



# ADOA - ASET

Arizona Strategic Enterprise Technology

Project Investment Justification

Version 01.01

A Statewide Standard Document for Information Technology Projects

**Project Title: myDEQ Phase 1**

<b>Agency Name:</b>	Arizona Department of Environmental Quality
<b>Date:</b>	October 4, 2013
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## I. Management Summary\*

Arizona Department of Environmental Quality (ADEQ) is proposing to develop myDEQ, a web portal, that will enable its customers to do most of its permitting, billings and payments and data submission online. myDEQ will benefit over 18,000 businesses across Arizona. Currently, ADEQ conducts most of its business with its customer using manual processes. It receives permit applications, bill pay, notifications, and compliance data via paper form for roughly 140 different transaction types. These paper processes requires non-value added time on the part of both ADEQ customers and ADEQ staff. Elapsed time from the customer beginning their paper creation to receiving final answer from ADEQ ranges from weeks to months. ADEQ is proposing to automate all these processes via a web portal that will be accessed by its customers, shareholders and staff. ADEQ anticipates savings in elapsed time ranging from 75 to 95% for each transaction by implementing these processes on-line via a customer portal. This is very similar to university student portals and stock brokerage portals where customers can initiate transactions, see pending and completed transactions, pay bills, and receive notifications. Our proposed solutions range from fully automating a simple registration process to partially automating a more involved permit application process. A reduction in elapsed time to permitting decisions lets the regulated community make quicker decisions which not only helps the economy but also helps us in keeping the environment clean.

***The completion of this project, with its cost savings, convenience, and compliance assistance, will be a boon to business regulated by ADEQ and help attract new business to Arizona."***

- Governor Brewer, *Building on the Four Corners of Reform*, January 2013

## II. Project Investment Justification (PIJ) Type\*

Yes  No Is this document being provided for a Pre-PIJ / Assessment phase?

If Yes,

Identify any cost to be incurred during the Assessment phase.	\$
Based on research done to date, provide a high-level estimate or range of development costs anticipated for the full PIJ.	\$

Explain:

[Click here to enter text.](#)

Yes  No Will a Request for Proposal (RFP) be issued as part of the Pre-PIJ or PIJ?

## III. Business Case

### A. ***Business Problem\****

ADEQ processes roughly 28,000 transactions annually via paper form for various permits, reports, and receives payments from roughly 16,000 facilities. This causes ADEQ and the regulated community to enter the data multiple times, increased amount of re-work, and manual reporting. All of this manual effort is error prone and time

consuming. This results in permits taking too long to issue, an increased number of facilities out of compliance, and an inefficient process for our customers.

As shown in Figure III.A.1 below, it takes anywhere between 3 weeks to as much as 300 days to issue a permit, report or a notification to our customers. Our customers are clearly unsatisfied with these delays as they negatively impact their businesses. Furthermore, the touch time for these permits and notifications are unusually high. For example, ADEQ handles about 4000 invoices and payments every year and it takes about 2 FTE hours per transaction. This equates to more than 4 FTEs engaged full time in handling invoices and payments. For the most part, this is non-value added time spent by ADEQ staff. Clearly, despite its best efforts, ADEQ is not serving its customers well nor is it using its resources in the most efficient way.

Process	Est. Annual Count	Elapsed Time (Days)	Touch Time (Hours)	Value Added Ratio (%)
		Current	Current	
Invoicing and payment	4,000	84	2	0.099%
Type 2, APP General Permit	100 to 250	90	7	0.324%
Crushing and Screening Air, General Permit	26 to 50	89	7	0.328%
Crushing and Screening Air, Annual Certification	251 to 500	34	2.5	0.306%
Hazardous Waste Facility, Annual Report	1,000 to 2,500	300	1.6	0.022%
UST Notification	251 to 500	108	1.5	0.058%
Hazardous Waste Facility Registration - EPA Id	100 to 250	82	5	0.254%
Water Quality Monitoring Data - SMRF Review	2,400 reports with a total of 1,000,000 Data Points	67	2	0.124%
Suspected Release Notification	100 to 250	7	3	1.786%
Hot Mix Asphalt, General Permit	26 to 50	89	7	0.328%
Hot Mix Asphalt, Annual Certification	251 to 500	34	2.5	0.306%
Discharge Monitoring Reporting	400 reports with 95,000 summary data point	45	3	0.278%
Drinking Water System Compliance Status Report	100 to 250	21	4	0.794%
Waste/used tire registration	1 to 25	97	4	0.172%

