those tasks for one client in one project.

When asked to compare pricing, the following background was provided by Tallan:

PRICE COMPARISON SUMMARY: Prices vary based on size and scope of the engagement. This engagement is similarly priced in comparison to the engagements listed below when adjusted for size and scope. Overall, the VT DEC project is larger in cost than Project 2 (Case Management) but smaller than the other 2 projects.

Project 1: Enterprise OCR Platform and Application Integration

Tallan was engaged by Oakleaf Waste Management (now Waste Management) to provide a solution for document capture and OCR for invoicing. The solution leveraged hardware scanners to capture paper forms comprised of various standard formats, as well as leveraging a network drop location for submission of pre-scanned content. OCR templates were created to identify fields from which to extract metadata. The solution leveraged custom code to transmit metadata extracted from scanned documents to the target system for processing and storage.

The solution closely relates to the VT DEC ECMS solution in the areas of OCR capture, OCR template development, and metadata extraction.

Project 2: Case Management

Tallan has implemented a custom case management solution on SharePoint 2013 for the Massachusetts Legislature. The solution involves multiple SharePoint subsites related to individual offices in which office staff log incoming constituent services cases. Globally tracked individual case numbers were assigned on creation, and enterprise taxonomy was leveraged for case, constituent, and departmental contact categorization. By leveraging search along with managed metadata, the solution was able to surface constituent and departmental contact information related to case categories in a single interface.

This solution is very similar to the legal services case management pilot.

Project 3: Search-Driven Website Using SharePoint as a Middle-Tier System

Tallan was contracted by the Massachusetts Legislature to build a public facing legislative website to provide constituents with access to legislative information including bills, laws, and legislative events. The enterprise-scale solution was built using SQL Server 2012 as data store for legislative information. SharePoint 2010 and Enterprise Search were leveraged to provide enterprise content management, document storage and categorization, and scalable enterprise search capability. The front-end was written in ASP.NET MVC utilizing jQuery and other frontend JavaScript libraries to provide a fluid, responsive interface to end users.

The solution included document categorization, heavy utilization of enterprise search, large-scale information architecture, and the utilization of SharePoint as a middle tier system for an ASP.NET website.

Summary: Costs are comparable to other projects of similar scope.

3. Comparison with Other Bidders/Competitors:

We reviewed the bids of the finalists whereby a Best and Final Offer (BAFO) was requested.

We feel confident that the **price for deliverables** provided by the vendors is an apples to apples comparison, in that, per the team scoring of following areas, all vendors were close in score:

- a. Functional and Technical Requirements
- b. Professional Services Requirements
- c. Experience and Staffing
- d. Financial Stability
- e. References (No scoring was completed in the summary sheet)

NOTE: We do not feel that the “Cost Score” is a representative measure of costs among vendors per the summary below:

The Cost area scored, called **Contract Cost, including licensing, maintenance and warranty**, appears to score functionality again, per the following statement: “Score Vendor Cost Proposals 1-5 using the scoring criteria described in the *Evaluation Scoring Criteria* table below”, found in “Totals_ScorTool_ECMS_Reqs_PT.xlsx”.

In other words, the scoring metric seems to be more applicable to evaluating the other areas assessed (i.e. Functional and Technical Requirements, Professional Services Requirements, etc.) as opposed to Cost.

This is further illustrated by Vendor E receiving a lower CONTRACT COST SCORE than Tallan, even though their pricing was 59% below Tallan pricing.

Vendor F	Vendor B	Tallan	Vendor A	Vendor C	Vendor E	Vendor D
3	4	4	2	3	2	3

Evaluation Scoring Criteria					
Rating	Relation to Requirements in the RFP	Strengths	Deficiencies	Weaknesses	Likelihood of Success
5 Excellent	Exceeds requirements	Numerous, significant in key areas	none	minor, if any	very high
4 Good	fully addresses requirements	some, and significant in key areas	none	minor, but far outweighed by strengths	high
3 Acceptable	addresses requirements but is limited in some areas	some, and adequate in key areas	minor	minor, but outweighed by strengths	fair
2 Marginal	partially addresses the requirements or is very limited	some that are outweighed by weaknesses / deficiencies	significant	significant	poor
1 Unacceptable	fails to address the requirements	none, or some that are far outweighed by weaknesses / deficiencies	extreme	extreme	none

This is further illustrated in the document titled “*Scoring Summary_20160105.pdf*”, where Tallan received a higher score than Vendor E, even though Tallan was 59% higher cost.

Rating Criteria		Maximum Points	Vendor F	Vendor B	Tallan	Vendor E	Vendor D
			Score	Score	Score	Score	Score
Functional & Technical Requirements	40	27.60	29.65	30.94	29.90	30.06	
Professional Services Requirements	15	9.54	9.54	11.13	9.04	9.63	
Experience & Staffing	5	4.00	3.50	4.00	3.83	3.67	
Subtotals		41.15	42.69	46.06	42.77	43.35	
Financial Stability	5	2.83	2.67	3.67	4.00	4.17	
References (Finalists Only)	5						
Contract Cost -including licensing, maintenance & warranty (Finalists Only)	30	16.00	21.00	25.00	18.00	14.00	
Total of Points:	100						
Final Scores ==>		59.98	66.35	74.73	64.77	61.52	

In summary: The point here is this: The Cost Scoring provided through the ANR vendor analysis is not used as a data point in the Cost Comparison with other Bidders/Competitors, so the following Cost Comparison is provided.

Independent Review Cost Comparison:

	2016	2017	2018	2019	2020		
	1 - Primarily DDI	2 - Primarily DDI	3 - M&O	4 - M&O	5 - M&O	TCO	Delta from Tallan
Group 1, Tallan	\$1,289,600.00	\$826,838.00	\$106,821.00	\$106,822.00	\$106,823.00	\$2,436,904.00	
Group 1, Vendor A	\$899,835.00	\$663,165.00	\$218,000.00	\$270,000.00	\$290,000.00	\$2,341,000.00	-3.94%
Group 1, Vendor C	\$1,049,119.00	\$921,119.00	\$238,119.00	\$238,119.00	\$238,119.00	\$2,684,595.00	10.16%
Group 2, Vendor B	\$626,187.00	\$244,408.00	\$194,408.00	\$194,408.00	\$194,408.00	\$1,453,819.00	-40.34%
Group 2, Vendor E	\$377,707.86	\$156,905.87	\$161,613.05	\$166,461.44	\$171,455.28	\$994,143.50	-59.20%
Group 2, Vendor F	\$133,765.00	\$493,077.50	\$102,890.00	\$102,890.00	\$102,890.00	\$935,512.50	-61.61%
Group 3, Vendor D	\$1,366,725.00	\$479,532.04	\$482,145.46	\$497,702.43	\$517,230.89	\$3,343,335.82	37.20%

In summary, of the 7 pricing proposals reviewed, we have 3 pricing clusters:

- a. **GROUP 1**: 3 in the cluster of \$2.3M-\$2.7M (within +/- 10% of the Tallan proposal)
- b. **GROUP 2**: 3 in the cluster of \$1M - \$1.5M (40% or more lower)
- c. **GROUP 3**: 1 outlier in the \$3.3M range (37% higher)

At least bidders 3 have at least a 40% lower cost and 1 has a 4% lower cost. Tallan is the 5th highest of the 7 proposals.

In summary: It is concluded that the Tallan proposal is on the high side of the competitive pricing spectrum.

5.2 Cost Comparison

How do the above Acquisition Costs compare with others who have purchased similar solutions (i.e., is the State paying more, less or about the same)?

Point of Comparison	Measure
Hourly Rates	Rates are comparable to market rates although Project Management overhead is high compared to the market.
Similarly Scoped Projects	Costs are comparable to other similarly scoped projects.
Comparison with other bidders/competitors	Costs are high compared to other bids/competitors.

5.3 Cost Assessment

Are the Acquisition Costs valid and appropriate in your professional opinion? List any concerns or issues with the costs.

Although the hourly rates are comparable, costs for the solution as proposed are **high** relative to the metrics evaluated as outlined in **Sections 5.1** and **5.2** above.

Additional Comments on Acquisition Costs:

None.

6. Technology Architecture Review

After performing an independent technology architecture review of the proposed solution, please respond to the following.

SUMMARY: This project calls for services related to designing, developing, testing, implementing, training, and post-implementation support for an Enterprise Content Management System (ECMS) solution to be built on the Microsoft SharePoint OnLine platform to support DEC business processes within 6 pilot areas.

See **Appendix 4** for detailed technology specifications.

1. State's IT Strategic Plan: Describe how the proposed solution aligns with each of the State's IT Strategic Principles:

- i. Leverage successes of others, learning best practices from outside Vermont.
- ii. Leverage shared services and cloud-based IT, taking advantage of IT economies of scale.
- iii. Adapt the Vermont workforce to the evolving needs of state government.
- iv. Apply enterprise architecture principles to drive digital transformation based on business needs.
- v. Couple IT with business process optimization, to improve overall productivity and customer service.
- vi. Optimize IT investments via sound Project Management.
- vii. Manage data commensurate with risk.
- viii. Incorporate metrics to measure outcomes.

b. The following describes how this project exploits these principles:

- i. Leverage successes of others, learning best practices from outside Vermont.
 1. *The SharePoint platform is proven and in place in many organizations and throughout State of Vermont. While the vendor has implemented all functionality ANR is asking for, they have not implemented all functionality for one client.*
- ii. Leverage shared services and cloud-based IT, taking advantage of IT economies of scale.
 1. *This solution leverages cloud-based services in that the application will be hosted by Microsoft SharePoint OnLine cloud, which is under the Microsoft Azure cloud service offering.*
- iii. Adapt the Vermont workforce to the evolving needs of state government.
 1. *The proposed solution extends the existing use of SharePoint within State of Vermont into document management. It is expected the proposed solution will provide the necessary functionality and the workforce will leverage this tool set to support the business needs.*
 2. *Currently staff use manual processes. The solution will automate the record management solution allowing staff to focus on higher priority tasks. Workforce adaption will improve workflows as they learn to work through the process in the automated workflows.*
- iv. Apply enterprise architecture principles to drive digital transformation based on business needs.
 1. *The solution relies on Microsoft Azure architecture for hosting, and as Microsoft Azure and SharePoint OnLine are existing and proven solutions for*

SOV, the proposed solution provides the framework to drive digital transformation.

- v. Couple IT with business process optimization, to improve overall productivity and customer service.
 - 1. *This initiative is expected to improve customer service by improving access to documents, thereby reducing turnaround time for requests for information.*
- vi. Optimize IT investments via sound Project Management.
 - 1. *Both the vendor and SOV are expecting to provide sound Project Management services on this initiative.*
- vii. Manage data commensurate with risk.
 - 1. *The solution adequately supports data risk management through application and data security models as described in the Security section below (#5).*
- viii. Incorporate metrics to measure outcomes.
 - 1. *There are no specific outcome metrics defined in the scope of work.*

2. Service Level(s): What is the desired service level for the proposed solution and is the technical architecture appropriate to meet it?

There were no Service Levels defined in the RFP. However, the Service Levels provided by the vendor are acceptable to ANR, and the architecture is appropriate to meet those service levels.

3. Sustainability: Comment on the sustainability of the solution's technical architecture (i.e., is it sustainable?).

The platform upon which the solution will run, SharePoint OnLine, has been and is expected to remain sustainable.

4. License Model: What is the license model (e.g., perpetual license, etc.)?

The proposed solution is a services contract to develop and deliver functionality within a SharePoint OnLine environment.

The proposed solution assumes SharePoint OnLine is already contracted for by ANR/DEC. Per ANR, ANR already has Office365 G1 and G3 Licenses (650 G3 (\$300/user/annually) and 60 G1 (\$100/user/annually) licenses) under the DII Office365 contract with Microsoft.

Other 3rd party tools, highlighted in the cost spreadsheet, are licensed as a perpetual usage license, with an initial licensing fee followed by annual support. These include:

- 1. Nintex forms and workflows (std. edition); up to 1,000 users and 10 workflows
- 2. PsiGen Document Capture and OCR for SharePoint
 - a. PsiGen® Capture is used to implement document capture and OCR capabilities for the ECMS solution. This tool has the ability to integrate with Office 365 and on-premises scanners and copy machines. It provides an easy-to-use reconciliation application to review tagging and classification. It also provides the ability to manage batch tagging and routing of scanned documents.
- 3. Collabware or Knowledge Lake Records Management

5. **Security:** Does the proposed solution have the appropriate level of security for the proposed activity it will perform (including any applicable State or Federal standards)? Please describe.

Yes, the proposed solution has the appropriate level of security for the proposed activity it will perform.

Security Architecture and Design: Describe the Vendor's proposed approach to support technical controls and technology solutions that must be secured to ensure the overall security of the System:

a. Application Security Model

- i. The primary application will be secured using Active Directory accounts to secure access to sites and content within the SharePoint farm, using Azure Active Directory and/or ACS (Access Control Service).
 1. As the application hosts personally identifiable information (i.e. driver license number), and as Multi-Factor authentication is not contemplated at this point, there exists a security model concern which is identified in the Risk Register.
- ii. Any and all communication between the permitting site, custom ASP.NET Web API services, and the SharePoint Online REST services will be secured using SSL.
- iii. API access to SharePoint Online will be secured using OAuth2.

b. Data Security Model

- i. Data for the solution will be hosted in SharePoint Online and Office 365 Government Community Cloud. Microsoft provides encryption at rest for data stored on Microsoft servers. Microsoft also provides encryption in transit using SSL/TLS for all data transmission. Additionally, Microsoft has strict logical and physical security rules regarding custom data and access to physical hardware.
- ii. The Office 365 Trust Center provides detailed information about security provided by Microsoft. For more information, visit the Office 365 Trust Center at the following link: <https://products.office.com/en/business/office-365-trust-center-cloud-computing-security>

Additional Security features of Office365 include can be found here,

<https://products.office.com/en/business/office-365-trust-center-top-10-trust-tenets-cloud-security-and-privacy> , and include:

1. Health Insurance Portability and Accountability Act (HIPAA): HIPAA imposes on our customers that may be "covered entities" under the law security, privacy, and reporting requirements regarding the processing of electronic protected health information. Microsoft developed Office 365 to provide physical, administrative, and technical safeguards to help our customers comply with HIPAA. We offer a HIPAA Business Associate Agreement (BAA) to any customer. For more information about the HIPAA BAA, visit the HIPAA/HITECH FAQ at <http://go.microsoft.com/fwlink/p/?LinkID=509779>.

2. Health Information Trust Alliance (HITRUST): The Office 365 team, in partnership with an independent assessor, completed an assessment to evaluate our compliance with HITRUST. Viewed as an important standard by U.S. healthcare organizations, HITRUST has established the Common Security Framework (CSF), a certifiable framework that can be used by any and all organizations that create, access, store, or exchange personal health and financial information. HITRUST has a rating scheme to assess an organization's security management program where an organization's developmental advancement is measured by one of five maturity levels. The rating is an indicator of an organization's ability to protect information in a sustainable manner. An independent auditor evaluated the Microsoft security program overall at a Level 5 rating, which is the highest possible rating.

3. Data processing terms: We provide customers with additional contractual assurances through our data processing terms regarding Microsoft handling and safeguarding of customer data. By agreeing to these terms, we commit to over 40 specific security commitments collected from regulations worldwide. The robust commitments in our data processing terms are available to customers by default.

4. Federal Information Security Management Act (FISMA) requires U.S. federal agencies to develop, document, and implement controls to secure their information and information systems. Federal Risk and Authorization Program (FedRAMP) is a federal risk management program that provides a standardized approach for assessing and monitoring the security of cloud products and services. The FedRAMP/FISMA FAQ describes how the Office 365 service follows security and privacy processes relating to FedRAMP/FISMA at <http://go.microsoft.com/fwlink/p/?LinkID=509780>.

5. ISO 27001: ISO 27001 is one of the best security benchmarks available in the world. Office 365 has been verified to meet the rigorous set of physical, logical, process and management controls defined by ISO 27001:2013 (<http://go.microsoft.com/fwlink/p/?LinkID=522703>). This also includes ISO 27018 Privacy controls in the most recent audit. Inclusion of these new ISO 27018 controls in the ISO assessment will further help Office 365 validate to customers the level of protection Office 365 provides to protect the privacy of customer data.

6. European Union (EU) Model Clauses: The EU Data Protection Directive, a key instrument of EU privacy and human rights law, requires our customers in the EU to legitimize the transfer of personal data outside of the EU. The EU model clauses are recognized as a preferred method for legitimizing the transfer of personal data outside the EU for cloud computing environments. Offering the EU model clauses involves investing and building the operational controls and processes required to meet the exacting requirements of the EU model clauses. Unless a cloud service provider is willing to agree to the EU model clauses, a customer might lack confidence that it can comply with the EU Data Protection Directive's requirements for the transfer of personal data from the EU to jurisdictions that do not provide "adequate protection" for personal data. The EU model clauses FAQ (<https://products.office.com/en/business/office-365-trust-center-eu-model-clauses-faq>) describes the Microsoft regulator-endorsed approach for the EU model clauses.

7. ISO 27018: Microsoft is the first major cloud service provider to be independently verified as complying with ISO 27018, which establishes a uniform, international approach to protecting the privacy of personal information stored in the cloud. Our compliance with ISO 27018 means that we only process personal information in accordance with customer instructions, we are transparent about what happens to customer data, we provide strong security protections for personal information in our cloud, customer data will not be used for advertising, and we inform customers about government access to their data.

8. Family Educational Rights and Privacy Act (FERPA): FERPA imposes requirements on U.S. educational organizations regarding the use or disclosure of student education records, including email and attachments. Microsoft agrees to use and disclosure restrictions imposed by FERPA that limit our use of student education records, including agreeing to not scan emails or documents for advertising purposes.

9. Statement on Standards for Attestation Engagements No. 16 (SSAE 16): Office 365 has been audited by independent third parties and can provide SSAE16 SOC 1 Type I and Type II and SOC 2 Type II reports on how the service implements controls.

10. Gramm–Leach–Bliley Act (GLBA): The Gramm–Leach–Bliley Act requires financial institutions to put processes in place to protect their clients' nonpublic personal information. GLBA enforces policies to protect information from foreseeable threats in security and data integrity. Customers subject to GLBA can use Office 365 and comply with GLBA requirements.

Additional information about compliance is available at the Office 365 trust center:
<https://products.office.com/en/business/office-365-trust-center-cloud-computing-security>

6. Hosting Environment

- a. See the HOSTING ENVIRONMENT section in **Appendix 4**.

7. Compliance with the Section 508 Amendment to the Rehabilitation Act of 1973, as amended in 1998:

Comment on the solution’s compliance with accessibility standards as outlined in this amendment.

Reference: <http://www.section508.gov/content/learn>

Section 508-related information was found at: <http://enterprise.microsoft.com/en-us/industries/government/section-508-vpats-for-microsoft-products/>

SharePoint Online meets most Section 508 criteria as described below.

Criteria	Supporting Feature
Section 1194.21 Software Applications and Operating Systems	Supported
Section 1194.22 Web-based internet information and applications	Generally Supported
Section 1194.23 Telecommunications Products	Not Applicable
Section 1194.24 Video and Multi-media Products	Supported
Section 1194.25 Self-Contained, Closed Products	Not Applicable
Section 1194.26 Desktop and Portable Computers	Not Applicable
Section 1194.31 Functional Performance Criteria	Supported
Section 1194.41 Information, Documentation and Support	Supported

**Section 1194.22 Web-based Internet information and applications – Detail
 Voluntary Product Accessibility Template**

Criteria	Supporting Feature	Remarks and Explanations
(d) Documents shall be organized so they are readable without requiring an associated style sheet.	Supported with Exceptions	To view the application correctly, styles that define element layout cannot be ignored.

- 8. Disaster Recovery:** What is your assessment of the proposed solution’s disaster recovery plan; do you think it is adequate? How might it be improved? Are there specific actions that you would recommend to improve the plan?

Please see DR/BC section described in **Appendix 4**.

In terms of system availability, it is adequate.

9. Data Retention: Describe the relevant data retention needs and how they will be satisfied for or by the proposed solution.