Figure III.A.1 – Elapsed and Touch Time per transaction per process

### **B. Proposed Business Solution\***

ADEQ is proposing to partner with ADOA to develop a web portal that will automate most of the permitting and compliance processes. This proposal is a direct result of ADEQ listening to its external stakeholders (i.e., Arizona citizens), its customers (regulated businesses), and employees and will directly support ADEQ’s five strategies incorporated into its five year Strategic Plan for FY 2014 – 2018 (please see Appendix III.B.1 – ADEQ’s Strategic Plan for FY 2014 - 2018). ADEQ’s five strategies are:

1. Unleash human potential
2. Deploy Lean
3. Leverage e-technology
4. Increase outreach
5. Strengthen core programs

Automating the permitting process and compliance data reporting will have direct impact on each of the five strategies adopted by ADEQ. It will free up our staff to do more critical analysis work thus unleashing ADEQ's human potential; "As-is" and "To-be" analysis will allow for deploying Lean; using the latest technology for automation and partnering with Department of Administration (ADOA) will help leverage technology not only for ADEQ but for other state agencies as well; the myDEQ portal will allow all citizens and businesses in Arizona to actively participate in cleaning and maintaining Arizona's environment thus increasing the outreach; and finally our core programs (Air Quality Division, Water Quality Division, and Waste Programs Division) will be strengthened as the e-technology will make it possible to fully implement the online fee-for-service model.

In order to automate the permit process and compliance data reporting, ADEQ has already collected business requirements, developed wireframes and completed the functional requirements for the following ten (10) transactions:

1. General Permit – Crushing and Screening
2. Compliance Certification – Crushing and Screening
3. General Permit – Aquifer Protection Type
4. Hazardous Waste Annual Report
5. UST Notification
6. Hazardous Waste EPA ID
7. Minor Permit Amendments
8. Hot Mix Asphalt
9. Waste / Used Tires
10. Self-Monitoring Report Forms (SMRF)

We have also drafted the Software Architecture Document (SAD) which is attached to this PIJ as Appendix III.B.2.

ADEQ has been working with ADOA over the past year to partner with them so that an infrastructure can be built that will support not only ADEQ but also other state agencies in the future. This project can then serve as a proof-of-concept for other state agencies. After careful consideration, ADOA has selected WSO2 as the middle-tier platform. Since the platform is new to ADEQ, a decision was made to first undertake a smaller project and develop a fully functional prototype for just one transaction. A PIJ (SMRF Electronic Submission Project) was approved in August to implement the Self Monitor Report Forms (SMRF). As this project required building a portal that will support many transactions in the future, ADEQ decided to run this project under an Agile framework. We are on schedule to complete the SMRF prototype in mid-November. We are expecting the customers to start uploading their quarterly SMRF data in January 2014 using the web portal.

In this PIJ, ADEQ is proposing to add 27 more transactions to the portal. These transactions will be added to the portal using an Agile/SCRUM methodology with each transaction comprising one or more Sprints depending upon the complexity. The Agile/SCRUM methodology will allow ADEQ to release the functionality of the portal to the end-customers iteratively in smaller chunks.

We are proposing to use four (4) Sprint teams to work simultaneously developing the following 27 transactions:

1. Customer and Place Registration
2. User Registration and CROMERR Compliance
3. Web Portal Main Dashboard (Landing Page)
4. Invoicing and Payments
5. General Permit – Crushing and Screening
6. Compliance Certification – Crushing and Screening
7. General Permit – Aquifer Protection Type
8. Hazardous Waste Annual Report
9. UST Notification
10. Hazardous Waste EPA ID
11. Minor Permit Amendments
12. Hot Mix Asphalt
13. Waste / Used Tires
14. Annual emissions inventory
15. Asbestos NESHAP Notification Form
16. UST suspected release report
17. Display of basic water quality data for water systems (Safe Drinking Water Information System (SDWIS) Data
18. Operator Certification
19. SSO Notification
20. 24-Hour, 5 day, and 30 day Exceedences Notification
21. Concrete batch plant
22. Soil Vapor Extractor
23. Septage hauler
24. Industrial Discharge Permits (Pre-treatment)
25. Type 3 (APP and Reuse)
26. Used oil marketing report
27. UST Contractor certification

All these transactions will be included in the portal by June 30, 2014.