Please see DR/BC section described in **Appendix 4**.

There are two key items here:

1. Only a full Site Collection Restore is available.
2. As sites are only retained for 14 days, if a restore prior that point is required, it is not available.

These were discussed during the IR Presentation, and ANR indicates both are acceptable.

10. Service Level Agreement: What is your assessment of the service level agreement provisions that the proposed vendor will provide? Are they appropriate and adequate in your judgment?

The RFP did not specifically define required Service Levels/Service Level Agreements. In the follow up Q&A response from ANR to vendors, the following answer was provided:

At this time we have not defined availability requirements. We would expect high availability (percentage unknown) between 7:45 and 4:30 business hours with lessor percentages of availability outside of business hours as well as weekly or daily downtime for system maintenance and backups during evening or early morning hours.

Based on discussions with ANR, the SLAs described here meet ANR's business requirements.

Specific SLAs are described below:

SYSTEM MAINTENANCE – SERVICE LEVEL AGREEMENT

Ongoing maintenance and support of the Office 365 and Azure Government environments will include the following services:

- Patches, updates, and regular maintenance of the Azure Government Dev/Test environment
- Automatic updates to Office 365, as scheduled by Microsoft
- Resolution of issues identified during the normal operations of the ECMS solution, including:
 - Content access issues
 - Permissions related issues
 - Retrieval of deleted documents (if still in the Recycle Bin)
 - Issues related to document capture
 - Issues related to routing and records management
 - Issues related to public access to SharePoint ECMS content
 - Issues related to searching and querying ECMS content
- Resolution of questions and defects related to the ECMS solution as developed and deployed by Tallan
- Regular system check-up and audit report review

TECH SUPPORT - SERVICE LEVEL AGREEMENT

Tallan indicates this could be discussed during contract discussions.

SYSTEM RESPONSE TIME - SERVICE LEVEL AGREEMENT

Much of this will be driven by Office 365. Tallan indicates this could be discussed during contract discussions. Of note: There are no provisions for system responsiveness in the Office365 SLA document referenced below.

SYSTEM AVAILABILITY - SERVICE LEVEL AGREEMENT (3 9s, 4 9s?)

System availability will be largely driven by Office 365 availability. The system components needed for this project that are outside of Office 365 are already in place at VT DEC, so the current internal SLAs should apply.

The following is a snippet from the attached MS Office OnLine SLA document found at:

<http://www.microsoftvolumelicensing.com/Downloader.aspx?DocumentId=9892>.

SharePoint Online

Downtime: Any period of time when users are unable to read or write any portion of a SharePoint Online site collection for which they have appropriate permissions.

Monthly Uptime Percentage: The Monthly Uptime Percentage is calculated using the following formula:

$$\frac{\text{User Minutes} - \text{Downtime}}{\text{User Minutes}} \times 100$$

where Downtime is measured in user-minutes; that is, for each month, Downtime is the sum of the length (in minutes) of each Incident that occurs during that month multiplied by the number of users impacted by that Incident.

Service Credit:

Monthly Uptime Percentage	Service Credit
< 99.9%	25%
< 99%	50%
< 95%	100%

BUG FIX – SERVICE LEVEL AGREEMENT

Tallan indicates this could be discussed during contract discussions.

HOSTING SERVICE LEVEL AGREEMENT

A function of the Office365 Service Level Agreement(s) outlined above.

DR/BC DESCRIPTION AND SERVICE LEVEL AGREEMENT

As a Software as a Service (SaaS) product, Office 365 should largely insulate VT DEC from most DR/BC situations. Office 365's service continuity capabilities are discussed here:

<https://technet.microsoft.com/en-us/library/office-365-service-continuity.aspx>. The content at this link discusses data availability, monitoring, and planned and unplanned downtime. No SLAs are provided however.

- 11. System Integration:** Is the data export/reporting capability of the proposed solution consumable by the State? What data is exchanged and what systems will the solution integrate/interface with? **Please create a visual depiction** and include as **Appendix 1** of this report. Will the solution be able to integrate with the State's Vision and financial systems (if applicable)?

See **Appendix 1**.

Integration with State's VISION and Financial Systems is not applicable.

Additional Comments on Architecture:

None.

7. Assessment of Implementation Plan

7.1 Implementation Readiness

After assessing the Implementation Plan, please comment on each of the following.

1. The reality of the implementation timetable

- a. The overall proposal contemplates a 7 month period of solution development and implementation followed by 4.5 months of post implementation support and 10 years of solution usage. The timeline seems reasonable for the vendor to complete. Several risk items in the risk register impact schedule however.
- b. See also **Section 4.4** for milestones and related information.

Task Name	Duration	Start	Finish
Business Process Analysis	30 days	Mon 4/4/16	Fri 5/13/16
Environment Setup	5 days	Mon 5/9/16	Fri 5/13/16
SharePoint Base ECMS	60 days	Mon 5/16/16	Fri 8/5/16
SharePoint Document Capture	20 days	Mon 8/8/16	Fri 9/2/16
External Web Site	25 days	Mon 8/8/16	Fri 9/9/16
Records Management	25 days	Mon 9/12/16	Fri 10/14/16
SITE IS LIVE	0 days	Fri 10/14/16	Fri 10/14/16
Training	10 days	Mon 10/17/16	Fri 10/28/16

2. Training of users in preparation for the implementation

The training plan used by the vendor is described below.

- 1. Tallan plans to approach training in a two-fold manner. First, Tallan will involve business users and IT staff from the start in the project and provide consistent and continual knowledge transfer as the project progresses. Along with this knowledge transfer, Tallan will provide documentation related to the project such as best practices guides and standard SDLC documents such as test plans, design documents, and infrastructure architecture documents.
- 2. Tallan will also provide training through on-site user and administration training, as well as how-to training wiki and videos. The wiki will contain topics in a "how-to" format with screenshots, examples, and links to other useful resources. It will also house webcasts for standard SharePoint usage topics.
- 3. As part of the solution, Tallan will provide a training wiki with content obtained through its partnership with SharePoint Shepherd (www.SharePointShepherd.com) containing self-directed training for end users.
- 4. Tallan will provide necessary training documentation for custom portions of the application not covered by the SharePoint training information contained within the wiki mentioned above.
- 5. The following describes the detailed training approach and method:
 - a. **Administration training:**
 - i. How-to training wiki and videos - Tallan will setup a training wiki site on the SharePoint portal. The training wiki will contain key topics in a "how-to" format with screenshots, examples, and links to other resources. The training site will also house web casts for topics such as creating sites using site templates, managing permissions on sites, managing collaboration sites, and troubleshooting tips.

- ii. On-site deep dive - Tallan will setup on-site deep dive sessions for administrators and business users from the 6 DEC program. The on-site deep dive will be based on pre-determined topics that will be decided based on the goals and needs of the users.
- b. End user training:**
- i. On-site user training sessions - Tallan will conduct "classroom style" training of end users for basic SharePoint functions such as uploading files, performing searches, filters, and document sharing.
 - ii. On-site business use case training sessions - Tallan will conduct training about specific business use cases.
 - iii. These sessions will cover topics such as specific business workflows, document capture, and applying metadata to content.
 - iv. How-to SharePoint Wiki - Tallan will setup a training wiki for end users on the SharePoint Portal. The training wiki will contain key topics in a "how-to" format with screenshots, examples, and links to other resources.

3. Do the milestones and deliverables proposed by the vendor provide enough detail to hold them accountable for meeting the Business needs in these areas:

- A. Project Management
- B. Training
- C. Testing
- D. Design
- E. Conversion (if applicable)
- F. Implementation planning
- G. Implementation

The short answer is yes. The Milestones and Deliverables are clearly defined. See Section 4.3.

Acceptance Process:

See Section 4.2, which details the Acceptance Criteria for each project Objective.

4. Does the State have a resource lined up to be the Project Manager on the project? If so, does this person possess the skills and experience to be successful in this role in your judgement? Please explain.

- a. ANR/DEC plans to utilize a project manager in the following manner:
 - i. Jennifer Loughran, on loan from DII to this project, is expected to be 100% available to the project as Project Manager. This is a new subject matter for Ms. Loughran.
- b. In summary, Project Management resources are adequate from a time allocation standpoint, and light from a subject matter standpoint.

5. Readiness of impacted divisions/departments to participate in this solution/project

- a. ANR/DEC staff appear to have many other tasks on their plates, preventing them from providing primary focus to this project.

6. Adequacy of design, development, migration/conversion, and implementation plans

This section describes vendor's approach to **Project Management**.

PROJECT MANAGEMENT ACTIVITIES

The Tallan Technical Manager (what the RFP calls the vendor Project Manager) is the primary managing resource for Tallan resources throughout the project. The Technical Manager monitors project status, validates project deliverables, and is the primary liaison between Tallan resources and the client. On most projects, the Tallan Technical Manager works closely with a client Project Manager, a role which the RFP calls the State Project Manager. The Technical Manager and client Project Manager oversee activities of consultant and client team members, respectively. They work collaboratively to provide holistic oversight to the project.

For clients that do not have a development methodology preference, Tallan follows their own **Tallan Solutions Framework (TFS) methodology**. The TFS breaks the project lifecycle down to the five phases of **Envisioning, Planning, Development, Stabilizing and Deployment**. Scrum is utilized to add an agile methodology to the development phase of the project and allow the project team quickly react to priorities and changes that typically occurred during this phase.

Tallan will use the client's preferred methodology if one exists. From the RFP, it is clear that VT DEC requires the project management methodology to be consistent with the Project Management Book of Knowledge (PMBOK). The TFS follows most tenants contained in the Project Management Institute's PMBOK. A comparison between the PMBOK and TFS is detailed in Appendix B of the Tallan's response the RFP. Tallan recommends following the TFS because of their extensive success with this hybrid waterfall/agile methodology. However, if VT DEC prefers that the PMBOK is strictly followed, Tallan can easily adapt and follow that methodology.

The table below shows key project management activities for the Enterprise Content Management System project, the resource(s) responsible for those activities, and a description of how the activities would be conducted.

Activity	Resource	How Activity is Conducted
Overall Project Management	Tallan Technical Manager (collaborating with State Project Manager)	<p>The Technical Manager will work collaboratively with the State Project Manager to manage the project. The active management of the project will occur throughout the project lifecycle. To manage the project, the Technical Manager will utilize the project plan (called the Project Management Plan (PMP) in the RFP) to manage project-wide activities and manage schedule impacts due to task slippage or changes, the Sprint Plan to manage iteration tasks, and the Sprint burn down chart to monitor how the Sprint is progressing against expectations. The Technical Manager will report project progress through status reports (using straight-forward green/yellow/red status for major task areas) and present them in weekly status meetings.</p> <p>The status report will show the tasks completed for the previous week, tasks for the upcoming week, and will highlight project issues.</p>
Risk Management	Technical Manager (collaborating with State Project Manager and possibly Project Sponsor)	<p>TSF has a Risk Management spreadsheet to help identify risks and manage mitigation strategies. The spreadsheet lists each risk, assigns a likelihood rating, and assigns a severity if the risk becomes a real issue. The Technical Manager will complete this spreadsheet during the Business Process Analysis phase. Throughout the project, it should be reviewed periodically (typically every 2 weeks or every month) with the State Project Manager and possibly the Project Sponsor.</p>
Scope Management / Change Management	Technical Manager and State Project Manager	<p>Scope management is one of the most difficult aspects of managing a project. The inherent challenge lies in the fact that the development team wants to meet the needs of the business users, which is not a bad desire. However, introducing additional scope without corresponding additional budget and schedule is a recipe for disaster.</p> <p>The Technical Manager manages scope constantly, looking for attempts (both intentional and unintentional) to increase scope. The Technical Manager will reiterate that scope cannot increase without a Change Order being routed and approved. The Technical Manager will work closely with the State Project Manager to ensure that a consistent message is being conveyed to client and consultant resources.</p> <p>For scope changes that are deemed necessary, the State Project Manager will request a quote for the change through a formal Change Request. Tallan will respond with a Change Order that defines the solution, the impact to cost, and any changes to schedule that it might cause. Tallan will use either DEC's Change Order form or the TSF Change Control form.</p>

Communications	Technical Manager (collaborating with State Project Manager)	The Technical Manager will work with the State Project Manager to create a Communications Plan during the Business Process Analysis phase. This plan details the various communications scenarios that will be used, the medium (e.g., phone, instant message, email, etc.) and their frequency. Examples of communication scenarios are: developer communication, daily scrums, status meetings, steering committee meetings, and product demonstration meetings. This plan can be adjusted during the project to address changing needs (e.g., increasing the frequency of steering committee meetings).
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The specific people conducting key roles on this project include:

1. Joe Giessner – Organizational role as Regional Director is 50% sales and 50% project delivery management. On the sales side, Joe works to understand a potential client’s needs and work with other technical resources (including Practice Directors) to propose a solution that meets those needs. On the delivery management side, Joe works closely with the Technical Manager on the project to ensure they’re meeting the customer’s expectations in terms of schedule, budget, and quality of deliverables. The specific Project role is the delivery management role mentioned above. Assuming that Rick is the Technical Manager, Joe will provide feedback to him on the project plans, status reports, and deliverables. Joe would serve as a point of escalation for VT DEC for any Tallan delivery issues.
2. Mike Gerety – Project role will be in technical delivery management, technical oversight, architectural guidance, and direct interaction when needed to ensure the project is successfully delivered.
3. Rick Oliva – Project role will be to manage project activities from the overall project perspective as well as management of daily activities to ensure all required deliverables are completed on time and with a high degree of quality. This includes, but not limited to:
 - a. Work closely with Client project manager to:
 - i. Ensure weekly project goals are clear and delivered on schedule.
 - ii. Timely notification and documentation of any issues, concerns or schedule changes that may be necessary.
 - iii. Define client deliverables, due dates, and impact delay will have on overall schedule.
 - b. Assist with requirements gathering and documentation for client approval and signoff.
 - c. Manage development sprints. Coordinate sprint planning sessions, document user stories and development tasks as well as manage progress using a sprint management tool.
 - d. Manage Tallan resources including:
 - i. Plan and schedule development tasks via sprint planning.
 - ii. Unit testing to complete development tasks and project deliverables.
 - iii. Rollout of new features to test and production environments.
 - e. Manage project documentation including:
 - i. Coordinate with client project manager on updating detailed project plan and adjusting weekly as needed.
 - ii. Risk mitigation document.
 - iii. Weekly status reports.
 - iv. Coordinate with client project manager on communication plan.
 - v. Project issues log.
 - vi. Sprint management using a tool such as MS Team Foundation Server, MS Excel based planning tools or the client’s preferred tool if desired.

- vii. Project change orders if required.*
- viii. General meeting notes including action items, responsibilities and due dates.*
- f. Manage project scope. Create change orders if additional scope is required to define new scope, impact to cost and any affect to schedule that the change may cause.*
- g. Schedule and manage project meetings:*
 - i. Project kickoff meeting.*
 - ii. Weekly status meetings.*
 - iii. Sprint planning meetings.*
 - iv. Requirements gathering meetings.*
 - v. Client training and knowledge transfer meetings.*
 - vi. Other required meetings as defined by the project.*
- h. Assist with testing and short technical tasks when necessary to help the project team meet deliver goals.*

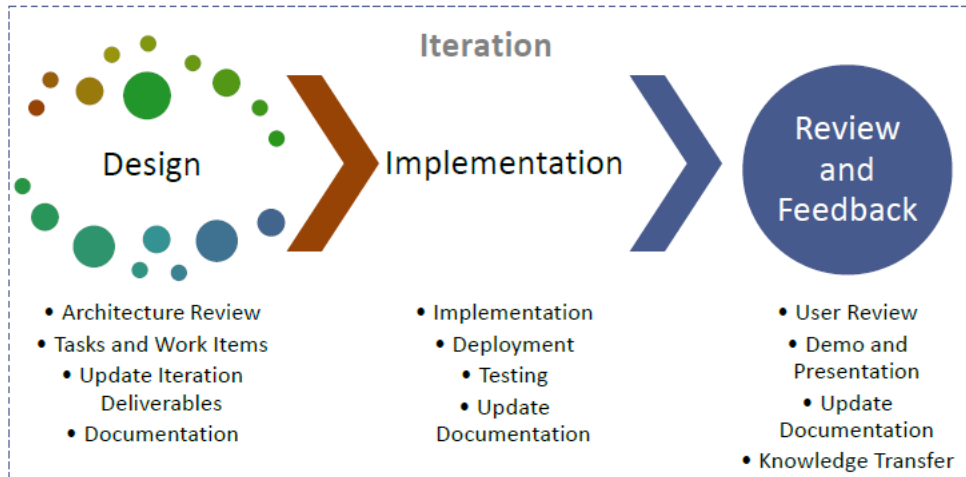
This section describes vendor's approach to **design and development**.

Tallan proposes to conduct detailed analysis and modelling of the 6 DEC processes prior to starting the implementing the ECMS solution. The sections below describe how the requirements outlined in the RFP will be implemented. The final roll-out plan will be reviewed and approved with DEC project managers and stakeholders.

Tallan proposes to use an **iterative** approach to design, implementation, testing, and release of the DEC ECMS solution. Each iteration will culminate in a presentation and demo of what was accomplished as well as planning for the next iteration. **Tallan typically works with 3 week iterations**, however some iterations may be shorter or longer depending on the needs of the project. A detailed iteration plan will be created once the project starts. This iterative approach will allow DEC to provide regular feedback to the Tallan team and provide a high-degree of visibility to the development and approval process. All stakeholders can see the solution evolve as each iteration builds on previous ones.

It is Tallan's philosophy that documentation and knowledge transfer should be developed and implemented throughout the project, during each iteration. Continuous and timely updates to documentation is necessary to keep it current and relevant. Developer testing and deployments are important parts of the definition of feature completeness. Each iteration will contain quality gates such as, testing, user review, and user feedback to ensure high-quality deliverables consistent with the requirements.

Inside an Iteration:



BUSINESS PROCESS ANALYSIS FOR 6 DEC PROGRAMS

Tallan proposes to interview key stakeholders, employees, and business users to document and model the 6 DEC programs. Tallan will utilize Microsoft Visio 2013 as the Business Process Modeling (BPM) tool for this process. The business process modeling will include the following activities:

- BPM diagrams detailing the 6 DEC programs
- Mapping of business processes to workflows which will be implemented in the SharePoint ECMS
- Identifying content repositories, types of documents, and metadata to support the business processes
- Identifying external system integrations required to integrate relevant metadata into the 6 DEC processes
- System architecture mapping the various SharePoint and custom components needed to automate the business processes

Implementing an enterprise scale content management system is a complex process. Planning and documenting the requirements, needs, and user experience are absolutely paramount to the successful roll-out of such a solution. Tallan will employ consultants experienced with this process for this phase of the project.



Tallan will also setup and configure the Office 365 environment, configure a development Office 365 tenant and setup a developer environment in an Azure Government environment. The development environment in Azure Government will contain all the tools necessary to develop SharePoint solutions for the Office 365 environment such as, Visual Studio, SharePoint Designer, AngularJS, BreezeJS, and other developer tools for SharePoint app development.

The table below describes how vendor is staffing this project:

Resource	Allocation / Estimated Hours	Roles and Responsibilities
SharePoint Practice Lead	10% (not billed)	<ul style="list-style-type: none"> Track project health Ensure adherence to Tallan and industry best practices Assist with information and infrastructure architecture and documentation Provide advice on design and implementation questions
Technical Manager	Full-time / stated as ~30% of total hours, although per analysis above, this is 48%	<ul style="list-style-type: none"> Create project plan Create and review status reports Track project health Manage Tallan resources Provide guidance on go-live strategy Work with client's business and technical team
Senior User Experience Consultant	Part-time / 30	<ul style="list-style-type: none"> Analyze user requirements Create wireframes and visual designs for web sites and SharePoint sites Implement user interface design through HTML 5, CSS, JavaScript and other web 2.0 technologies
Senior SharePoint Consultant (2)	Full-time /196	<ul style="list-style-type: none"> Help architect and design solution Install and configure the SharePoint environment Develop and deploy solutions to development, staging, and production environments Work with client's technical team Provide technical documentation
SharePoint Consultant (2)	Full-time / 185	<ul style="list-style-type: none"> Perform SharePoint development, including unit testing Work with client's technical team

This section describes vendor's approach to **Conversion/Migration**.