**C. Quantified Benefits\***

<input checked="" type="checkbox"/>	Service enhancement
<input type="checkbox"/>	Increased revenue
<input checked="" type="checkbox"/>	Cost reduction
<input checked="" type="checkbox"/>	Problem avoidance
<input checked="" type="checkbox"/>	Risk avoidance

Explain:

After carefully evaluating its current processes, ADEQ streamlined each transaction (introduced LEAN) and then estimated the future elapsed and touch time assuming that the future processes of permitting and compliance reporting will be done through the myDEQ portal. The estimated elapsed time and touch time show a dramatic increase in efficiency. Permits that now take 90 days to issue can be done in almost real time (in one day). The touch time (ADEQ's staff time) that currently takes seven (7) hours per permit will reduce to six (6) minutes. Please see Figure III.C.1 below for some of the processes that have already gone through ADEQ's LEAN process.

Process	Est. Annual Count	Elapsed Time (Days)		Touch Time (Hours)		FTE Savings*
		Current	Future	Current	Future	
Invoicing and payment	4,000	84	35	2	0.1	5.7
Type 2, APP General Permit	100 to 250	90	30	7	2	0.7
Crushing and Screening Air, General Permit	26 to 50	89	1	7	0.1	0.2
Crushing and Screening Air, Annual Certification	251 to 500	34	2	2.5	0.1	0.7
Hazardous Waste Facility, Annual Report	1,000 to 2,500	300	60	1.6	0.5	1.4
UST Notification	251 to 500	108	43	1.5	0.5	0.3
Hazardous Waste Facility Registration - EPA Id	100 to 250	82	1	5	0.25	0.6
Water Quality Monitoring Data - SMRF Review (check numbers)	2,400 reports with a total of 1,000,000 Data Points	67	14	2	0.25	3.1
Suspected Release Notification	100 to 250	7	1	3	0.5	0.3
Hot Mix Asphalt, General Permit	26 to 50	89	1	7	0.1	0.2
Hot Mix Asphalt, Annual Certification	251 to 500	34	2	2.5	0.1	0.7
Discharge Monitoring Reporting	400 reports with 95,000 summary data point	45	5	3	0.25	0.8
Drinking Water System Compliance Status Report	100 to 250	21	1	4	0.1	0.5
Waste/used tire registration	1 to 25	97	2	4	0.1	0.0
<b>TOTAL</b>						<b>15.20</b>

Figure III.C.1 – Elapsed and Touch Time per transaction per process – Current and Future

*FTE Savings\**: this column shows that the increased efficiency will result in that many less FTE used for the same output. In just these 15 transactions, ADEQ will free up 15 FTEs to perform other value-added work.

### Who will benefit from myDEQ?

**Arizona's air, land and water will benefit** – Better, more convenient tools means better environmental compliance. Ohio saw a 90% drop in violations after implementing an on-line Self Monitoring Report Form (SMRF).

**The Citizens of Arizona will benefit** – this system will provide much more convenient access to public records and environmental information to all taxpayers.

All State agencies will benefit – ADEQ is working with the Arizona Strategic Enterprise Technology Office (ASET) to pilot Arizona’s e-governance initiative. myDEQ will be the pilot for all State agencies. The various phases of this project will be completed amongst top private sector companies with specific e-governance experience and will have rigorous oversight by the ADOA/ASET and ADEQ.

## IV. Technology Approach

### A. Proposed Technology Solution\*

While our proposed technical architecture is detailed in the attached Software Architecture Document (Appendix III B.2), below is an overview of the component layers that makes up our software architecture.

#### Architectural View – Component Layering

A description of the layers involved in the design of the myDEQ system is depicted below.

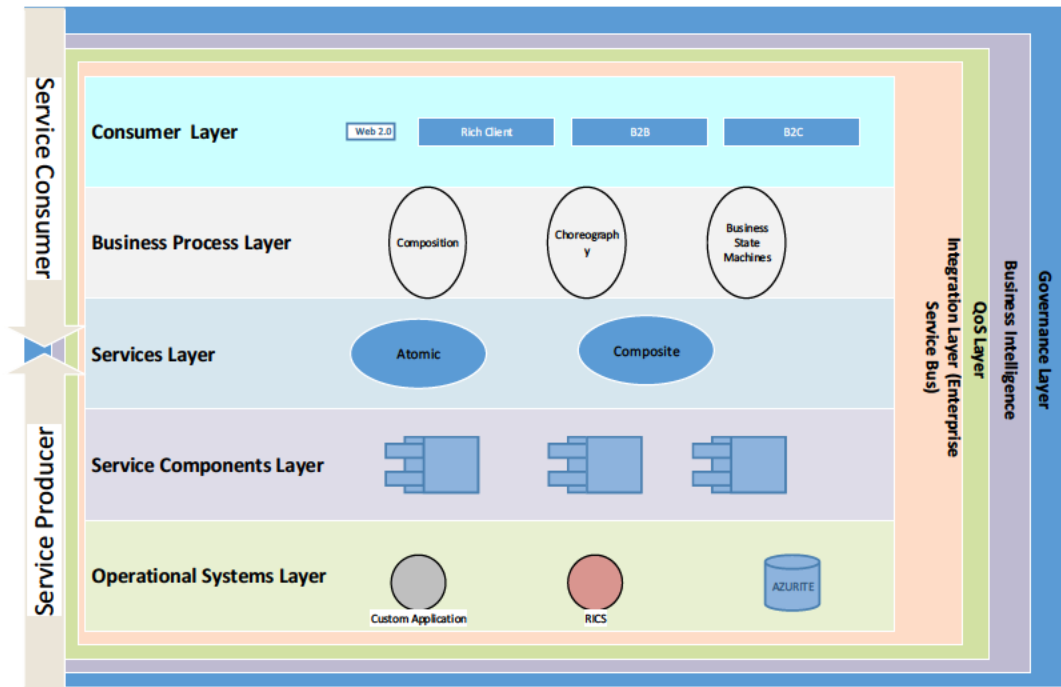


Figure 3 Layers of SOA

#### Layer 1: Operational systems layer.

This consists of existing custom built applications, otherwise called *legacy* systems, including existing CRM and ERP packaged applications, and *older* object-oriented system implementations, as well as business intelligence applications. The composite layered architecture of an SOA can leverage existing systems and integrate them using service-oriented integration techniques. We will be using Apache ActiveMQ as the message oriented middleware.

## **Layer 2: Enterprise components layer.**

This is the layer of enterprise components that are responsible for realizing functionality and maintaining the QoS of the exposed services. These special components are a managed, governed set of enterprise assets that are funded at the enterprise or the business unit level. As enterprise-scale assets, they are responsible for ensuring conformance to SLAs through the application of architectural best practices. This layer typically uses container-based technologies such as application servers to implement the components, workload management, high-availability, and load balancing.

## **Layer 3: Services layer.**

The services the business chooses to fund and expose reside in this layer. They can be *discovered* or be statically bound and then invoked, or possibly, choreographed into a composite service. This service exposure layer also provides for the mechanism to take enterprise scale components, business unit specific components, and in some cases, project-specific components, and externalizes a subset of their interfaces in the form of service descriptions. Thus, the enterprise components provide service realization at runtime using the functionality provided by their interfaces. The interfaces get exported out as service descriptions in this layer, where they are exposed for use. They can exist in isolation or as a composite service.

## **Level 4: Business process composition or choreography layer.**

Compositions and choreographies of services exposed in Layer 3 are defined in this layer. Services are bundled into a flow through orchestration or choreography, and thus act together as a single application. These applications support specific use cases and business processes. Here, visual flow composition tools, such as WSO2 Business Process Modeler, WSO2 BPS can be used for the design of application flow.

## **Layer 5: Access or presentation layer.**

Although this layer is usually out of scope for discussions around a SOA, it is gradually becoming more relevant. It is depicted here because there is an increasing convergence of standards, such as Web Services for Remote Portlets Version 2.0 and other technologies, that seek to leverage Web services at the application interface or presentation level. This layer will play an increasingly important role in future solutions. It is also important to note that SOA decouples the user interface from the components, and that you ultimately need to provide an end-to-end solution from an access channel to a service or composition of services. The web application will be built using Java Struts2 in a loosely coupled manner.