There is no expected data conversion/migration process in the scope of work for this project.

This section describes vendor's approach to **Implementation**.

In summary, the **Implementation** approach appears sound and adequate.

The ECMS implementation will begin with Information Architecture (IA) and design, which will include the following deliverables:

- Taxonomy to support the 6 DEC programs
- Governance, security, and permissions document
- Search settings and schema updates
- Wireframes for the 6 DEC program sites

Once these deliverables are reviewed and approved by DEC, the Tallan team will proceed with the implementation of the base ECMS features which will include the following:

- Configuration of the content type hub, search center, BCS service, and secure store service
- Provisioning sites, content types, lists, and libraries
- Updates to the master page and page layouts for the sites

Tallan proposes to use **Nintex workflows and forms** to implement the workflows associated with the 6 DEC programs. Nintex products can be integrated into Office 365 and provide flexible tools for a variety of integrations to external systems and databases.

DOCUMENT CAPTURE AND OCR

Tallan proposes to use **PsiGen® Capture** to implement document capture and OCR capabilities for the ECMS solution. This tool has the ability to integrate with Office 365 and on-premises scanners and copy machines. It provides an easy-to-use reconciliation application to review tagging and classification. It also provides the ability to manage batch tagging and routing of scanned documents.

EXTERNAL ACCESS TO ECMS CONTENT

Tallan proposes to build and deploy a custom ASP.NET MVC web site to allow public access to published ECMS content and documents. The web site will connect to the Office 365 ECMS through the SharePoint REST API and provide the following functions:

- Ability to search based on keywords, permit numbers, DEC program categories, and tags
- Ability to set up alerts on documents such that when the status or content of an application changes, the user gets the appropriate notification
- Ability for the public to search for specific applications and view their progress
- Ability to upload applications and supporting documents

RECORDS MANAGEMENT

Records management processes can be complex. Careful planning is required for the successful deployment of an enterprise records management system. Tallan will conduct the following activities to implement the DEC records management solution:

- Detailed planning of the records management solution
 - Create file plans that will indicate the type, category, and target location of records to be stored in the ECMS
 - Document transition and metadata policies to route content to appropriate records center location
- Provision and configure records center and content manager
- Provision transition policies and stages
- Implement routing workflow from content repositories to the records center
- Implement retention and disposition

7. Adequacy of support for design, development, conversion/migration, and implementation activities

If we view this project as two major parts, the 6 Pilots as a Proof of Concept, and if that is positive, the solution then rolled out across the agency, we know a project of this scope will require dedicated project staff.

This project does not have dedicated project staff, rather, many people assigned a % of their time, creating a fragmented project team. The approach may work for a smaller project, but a project of this scope would benefit greatly from dedicated full time resources.

As such, ANR/DEC is not adequately staffed for this project.

a. DESIGN/DEVELOPMENT:

- i. There is adequate vendor support for design/development of the Pilots.

b. CONVERSION/MIGRATION:

- i. Not applicable. There are no expected Conversion/Migration deliverables.

c. IMPLEMENTATION:

- i. There is adequate vendor support for implementation.

8. Adequacy of agency and partner staff resources to provide management of the project and related contracts (i.e. vendor management capabilities)

- a. As noted above, there are no dedicated resources to this project.
- b. There is a DII Project Manager allocated 100% of their time to this project, but the subject matter of this project is new.
- c. Regarding Tallan, the Tallan Solutions Framework (TSF) incorporates most tenets contained in the Project Management Institute's (PMI) Project Management Body of Knowledge (PMBOK). Tallan recommends utilizing TSF for this project due to Tallan's extensive success with this hybrid waterfall/agile methodology.

9. Adequacy of testing plan/approach

The following describes vendor's approach to testing.

In summary, Testing is a strength for this project.

In summary, Tallan performs testing at multiple levels:

- At the lowest level, Tallan's developer create **unit tests** to verify the working of any code that they write.
- At the next level, Tallan performs **Quality Assurance (QA) testing** to validate the code written or the data migrated conforms to business needs/requirements. Depending on the size and type of the project, QA testing can be performed by developers or by QA resources. QA activities are managed either by the Technical Manager or a dedicated QA Lead. For the Enterprise Content Management System project, the Technical Manager will manage QA testing performed by developers.

- Some projects require **integration testing**, which validates that the various components written interact properly. Integration testing is not required for this project.
- The last, and highest, level of testing is **User Acceptance Testing (UAT)**. This testing ensures that the system functions according to the users' expectations. For this project, the Technical Manager, in collaboration with the State Project Manager, will manage this testing effort.

The sections that follow describe the Tallan testing processes for QA testing, User Acceptance testing, and additional types of testing, which produce high quality, on-time software for clients.

TSF TEST PLAN

The TSF Test Plan goes well beyond the typical six column Microsoft Excel spreadsheet. Examples of some of the information captured within the test plan include:

- High level testing approach and techniques
- Testing roles and responsibilities
- Types of testing that will be performed (QA, user acceptance, stress, usability, etc.)
- Testing setup and procedures
- Issue tracking and resolution strategy

The Tallan Technical Manager works closely with the Testing Lead and Project Stakeholders to ensure that the test plan meets the project's business and system requirements and is approved by all parties.

TESTING IN THE DEVELOPING PHASE

Testing begins when the Developing Phase commences with the creation of unit tests. Building and utilizing unit tests as code is being developed provides multiple benefits:

- All code is tested at the lowest possible level and correct functionality is confirmed before integrating the code with the larger system
- Performing regression testing is completed quickly when any code changes are made
- The possibility of omitting testing a portion of application code is greatly reduced

As unit tests are created they are used to build smoke tests. Smoke testing is used to verify that the current build functions correctly for all unit tests and is ready for further testing. For smoke testing, Tallan utilizes a continuous, automated build, deployment, testing, and reporting strategy. This is achieved through an integration of the source control library, the standard build process, the unit tests, and a third party application, such as CruiseControl, that coordinates the application build and execution of the unit tests. This continuous integration frees developers to focus on creating unit tests and the source code for the application and provides feedback alerting them to issues.

The combination of unit and smoke testing during the developing phase provides the following benefits as the project moves into the stabilizing phase:

- Faster transition to the Stabilizing Phase
- Fewer issues found during later testing (QA, User Acceptance, etc.)
- Faster reaction and resolution of issues discovered during later testing (QA, User Acceptance, etc.)

TESTING IN THE STABILIZING PHASE

The Stabilizing Phase begins when development tasks within a sprint are completed. The Tallan Technical Manager ensures that the test plan is up-to-date with any changes and that it is ready for execution by the testing team. QA testing is started first and is followed by User Acceptance testing. In ideal situations, there is some degree of overlap by starting User Acceptance testing before QA testing is finished. When this overlap is achieved the project benefits from a reduced number of days required to complete the Stabilizing Phase and deploy the application or latest release into production. Additional testing, such as performance or usability testing, is discussed following the sections on QA and User Acceptance testing.

QUALITY ASSURANCE TESTING

For many of our clients, Tallan resources perform Quality Assurance (QA) testing. The Tallan QA Lead creates the test strategy, test plan, and many test cases. QA Testers would execute test cases, record the results, and log any defects found.

Tallan also has extensive experience working for clients that have their own internal QA department. In this scenario the Tallan Technical Manager works closely with the client QA lead to develop and understand the complete test plan. During the testing phase the Tallan project team utilizes the client's issue tracking tool, if there is a standard one used, or works with the client to determine how issues will be raised, tracked, fixed, retested, and closed.

It is essential that there is a communication plan for issues found to ensure that both the development team and QA testing team are as efficient as possible. Tallan recommends holding a daily, morning meeting with both teams to review new issues, resolved issues, and issues marked as fixed by developers that have been reopened. Using that meeting as the majority of daily conversation between the development and QA testing teams assists in keeping both teams focused for the remainder of the day on fixing issues and testing the application, respectively.

USER ACCEPTANCE TESTING

Once the application has completed at least two QA test cycles and there are no high priority issues outstanding, Tallan initiates User Acceptance Testing. Starting acceptance testing at this point ensures that users are testing an application relatively free of critical defects. Similar to the QA testing process described above, the User Acceptance Testing process does not wait until the Stabilizing Phase to begin. Tallan utilizes the QA team in conjunction with Key Client Stakeholders to create the User Acceptance Test Plan during the Planning Phase. By including the client in the development of the test plan, Tallan ensures that it conforms to the scope and requirements of the project and meets the client's expectations. The Tallan Technical Manager discusses with the client any discrepancies between the test plan, the requirements, and project scope. Items in the test plan that are beyond the scope of the project are either dropped from the test plan or added into scope through the agreed upon change control process. After approval of the User Acceptance Test Plan the QA testing team performs a gap analysis against the QA test cases and to identify and resolve any omitted tests.

The User Acceptance Test Plan is first executed by the QA testing team. This gives the development team an opportunity to identify and fix any issues found during the execution of the test plan. This also reduces the amount of time and effort required from client resources to execute the test plan and identify, report, and retest issues. Once the test plan is executed successfully, Tallan provides the client with the results of the test plan for review. The client is invited at this time to execute the entire plan or portions thereof to verify the results. Once the client is satisfied with the results of User Acceptance Testing, the User acceptance Testing Phase is complete.

ADDITIONAL TESTING

The requirements of the client and the project may necessitate additional testing beyond the QA and User Acceptance Testing described above. Tallan works with the client during the Envisioning Phase to determine the necessary testing. Once the testing requirements are finalized Tallan includes the plans within the TSF test plan document and allocates appropriate time and resources for completion of the testing.

Additional testing may include, but is not limited to:

- Performance/Load/Stress Testing
- Usability Testing
- Reliability Testing
- Disaster Recover Testing
- Browser Compatibility Testing
- Security Testing

DEFECT MANAGEMENT

All software has bugs. The processes described above along with Tallan’s 20+ years of experience building software help to reduce the number of bugs and resolve issues as quickly as possible. Tallan prioritizes issues that are discovered during the Stabilizing Phase based on the criteria presented in the table below:

Priority	Description	Deadline
Critical	Users are unable to access and/or test the entire application or a significant portion of the application.	Immediate
High	Essential application functionality is broken or not present.	Prior to launch
Low	Minor functionality is broken / not present.	Prior to launch, if possible

10. General acceptance/readiness of staff

- a. The people I spoke with on the project team all are eager for an ECMS solution, so from an “acceptance” standpoint, they are prepared.

However, from a “readiness” standpoint, as noted above, this is a rather large project, and the project is not adequately staffed from a dedicated resource standpoint to undertake a project of this magnitude.

Additional Comments on Implementation Plan:

None.

7.2 Risk Assessment & Risk Register

After performing a Risk assessment in conjunction with the Business, please create a **Risk Register** as an **Appendix 2** to this report that includes the following:

1. **Source of Risk:** Project, Proposed Solution, Vendor or Other
2. **Risk Description:** Provide a description of what the risk entails
3. **Risk ratings to indicate:** Likelihood and probability of risk occurrence; Impact should risk occur; and Overall risk rating (high, medium or low priority)
4. **State's Planned Risk Strategy:** Avoid, Mitigate, Transfer or Accept
5. **State's Planned Risk Response:** Describe what the State plans to do (if anything) to address the risk
6. **Timing of Risk Response:** Describe the planned timing for carrying out the risk response (e.g. prior to the start of the project, during the Planning Phase, prior to implementation, etc.)
7. **Reviewer's Assessment of State's Planned Response:** Indicate if the planned response is adequate/appropriate in your judgment and if not what would you recommend.

See **Appendix 2**.

Additional Comments on Risks:

None.

8. Cost Benefit Analysis

This section involves four tasks:

- 1) *Perform an independent Cost Benefit Analysis.*
- 2) **Create a Lifecycle Cost Benefit Analysis spreadsheet** as an **Appendix 3** to this report. A sample format is provided.
 - a) *The cost component of the cost/benefit analysis will include all one-time acquisition costs, on-going operational costs (licensing, maintenance, refresh, etc.) plus internal costs of staffing and "other costs". "Other costs" include the cost of personnel or contractors required for this solution, enhancements/upgrades planned for the lifecycle, consumables, costs associated with system interfaces, and any costs of upgrading the current environment to accept the proposed solution (new facilities, etc.).*
 - b) *The benefit side of the cost/benefit will include: 1. Intangible items for which an actual cost cannot be attributed. 2. Tangible savings/benefit such as actual savings in personnel, contractors or operating expense associated with existing methods of accomplishing the work which will be performed by the proposed solution. Tangible benefits also include additional revenue which may result from the proposed solution*
 - c) *The cost benefit analysis will be for the IT activity's lifecycle.*
 - d) *The format will be a column spreadsheet with one column for each year in the lifecycle. The rows will contain the itemized costs with totals followed by the itemized benefits with totals.*
 - e) *Identify the source of funds (federal, state, one-time vs. ongoing). For example, implementation may be covered by federal dollars but operations will be paid by State funds.*
- 3) *Perform an analysis of the IT ABC form (Business Case/Cost Analysis) completed by the Business.*
- 4) *Respond to the questions/items listed below.*

1. **Analysis Description:** Provide a narrative summary of the cost benefit analysis conducted: The approach used was to gather all costs associated with project for a 10 year period, identify revenue sources for the project, and identify tangible and intangible benefits that might also be used as revenue sources or expense reductions.
 - a. **COST COMPONENT:** See the attached spreadsheet referenced in **Appendix 3** to gain an understanding of:
 - i. Source of Funds
 - ii. Use of Funds
 - iii. Change in Operating Costs
 - b. **BENEFIT COMPONENT:**
 - i. See the Tangible and Intangible Benefits described below.
2. **Assumptions:** List any assumptions made in your analysis.
 - a. Staff reductions are not expected or contemplated through the implementation of this solution.
 - b. There is no revenue recovery anticipated.

3. **Funding:** Provide the funding source(s). If multiple sources, indicate the percentage of each source for both Acquisition Costs and on-going Operational costs over the duration of the system/service lifecycle.
- a. The primary source of funds include:

FUNDING SOURCES:		Expected Program Splits	Actual Program Splits
Project Related:			
Existing one-time balance of Special funds (permit fee) available for allocation for this purpose	\$200,000		5.4%
Existing one-time Federal funds already obtained	\$1,300,000		35.0%
TOTAL	\$1,500,000		
Operations Related (Annual Funding):			
General Fund #10000	\$32,138	14%	10.1%
Special Fund #21295	\$101,006	44%	31.8%
Interdepartmental Fund #21500	\$39,025	17%	12.3%
Normal Federal funds part of ANR/DEC budget; Fund #22005	\$57,390	25%	18.1%
TOTAL	\$429,960	100%	100%

- b. See the detailed spreadsheet referenced in **Appendix 3** for additional information on Acquisition and Operational Costs and Funding Sources.
4. **Tangible Benefits:** Provide a list and description of the tangible benefits of this project. Tangible benefits include specific dollar value that can be measured (examples include a reduction in expenses or reducing inventory, with supporting details).
- a. There are no tangible monetary benefits derived from this project.
5. **Intangible Benefits:** Provide a list and description of the intangible benefits of this project. Intangible benefits include cost avoidance, the value of benefits provided to other programs, the value of improved decision making, public benefit, and other factors that become known during the process of analysis. Intangible benefits must include a statement of the methodology or justification used to determine the value of the intangible benefit.
- a. The anticipated **customer service benefits** to the public include:
- i. Allowing the public to search for documents (self-service)
 - ii. Allowing the public to submit applications and supporting documents online (self-service)
 - iii. Allowing the public to check the status of their applications online (transparency)
 - iv. ANR staff are able to search and retrieve documents for Public Records requests more efficiently resulting in more timely customer service
 - v. ECMS automated workflows help standardize internal processes which enables more predictable and transparent business processes and customer service
 - vi. All of the above saves ANR staff time which saves money and/or builds capacity to focus on other priorities

- b. Benefits to the **internal stakeholders** including the state's IT organizations include:
 - i. Reduces the methods and systems for document management across the Agency resulting in fewer systems to support
 - ii. A web-based ECMS allows staff to access their content without the administration of VPN accounts and allows access via mobile devices
 - iii. The proposed solution leverages the state's investment in Office365 & SharePoint Online thereby not adding another enterprise system to the state's IT portfolio
 - iv. A cloud-based ECMS such as SharePoint Online helps reduce storage requirements (and therefore costs) on state servers
 - v. The proposed solution leverages the familiarity with SharePoint across ANR as well as across state government by taking advantage of the increased knowledge and user base for SharePoint technology within the state
 - vi. Leveraging ECMS workflows and metadata taxonomy improves internal operations by enforcing standard operating procedures and processes and supporting transparency
 - vii. The proposed SharePoint solution facilitates staff collaboration by providing an enterprise web-based platform with features engineered towards content collaboration
 - viii. The proposed SharePoint solution with information policy functionality supports compliance with federal and state record retention policies and regulations
 - ix. The proposed solution's workflows, metadata taxonomy, and search features improves staff effectiveness at searching and surfacing documents, and improves overall organization of agency content assets
 - x. The proposed solution's information policy features, metadata, content storage, and search functionality helps preserve organizational and intellectual knowledge through staff and program transitions
 - xi. One Agency-wide enterprise content management platform that leverages shared cross-agency metadata taxonomy standardizes the way the Agency manages and searches for content
 - xii. The proposed solution is scalable and repeatable to accommodate for Agency-wide growth
 - xiii. Secure location and document authenticity
 - xiv. Reduces legal staff frustration - ability to respond to public records request timely and comprehensively
 - xv. Employee morale boost - easier to find documents and confidence in document management
 - xvi. Adjusts to future needs of DEC
 - xvii. Model for other state agencies

- 6. **Costs vs. Benefits:** Do the benefits of this project (consider both tangible and intangible) outweigh the costs in your opinion? Please elaborate on your response.
 - a. There are no tangible monetary benefits, nor are there any monetary value assigned to the intangible benefits. As such, the costs do not outweigh the benefits.

7. **IT ABC Form Review:** Review the IT ABC form (Business Case/Cost Analysis) created by the Business for this project. Is the information consistent with your independent review and analysis? If not, please describe.
- Reviewed the IT ABC Form ("*IT_ABC.pdf*") dated 11/11/2015.
 - The costs in the ABC form are much lower than the projected project costs (\$1M vs. \$5.4M). See the ABC Form/IR Costs comparison chart below for delta detail:

	ABC Form Cost	IR Cost
Implementation:	\$197K	\$1.185M
Annual Operations (less internal staffing):	\$145K	\$106K
Annual Internal Staffing:	\$15K	\$323K
Total Lifecycle Operating:	\$1.6M	\$4.2M
Total Cost:	~\$1M	\$5.4M

- 10 Year Lifecycle Cost of **\$5.4M**
- Out of Pocket Costs of **\$2.1M** including:
 - Vendor Project Costs of \$1.185M
 - New Vendor Operating Costs of \$106K annually, \$956K over project life cycle
- Internal staffing of 4.25FTE at **\$323K annually, \$3.3M** over project life cycle (no additional budget impact, staff already budgeted)

Additional Comments on the Cost Benefit Analysis:

No additional comments.

9. Impact Analysis on Net Operating Costs

- 1.) *Perform a lifecycle cost impact analysis on net operating costs for the agency carrying out the activity, minimally including the following:*
 - a) *Estimated future-state ongoing annual operating costs, and estimated lifecycle operating costs. Consider also if the project will yield additional revenue generation that may offset any increase in operating costs.*
 - b) *Current-state annual operating costs; assess total current costs over span of new IT activity lifecycle*
 - c) *Provide a breakdown of funding sources (federal, state, one-time vs. ongoing)*
- 2.) *Create a table to illustrate the net operating cost impact.*
- 3.) *Respond to the items below.*

1. See the spreadsheet attached in **Appendix 3** to review impact to Operating Costs.
2. Provide a narrative summary of the analysis conducted and include a list of any assumptions.
 - a. The detailed spreadsheet provided with this analysis breaks out costs as follows:
 - i. Acquisition or Project Costs: Costs tied specifically to the Vendor, plus DII EPMO/EA costs. In other words, those costs that are incurred because we are undertaking the project.
 - ii. Operating Costs: Vendor ongoing costs plus internal costs, consisting of staffing and telecommunication costs.
 - iii. Total Costs: Acquisition Costs plus Operating Costs.
3. Explain any net operating increases that will be covered by federal funding. Will this funding cover the entire lifecycle? If not, please provide the breakouts by year.
 - a. 58% costs covered by State Funding, 42% of Costs will be covered by Federal funding.
 - b. There is a Net Increase in Operating Costs as outlined in the attached chart.
4. What is the break-even point for this IT Activity (considering implementation and on-going operating costs)?
 - a. There is no break-even measure for this project as there is no equivalent current system being replaced nor is there any useful way to reconcile current tasks and costs to the new solution. As such, all costs are considered new costs.