## **Level 6: Integration (ESB).**

This layer enables the integration of services through the introduction of a reliable set of capabilities, such as intelligent routing, protocol mediation, and other transformation mechanisms, often described as the ESB. Web Services Description Language (WSDL)

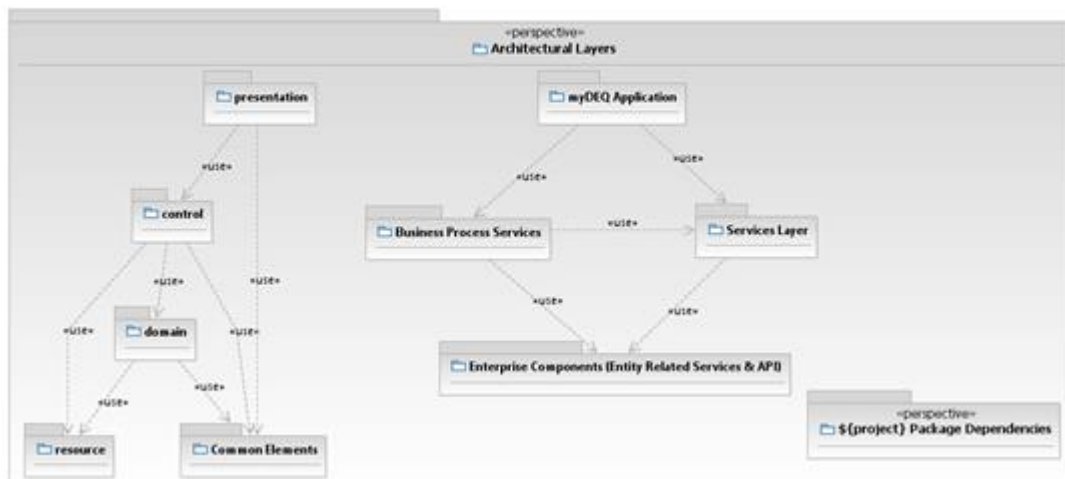


specifies a binding, which implies a location where the service is provided. On the other hand, an ESB provides a location independent mechanism for integration. We will be using WSO2 ESB 4.7 for our development

### Level 7: QoS.

This layer provides the capabilities required to monitor, manage, and maintain QoS such as security, performance, and availability. This is a background process through sense-and-respond mechanisms and tools that monitor the health of SOA applications, including the all-important standards implementations of WS-Management and other relevant protocols and standards that implement quality of service for a SOA – We will be leveraging WSO2 Identity Server to provide configurable QoS.

### `\${project}` Viewpoints



## B. Technology Environment

Below is a summary of some of the key components of our technical environment:

- The environment will constitute multiple Linux Virtual Machines running the WSO2 Components in a single or clustered manner. The Web application will be deployed on either the WSO2 AS or an enterprise level open source application server as recommended by the hosting specialist. The development environments will use Tomcat 7 for testing.
- The consumer can be our deployed application running on a desktop, tablet or a web enabled device or a customer's application accessing our services via API.
- The backend will be the AZURITE database (Oracle 11g) running on Exadata.
- Identity management, authentication and authorization will be handled by the Amazon EC2 ADOA deployed DEQ instance.

- WSO2 G-REG will be used to implement and manage SOA lifecycle –develop, test, deploy and retire and to automate deployment to each environment using an SVN synchronization method.
- Subversion running on HTTPS will be used for source control and versioning.
- Jenkins running on HTTPS will be used for Continuous Integration Testing to ensure Build Integrity and Stability and to support Agile Development process.
- Sonatype Nexus will be used for managing, storing, versioning product dependencies and artifacts.
- SoapUI Pro will be used to test web services, automated web service testing, and load testing of web services
- Selenium test cases and framework will be built to automate application QA and regression testing.
- RallyDev will be used to manage our Agile/Scrum development process. Our product owner’s vision is captured and a roadmap to its realization is planned by the way of multiple projects. Each project will be associated to the product backlog. With each sprint planning session, the development team will move a certain amount of work to the sprint backlog and tasks it out. All sprint related tasks will be captured, designed, managed and tracked in RallyDev and the daily scrum will keep the team on track for a proper burn-down.
- Rational Software Architect will be used to model the Enterprise Architecture and high level technical design models will be built using this tool. These high level design will be further refined for implementation by the development team.
- Other tools and software that will utilized for myDEQ project will be Oracle SQL Developer, SQL Navigator, ERWin Data Modeler, Microsoft Visio, SharePoint and Microsoft Project Server.

### C. Selection Process

ADEQ is currently using consultants through Knowledge Services for developing a prototype which will automate one of ADEQ’s many transactions. The development phase of this project is scheduled to end in mid-November 2013. So far, this team has been very successful in completing the tasks on schedule and laying down the infrastructure that can be leveraged by the larger myDEQ project. We are planning to continue with this team and add three more teams to complete the 27 transactions proposed in this PIJ. One more team will be added through Knowledge Services (staff augmentation). The final two teams will be awarded to one of the following four vendors that were awarded under the Digital Government Contracts by ADOA:

1. Business and Decision
2. Eagle Creek Software Services
3. IBM
4. Unisys

<b>Team 0 - Resources serving all teams:</b> Technical Architect 1; Technical Architect 2; Data Architect; AZURITE DB Developer; Web Hosting Engineer; Graphic Design Vendor; 3 Business Analysts; 2 Scrum Masters; AZURITE QA Analyst; ADEQ’s FTEs (Product Owner, PM, SME, Sponsors, etc.); Resources through ADOA – WSO2 Experts and other statewide development work (e.g. STARPASS – ACC Database)			
Team 1 (already in place) – Knowledge Services	Team 2 – Knowledge Services	Team 3 – Digital Govt. Contract Vendor	Team 4 – Digital Govt. Contract Vendor
4 Developers	4 Developers	4 Developers	4 Developers
1 Database Developer	1 Database Developer	1 Database Developer	1 Database Developer
1 QA Analyst / Tester	1 QA Analyst / Tester	1 QA Analyst / Tester	1 QA Analyst / Tester
Transactions:	Transactions:	Transactions:	Transactions:
24-Hour, 5 day, and 30 day Exceedences Notification)	Asbestos NESHAP Notification Form)	Compliance Certification – Crushing and Screening)	DMR - including reports
Annual emissions inventory)	Hot Mix Asphalt)	General Permit – Crushing and Screening	General Permit – Aquifer Protection Type
Customer and Place registration)	Invoicing and Payments)	UST suspected release report)	(Hazardous Waste Annual Report
Display of basic water quality data for water systems (Safe Drinking Water Information System (SDWIS) Data)	(Operator Certification)	Concrete batch plant	Hazardous Waste EPA ID
Minor Permit Amendments)	UST Notification)	Industrial Discharge Permits (Pre-treatment)	SSO Notification
Type 3 (APP and Reuse)	Waste / Used Tires)	Wrap-up and/or more transactions	Septage hauler
Wrap-up and/or more transactions	Soil Vapor Extractor		UST Contractor certification
	Used oil marketing report		Wrap-up and/or more transactions
	Wrap-up and/or more transactions		

Figure IV.C.1 – Proposed Team Structure

The project team structure is shown in the table above. There will be a total of five (5) teams as follows:

**Team 0:** This team will serve the remaining four (4) teams and will be responsible for ensuring that all needs of the teams are being met and all road blocks are being removed so that they function efficiently.

**Technical Architect 1:** The Technical Architect is already in place for SMRF Electronic Submission Project and will continue working on myDEQ Phase 1 project. This is filled by Knowledge Services,

**Technical Architect 2:** This is a new position that will be filled by a Web Portal Contract Vendor.

**Data Architect:** The Data Architect is already in place for SMRF Electronic Submission Project and will continue working on myDEQ Phase 1 project. This is filled by Knowledge Services.

**AZURITE DB Developer:** The AZURITE Database Developer is already in place for SMRF Electronic Submission Project and will continue working on myDEQ Phase 1 project. This is filled by Knowledge Services.

**Web Hosting Engineer:** The Web Hosting Engineer is already in place for SMRF Electronic Submission Project and will continue working on myDEQ Phase 1 project. This is filled by Knowledge Services.

**Graphic Design Vendor:** The Graphic Design Vendor is already in place for SMRF Electronic Submission Project and will continue working on myDEQ Phase 1 project. This is filled by Knowledge Services.

**Three Business Analysts:** Three Business Analysts are already in place for SMRF Electronic Submission Project and will continue working on myDEQ Phase 1 project. This is filled by Knowledge Services.

**Two Scrum Masters:** One Scrum Master is already in place for SMRF Electronic Submission Project and will continue working on myDEQ Phase 1 project. This is filled by Knowledge Services. The second Scrum Maser will be filled by the Web Portal Contract Vendor.