Appendix 1 - Illustration of System Integration

SYSTEM INTEGRATION/INTERFACES

There are two primary integration points in the system.

1. **SharePoint Online** – Integration with SharePoint Online will be performed using a custom ASP.NET Web API services layer fronting the SharePoint Online farm. The services layer will provide abstraction and security for communication with the primary SharePoint farm, reducing overall message size and providing the ability to trim data as needed.
2. **nForms** – The farm will integrate with nForms in that data captured from nForms will be imported into the system. Tallan will create an integration point using a combination of custom ASP.NET Web API services and Nintex workflows to process incoming data from nForms and ensure it is routed appropriately.

Appendix 2 - Risk Register

See attached document: [FINAL-REVIEW-SOV-ANR-DEC-EnterpriseContentMgtSystem-STS Risk Register FINAL.pdf](#)

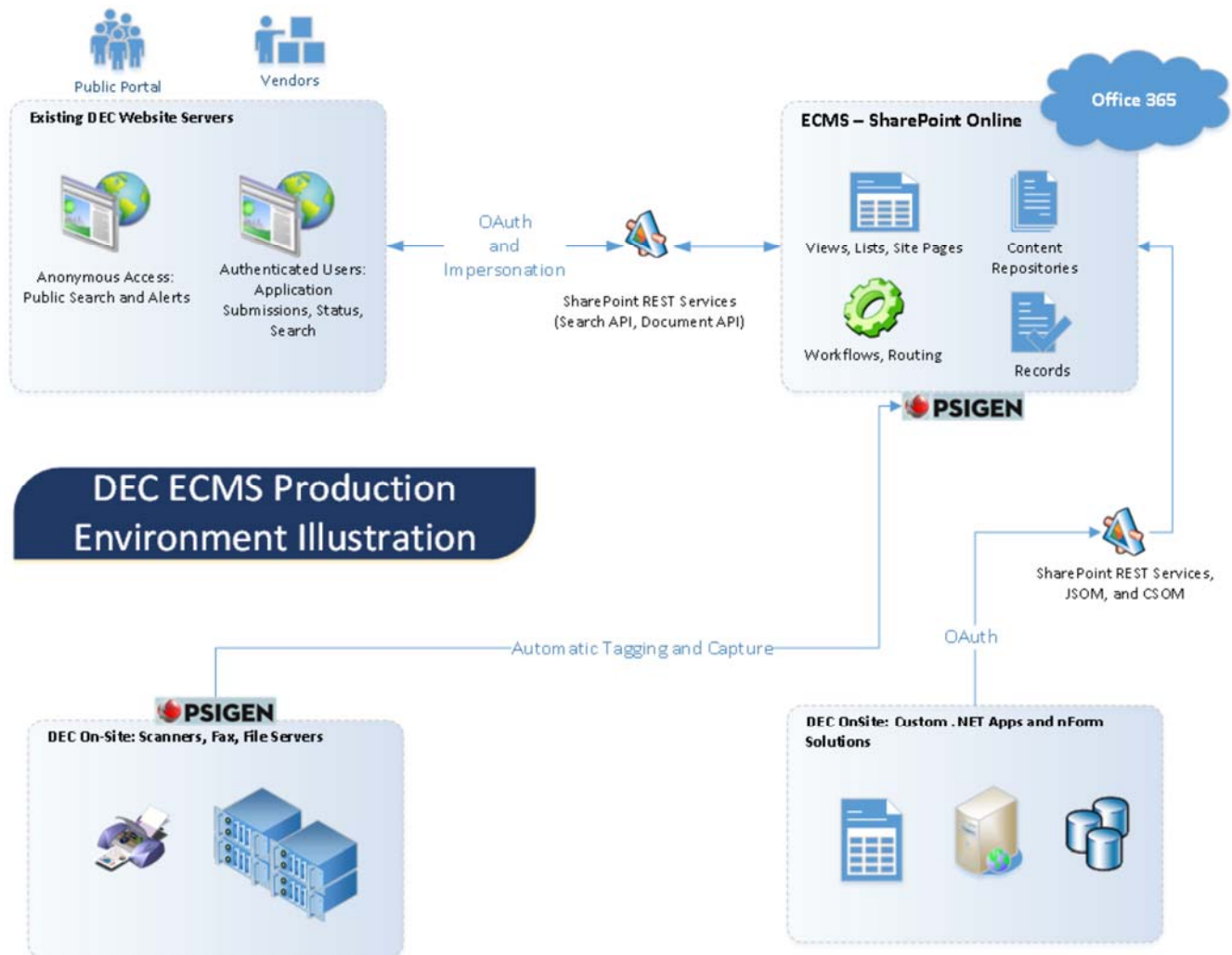
Appendix 3 – Lifecycle Costs and Change in Operating Costs

See attached document: [FINAL-REVIEW-SOV-ANR-DEC-EnterpriseContentMgtSystem-STS Cost Detail FINAL.xlsx](#)

Appendix 4 – Technology Infrastructure

In summary, Tallan’s proposed solution is built on Office 365, ASP.NET MVC, and other frameworks such as AngularJS, BreezeJS, HTML 5, and other open Web 2.0 standards. In addition, Tallan recommends PsiGen Capture for implementing document capture and Nintex Workflows and Forms to automate the 6 DEC business processes.

The diagram below illustrates Tallan’s overall solution architecture:



The main ECMS will be implemented in Office 365 (specifically the SharePoint Online application within the Office 365 enterprise suite) and will consist of:

- DEC Employee Single-Sign-On, authentication, roles based security
- Document management for the 6 DEC programs outlined in the RFP
- Workflows to automate the 6 DEC programs
- Records management for routing, storage, and disposition of records
- Document capture components that will integrate SharePoint online with on-premises scanning and print devices

The other systems that will integrate with the ECMS solution include:

- Custom ASP.NET and nForm applications: this integration will be provided through the Client-Side Object Model (CSOM) and SharePoint REST API's. The integration will allow these applications to send documents and content to SharePoint ECMS, search and query information from the ECMS, and retrieve content and metadata from the cloud hosted ECMS.
- External public web site: the external website will be implemented using the ASP.NET MVC framework. Tallan proposes that the website be deployed on the existing DEC public site web servers. The ASP.NET MVC web application will provide search, query, alerts, notifications, and application status functionality to the public. Since anonymous access is not allowed for SharePoint online ECMS sites, content will be delivered to the public site through the use of SharePoint REST services.

SERVER ARCHITECTURE

Hosted on Microsoft Government Azure Cloud:

Azure Government – It is expected that ANR use the current Azure Government subscription for this project (via DII).

There is expected to be DEVELOPMENT and PRODUCTION environments.

Additional servers needed (expected to be virtual) as well, and are described below:

1. Type: Application Server

- a. Purpose: *PSIGEN Software (OCR/Capture and Web Based Distributed Indexing).*
- b. *The system requirements for PSIfusion are detailed below:*
 - i. **OPERATING SYSTEMS**
 1. *Windows Vista (Service Pack 2 or later)*
 2. *Windows 7 (x86/x64)*
 3. *Windows 8 (x86/x64)*
 4. *Windows 8.1 (x86/x64)*
 5. *Windows 10 (x86/x64)*
 6. *Windows Server 2008 (Service Pack 2 or later)*
 7. *Windows Server 2008 R2*
 8. *Windows Server 2012*
 9. *Windows Server 2012 R2*
 - ii. **HARDWARE REQUIREMENTS**
 1. *2.0 GHz or higher multi-core processor.*
 2. *2 GB available memory minimum, 4 GB or more is recommended.*
 3. *4 GB free disk space for installation. Additional disk space may be required for post-installation operation.*
 - iii. **SOFTWARE REQUIREMENTS**
 1. *.NET Framework version 4.0 or later (1)*
 - iv. **VIRTUALIZATION**
 1. *VMware ESX version 3.0 or later*
 2. *VMware Workstation Version 7.0 or later*
 3. *Microsoft Hyper V*
 4. *Microsoft Terminal Services / Remote Desktop Services (2)*

2. Type: Application Server

- a. Purpose: *PSIfusion (web-based processing for end users).*
- b. *The system requirement for PSIfusion are detailed below:*
 - i. **OPERATING SYSTEM (SERVER ONLY OPTION):**

1. Windows Server 2008 R2 / 2012 with IIS role
2. 2.0 GHz Dual-core or higher, Intel-compatible processor
3. 4 GB RAM
4. 2+ GB free disk space. Additional disk space is required for storage of transient data.
5. Microsoft .Net 4.0
6. Microsoft SQL Server

3. Other:

- a. Updates to ANR's existing ASP.NET front-end website that require database storage will utilize the existing VT DEC web server and will be developed to be compatible with the supported version of Microsoft SQL Server.

As background, the current ANR technical environment is described as follows:

- All SharePoint servers are running in a VMware virtual environment.
- The Web Front End Server and Application Server are running SharePoint 2013 on Windows Server 2012 R2.
- The Database Server is running SQL 2012 on Windows Server 2008 R2.
- The Email server is Windows server 2008 R2, Microsoft Exchange 2010 SP3, Version 14.3.123.4 and under the prevue of Vermont DII.

APPLICATION ARCHITECTURE

Tallan's proposed solution is built on Office 365, ASP.NET MVC, and other frameworks such as AngularJS, BreezeJS, HTML 5, and other open Web 2.0 standards. In addition, Tallan recommends PsiGen Capture for implementing document capture and Nintex Workflows and Forms to automate the 6 DEC business processes. The following sections describe the level of support for open standards for each of these technologies, platforms, and frameworks.

OFFICE 365 AND SHAREPOINT ONLINE

Office 365 and SharePoint Online are SaaS platforms owned and operated by Microsoft. Access to the platform features is available through REST APIs. The data returned by these REST APIs conforms to the Open Data Access Protocol (OData). Authentication to the platform is built on the Open Authentication protocol (OAuth 2.0) and the Security Assertion Markup Language (SAML). This includes access to all content stores, taxonomy, search databases, publishing infrastructure, content management features, and workflows.

EXTERNAL WEB SITE

The external web site will be built using ASP.NET MVC in conjunction with Office 365 REST APIs and open source JavaScript frameworks such as AngularJS and BreezeJS, and HTML 5. This web site code is non-proprietary and will be the property of VT DEC.

DOCUMENT CAPTURE SOFTWARE

The PsiGen Capture software is proprietary and owned by PsiGen. However, the software has a limited API to customize and configure the software. The API uses general principals and best practices for software development but does not conform to specific open standards.

NINTEX WORKFLOWS AND FORMS

Nintex workflows and forms is a proprietary tool owned by Nintex Software. The software does, however, provide an extended API and Web Service API that can be used to customize workflows and forms. The Web Services API conforms to general Web 2.0 standards.

WEB SERVICES AND SOA

Tallan’s Office 365-based ECMS solution fits well into a Service Oriented Architecture (SOA). The Office 365 APIs are REST services, so developers can access its functionality in most software development languages.

SOFTWARE

- Office 365 –State of Vermont will use existing Office 365 subscription.
- Nintex for Office 365 (Standard) – this will need to be purchased by the State of Vermont. Tallan recommends the license for up to 1,000 users.
- PSI Capture Enterprise Edition – this will need to be purchased by the State of Vermont. Tallan recommends the license for 120,000 images per year and 3 concurrent users and 1 sandbox/test environment.

DATABASE

- Based on a total size of 4TB (equivalent to what is on the ANR file server), a 2% increase per year across the Agency seems reasonable as that would be 80GB especially given that we would now be disposing of documents on a routine basis.
- Document storage would be on SharePoint Online. The Azure Government Cloud VMs will store the public facing website. The bulk of the storage will be on SharePoint Online.

CLIENT

- For all PCs and mobile devices other than PSIFusion, only a browser is needed. The following two links detail browser compatibility for SharePoint 2013, which translates to SharePoint Online as well.
 - Desktop browser support in SP2013:
 - Internet Explorer V11, 10, 9 and 8, Google Chrome current version, Mozilla Firefox current version, and Apple Safari current version.
 - Note: Certain web browsers could cause some SharePoint 2013 functionality to be downgraded, limited, or available only through alternative steps.
 - See this link for specific support and limitations:
<https://technet.microsoft.com/en-us/library/cc263526.aspx>
 - Mobile device support in SP2013:

Mobile device operating system	Operating system version	Browser	Smartphone device	Slate or tablet device
Windows Phone	Windows Phone 7.5 or later versions	Internet Explorer Mobile	Supported	Not applicable

Windows	Windows 7 or later versions	Internet Explorer	Not applicable	Supported
iOS	5.0 or later versions Note: Video play experience requires iOS version 6.0 or later.	Safari	Supported	Supported Important: Office Web Apps full functionality is supported on iPad versions 2 and 3 using iOS 6.0 or later versions. Limited viewing and editing functionality is also supported on iPad versions 1, 2, 3 using iOS version 5.1.
Android	4.0 or later versions Note: Video play experience requires Android version 4.1 or later.	Android Browser	Supported	Supported

- See this link for specific support and limitations:
<https://technet.microsoft.com/en-us/library/fp161353.aspx>

- Other:
 - *PSIFusion machines (see description in the following bullet), which are the machines that will be used to review/approve scans and/or batch process scans, require Silverlight.*
 - *The OCR Product includes a web based distributed indexing software called PSIfusion. This software allows for manual document indexing, training, and OCR Exception handling via a client interface. This will be the only software that would be installed on a client computer. PSIfusion is built on Microsoft Silverlight. Microsoft Silverlight is supported on all modern browsers and operating systems with the exception of Microsoft Edge in Windows 10.*
 - *See SYSTEM REQUIREMENTS tab here for specifics:*
<https://www.microsoft.com/getsilverlight/Get-Started/Install/Default.aspx> and explained below:

• Operating System****	IE 11	IE 10	IE 9	IE 8	IE 7	Firefox 38.x.x*****	Firefox 42.0.x-52.0.x*****	Safari 6.x-9.x*****	Chrome**
Windows 10***	10/12/21*	-	-	-	-	5/31/16	12/31/16	-	9/30/15
Windows 8.1	10/12/21*	-	-	-	-	5/31/16	12/31/16	-	9/30/15
Windows 8.0	-	1/12/16*	-	-	-	1/12/16	1/12/16	-	9/30/15
Windows Server 2012 R2	10/12/21*	-	-	-	-	5/31/16	12/31/16	-	9/30/15

Operating System****	IE 11	IE 10	IE 9	IE 8	IE 7	Firefox 38.x.x*****	Firefox 42.0.x-52.0.x*****	Safari 6.x-9.x*****	Chrome**
Windows Server 2012	-	10/12/21*	-	-	-	5/31/16	12/31/16	-	9/30/15
Windows 7 SP1	10/12/21*	1/12/16*	1/12/16*	1/12/16*	-	5/31/16	12/31/16	-	9/30/15
Windows 7	-	-	7/24/14*	7/24/14*	-	7/24/14	7/24/14	-	7/24/14
Windows Vista SP2	-	-	4/11/17*	1/12/16	1/12/16	5/31/16	12/31/16	-	9/30/15
Windows Server 2008 R2 SP1	10/12/21*	-	1/12/16*	1/12/16*	-	5/31/16	12/31/16	-	9/30/15
Windows Server 2008 SP2	-	-	1/14/20	1/12/16	1/12/16	5/31/16	12/31/16	-	9/30/15
MacOS 10.6 (Intel-based)	-	-	-	-	-	2/25/14	2/25/14	2/25/14	-
MacOS 10.7 - 10.11 (Intel-based)	-	-	-	-	-	5/31/16	12/31/16	12/31/16	-

* Supports 64-bit mode

** Chrome is no longer supported, due to restrictions in the browser.

*** Silverlight is not available in the Microsoft Edge browser, but is supported in Internet Explorer.

**** Support extends through the date shown in the table or through the support lifecycle of the underlying browser, whichever is shorter. As browsers and operating systems evolve, this table may be updated to reflect changes in browser or operating system support.

***** Only the most recent version under a major version number is supported, excluding test, preview, alpha, and beta builds, none of which are supported.

SCANNERS

Currently, DEC has a mix of various types of scanners including desktop, MFP/MFD, a couple of production scanners, and some wide-format plotter/scanners. DEC has 3 Fujitsu fi-6770A, 1 Ricoh IS 450DE, and 3 Ricoh IS 760D, as well as several lower end Fujitsu desktop scanners that run between \$1,000 and \$2,000. DEC also has a few Ricoh Aficio C4501 MFP/MFD. For wide format scanners DEC leases some Ricoh CW2200 plotter/scanners. DEC also have some of the HP combo plotter/scanners.

DEC currently has two Kofax Express 3 licenses as well as various scanning software solutions that come packaged with the desktop scanners.

ANR is considering whether to implement central receipt/scanning in which case the number of scanning stations required would be significantly less than department level scanning. Department level scanning would be broken out as follows:

- For the six programs that are the subject of this project, the number of scanning stations required would be approximately 12. The estimate based on full implementation of ECM at DEC and continuation of the distributed scanning model currently in place is approximately 18.
- (This estimate assumes the following: AID – 1, AQCD – 1, CO – 1, CED – 1, DW – 2, EAO – 1, FED – 1, GEO – 1, WM&P – 2, WSM – 2, Regional – 5.)

DEVELOPMENT APPROACH

Web Services and SOA

There is a requirement that the solution should also include web services capabilities that will allow for it to function within a service-oriented architecture (SOA) environment. Services that are available to be exposed and consumed should be outlined in the solution's technical documentation.

Tallan responded with: Tallan's Office 365-based ECMS solution fits well into a Service Oriented Architecture (SOA). The Office 365 APIs are REST services, so developers can access its functionality in most software development languages.

Additional Information

Tallan employs at least some aspects of its software development methodology, the Tallan Solutions Framework (TSF), for every project that it conducts for its clients. For a client that does not have an existing methodology, Tallan will use the entire TSF to manage and monitor all aspects of a project. For a client that has a methodology in place, Tallan will fully comply with the client's methodology and also use certain aspects of the TSF that would help ensure project success. For example, for most projects Tallan utilizes Scrum to manage development on a project, no matter what overall methodology is in place.

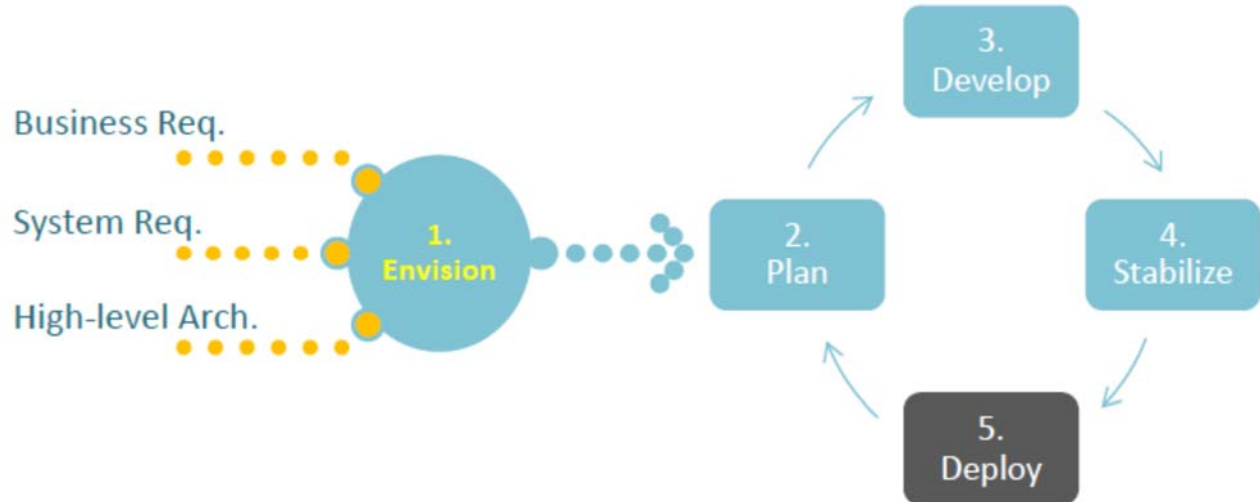
The Tallan Solutions Framework, was developed to combine the valuable aspects of iterative/agile development with the "tried and true" tenets of traditional waterfall development. TSF is based on the Microsoft Solutions Framework (MSF). Details on the MSF can be found at: <http://msdn.microsoft.com/en-us/library/jj161047.aspx>.

Fundamentally, TSF calls for a **waterfall approach** during the earlier phases of the project when key project artifacts need to be created, many in a sequential manner. Then, the TSF calls for **agile development** during the phases where it is most valuable – **during the Developing and Stabilizing phases**. TSF leverages Scrum during these agile phases. Tallan has worked with Scrum for many years and has found it to be the most effective Agile methodology and most suitable for enterprise system development.

TSF divides software development into phases with each phase having associated tasks and defined deliverables. These are customized for each engagement to match the customer's style and culture. TSF provides document templates for deliverables such as:

- Business Requirements
- System Requirements
- Test Plans
- Logical Design
- Risk Assessment

TSF methodology consists of five phases within the development cycle shown in the image below:



The **Envisioning Phase** defines the goals, requirements, and architecture of the solution and creates deliverables that drive the Phases that follow. The Planning, Developing, Stabilizing, and Deploying Phases are repeated in an iterative fashion, utilizing Scrum, allowing the development team to continually add functionality within the solution on a predictable basis.

The **Envisioning Phase** is strategic and sets the stage for successful iterations during the agile development cycle. During the Envisioning Phase Tallan works with the client to:

- Define the vision and scope for the overall product
- Gather requirements and delineate the scope of the initial releases
- Establish communication and reporting processes
- Assess and prioritize project risks
- Begin high level technical design

During the **Planning Phase**, Tallan utilizes standard design patterns, UML diagrams, and core concepts of object oriented design to create a system design that achieves flexibility and extensibility. However, as agile methodologies promote, Tallan does not attempt to “over design” the solution. Designing simple yet flexible software is the goal, and this is best done by building on industry leading proprietary and open source technologies and frameworks, such as Microsoft .NET, Java SE, Java EE, Spring and Hibernate, as well as standard design patterns, such as the factory, Model-View-Controller (MVC), template, and delegate patterns. Simple design leads to easier maintenance and to faster extension. These technologies, frameworks, patterns, and software development best practices are combined within standard UML diagrams, such as activity, sequence, and class diagrams, to assist developers during the Developing Phase and provide insight into the system for support of the application following production deployment.

The **two main deliverables during the Planning Phase** are the Logical Design and Physical Design documents.

Throughout the **Developing Phase**, Tallan follows additional best practices, such as coding standards, test driven development, and continuous integration.

The **main deliverable during the Developing Phase** and, in fact, the entire project is the source code and integration of software applications required to implement the business and system requirements.

Stabilizing Phase: For a project to be successful, planning for testing must start long before developers write source code. As soon as the Envisioning Phase is finished and design within the first sprint begins, the Tallan Technical Manager begins working on the Test Plan with the client and the QA testing team.

The Deploying Phase includes the production deployment of a solution as well as additional support and transition steps. When testing has completed successfully, Tallan prepares the solution for production deployment. Tallan works with the client's internal team to configure and deploy the application on production servers. If the client requires that their internal team must perform the production deployment, Tallan provides the client's team with deployment instructions and oversees the deployment to ensure success. As soon as the solution is deployed, the Tallan development team tests the solution and verifies all functionality.

Custom Development:

1. *Any custom development will be done on the Microsoft .NET platform using .NET 4.5. The Integrated Development Environment (IDE) used will be Visual Studio 2013 (or higher).*
2. *Expect to develop in C++ and expect to develop various APIs via this custom coding methodology.*

HOSTING

1. The SharePoint farm will be hosted in SharePoint Online. G1 and G3.
2. ANR has Office365 G1 and G3 Licenses (650 G3 (\$300/user/annually) and 60 G1 (\$100/user/annually) licenses) under the DII Office365 contract with Microsoft.
3. Tallan will leverage existing VT DEC IIS hosting options to host the permitting web site and any custom ASP.NET Web API web services created as part of the solution. Tallan will ensure all custom development will support the existing VT DEC systems.

Monitoring Tools and Methods:

Office365 offers few proactive monitoring tools, focused on database monitoring:

1. Databases are regularly checked for:
 - a. Blocked processes
 - b. Packet loss
 - c. Queued processes
 - d. Query latency

Office365 does offer after the fact reporting tools (reactive) as follows:

1. *Office 365 offers service usage reporting. Details are available at the following link: <https://support.office.com/en-us/article/View-and-download-reports-about-service-usage-in-Office-365-30e5558f-d3c0-4a3b-a0d5-58fc7750c0ad>*
2. *Office 365 offers a service health dashboard for viewing the current status of O365 services. The office 365 service health dashboard is available at the link below: <http://status.office365.com/>*

DISASTER RECOVERY/BUSINESS CONTINUITY

As SharePoint Online is a SaaS solution from Microsoft, DR and BC are driven by SharePoint Online and Microsoft processes. For details on service continuity from Microsoft, please view the following article: <https://technet.microsoft.com/en-us/library/office-365-service-continuity.aspx>.

Data Backup/Restore:

Specific details include:

1. Site Collections:
 - a. Backed up every 12 hours
2. Retention:
 - a. Sites: 14 days
 - b. Any SharePoint deleted items (such as sites, documents, folders, lists, and libraries): 30 days
3. Restore:
 - a. Only full site collection restore is available, so all the data created after the restore point would be lost. This was discussed with ANR, and is acceptable.

Tallan offered to work with DEC to identify 3rd-party solutions for backup and recovery if the out of the box options provided by Office 365 are not sufficient.

ANR DEC Enterprise Content Management System Project

RISK REGISTER DESCRIPTION:

1. Risk Description: Provide a description of what the risk entails
2. Source of Risk: Project, Proposed Solution, Vendor or Other
3. Risk Rating: Risk ratings to indicate: Likelihood and probability of risk occurrence; Impact should risk occur; and Overall risk rating (high, medium or low priority)
4. Risk Strategy: State's Planned Risk Strategy: Mitigate, Avoid, Transfer or Accept
 - a. Avoid: Avoid the activity; activities with a high likelihood of loss and large impact.
 - b. Mitigate: Develop a plan to reduce risk to reduce the risk of potential loss; activities with a high likelihood of occurring, but impact is small.
 - c. Transfer: Outsource risk (or a portion of the risk - Share risk) to third party or parties that can manage the outcome; activities with low probability of occurring, but with a large impact. Often times this is transferred back to vendor.
 - d. Accept: Take the chance of negative impact, eventually budget the cost (i.e. a contingency budget line); activities where cost-benefit analysis determines the cost to mitigate risk is higher than cost to bear the risk, then the best response is to accept and continually monitor the risk.
5. Timing of Risk Response: Describes the suggested timing for carrying out the risk response (e.g. prior to the start of the project, during the Planning Phase, prior to implementation, etc.)
6. State's Planned Risk Response: Describe what the State plans to do (if anything) to address the risk (See Risk Response table)
7. Reviewer's Assessment of State's Planned Response: Indicate if the planned response is adequate/appropriate in your judgment and if not what would you recommend.

Department Action Step: Respond to the sections highlighted in yellow (Risk Strategy, State's Planned Risk Response) and send copy back to David Gadway for review

NOTE: Hyperlinks are used on the Risk ID. From the Risk Register, CTL-CLICK on a link to see the Risk Response, or from the Risk Response, CTL-CLICK on a link to go back to the Risk Register.

RISK REGISTER:

Risk #:	Risk Description	Source of Risk	Risk Rating: Impact	Risk Rating: Probability	Risk Rating: Overall Risk	State Risk Strategy Summary (Mitigate, Avoid, Transfer, Accept)	Timing of Response	Reviewer Assessment of Response
1a	<u>Budget/Funding:</u> We would like to see the current contract ANR/DEC has with Microsoft for SharePoint OnLine, in order to understand cost and technical specs, and resulting capacity.	Project	High	Low	Low	Avoid	Prior to starting project	Risk strategy accepted.
1b	<u>Budget/Funding:</u> If 6 pilots represent supporting up to 60 people, and if there are 600 people in the agency, the pilots will support 10% of the ANR staff. Extrapolating that number, and assuming 30% economy of scale, the resulting cost of rolling out the functionality agency-wide is not budgeted.	Project	High	Low	Low	Transfer	Prior to starting project	Staffing numbers have been updated to reflect an adequate level of staffing at 4.25 FTE. Project cost internal staffing numbers have been updated. Risk strategy accepted.
1c	<u>Budget/Funding:</u> Funding source. No risk noted.					NA		

<p>2a</p>	<p><u>Contract Item:</u> There are no specific service level agreements defined as part of the RFP nor by the vendor.</p> <p>Vendor indicates they are willing to discuss relevant SLAs during contract negotiations.</p> <p>Additionally, it is not apparent that Office365 SLAs have been reviewed and determined to be adequate. For example, there is no minimum up time (i.e. 3 9s or 4 9s) specified in the MS Office Online materials I see at: http://www.microsoftvolumelicensing.com/Download.aspx?DocumentId=9892</p> <p>Two questions:</p> <ol style="list-style-type: none"> 1. Are Vendor-related SLAs being addressed in the contract? 2. Have MS Office365 SLAs been reviewed and determined to be adequate? What are those SLAs required by ANR/DEC? <p>This creates a potential impact to budget and scope.</p>	Project	Medium	Low	Low	Mitigate	Prior to starting project	Risk strategy accepted.
<p>2b</p>	<p><u>Contract Item:</u> Acceptance criteria for the functional requirements are not defined.</p> <p>This creates a potential impact to budget and scope.</p>	Project	Medium	Low	Low	Avoid	Prior to starting project	Risk strategy accepted.
<p>3a</p>	<p><u>Vendor Risk:</u> The vendor was asked to provide a listing of risk items they are concerned with. See Appendix A below for that list.</p> <p>Please respond to each item with an assessment for how ANR/DEC will meet the suggested risk reduction strategy put forth by Tallan.</p>	Project	Medium	Medium	Medium	Mitigate/Avoid	Prior to starting project	Suggest attempting to validate the Connectivity design at design time vs. at acceptance time.

<p>3b</p>	<p>Vendor Risk: Tallan has not completed a project where all required components are included in one project:</p> <ul style="list-style-type: none"> a. Enterprise SharePoint farm infrastructure and deployments b. Information Architecture c. Enterprise Search d. ASP.NET / SharePoint integration e. OCR <p>This creates a potential impact to schedule, budget and scope.</p>	Project	Medium	Low	Low	Accept	Prior to starting project	Risk strategy accepted.
<p>3c</p>	<p>Vendor Risk: Tallan's Project Management methodology, called TFS (Tallan Solutions Framework), follows most tenants contained in the Project Management Institute's PMBOK.</p> <p>ANR/DEC requested to use PMBOK as the basis for Project Management.</p> <p>Tallan recommends following their TFS because of their extensive success with this hybrid waterfall/agile methodology, but stated that if VT DEC prefers that the PMBOK is strictly followed, Tallan can easily adapt and follow that methodology.</p> <p>What approach will ANR/DEC ask Tallan to follow for Project Management?</p> <p>This creates a potential impact to schedule, budget and scope.</p>	Project	Medium	Medium	Low	Accept	Prior to starting project	Risk strategy accepted.

<p>4a</p>	<p>SOV Staffing: If we view this project as two major parts, the 6 Pilots as a Proof of Concept, and if that is positive, the solution then rolled out across the agency, we know a project of this scope will require dedicated project staff.</p> <p>This project does not have dedicated project staff, rather, many people assigned a % of their time, creating a fragmented project team. The approach may work for a smaller project, but a project of this scope requires dedicated full time resources.</p> <p>This creates a potential impact to schedule, budget and scope.</p>	Project	Medium	Medium	Medium	NA	Prior to starting project	<p><i>Lack of dedicated project resources remain, and as such, the risk remains.</i></p>
<p>4b</p>	<p>SOV Staffing: The management style of ANR/DEC appears to be collaborative and thus many people have input and many people are informed of decisions and thus direction. However, this approach for a project of this type will come at a cost to the project schedule, in that, a by-product of the collaboration is the cost in time it takes to find common blocks of time to meet/discuss/deliberate/collaborate.</p> <p>This creates a potential impact to schedule, and may impact budget and/or scope if ANR/DEC cannot meet the contract terms of timely response to vendor questions and/or contract terms that allow vendors' additional billing if certain time parameters are not met.</p>	Project	Medium	Medium	Medium	Accept	Prior to starting project	<p><i>While a collaborative and inclusive model may work, as stated in the risk itself, it will delay the project schedule and may also cause budget impact due to vendor requesting payment for such delays.</i></p> <p><i>Until such time that the ANR EMCS team develops a different project governance model, the risk remains.</i></p>
<p>4c</p>	<p>SOV Staffing: ANR/DEC staff appear to have many other tasks on their plates, preventing them from providing primary focus to this project.</p> <p>This creates a potential impact to schedule, and may impact budget.</p>	Project	Medium	Medium	Medium	Mitigate	Prior to starting project	<p><i>The response to this risk by ANR does not address the risk itself, that is, staff having many tasks on their plates and as such, not being able to focus on this project.</i></p>

5a	<p><u>Project Management Staffing:</u> Jennifer Loughran, on loan from DII to this project, is expected to be 100% available to the project as Project Manager. This is a new subject matter for Ms. Loughran, and this appears to be the largest project yet in her career, in terms of people and processes.</p> <p>This creates a potential impact to schedule.</p>	Project	Medium	Low	Low	Accept/ Mitigate	Prior to starting project	Risk strategy accepted.
6a	<p><u>Project Schedule:</u> No risk noted.</p>					NA		
7a	<p><u>Infrastructure: Hardware Platform:</u> The intent is that the solution in cloud-based, but there are a few instances that may require on-premises infrastructure:</p> <ul style="list-style-type: none"> • Items noted in Risk # 8b that may require on-premises IAAS. • PSIGEN software for Capture, OCR and Web-based distributed indexing server. • PSIfusion software for web-based processing for end users. <p>As these are not budgeted or planned, these create a potential impact to budget and scope.</p>	Project	Medium	Medium	Low	Avoid/ Mitigate	Prior to starting project	Risk strategy accepted.
7b	<p><u>Infrastructure: Data Backup/Restore:</u> Only a full Site Collection restore is available, so all the data created after the restore point would be lost.</p> <p>Additionally, only 14 days of Site Collections are retained, so anything prior to that is not available.</p> <p>This creates a potential impact to operations.</p>	Project	Medium	Low	Low	Accept	Prior to starting project	Through discussions during the IR presentation, ANR leadership indicated an agency-wide policy of 14 days of retention being adequate, and full site collection restores being adequate. As such, this risk is mitigated.
7c	<p><u>Infrastructure: Business Continuity/Disaster Recovery:</u> No risk noted.</p>					NA		

<p>8a</p>	<p>Functionality: It is not clear that SharePoint is the best tool to support both a Case Management (legal workflow driven) and Document Management (process workflow driven) requirements set.</p> <p>This creates a potential impact to scope and budget.</p>	Project	High	Low	Low	NA	Prior to starting project	Through discussions during the IR presentation, ANR leadership indicated they have confirmed with Legal Services that Case Management is not a requirement, and Busienss Process Management functionality is sufficient. As such, this risk is mitigated.
<p>8b</p>	<p>Functionality: Two key requirements are not supported:</p> <p><u>GEN.6:</u> Ability to view and use the ECMS functionality for content stored in external locations such as file servers or external databases.</p> <p><u>I.11:</u> Ability to link to external file storage locations such as file servers or databases while maintaining metadata within the ECMS without uploading content.</p> <p>Vendor response to each are: <u>GEN.6:</u> SUPPORTED FOR EXTERNAL DATABASES BUT NOT FILE SERVERS. IF THIS IS A MUST HAVE FEATURE WE WOULD PROPOSE A HYBRID SOLUTION THAT USES ON-PREMISES OR AZURE IAAS COMBINED WITH O365.</p> <p><u>I.11:</u> NOT SUPPORTED. IF THIS IS A MUST HAVE FEATURE WE WOULD PROPOSE A HYBRID SOLUTION THAT USES ON-PREMISES OR AZURE IAAS COMBINED WITH O365.</p> <p>This creates a potential impact to budget and scope.</p>	Project	Medium	Low	Low	Accept	Prior to starting project	Risk strategy accepted.
<p>8c</p>	<p>Functionality: A requirement exists stating “The average number of metadata fields per document should be approximately 12.” By ECMS standards, this is rather high, compared to the recommended maximum of 5-7.</p> <p>This creates a potential impact to scope.</p>	Project	Medium	Low	Low	Accept	Prior to starting project	Risk strategy accepted.