**AZURITE QA Analyst:** This will be a FTE assigned to this project.

**Product Owner:** This is a FTE who is already in place for SMRF Electronic Submission Project and will continue working on myDEQ Phase 1 project

**Project Manager:** This is a FTE who is already in place for SMRF Electronic Submission Project and will continue working on myDEQ Phase 1 project

**Business Lead:** This is a FTE who is already in place for SMRF Electronic Submission Project and will continue working on myDEQ Phase 1 project

**Multiple SMEs:** These are FTEs who are already in place for SMRF Electronic Submission Project and will continue working on myDEQ Phase 1 project.

**WSO2 Experts –** WSO2 consultants will be hired by ADOA to work on implementing the Identity Server which can then be leveraged by other state agencies.

**Statewide Development Work –** Consultants will be hired by ADOA to work on development work that can be leveraged by other state agencies. ADEQ has identified at least one such functionality – exposure of ACC data so that ADEQ customers can be verified using ACC database.

**Team 1:** This team (except for Database developer) is already in place from Knowledge Services.

Two Senior Java Developers / Programmer Analysts: The two Java Developers are already in place for SMRF Electronic Submission Project and will continue working on myDEQ Phase 1 project. This is filled by Knowledge Services.

Java Developer / Web Developer: Java/Web Developer is already in place for SMRF Electronic Submission Project and will continue working on myDEQ Phase 1 project. This is filled by Knowledge Services.

Oracle Database Developer: This is already in place for SMRF Electronic Submission Project and will continue working on myDEQ Phase 1 project. This is filled by Knowledge Services. However, we will move this person to Team 0 and fill this position through Knowledge Services.

QA Analyst/ Tester: This is already in place for SMRF Electronic Submission Project and will continue working on myDEQ Phase 1 project. This is filled by Knowledge Services.

**Team 2:** This team will be recruited through Knowledge Services as staff augmentation. The team will consist of 2 Senior Java Developers / Programmer Analysts, 1 Java Developer / Web Developer; 1 Oracle Database Developer and 1 QA Analyst/Tester.

**Team 3 and Team 4 –** These teams will be recruited from one of the vendors short listed for the Digital Government Contract. We are expecting all consultants/contractors on all teams to be work full time till end of June 2014. To solicit bids from the four vendors we will provide the Software Architecture Document, a sample Business Requirements Document, wire frames, Functional Requirements Document for the SMRF transaction. Along with these documents, we will also provide job descriptions for the positions to be filled. ADEQ will invite the four vendors to discuss the details of the project and answer any questions. The vendors will be asked to present their proposals in person.

## V. Project Approach

### A. *Project Schedule\**

**Project Start Date:** 11/11/2013      **Project End Date:** 6/30/2014

### B. *Project Milestones*

Major Milestones	Start Date	Finish Date
Vendor Selection and Team Building	11/11/2013	11/29/2013
Teams 2, 3 and 4 - Sprint 0 (environment setup, infrastructure, software, etc.)	12/2/2013	12/15/2013
Team 1 - Customer and Place registration	11/11/2013	2/2/2014
Team 2 – Invoicing and Payments	12/16/2013	1/12/2014
Team 3 – General Permit – Crushing and Screening	12/16/2013	3/9/2014
Team 3 – Compliance Certification – Crushing and Screening	3/10/2014	3/23/2014
Team 4 – General Permit – Aquifer Protection Type	12/16/2013	1/5/2014
Team 4 – Hazardous Waste Annual Report	1/6/2016	1/19/2014