9a	<p>Interoperability: While the vendor has described HOW they plan to integrate with the existing ANR Web site process, specifically, ASP.NET Web API services, it is not yet been confirmed that they CAN execute on making this integration actually work.</p> <p>This creates a potential impact to scope, budget and schedule.</p>	Project	High	Medium	High	Accept	Prior to starting project	<p>This risk remains open, until such time that Windsor and Tallan can demonstrate the ability to interface, as this has not yet occurred in a production environment.</p>
10a	<p>Compliance/Regulatory: Tallan has not yet responded to their compliance with with the Section 508 Amendment to the Rehabilitation Act of 1973, as amended in 1998. Reference: http://www.section508.gov/content/learn</p>	Project	Medium	Low	Low	Avoid/ Mitigate	Prior to starting project	<p>Risk strategy accepted.</p>
11a	<p>Security: As the application hosts personally identifiable information (i.e. driver license number), and as Multi-Factor authentication is not contemplated at this point, there exists a data security model concern.</p>	Project	High	High	High		Prior to starting project	
12a	<p>Other: It is not clear that State of Vermont wishes to pursue customized development as a mechanism to obtain and deploy software.</p> <p>This project calls for at least 50% development, while leveraging the 3rd party tools and SharePoint for the remainder.</p> <p>This creates a potential impact to SOV technology standards.</p>	Project	Medium	Low	Low	Mitigate	Prior to starting project	<p>So long at the items recommended in the Risk Response are undertaken, this risk is mitigated (include Joe Giessner email, contract language for no recoding and/or cost upgrade to future versions of Sharepoint).</p>

RISK RESPONSE:

Risk #:	State's Planned Risk Response and Reviewer's Assessment of State's Risk Response
<p>1a</p>	<p>STATE'S RISK RESPONSE: The current contract is between DII and Microsoft for SharePoint OnLine. Both Office 365 and SP Online are allocated services provided by DII to ANR. Recently, the DII staff reviewed the SP Online default setting requirements from the vendor and identified 3-4 issues. All items were identified as site specific items that we will be able to modify per vendor needs so there is no issue. A request has been submitted to the DII Procurement team on 3/8/16 to obtain a copy of the contract or at least the germane portions that support this statement.</p> <p>Some of the documents have been provided, that detail out Vermont's service package: Microsoft Services Premier Standard 0 and Microsoft Services Premier Services for OSDM for O365. SharePoint Online software boundaries and limits can be found here: https://support.office.com/en-us/article/SharePoint-Online-and-OneDrive-for-Business-software-boundaries-and-limits-8f34ff47-b749-408b-abc0-b605e1f6d498.</p> <p>It has been determined that the 10GB is adequate for upload capacity.</p> <p>REVISED REVIEWER ASSESSMENT AS OF 3/31/2016: ANR has the G1 and G3 Office365 offerings (650 G3 (\$300/annually) and 60 G1 (\$100/annually) licenses) and 421 GB of space allocated by DII. It is expected that the 421GB of space is adequate for this project and into the foreseeable future.</p> <p>Still need to confirm whether a max file upload size of 10GB file is adequate.</p> <p>Risk strategy accepted</p>
<p>1b</p>	<p>STATE'S RISK RESPONSE: The 6 pilots, which are the actual scope of our ECMS contract, represent a broad spectrum of the various programs we have across ANR. They were selected specifically by our organization to ensure we would capture each type of the 3 major functions administered across the Agency. Those being: 1) Permitting Programs 2) Licensing Programs and 3) Service Programs. With this strategy we felt we would be best positioned to build our own internal capacity within ANR as we work with the vendor to develop and implement the ECMS platform solution and these 6 diverse programs.</p> <p>The scope of this project is to deliver a SharePoint ECMS, including the implementation of the 6 pilot programs, and to do so in a manner so that ANR is enabled to build out the ECMS with in-house resources going forward. This project will not be rolled out to the agency wide audience using a vendor to support the development and deployment, but rather through mainly the use of internal resources as well as the knowledge and skills base that will be derived from the vendor under this project. Beyond the scope and intent of this contract effort, additional programs that are queued up as "ready" and have been prioritized by ANR would go in to the ECMS and are considered new projects. It is a future business decision determined by ANR, as to which programs will go next and at what pace to properly resource additional programs beyond the initial scope of this project. The Agency desire is to be able to rollout the solution internally with minimal outside assistance from vendors, although we will have as part of this contract effort at least 5 years of M&O support following the implementation of the ECMS platform. We recognize the risk and understand that the trade-off with this approach is that it will be far less costly as opposed to using a vendor, and that there is tremendous benefit to have this knowledge base and capability in-house, it could however take us longer to roll the platform out to all of the Agency.</p> <p>The State's response provided in 4a below describes the staffing resources that ANR has and plans to utilize to further deploy the ECMS environment to other programs across the Agency overtime. As explained earlier – there is no current "system" in ANR that this ECMS solution will be replacing so the staff involved from each program (when their program is selected for deployment to the ECMS) are staff that are already budgeted and funded within the Agency. It is expected that each business area implementing ECMS will have a relatively short, concentrated burst of ECMS project time-related activity and that staff time is accounted for with existing staff and budgets, so does not require additional FTEs, therefore the reviewer's assessment is not accurate in the sense of unbudgeted costs and any additional resources above the positions/FTEs described in the State's Response in 4a below. The other item of note that isn't accounted for above in terms of "Agency-wide roll out options" is a third</p>

option which is a hybrid of the two listed and the one that ANR currently is planning to utilize as we deploy additional programs to the ECMS. That third option is one where we (ANR) have the identified staffing resources outlined in 4a below plus we will have as part of our contract 5 years of M&O support providing for a total of 1,500 hours which will be available for any development or technical work. Again, we recognize the risks and understand that the trade-off with this approach is that it will be far less costly as opposed to using a vendor for 100% of this work, and that there is tremendous benefit to have this knowledge base and capability in-house for ANR, it could however take us longer to roll the platform out to all of the Agency than going with the full vendor approach.

STATE'S ADDITIONAL RESPONSE 4/20/2016:

There will be no additional direct dedicated staff beyond those identified below and in Risk Item #4a. These positions are the identified resources that will be available and directly allocated to this ECMS project after the vendor completes implementation of the 6 programs. Collectively this ANR ECMS Team will bring the remaining (90%) of ANR programs into the ECMS solution along with available M&O support from the vendor that has been budgeted for 5 years beyond original implementation. As noted in 4a, two of the positions that are proportionately allocated to this ECMS project from ANR-IT (50% each) are currently vacant and have been during the duration of this RFP/contract effort. That said, once these positions are filled (recruitment ends in April 2016) these will become part of the direct resources for remaining 90%. These positions are existing ANR-IT positions which have been prioritized and re-described in large part for this purpose. These are also positions (staff costs) which are already accounted for in the IR Cost Analysis spreadsheet under the section titled "operations-related costs" totaling the \$1.5M over 10 years.

The following are the assigned Agency-wide planned resources/staffing:

1. ~1 FTE's worth of SharePoint technical resources across 2 ANR IT FTEs (as detailed above)
2. ~.50 FTE of a ANR IT System Developer & ANR-IT Manager resource to support external ECMS applications and select ECMS projects
3. 1.25 FTE project leader, records management and business project program support (DEC A&I Division)
4. ~1 FTE project manager allocated from DII
5. ~.5 FTE enterprise architect support from DII to assist with system expansion planning as needed

NOTE: It is expected that each business area implementing ECMS will have relatively short, concentrated bursts of project-related activity and that staff time is accounted for with existing staff and budgets, so do not require additional FTE

REVIEWER'S ASSESSMENT:

I did update the numbers to 60 and 600. Still 10%.

Let's look at the Agency-wide roll out using two options: 1. Vendor does work; 2: Internal staff does work

1. If Vendor does the work, we are in agreement that there is no budget for that to occur.
2. If Internal staff does the work, we would need to add staff up to the level of what the Vendor is doing through the Pilot, in order to work at that same pace of progress. We do not have staff budgeted for that volume of work.

From a cost accounting standpoint, if you allocate staff to project such as this project, you need to allocate the cost of those staff to that project. In other words, even in the grand total sum the staffing levels do not change, cost accounting is defined as allocating the cost of those staff to a specific project. In this case, the ANR ECMS project. Those same staff are now NOT available to work on another project that might come up, so as to not be accounted for twice.

In summary: The pilot sub-project represents 10% of the total work to be done. Additional internal staff are needed to complete the remaining 90%, and the cost of that staff needs to be accounted for. See related Risk Item #4a.

Reviewer response on 4/25/2016:

Staffing numbers have been updated to reflect an adequate level of staffing at 4.25 FTE. Project cost internal staffing numbers have been updated.

	Risk strategy accepted.
<u>1c</u>	<p>STATE'S RISK RESPONSE: N/A. No risk noted</p> <p>REVIEWER'S ASSESSMENT:</p>
<u>2a</u>	<p>STATE'S RISK RESPONSE: Vendor related SLAs will be addressed in the contract.</p> <p>MS Office365 SLAs will be reviewed and determined to be adequate or not. The MS contract is with DII and not ANR/DEC although the SLAs required by ANR/DEC will be included in the contract currently under development.</p> <p>STATE'S ADDITIONAL RESPONSE 4/20/2016:</p> <ul style="list-style-type: none"> • Yes, the vendor related SLAs are being addressed in the contract and are available for viewing on the project SharePoint site. See: Contract Development. • Microsoft SLAs have been shared with the business. These were sent to you yesterday via email SLAs PwrPoint. The business has determined the Microsoft Office SLAs are adequate and the business has confirmed that the 14-day recovery period is acceptable. <p>REVIEWER'S ASSESSMENT: Risk strategy accepted for the Vendor SLA so long as that is done during contract development and not before the contract is signed. It is not clear when ANR will review MS Office365 SLAs.</p> <p><u>Reviewer response on 4/25/2016:</u> As ANR accepts the SLAs being defined in the contract, and as ANR accepts a 14 day recovery period for restoring data from backup, this risk is reduced. Reviewer however finds the 14 day restore window too small, and would suggest at least 30 days.</p> <p><u>In summary:</u> MS Office 365 SLAs accepted by ANR. 14 day data restore window is short and is addressed in #7b.</p> <p>Risk strategy accepted.</p>
<u>2b</u>	<p>STATE'S RISK RESPONSE: Acceptance criteria for the functional requirements will be defined in the contract. We will request documentation along with a specific example to indicate requirement has been met.</p> <p>STATE'S ADDITIONAL RESPONSE 4/20/2016: Success Criteria is included in the Charter Addendum and available on the project SharePoint site.</p> <p>REVIEWER'S ASSESSMENT:</p> <p>In reviewing the Charter Addendum (<i>CHRTR_Add_ANR_ECMS_20150917_Signed.pdf</i>), several specific measures of acceptance have been defined, such as 10% reduction in manual labor (Objective #4, Manual Labor) , and time on task of less than one minute (Objective #1 Public Access), successfully addressing this risk.</p>

	Risk strategy accepted
3a	<p>STATE'S RISK RESPONSE: See response to each item in Appendix A.</p> <p>REVIEWER'S ASSESSMENT: All items acceptable except those highlighted in aqua in Appendix A.</p>
3b	<p>STATE'S RISK RESPONSE: Because Tallan has successfully completed projects in each of the identified areas, ANR feels Tallan is well positioned to deliver an entire solution and has the necessary resource expertise and depth to do so. ANR understands this risk, however we are confident that the vendor can collectively and successfully provide all of these components for our project as well as "on-time" with our schedule. We spoke in great length with several entities (including the State of Massachusetts legislature) that Tallan has successfully completed projects with covering each of the identified areas, and with that we feel that they are well positioned to deliver an our entire ECMS solution and that they have the necessary resources, expertise and depth to do so.</p> <p>REVIEWER'S ASSESSMENT: Risk strategy accepted</p>
3c	<p>STATE'S RISK RESPONSE: Tallan's Project Management methodology, called TFS (Tallan Solutions Framework), follows most tenants contained in the Project Management Institute's PMBOK. Although ANR/DEC requested to use PMBOK as the basis for Project Management we will agree to accept Tallan's recommendation to following their TFS. In addition, the contract will include documentation requirements that will include status and progress reporting for all phases of research, development, implementation, testing and maintenance phases.</p> <p>REVIEWER'S ASSESSMENT: Risk strategy accepted</p>
4a	<p>STATE'S RISK RESPONSE: The scope of this project is to deliver a SharePoint ECMS to support the 6 pilot programs and to do so in a manner so that ANR is enabled to build out the ECMS with in-house resources. It is a future business decision as to how and how quickly to resource additional programs beyond the initial scope of this project. To entertain using in-house IT and existing program staff and resources, is to accept that those decisions will have to be made around priorities – just like we currently do for all IT projects across the Agency (we utilize an IT governance model which allows departments to prioritize and rank IT projects against the existing IT and business staff resources available – this means some projects are shifted to lower priority status based on Commissioner approvals); and those IT projects are then resourced appropriately once the priorities are determined. The use of vendor support is one strategy to build out this solution after the scope of this ECMS implementation project should ANR determine it does not have internal capacity to meet its desired schedule. Another option and one that would be a "hybrid" approach with both ANR staff and some vendor support. For instance, this current contract will cover 5 years of M&O/support which will provide an allotment of vendor support hours which ANR can use at our discretion for development and technical work as needed.</p> <p>The scope of this project is to deliver a SharePoint ECMS to support the 6 pilot programs and to do so in a manner so that ANR is enabled to build out the ECMS with in-house resources. It is a future business decision as to how and how quickly to resource additional programs beyond the initial scope of this project. To entertain using in-house IT and existing program staff and resources, is to accept that those decisions will have to be made around priorities – just like we currently do for all IT projects across the Agency (we utilize an IT governance model which allows departments to prioritize and rank IT projects against the existing IT and business staff resources available – this means some projects are shifted to lower priority status based on Commissioner approvals); and those IT projects are then resourced appropriately once the priorities are determined. The use of vendor support is one strategy to build out this solution after the scope of this ECMS implementation project should ANR determine it does not have internal capacity to meet its desired schedule. Another option and one that would be a "hybrid" approach with both ANR staff and some vendor support. For</p>

instance, this current contract will cover 5 years of M&O/support which will provide an allotment of vendor support hours which ANR can use at our discretion for development and technical work as needed.

The following are the assigned Agency-wide planned resources/staffing:

6. ~1 FTE's worth of SharePoint technical resources across 2 ANR IT FTEs (as detailed above)
7. ~.50 FTE of a ANR IT System Developer & ANR-IT Manager resource to support external ECMS applications and select ECMS projects
8. 1.25 FTE project leader, records management and business project program support (DEC A&I Division)
9. ~1 FTE project manager allocated from DII
10. ~.5 FTE enterprise architect support from DII to assist with system expansion planning as needed

NOTE: It is expected that each business area implementing ECMS will have relatively short, concentrated bursts of project-related activity and that staff time is accounted for with existing staff and budgets, so do not require additional FTE

STATE'S ADDITIONAL RESPONSE 4/20/2016:

There will be no additional direct dedicated staff beyond those identified below. These positions are the identified resources that will be available and directly allocated to this ECMS project after the vendor completes implementation of the 6 programs. Collectively this ANR ECMS Team will bring the remaining (90%) of ANR programs into the ECMS solution along with available M&O support from the vendor that has been budgeted for 5 years beyond original implementation. As noted in 4a, two of the positions that are proportionately allocated to this ECMS project from ANR-IT (50% each) are currently vacant and have been during the duration of this RFP/contract effort. That said, once these positions are filled (recruitment ends in April 2016) these will become part of the direct resources for remaining 90%. These positions are existing ANR-IT positions, which have been prioritized and re-described, in large part for this purpose. In addition, these positions (staff costs) are already accounted for in the IR Cost Analysis spreadsheet under the section titled "operations-related costs" totaling the \$1.5 M over 10 years.

The following are the assigned Agency-wide planned resources/staffing:

1. ~1 FTE's worth of SharePoint technical resources across 2 ANR IT FTEs (as detailed above)
2. ~.50 FTE of a ANR IT System Developer & ANR-IT Manager resource to support external ECMS applications and select ECMS projects
3. 1.25 FTE project leader, records management and business project program support (DEC A&I Division)
4. ~1 FTE project manager allocated from DII
5. ~.5 FTE enterprise architect support from DII to assist with system expansion planning as needed

NOTE: It is expected that each business area implementing ECMS will have relatively short, concentrated bursts of project-related activity and that staff time is accounted for with existing staff and budgets, so do not require additional FTE.

REVIEWER'S ASSESSMENT:

A few observations of the response above:

1. Definition of project scope.
 - a. The ECMS project in its entirety is comprised of two sub-projects: 1 sub-project, called the Pilot, using Tallan resource and 1 sub-project, called agency-wide ECMS roll out, using ANR internal resources.
 - i. The sub-project with Tallan is to serve as a pilot to both implement EMCS functionality for 10% of ANR users as well as provide the framework for rolling out the solution to the remaining 90% of ANR.
 - ii. The agency-wide EMCS roll out sub-project, is expected to proceed after Tallan's scope of work is completed.

- iii. As such, the scope of work of the ECMS project is not just the work Tallan is doing, rather, EMCS implementation throughout ANR, comprised of the Pilot program using Tallan as the implementation resources, followed by a team comprised of ANR staff to implement ECMS for the remaining ANR staff.
- 2. It is strongly recommended that a project of this scope have a **dedicated project team**. It is accurate to say that staff have been “allocated” to the project vs. saying “staff have been dedicated to this project team”, as dedicated implies that staff have nothing else assigned to them.
- 3. It is recommended that after Tallan completes the pilot sub-project, the agency-wide ECMS sub-project team is comprised of dedicated staff in the following roles:
 - a. Project Leader; 1 FTE; Role: Point person ensuring project success and liason with Joanna Pallito, project sponsor
 - b. Project Manager; .5 FTE; Role: Project management
 - c. Technical Staff: SharePoint Developer; 1 FTE
 - d. Technial Staff: SharePoint System Administrator; .5 FTE
 - e. NOTE: Business Leaders: Per the Independent Review report, it is expected that each business area implementing ECMS will have relatively short, concentrated bursts of project-related activity and that staff time is accounted for with existing staff and budgets, so do not require additional FTE project costs allocation.

As of 4/8/2016: I see that we are now getting to the point of assigning *some* FTE resource to this, particularly technical resources. However, a key point here is the recommendation to assign **dedicated** resources. Many of the FTEs are spread among several people, and as such, are then not **dedicated**.

Reviewer response on 4/25/2016:

Lack of **dedicated** project resources remain, and as such, the risk remains.

4b

STATE’S RISK RESPONSE:

The key to minimizing this risk is committed management support at the onset of this project and diligent project management. Our collaborative approach assures buy in from the various stakeholders. The collaboration efforts provide opportunities to continue the conversation and reduce risk in light of risks we cannot control such as administrative changes. We see the collaboration as a positive and benefit to our project efforts. We understand the success of the project is dependent upon timely and accurate decision making, and timely response to the consultants. We recognize time is money and we are not at the liberty to delay the project in any way due to lack of timely response on our part.

The reviewer’s comparison of our efforts involved with vendor selection and the IR is not a direct correlation to those that will take place with the vendor for development and implementation of the ECMS solution and 6 pilot programs. There are several reasons (many self selected) as to why we adjusted timing around final vendor selection. That said, we do have dedicated resources as detailed in 4c below which include the continuation of our ECMS Core Team (Jenn Loughran, Project Manager; Joanna Pallito, Project Sponsor, Peter Telep, ANR-IT Manager; Jean Nicolai, Project Champion; Greg Lutchko, Technical Project Team; and Seamus Loftus/Paul Haigh, Enterprise Architects). This team will remain intact throughout this project but with the concept outlined above. Having dedicated resources beyond what is listed below is both not feasible and not inline with how the Agency planned future programs would be implemented. In our opinion, given that much of the “non-technical” work that the vendor will do will be program staff as detailed below, which will varying from program to program, we feel that the model/resources we’ve identified will work. As we have also stated we understand that beyond the original project which includes these 6 pilot programs there will decision points where the Agency will plan to implement completely in-house, but also at times with vendor support utilizing the hours and services outlined in the contract for M&O/support. We will also have two additional resources at the table by the time we begin the full implementation effort with the vendor as there are two ANR-IT positions (50% each dedicated to ECMS) currently under recruitment as described in 4a above which will bring additional technical expertise to the table as well as ECMS platform management. These are existing ANR-IT positions which are part of the ANR base budget but have been redescribed to fit the changing business and IT needs of the Agency. It is not realistic to have any other dedicated team that can make high level system and management related decisions for the ECMS and ANR as a whole. We recognize these models at times can bring challenges including time delays for adding additional programs to the ECMS, but there shouldn’t be any additional costs based on our selected model and they are the only group that should collectively hold the decision-making authority. These are positions and roles (ANR-IT Manager, Administration & Innovation Director as Project Sponsor, etc.) that will remain intact as we face any higher level management/administration changes which is imperative for the success and long term viability of our ECMS solution within ANR.

STATE’S ADDITIONAL RESPONSE 4/20/2016:

The final vendor contract has a section dedicated to change orders, formal acceptance with a defined time period – currently drafted with vendor no more than 10 days (this “acceptance” requires a standard form and process involving signoff by State’s Project Manager and Project Sponsor); an escalation process is also going to be included in the final contract that will be used as needed by both parties as well as a defined section on “state-caused delays”. That said, ANR recognizes that a collaborative and inclusive model may work, as stated in the risk itself, but it could delay the project schedule and may also cause budget impact due to vendor requesting payment for such delays. The likeness has been mitigated to the extent possibly by the steps outlined above and the fact that this is a fix-priced contract. The ANR ECMS Team is going to develop an internal governance/process around any change orders to minimize time and firmly assess “need” vs. “want” without compromising the original project and scope.

REVIEWER’S ASSESSMENT:

The reviewer agrees with the concept of the approached stated by ANR. However, there has yet to be any evidence of putting such an approach into practice. From the Reviewer’s experience, there have been several delays in the project just since the time the Reviewer was included in the project: from the vendor selection, to getting many IR-related meetings scheduled, to getting responses to the Risk Register and Project Funding spreadsheet. As mentioned elsewhere, one remedy may be to have a dedicated project team with decision-making authority.

In summary: While a collaborative and inclusive model may work, as stated in the risk itself, it will delay the project schedule and may also cause budget impact due to vendor requesting payment for such delays. Consider a decision-making model where people closest to the decision have the responsibility and authority to make decisions that impact their specific operational areas. Ensure all decisions are communicated to the project governance committee that is currently in place. The governance committee would now be responsible for having a “review” vs. “decide” role on operational decisions, with the ability to override decisions that fall outside the overall project strategy.

Reviewer response on 4/25/2016:

Until such time that the ANR EMCS team develops a different project governance model, the risk remains.

4c

STATE’S RISK RESPONSE: We clearly understand once the contract is signed and in place, the project takes precedent over other work. Again, ANR/DEC leadership and management has continued to provide significant support on this project and will provide the space and support to allow (and require) staff to dedicate their time to the project. Leadership and Management will reiterate this expectation through-out the project.

State response to “In summary” question: There will be a shift in terms of more time from some staff currently on the ECMS Core Team as listed in 4a above: the Business Project Program role – (Greg Lutchko) will increase to 50% of his position and his work on nForm will be shifted to another position in ANR-DEC A&I Division that has been focused for now on migrating and deploying our new public website launching this month; the time from Joanna Pallito and Jean Nicolai (DEC A&I Project Lead and Records) will combined be 75% and this will be accomplished by some work being re-prioritized with other staff in the Finance Section and the Business Process Improvement Section while some items will either cease or decline (i.e. legislative session will end in late April/early May for another year and records schedules are near completion). The other major difference is that currently we do not have the ANR-IT positions detailed in 4a above (Project Manager and Senior Information Technologist) which has been an issue under our current structure, but will be addressed prior to the vendor kick-off. The only risk is potentially to the other programs in terms of the pace at which we roll those out and in most cases not to this project (implementation and 6 pilots) with the only one exception being an emergency response situation/matter (ex. Flood, pandemic, etc.) which could effect operations.

STATE’S ADDITIONAL RESPONSE 4/20/2016:

In addition to the steps outlined above in the 4/6/16 response it is important to stress that ANR has been involved in business process improvement (BTI/Lean) processes since late 2013 whereby significant efforts around training and applying principals to areas and projects across the Agency have become part of the day to day culture for most staff and their positions. These business process improvement projects have been far reaching and cross-departmental and agency in a few cases. These BTI/Lean events not only are established by staff with other

roles and responsibilities within the ANR but they involve intense project event weeks whereby current state and future states are documented and analyzed for workflow, value and most importantly content. These events involve teams of staff (usually up to 10 members) and they are charged with developing an implementation plan from getting out of the current state into both a future good state and “great” state. These projects are followed by 1-2 years’ worth of implementation which that “team” is responsible for delivering upon. The point being that staff are accustomed to having multiple roles and responsibilities in this ANR culture of continuous process improvement, but the leadership setting this as a major priority the allocated time and space is made available. Other work may become less of a priority with different timelines and/or expectations for delivery or even redirected. The benefit of Lean and we feel the ECMS will hold true to the same value in benefit – and that is that after completion of a Lean project event efficiency and capacity for time around higher valued work is gained as a result of the process changes. The ECMS for ANR is expected to leverage similar results as staff spend a tremendous amount of time managing documents, workflow and records under manual and varied processes and locations taking them away from higher value program work.

REVIEWER’S ASSESSMENT:

It is not clear what will change in the day-to-day work of project team members after the contract is signed vs. now before the contract is signed. As there has been no elaboration for how people will have tasks assigned differently than they are now, it is expected the same people will work at the same pace and continue to be assigned to the same projects after the contract is signed as they are now.

In summary: What changes are going to take place after the contract is signed as opposed to current work load?

Update: 4/8/2016: Reviewer is still somewhat leary. New hires create a set of unknowns. Practicing before the game is best, and the suggested approach indicates otherwise.

Reviewer response on 4/25/2016:

While the Reviewer acknowledges the organization value of the BTI/Lean processes undertaken since 2013, implementing an enterprise-wide ECMS solution requires a different skill set, and those lean efforts and the skills developed through those efforts may not be that valuable when applied to implementing an enterprise-wide solution. Using a running analogy: This may be like training for a 110 meter hurdling event for 3 years, then being asked to run a marathon: a different training and skill set is required for the hurdling event than the marathon event. The lessons learned through Lean process improvement, while valuable to the organization, will not translate to a systems implementation project.

In summary: The response to this risk by ANR does not address the risk itself, that is, staff having many tasks on their plates and as such, not being able to focus on this project.

[5a](#)

STATE’S RISK RESPONSE: Jennifer Loughran, an IT project manager with a focus on ECM efforts and Data governance, has been assigned, and is 100% available, to the project as Project Manager and as the Oversight Project Manager for the duration of the project. Jenn has a background in Healthcare IT that provided the opportunity for a broad range of IT accomplishments. She has been responsible for building provider files for insurance carriers, mapping claims data to vendor software applications, data analysis for large employer groups, managing professional staff, reporting and website development with HTML and SAS code and mentoring junior staff. Jenn has managed large projects in the private sector ranging from guiding diverse groups of stakeholders with disparaging priorities to successfully managing Electronic Record Implementations for ambulatory practices owned by one of the ten largest health care organizations in the country to the successful implementation of a new automated Medicare claims and billing system for a nation-wide IV provider while supervising a staff of 16. She has been responsible for guiding projects from research, development, training, implementation, testing, into Maintenance and Operations and support phases. One large project that Loughran has managed in the private sector, HEDIS, involved both vendor management and configuration management as well as working with staff from various departments (and a varying degree of time and interest). Successfully managing efforts across multiple company-wide departments, meeting timelines and within budget constraints Jenn was responsible for project management of all aspects of HEDIS reporting for a nationwide insurance carrier. Interactions and responsibilities included identification of the team that worked across the organization, selection and hiring of the vendor including contract review, initiation of the reporting development, data base development and testing. Jennifer was responsible for oversight of project status update reporting and communications with executive leaders. Final result was an increase of reportable measures from 9 measures on a hardcopy spreadsheet to 31 auditable measures all within desired and planned timeframe. Jenn was recognized for her HEDIS success and ultimately invited to lead a break-out session at a national HEDIS conference for a large insurance carrier.

Working from within the Enterprise Project Management Office (EPMO) provides Ms. Loughran with immediate access to a complete cabinet of PM resources as needed.

From ANR's perspective although Ms. Loughran may not have a project that correlates to this ECMS effort exactly, she clearly has worked in all areas of the various components of this project bringing the needed expertise to the this PM role. In addition to this, Ms. Loughran is part of the Department of Information & Innovation and as such has complete access to their bench of staff knowledge and expertise in not only Project Management, but all aspects we could encounter with our project.

STATE'S ADDITIONAL RESPONSE 4/20/2016:

In regard to state PM's prior experience: Costs for prior projects cover a range from ~\$100k to in excess of \$3M. There are components of prior project experience that are comparable at a variety of levels.

- For example, the IV Provider's Medicare claims and billing system resulted in monthly Medicare income of \$>1.1M, required collaboration with multiple insurance carriers and Provider locations across the country and impacted internal staff in the Medicare department, corporate-wide billing department, clerical staff, coders, reporting and mixing hoods nationwide.
- Electronic health record implementations for ambulatory practices owned by one of the top 10 hospital systems in the country took place over a 3-year plus range and involved over 1000 physicians.
- A provider file project for a BlueCross organization was similarly sized in regard to the overall impact and scheduling and required planned communications and collaboration with staff throughout the organization.

REVIEWER'S ASSESSMENT:

Of course, hoping that the risk did not offend Ms. Loughran, the statement stands: this project has a proposed solution that when fully implemented will serve 600 users directly, involves 5-6 vendor staff, and internal staff of up to 20 people. While not attempting to diminish Ms. Loughran's accomplishments, which projects compare directly with this project in terms of total staff (600), project budget (\$3.7M), and schedule (expected to be 4 years until fully implemented in ANR)?

Reviewer response on 4/25/2016:

Risk strategy accepted

6a

STATE'S RISK RESPONSE:

N/A. No risk noted

REVIEWER'S ASSESSMENT:

7a

STATE'S RISK RESPONSE:

State private cloud server for PSIGEN should be included in cost of the project but not necessarily what we pay the vendor. These software applications will be hosted on DII's private cloud. The hosting services will use existing agreements between ANR and DII. The cost is not prohibitive. We do not anticipate a substantial cost increase.

REVIEWER'S ASSESSMENT:

The costs in the cost spreadsheet now accurately represent these costs.

Risk strategy accepted

7b

STATE'S RISK RESPONSE:

Given this is a SharePoint Online solution, the necessity of full site collection restoration is considered low. Additionally, preliminary planning indicates that several site collections will be used to distribute, store, and manage content. In regards to restore operations, this does help compartmentalize the environment to minimize disruption and risk to other business areas and operations. For content and SharePoint web parts and apps, those deleted items reside in a user Recycle Bin and a system recycle bin for 90 days.

According to this link (<https://technet.microsoft.com/en-us/library/office-365-service-continuity.aspx>), Data Backups of Site Collections are performed every 12 hours and retained for 14 days. If this is inadequate for ANR's solution, a third party backup solution will need to be investigated.

The number of site collections will not be one. The number of site collectors is yet to be determined. This fact is understood.

A meeting with Microsoft and the vendor has been scheduled for Friday April 8, 2016. We will be able to determine if 14 days is acceptable following the session with Microsoft.

STATE'S ADDITIONAL RESPONSE 4/20/2016:

The business has confirmed that the 14-day recovery period is acceptable.

REVIEWER'S ASSESSMENT:

The point about the need for a restore would necessitate a full site collection restore is this: If you need to do a restore of an individual item, that is not available. A full site collection is your only option, unless of course, you want to pay for other options.

The point about 14 day retention results in the same outcome: you must pay for another solution if you want more than 14 days of retention.

In summary: Is having to do a full site collection restore or is 14 days of retention an issue?

Reviewer response on 4/25/2016:

There is no response to the risk highlighting the inability to restore individual items, as a restore involves a full site collection restore. Additionally, it is the Independent Reviewer's position that 14 days of retention is not adequate.

Reviewer response on 4/26/2016:

Through discussions during the IR presentation, ANR leadership indicated an agency-wide policy of 14 days of retention being adequate, and full site collection restores being adequate. As such, **this risk is mitigated.**

7c

STATE'S RISK RESPONSE:

N/A. No risk noted

REVIEWER'S ASSESSMENT:

8a

STATE'S RISK RESPONSE:

This is a content management solution not a case management system. Both ANR lead counsel and DEC lead counsel understands the ECM solution will not behave or replace a case management system. By proper design and metadata use with flexibility we feel we will satisfy much of the agency need for content management including organization that will assist Legal Services in the ability to store and retrieve documentation in regard to the Certificate of Public Good process. Therefore the project team believes the business understand the ECM solution and what limitations and benefits exist therein. While this is not a case management solution the ECM solution does offer the ability to store and retrieve documents as needed.

The workflow example used in the reviewer's assessment that follows is not an actual legal workflow but rather a hypothetical legal workflow used for discussion purposes only when initially meeting with Legal Services staff.

This is NOT a case management system. This IS a enterprise content management system. When the word **case** is being used in relation to workflow it is specific to the Certificate of Public Good program/ process, not to be confused with case management. Currently all agency records are stored throughout the department in various versions of paper, email and electronic formats in a multiple locations, network and personal drives. Those cases are not driven by the Agency of Natural Resources. The Cases belong to the Public Service Board and the ANR team works with some of those records and not in a case management capacity or platform. Currently all agency records are stored to various personal and shared drives and duplicated (and triplicated and so on) on the shared Y drive.

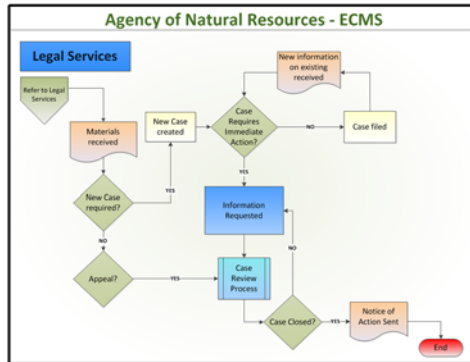
STATE’S ADDITIONAL RESPONSE 4/20/2016:

While Case Management would have been wonderful to obtain for the entire agency it is beyond the scope for this project. The Legal Services unit has identified the need for a content management system. Legal Services understands the ECMS solution will provide a content management system solution for the CPG program.

REVIEWER’S ASSESSMENT:

In reviewing the requirements as defined by Legal Services, it seems pretty apparent that Case Management features are required. Two such examples are provided below:

From: MtgLog_ANR_ECMS_LegalSrvs_WorkFlow_20150713.docx



From: MtgLog_ANR_ECMS_LegalSrvs_WorkFlow_20150825_F.docx

One of the most formal Agency legal processes is litigation before the PSB in Certificate of Public Good (i.e. permit) proceedings. This process is initiated with a Petition filed with the Public Service Board. The case is assigned to an ANR attorney(s), and the attorney(s) file a notice of appearance. The Board issues a schedule for the case, which includes discovery, motions practice, a technical hearing, legal briefing, and an Order from the Board related to the Certificate of Public Good. In some situations, the attorneys may negotiate a settlement prior to trial. The litigation in front of the Public Service Board represents about 75% of the Agency’s non-enforcement related litigation.

Petition: The utility or company files a petition (i.e. application) with the Board and provides a copy to ANR. The application contains documents and testimony to demonstrate the project’s compliance with specific legal criteria. In some cases, the utility or company files a notice with the Board at least 45 days prior to filing the petition and provides a copy to ANR. The “45 day notice” contains basic information about the project and provides ANR with notice that an application is likely to be filed soon. In most cases, ANR receives both a hard and electronic copy of the petition and notice.

Assignment: All 45 day notices, solar projects 150 kW and smaller, and telecommunications projects are reviewed by a planner. Lawyers are assigned to handle a matter once the petition has been filed, except that planners handle all telecommunications projects and some smaller solar projects.

Agenda: The paralegal prepares an agenda with all 45 day notices and applications that ANR received that week and includes electronic links to notices and applications. The agenda identifies the Regulatory Policy Analyst (i.e. planner) or lawyer that has been assigned to the matter. The agenda is sent via email to the litigation attorneys, planners, and certain technical staff. ANR receives approximately 4 – 15 notices and petitions each week.

Preliminary Comments from Technical Staff: Ideally, the planner or lawyer receives preliminary comments from technical staff shortly after the petition is sent out on the agenda.

Pre-hearing Conference: For larger projects, the Board sets a date for a pre-hearing conference. At the pre-hearing conference (and before), the parties discuss a schedule for the proceeding with dates for site visits, discovery, testimony, motions, technical hearings, briefing, and other events, which are effectively sub-processes within the CPG process.

Discovery Process: ANR lawyers meet with ANR technical staff to produce and respond to discovery requests, which included written interrogatories, requests to produce documents, and requests for admission.

Testimony: ANR lawyers review, edit, and file testimony prepared by the Agency’s technical staff to support the Agency’s position in the CPG proceeding.

Motions: Throughout the proceeding, parties may file and respond to various motions asking the Board to make rulings on specific issues. These motions include, but are not limited to, motions to intervene, motions to strike testimony, motions to compel discovery, and motions for summary judgments.

Technical Hearings: The technical hearings are somewhat similar to a trial. The Board accepts pre-filed testimony into the record and the Board and parties have an opportunity to ask witnesses questions while they are under oath.

Briefings: Once the technical hearings conclude, the parties have an opportunity to submit briefs to the Board to make legal arguments and file a reply brief.

After the briefs are filed, the Board issues a decision. If the Board did not hear the case directly, the Hearing Officer will issue a proposal for decision, which the parties may comment on. The Board reviews the proposal for decision and any comments and issues a decision.

During these proceedings and prior to final decision, the parties may negotiate an agreement on all or some of the issues and memorialize it in a Memorandum of Understanding. In some cases, the parties may agree to stipulate to certain facts and avoid or limit the scope of the technical hearing.

Parties may file a motion for reconsideration and/or appeal a final decision of the Board. ANR rarely appeals a Board decision.

In summary: Given the description of requirements provided, the reviewer is not clear how the requirements for Legal Services are not considered Case Management.

Reviewer response on 4/25/2016:

It is clear that the requirements of Legal Services require Case Management functionality. To say Legal Services will accept something other than that suggests that the solution as proposed will not meet at least part of ANR’s business requirements. Recommend either formerly taking Legal Services out of the Pilot Scope, or expanding Tallan’s scope to include Case Management functionality.

Reviewer comment on 4/26/2016:

Through discussions during the IR presentation, ANR leadership indicated they have confirmed with Legal Services that Case Management is not a requirement, and Business Process Management functionality is sufficient. As such, this risk is mitigated.

8b

STATE’S RISK RESPONSE:

We may determine to use the search functionality in SharePoint to maximize benefits however the business has not yet made a decision in regard to cost benefit of the requirement. Instead of ‘literally’ meeting this requirement we will leverage the capture ability of Psigen and SharePoint library with metadata to move and organize file server content into the ECMS by design.

	<p>REVIEWER'S ASSESSMENT: Risk strategy accepted.</p>
8c	<p>STATE'S RISK RESPONSE: Do metadata fields that automatically get populated count? What costs are we talking about? Vendor cost to create more than 5-7 metadata fields or user "costs" in having to fill out more information which may become a deterrent to using the system appropriately? If we are including even a small number of records management metadata fields (which may be auto-populated and hidden from the user) it seems challenging to keep the number of metadata fields below 5-7. We are planning to mitigate this risk by automating the population of and implementing default values for these fields.</p> <p>REVIEWER'S ASSESSMENT: Risk strategy accepted.</p>
9a	<p>STATE'S RISK RESPONSE: The vendor demonstrated how this will work at the vendor demonstration. The team does not understand why this is identified as a risk. From the perspective of the Contractor Proposal, page 6 of the proposal, and what we stated in the RFP, we think the risk is very low.</p> <p>The vendor is in the discovery process around the integration of nForms and REST API services currently.</p> <p>STATE'S ADDITIONAL RESPONSE 4/20/2016:</p> <p>The vendor is aware of the systems (Windsor nFORMs and web search portal to be created) and has demonstrated they can do the latter. There are ongoing discussions with Windsor to determine what will be required to interface with nFORMs.</p> <p>REVIEWER'S ASSESSMENT: The risk exists because the vendor would need to understand all systems required to interface with, and then confirm whether the proposed approach will work with each interface requirement.</p> <p><u>In summary:</u> Does the vendor know each of the systems necessary to interface with and can they confirm the proposed approach (ASP.NET Web API services) will work for each of those interfaces?</p> <p><u>Reviewer response on 4/25/2016:</u> This risk remains open, until such time that Windsor and Tallan can demonstrate the ability to interface, as this has not yet occurred in a production environment.</p>
10a	<p>STATE'S RISK RESPONSE: Section 508 is addressed in NFR SLN18.1.4 and SLN18.1.13, and are currently in the contract. Microsoft does have an Accessibility statement around SharePoint Online and how well they are in compliance with Section 508. The Microsoft accessibility statement is located here: (http://enterprise.microsoft.com/en-us/industries/government/section-508-vpats-for-microsoft-products).</p> <p>REVIEWER'S ASSESSMENT: Risk strategy accepted.</p>
11a	<p>STATE'S RISK RESPONSE:</p> <p>REVIEWER'S ASSESSMENT:</p>

[12a](#)

STATE'S RISK RESPONSE:

ANR considers this project to be largely a project of configuration versus custom development. Leveraging SharePoint Online minimizes the amount of customization needed and instead relies the configuration of SharePoint libraries, lists, web parts, and "apps." Nintex workflow is largely a configuration tool to create workflows. ANR considers the project to align with state strategic IT goals of leveraging existing enterprise IT investments, configuration over customization, as well as leveraging cloud-based services. It is true that customization will be necessary in order to connect external systems to SharePoint Online and to create an avenue for the public to anonymously search content stored within SharePoint. This customization aligns with state strategic IT goals as it employs open standards.

STATE'S ADDITIONAL RESPONSE 4/20/2016:

The percentage of development indicated here is not correct. The solution will require SharePoint configuration, not development. The only proposed component that will require development might be the web portal and the nFORM integration.

REVIEWER'S ASSESSMENT:

So long as DII Commissioner agrees that either this is not development but rather configuration, and/or, the vendor is contracted at a fixed priced for all development and all development is done by the vendor, this risk is mitigated, pending acceptance from DII Commissioner.