Team 2 – UST Notification	1/13/2014	2/9/2014
Team 4 – Hazardous Waste EPA ID	1/20/2014	2/2/2014
Team 4 - DMR - including reports	2/3/2014	3/30/2014
Team 1 – Minor Permit Amendments	2/3/2014	3/2/2014
Team 2 – Hot Mix Asphalt	2/10/2014	2/23/2014
Team 2 – Waste / Used Tires	2/24/2014	3/9/2014
Team 1 – Annual emissions inventory	3/3/2014	3/16/2014
Team 2 – Asbestos NESHAP Notification Form	3/10/2014	3/23/2014
Team 3 – UST suspected release report	3/24/2014	4/20/2014
Team 1 – Display of basic water quality data for water systems (Safe Drinking Water Information System (SDWIS) Data	3/17/2014	4/13/2014
Team 2 – Operator Certification)	3/24/2014	4/20/2014
Team 4 – SSO Notification	3/31/2014	4/27/2014
Team 1 – 24-Hour, 5 day, and 30 day Exceedences Notification)	4/14/2013	5/11/2014
Team 3 - Concrete batch plant	4/14/2014	4/27/2014
Team 2 - Soil Vapor Extractor	4/21/2014	5/4/2014
Team 4 - Septage hauler	4/28/2014	5/11/2014
Team 3 - Industrial Discharge Permits (Pre-treatment)	4/28/2014	6/22/2014
Team 1 - Type 3 (APP and Reuse)	5/12/2014	6/8/2014
Team 2 - Used oil marketing report	5/5/2014	5/18/2014
Team 4 - UST Contractor certification	5/12/2014	5/15/2014
Team 1 - Wrap-up and/or more transactions	6/8/2014	6/30/2014
Team 2 - Wrap-up and/or more transactions	5/19/2014	6/30/2014
Team 3 - Wrap-up and/or more transactions	6/23/2014	6/30/2014
Team 4 - Wrap-up and/or more transactions	5/16/2014	6/30/2014

## VI. Roles and Responsibilities

### A. Project Roles and Responsibilities

<i>Name</i>	<i>Title</i>	<i>Project Role/Responsibility</i>
Henry Darwin	ADEQ Director	Executive Sponsor
Misael Cabrera	ADEQ Deputy Director	Project Sponsor
Gary A. Heller	Chief Information Officer	Technical Project Sponsor
Khursheed Mallick	ISDU Manager	Project Manager
Ryan Richards	Environ. Engineer Specialist	Business Lead
David Lelsz	Admin. Services Officer	Water SME
Balaji Vaidyanathan	Section Manager	AIR SME
Robin Thomas	Section Manager	Waste SME
Teena Ziegler	Chief Procurement Officer	Procurement

### B. Project Manager Certification

- Project Management Professional (PMP) Certified  
 State of Arizona Certified  
 Project Management Certification not required

**C. Full-Time Employee (FTE) Project Hours**

<b>Total Full-Time Employee Hours</b>	7,600
<b>Total Full-Time Employee Cost</b>	\$

**VII. Risk Matrix, Areas of Impact, Itemized List, PIJ Financials**

## VIII. Project Approvals

### A. Agency CIO Review\*

Key Management Information	Yes	No
1. Is this project for a mission-critical application system?	X	
2. Is this project referenced in your agency's Strategic IT Plan?	X	
3. Is this project in compliance with all agency and State standards and policies for network, security, platform, software/application, and/or data/information as defined in <a href="http://aset.azdoa.gov/security/policies-standards-and-procedures">http://aset.azdoa.gov/security/policies-standards-and-procedures</a> , and applicable to this project? If <b>NO</b> , explain in detail in the "XI. Additional Information" section below.	X	
4. Will this project transmit, store, or process sensitive, confidential or Personally Identifiable Information (PII) data? If <b>YES</b> , in the "XI. Additional Information" section below, describe what security controls are being put in place to protect the data.		X
5. Is this project in compliance with the Arizona Revised Statutes (A.R.S.) and GRRC rules?		
6. Is this project in compliance with the statewide policy regarding the Accessibility to Equipment and Information Technology for Citizens with Disabilities?		

### B. Project Values\*

The following table should be populated with summary information from other sections of the PIJ.

Description	Section	Number or Cost
Assessment Cost (if applicable for Pre-PIJ)	II. PIJ Type - Pre-PIJ Assessment Cost	\$
Total Development Cost	VII. PIJ Financials tab	\$5,000,000.00
Total Project Cost	VII. PIJ Financials tab	\$5,330,726.31
FTE Hours	VI. Roles and Responsibilities	7,600

### C. Agency Approvals\*

Contact	Printed Name	Signature	Email and Phone
Project Manager:	Khursheed Mallick		
Agency Security Officer (CISO):	David K. Crowfoot		
Agency CIO:	Gary A. Heller		
Project Sponsor:	Misael Cabrera		
Agency Director:	Henry Darwin		



IX. Optional Attachments

**A. *Vendor Quotes***

X. Glossary

XI. Additional Information

Links:

[ADOA-ASET Website](#)

[ADOA-ASET Project Investment Justification Information Templates and Contacts](#)

Email Addresses:

[Strategic Oversight](#)

[ADOA-ASET\\_Webmaster@azdoa.gov](mailto:ADOA-ASET_Webmaster@azdoa.gov)