Reviewer response on 4/25/2016:

Since the vendor acknowledges the planned use of Visual Studio (see below), it is not clear how ANR has deemed that less than 50% of the work is development. Suggest getting clarification from vendor on the percentage of development work. Further, suggest ANR confirm with vendor whether any development work will negate the ability to scale to future versions of SharePoint.

We are using the definitions found here for "configuration" vs. "customization" in a SharePoint environment: <http://www.buckleyplanet.com/2012/10/sharepoint-configuration-vs-customization.html>:

"configure" as taking an out of the box component (list, library, web part) and modifying its various settings and attributes, including adding things like columns, fields, metadata, and so forth. All of it is done within the supported "framework" of SharePoint, and should be, by definition, supported by Microsoft and scalable/upgradable to the next version.

"customize" as using SharePoint Designer, Visual Studio, or .Net code to modify SharePoint outside of its normal framework, which could make the site difficult or impossible to scale/upgrade, and could cause support issues with Microsoft.

"Custom Development:

1. Any custom development will be done on the Microsoft .NET platform using .NET 4.5. The Integrated Development Environment (IDE) used will be Visual Studio 2013 (or higher).
2. Expect to develop in C++ and expect to develop various APIs via this custom coding methodology."

"The development environment will contain all the tools necessary to develop SharePoint solutions for the Office 365 environment such as, Visual Studio, SharePoint Designer, AngularJS, BreezeJS, and other developer tools for SharePoint app development."

Reviewer Update on 4/26/2016:

Vendor has indicated that not more than 15% of their effort is custom development work. Recommend state ask Tallan to include the language from the email from Joe Giessner on this topic and that Tallan also agrees to include contract language indicating that Tallan guarantees that the solution does not have any custom coding that impacts or compromises the ability of State of VT to upgrade to new versions of SharePoint on a go forward basis. If Tallan is not willing to make that guarantee, get Tallan to agree to complete any work to upgrade their solution to new versions of SharePoint at no cost to State of VT.

So long at these items are undertaken, this risk is mitigated.

APPENDIX A - (ctl-click to go back to [Risk 3a](#))

Tallan was asked to provide a listing of Risks they see as potentially impacting this project, which are listed below. For each item, please provide a response for how their suggested Mitigation strategy will be met. Otherwise, please provide an alternative mitigation strategy. Either response can be placed in the SOV Response section highlighted in yellow.

Independent Reviewer Response: All items accepted except those highlighted in aqua.

1. PROJECT RISKS

Staffing – VT DEC staff will be accessible based on a mutually agreed upon project schedule. Limitations with staff availability could cause project development and communication between VT DEC and Tallan to be degraded likely causing development delays and possible incorrectly developed deliverables.

Mitigation - Tallan will produce a weekly status report summarizing the progress through the previous reporting period, the open action items, the action items on hold and the planned tasks for the upcoming reporting period. Project status meetings will be conducted to verbally review the state of the project and address open issues. Additional meetings and feedback to address Tallan/VT DEC, concerns, issues or question will be performed in a timely manner throughout the project.

SOV Response: *The final vendor contract will include a detailed project plan (outlining timeframes, staffing and deliverables) as well as a documented (time sensitive) change order/control process. As stated earlier the State's ECMS Core Team will also continue to hold (at least) weekly meetings outside of any other ongoing contractor related project development meetings so that communication and any identified issues that need to be acted upon will be addressed timely and uniformly by the State. The final contract will also include a detailed list of deliverables (with a schedule/timeline correlating back to the project plan) that will involve a documented process around user acceptance and user completion. In addition to this, the final contract includes clear timelines in terms of "action" around decisions items to ensure that delays and progress on either the contractor or state's behalf do not become an issue or inhibitor of the project timeline and progress, up to and including any potential "key staff changes".*

STATE'S ADDITIONAL RESPONSE 4/20/2016:

1. Project Risks - We agree that the weekly status report mechanism is an adequate means of reporting issues and possible delays, so that the State of Vermont can respond accordingly. The State of Vermont feels that by having leadership and management support and prioritization of this project, as well as a mutually agreed upon detailed project plan, and schedule helps mitigate/lessen the risk of staff availability issues.

Requirement Changes - Despite the best efforts of everyone involved in the requirements gathering process, new requirements may be introduced or discovered through the course of the project which could affect timeline and budget. Any changes will require a formal change request document which may delay development and increase scope and cost. Drafting a formal change request document for changes could be a time consuming task in and of itself depending on the number and complexity of the change. The process could include multiple reviews and rewrites of the new requirements by both Tallan and VT DEC.

Mitigation - Wherever possible, new requirements will be documented and deferred to a later phase. If that is not feasible, a change request will be drafted to support the new requirement.

SOV Response: The project team recognized this risk and in an effort to mitigate the risk the team has been working to review the process for each pilot program. Updated current state workflow diagrams are being prepared in Visio along with a records list for each pilot. The Record schedules are also being reviewed to determine if they are up-to-date. The records lists are being mapped to the Visio workflow and the materials will be provided to Tallan at or before the kick-off meeting.

Change Request - Formal signoff is required for all changes requests. If signoff is not received in a timely manner, development tasks may be delayed.

Mitigation – Tallan and VT DEC will make their greatest efforts to ensure that documents are reviewed and signed off in a timely manner.

SOV Response: Change requests will be reviewed in a timely manner and according to a prescribed Change Management Process that will be addressed in the contract.

Work Location - The Tallan and VT DEC project teams are not located in a single office which could cause delays in development of various project tasks due to lack of timely communication.

Mitigation – Tallan has extensive experience working remotely with clients, so we have established protocols that ensure that these project teams communicate effectively. The Tallan team will be primarily located in their Rocky Hill, CT office, which aids in the development team communication. Most communication between Tallan and VT DEC team members will be performed via email, teleconferences and possibly an instant message tool such as Skype for Business. Both the Tallan and VT DEC teams should agree to be responsive in their communications to minimize the potential for schedule delays. In addition, Tallan development staff is available to be on site at VT DEC's office when the situation warrants it.

SOV Response: On-site participation is anticipated from Tallan in the requirements gathering phase in order to understand the business needs prior to design and development work. This on-site presence and work will help to mitigate risk.

2. TECHNICAL RISKS

nForms Integration - Tallan is not implementing the nForms based piece of the solution for VT DEC. Delays to the working nForms solution for web-based capture could potentially cause delays in final delivery of the solution from Tallan.

Mitigation: Tallan will work closely with the VT DEC team to ensure nForms integration is surfaced as a primary risk and critical integration point. Tallan will work with nForms to obtain necessary API and integration information prior to the engagement to fully understand the integration story and ensure the solution design take it into account.

SOV Response: *We have an existing nFORM application for one of the pilot programs that can be used to design/implement the nFORM integration. The Drinking Water & Groundwater Protection Division's Regional Office Water/Wastewater Permitting Program's permit application form has been developed and deployed. We are beginning discussions with another one of the pilot programs, the Watershed Management Division's Stormwater Construction General Permit (CGP) Program (CGP 3-9020). We hope to have at least one CGP permit application form in use before beginning the Planning phase of the ECMS project for that particular pilot program. Development and implementation of nFORM for the remaining pilot programs will likely not begin until after the ECMS project is completed. For 1 of the 6 pilot programs, Legal Services – Certificate of Public Good, nFORM is not an option.*

There is no need for a public facing search capacity for Legal Services Certificate of Public Good (CPG) process. This is handled by the Public Service Department (PSD) and Legal Services works collaboratively with PSD throughout the CPG process. This is not considered an issue for CPG.

STATE'S ADDITIONAL RESPONSE 4/20/2016:

2. Technical Risks –

nFORM integration - nFORM is not a requirement for the ECMS project. The Certificate of Public Good (CPG) process is not an ANR licensing or permitting program and therefore does not and will not require an application form. There is no need for a public facing search capacity for Legal Services Certificate of Public Good (CPG) process. This is handled by the Public Service Department (PSD) and Legal Services works collaboratively with PSD throughout the CPG process. This is not considered an issue for CPG.

OCR – *OCR is a risk, potentially with handwritten responses on standard forms. As the number and types of forms increase, the complexity increases as well.*

Mitigation: Tallan will work closely with the OCR vendor, PSIGEN, to ensure best practices are applied for maximum accuracy during OCR of paper documents. Tallan will establish protocols around remediation of lower-confidence OCR scans to ensure any low-confidence scans are surfaced to VT DEC staff for manual review and processing

SOV Response: *To the extent possible, programs will require electronic forms completion so that the receipt of handwritten submissions is limited. OCR will not be used, as is the current case, when there is handwritten or otherwise scanned or image information. OCR will continue to be used for searchable records content.*

Connectivity – *As the solution is a hybrid on-premises and cloud solution, the solution as a whole requires connectivity between physical layers for the completion of business workflows.*

Mitigation: Tallan will design the solution with the prospect of intermittent connectivity in mind, and where necessary, use persistent workflow and message queueing technologies to ensure that interrupted operations due to connectivity issues will be recorded and re-tried after connectivity is restored.

SOV Response: *The mitigation strategy as planned will be assessed during the demonstration of deliverables for acceptance as called for in the contract. There will also be planned SLA's around design performance included in the contract as well.*

STATE'S ADDITIONAL RESPONSE 4/20/2016:

Connectivity - The mitigation strategy as planned will be assessed during the demonstration of deliverables for acceptance, which includes design documentation as called for in the contract, and indicated in the project plan.

Reviewer Comment: *Assessing the design of the connectivity solution at time of acceptance may be late in the game, in that, should the solution not be accepted, it is "back to the drawing board", i.e. back to the design phase (which is then followed by development, testing, implementation, then acceptance testing). Suggest attempting to validate the connectivity design at design time vs. at acceptance time.*

Security – *Given the hybrid nature of the solution, data will be transmitted between systems across the internet. Some information may be personal in nature and need to be protected.*

Mitigation: All communication between on-premises and hosted applications will be secured using SSL/TLS.

SOV Response: *The mitigation strategy as planned will be assessed during technical architecture discussions during JAD sessions, during the NFR Review and Acceptance sessions, and through the Security Compliance Review and Testing spelled out in the contract.*

SharePoint On Line ANR already has Office365 G1 and 421 GB disk space allocated currently; 0 used now; \$0 cost is allocated to this as ANR are using Office licenses and getting SharePoint storage as part of that license fee

G3 Licenses currently; 650 G3 (\$300/user/annually) and 60 G1 (\$100/user/annually) licenses; \$2.25/year/GB beyond ANR capacity

HOSTING TOTAL	\$14,000	\$0	\$0	\$14,000	\$14,000	\$14,000	\$14,000	\$14,000	\$14,000	\$14,000	\$14,000	\$14,000	\$14,000	\$14,000	\$14,000	\$14,000	\$140,000
OTHER FEES				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
OTHER TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL VENDOR COSTS	\$0			\$1,185,672	\$106,320	\$106,320	\$106,320	\$106,320	\$106,320	\$106,320	\$106,320	\$106,320	\$106,320	\$106,320	\$106,320	\$106,320	\$2,142,552
DII FEES																	
3% Charge for DII PMO/EA Services based on total Project and Operations Costs:	\$0			\$35,570													\$35,570
DII FEES TOTAL				\$35,570	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$35,570
TOTAL PROJECT-RELATED COSTS				\$1,221,242	\$106,320	\$106,320	\$106,320	\$106,320	\$106,320	\$106,320	\$106,320	\$106,320	\$106,320	\$106,320	\$106,320	\$106,320	\$2,178,122

OPERATIONS-RELATED COSTS																	
DEPARTMENTAL INTERNAL COSTS																	
Staffing Costs:																	
Expected project internal staffing cost allocation	Expect no new staff; All staff already budgeted in current ANR budget, so no new out of pocket expenses expected																
1 FTE's worth of SharePoint technical resources across 2 ANR IT FTEs				\$74,880	\$74,880	\$74,880	\$74,880	\$74,880	\$74,880	\$74,880	\$74,880	\$74,880	\$74,880	\$74,880	\$74,880	\$74,880	\$748,800
.50 FTE of a ANR IT System Developer & ANR-IT Manager resource to support external ECMS applications and select ECMS projects				\$37,440	\$37,440	\$37,440	\$37,440	\$37,440	\$37,440	\$37,440	\$37,440	\$37,440	\$37,440	\$37,440	\$37,440	\$37,440	\$374,400
1.25 FTE project leader, records management and business project program support (DEC A&I Division)				\$93,600	\$93,600	\$93,600	\$93,600	\$93,600	\$93,600	\$93,600	\$93,600	\$93,600	\$93,600	\$93,600	\$93,600	\$93,600	\$936,000
1 FTE project manager allocated from DII				\$74,880	\$74,880	\$74,880	\$74,880	\$74,880	\$74,880	\$74,880	\$74,880	\$74,880	\$74,880	\$74,880	\$74,880	\$74,880	\$748,800
.5 FTE enterprise architect support from DII to assist with system expansion planning as needed				\$37,440	\$37,440	\$37,440	\$37,440	\$37,440	\$37,440	\$37,440	\$37,440	\$37,440	\$37,440	\$37,440	\$37,440	\$37,440	\$374,400
Travel and Expenses	Tradeshaw, training, etc			\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$50,000
WAN Costs	No additional WAN impact expected here																\$0
DEPARTMENTAL INTERNAL COSTS TOTAL				\$323,240	\$323,240	\$323,240	\$323,240	\$323,240	\$323,240	\$323,240	\$323,240	\$323,240	\$323,240	\$323,240	\$323,240	\$323,240	\$3,232,400
TOTAL OPERATIONS-RELATED COSTS				\$323,240	\$323,240	\$323,240	\$323,240	\$323,240	\$323,240	\$323,240	\$323,240	\$323,240	\$323,240	\$323,240	\$323,240	\$323,240	\$3,232,400

TOTAL COSTS (PROJECT and OPERATIONS)				\$1,544,482	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$5,410,522
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USE OF FUNDS - END

SOURCE OF FUNDS - START

Revenue Source:	% of total	To be funded by Project Funding	Year 1 (FY16)	Year 2 (FY17)	Year 3 (FY18)	Year 4 (FY19)	Year 5 (FY20)	Year 6 (FY21)	Year 7 (FY22)	Year 8 (FY23)	Year 9 (FY24)	Year 10 (FY25)	TOTAL
Project Related:													
Existing one-time balance of Special funds (permit fee) available for allocation for this purpose	3.7%	\$1,540,952	\$200,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$200,000
Existing one-time Federal funds already obtained	24.0%	Project Funding Shortage: \$40,952	\$1,100,000	\$200,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,300,000
Operations Related:													
General Fund #	See Program Splits chart for detail	14%	\$34,228	\$32,138	\$60,138	\$60,138	\$60,138	\$60,138	\$60,138	\$60,138	\$60,138	\$60,138	\$547,473
Special Fund #	Environmental Permit Fee Funds; Solid Waste Management Assistance Funds, Petroleum-Clean Up Funds; Environmental Contingency Funds; Endangered Species Permit Fee Funds	44%	\$107,572	\$101,006	\$189,006	\$189,006	\$189,006	\$189,006	\$189,006	\$189,006	\$189,006	\$189,006	\$1,720,630

\$2,178,122 Project costs
\$2,178,122 Delta

Interdepartmental Fund #	17%	12.3%	\$41,562	\$39,025	\$73,025	\$73,025	\$73,025	\$73,025	\$73,025	\$73,025	\$73,025	\$73,025	\$73,025	\$664,789
Normal Federal funds part of ANR/DEC budget #	25%	18.1%	\$61,121	\$57,390	\$107,390	\$107,390	\$107,390	\$107,390	\$107,390	\$107,390	\$107,390	\$107,390	\$107,390	\$977,631
TOTAL:		100.0%	\$1,544,482	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$5,410,522

\$3,232,400 Operations cost
#REF! Delta

Summary by State and Federal:

State Funding:	\$3,132,892	57.90%	\$383,362	\$172,170	\$322,170	\$322,170	\$322,170	\$322,170	\$322,170	\$322,170	\$322,170	\$322,170	\$322,170	\$3,132,892
Federal Funding:	\$2,277,631	42.10%	\$1,161,121	\$257,390	\$107,390	\$107,390	\$107,390	\$107,390	\$107,390	\$107,390	\$107,390	\$107,390	\$107,390	\$2,277,631
	\$5,410,522													

SOURCE OF FUNDS - END

PROJECT CASH FLOW - START

	Year 1 (FY16)	Year 2 (FY17)	Year 3 (FY18)	Year 4 (FY19)	Year 5 (FY20)	Year 6 (FY21)	Year 7 (FY22)	Year 8 (FY23)	Year 9 (FY24)	Year 10 (FY25)	TOTAL
Use	\$1,544,482	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$5,410,522
Source	\$1,544,482	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$5,410,522
Net Cash by Fiscal Year:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Cash Flow:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Potential Revenue Recovery:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Net Cash by Fiscal Year:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Cash Flow:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

CASH FLOW - END

NET CHANGE IN OPERATING COSTS - START

	Year 1 (FY16)	Year 2 (FY17)	Year 3 (FY18)	Year 4 (FY19)	Year 5 (FY20)	Year 6 (FY21)	Year 7 (FY22)	Year 8 (FY23)	Year 9 (FY24)	Year 10 (FY25)	TOTAL
Proposed Operating Costs:											
Total Operating Costs	\$1,544,482	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$5,410,522
Total: Proposed Operating Costs:	\$1,544,482	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$429,560	\$5,410,522
Current Operating Costs:											
Current Staffing	\$522,720	\$538,402	\$554,554	\$571,190	\$588,326	\$605,976	\$624,155	\$642,880	\$662,166	\$682,031	\$5,992,399
Total \$:	\$522,720										\$0
Hourly Rate:	\$36.00										\$0
Total Hours:	14,520										\$0
37.5 Hours for 52 weeks: (2080 was use	1,950										\$0
Equivalent FTE:	7.45										\$0
Total: Current Operating Costs:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Net Operating Cost Decrease/(Increase)	(\$1,544,482)	(\$429,560)	(\$429,560)	(\$429,560)	(\$429,560)	(\$429,560)	(\$429,560)	(\$429,560)	(\$429,560)	(\$429,560)	(\$5,410,522)

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Summary of Net Change in Operating Costs among Funding Sources: ③

STATE:	Year 1 (FY16)	Year 2 (FY17)	Year 3 (FY18)	Year 4 (FY19)	Year 5 (FY20)	Year 6 (FY21)	Year 7 (FY22)	Year 8 (FY23)	Year 9 (FY24)	Year 10 (FY25)	TOTAL
Proposed State Funding Source	\$383,362	\$172,170	\$322,170	\$322,170	\$322,170	\$322,170	\$322,170	\$322,170	\$322,170	\$322,170	\$3,132,892
Current State Funding Source	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
STATE Net Operating Cost Decrease/(Increase)	(\$383,362)	(\$172,170)	(\$322,170)	(\$322,170)	(\$322,170)	(\$322,170)	(\$322,170)	(\$322,170)	(\$322,170)	(\$322,170)	(\$3,132,892)
FEDERAL:	Year 1 (FY16)	Year 2 (FY17)	Year 3 (FY18)	Year 4 (FY19)	Year 5 (FY20)	Year 6 (FY21)	Year 7 (FY22)	Year 8 (FY23)	Year 9 (FY24)	Year 10 (FY25)	TOTAL
Proposed Federal Funding Source	\$1,161,121	\$257,390	\$107,390	\$107,390	\$107,390	\$107,390	\$107,390	\$107,390	\$107,390	\$107,390	\$2,277,631
Current Federal Funding Source	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
FEDERAL Net Operating Cost Decrease/(Increase)	(\$1,161,121)	(\$257,390)	(\$107,390)	(\$107,390)	(\$107,390)	(\$107,390)	(\$107,390)	(\$107,390)	(\$107,390)	(\$107,390)	(\$2,277,631)

#DIV/0!

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NET CHANGE IN OPERATING COSTS - END

NOTES / ASSUMPTIONS:

- ① We don't expect to need additional licenses when expanding beyond the pilot as all users will have Office365 and thus, SharePoint
- ② No staffing level changes expected through this project
- ③ All costs are considered new Operating Costs, as there is no solution currently in place

Funding Shortage:

\$0