Project Startup Report

Submitted to Large Project Oversight on 02/21/2020

GENERAL INFORMATION

Project Name: DEQ Environmental Regulatory Software System (ERSS), Project No. PRJ43

Agency Name: Department of Environmental Quality

Project Sponsor: James L. Semerad, Director, Division of Air Quality, DEQ

Project Manager: Rheanna Kautzman, Division of Air Quality, DEQ and Gary Haberstroh, Office of the Director, DEQ

PROJECT DESCRIPTION

House Bill 1024 (HB1024) mandates that the Department of Environmental Quality adopt 40 CFR 60, Subparts OOOO/OOOOa (Quad-O/Oa) and has provided for 10 FTEs and monies for a software system to handle the burden of reports and notifications required under these Subparts.

These Subparts have the potential to affect every staff member in permitting & compliance. Further, the project will need to be integrated into each program: construction permitting, operating permitting, midstream compliance and oil and gas (upstream) registrations and compliance. Due to the extent of the reporting requirements of Quad-O/Oa and the sheer number of subject facilities, the project requires the selection, procurement, and implementation of a new comprehensive environmental tracking software system.

Given the short turnaround time to have a software system in place by the July 1, 2020 date, the Department opted for a custom-off-the-shelf (COTS) system. The system, or parts of it, has been implemented in several other states for their environmental regulatory reporting needs and the Department has other systems from this vendor.

BUSINESS NEEDS AND PROBLEMS

The Department is mandated by State Law (HB1024) to adopt Quad-O/Oa and the existing Air Quality Database (AQDB) is outdated and is not capable of handling the reporting and recordkeeping required of Quad-O/Oa. The current AQDB does not allow the regulated community to submit their required reports electronically, which they currently do with EPA.

The regulated community has been submitting electronic permitting and compliance documents to the USEPA for many years now and has the reasonable expectation that they be able to electronically submit the same documents to NDDEQ. The public is also more tech-savvy and has the reasonable expectation of government documents being open and available online.

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PROJECT BASELINES

Project Start Date	Baseline Start Date	Baseline End Date	Baseline Budget
10/1/2019	10/21/2019	1/26/2021	$ 704,500.00

Notes:

Add text here, if necessary.

OBJECTIVES

TABLE 1: BUSINESS OBJECTIVES AND MEASUREMENTS

Business Need	Objective	Measurement	Anticipated Benefit(s)
1. Staff resources due to handling of paper reporting from the regulated community	**1.1.** Reduce staff scanning time by 75%.	**1.1.1.** Measure baseline time spent scanning by staff then compare to amount of time scanning 9 months after go-live.	**Increases Productivity:** Staff time can be saved by not having to scan paper reports. **Rationalizes Systems/ Processes:** Some data could be queryable, making data more readily available for decision making. **Increases Productivity:** Staff time savings by not having to attach scanned copies of reports to current document management system (AQDB).
	1.2. Reduce staff time from entering scanned documents into document management system (AQDB) by 75%	**1.2.1.** Measure baseline time spent entering data in by hand by staff then compare to amount of time hand entering data 9 months after go-live.	
2. Queryable and aggregatable data from submitted reports	**2.1.** Be able to query 15% of all data within submitted reports.	**2.1.1.** Measure current amount of queryable report data fields pre-project and then amount of queryable data fields 3 months after go-live date	**Rationalizes Systems/ Processes:** Some data could be queryable, making data more readily available for making business decisions. **Rationalizes Systems/ Processes:** Data could be queried, processed, and analyzed to see trends, issues and progress.

Business Need	Objective	Measurement	Anticipated Benefit(s)
3. Reduce burden on the regulated community through electronic submittals	**3.1.** Receive 50% of submitted documents from the regulated community (RC) electronically.	**3.1.1.** Measure the number of documents received via mail from the RC prior to project and then re-measure 9 months after go-live date.	**Improves Citizen Experience:** Increase in the timeliness of reports.
	3.2. Accept 98% of all Quad-O/Oa reports and notifications electronically from regulated community	**3.2.1.** Measure the number of documents received via mail compared to electronically from the RC 9 months after go-live date.	**Improves Citizen Experience:** Notification to the RC of the submittal and receipt of reports and other submitted documents.
	3.3. Accept 98% of all oil well registrations electronically from regulated community	**3.3.1.** Measure the amount of registrations received via mail compared to electronically from the RC 9 months after go-live date.	**Improves Citizen Experience/ Rationalizes Systems/Processes:** Secure method of submittal, reducing the chances that emailed documents are lost in transmission, sent to the wrong staff, or otherwise mishandled.
			Improves Citizen Experience / Increases Productivity /R-G-T: Having tools available to import pre-formatted data from existing RC systems would reduce the reporting burden on the RC by allowing them to electronically transfer information rather than handwrite reports or complete forms for submittal to the NDDEQ
4. Electronic Payment (Pending Rule Updates)	**4.1.** Accept 90% of received fees through new Environmental	**4.1.1.** Be able to generate invoices and accept fee payment with electronic submittals.	**Increases Productivity:** Staff time in processing checks is significant

Increases Productivity: |

Business Need	Objective	Measurement	Anticipated Benefit(s)
	Regulatory Software System (ERSS)	**4.1.2.** Measure the amount of fees paid electronically within the 1st 9 months compared to pre-ERSS.	Correcting for incorrect fee amounts is time consuming for staff. **Increases Productivity/ Improves Citizen Experience:** Correcting for incorrect fee amounts is time consuming for the RC. **Increases Productivity/ Improves Citizen Experience:** Many in the RC have more difficulty providing paper checks than if they paid electronically due to their business systems and practices, having electronic submittal of fees would reduce RC burden.
5. Transparency	**5.1.** Reduce AQ Open Records Request (ORR) Processing time by 25%.	**5.1.1.** Compare ORR requests for AQPCP prior to ERSS and 9 months after.	**Increases Productivity:** Save staff time in processing open records requests. **Improves Citizen Experience:** Enable the RC to see what records we have on them. **Improves Citizen Experience:** Enable the public to see what data we have on RC and compliance status of the RC. **Improves Citizen Experience:** Increased public trust in our agency by being

Business Need	Objective	Measurement	Anticipated Benefit(s)
			open and transparent in our business practices
			Improves Citizen Experience: Provide records and documents to interested parties to speed up other external processes, such as environmental assessments.
			Improves Citizen Experience: Have records available for use by federal, state, tribal, and local agencies.
			Improves Citizen Experience / Run-Grow-Transform: Have records and data available for rulemaking, policy and other decision-making practices within and without the agency.
6. Electronic Permitting	**6.1.** Have 75% of permit applications initiated through the ERSS.	**6.1.1.** Compare amount of paper permit applications received in the 1st 9 months to the amount of electronically received applications.	**Improves Citizen Experience:** Allows review tracking by the RC to enable better scheduling of building projected based on NDDEQ workload and review times.
	6.2. Process all permit applications through the ERSS.	**6.2.1.** Process all permit applications through the ERSS. I.e. assigned numbers, tracked, issued through ERSS.	**Improves Citizen Experience:** Making permit applications available for review by the public, increases transparency on applications received to the public to allow for requests for public comment periods on minor source
	6.3. Reduce permit to construct (PTC) processing times by 10%.	**6.3.1.** Measure average time to receive a PTC application till assigned and under review prior to ERSS, then re-	

Business Need	Objective	Measurement	Anticipated Benefit(s)
		measure 9 months after go-live.	projects (i.e. to show significant public interests).
			Improves Citizen Experience/ Increases Productivity: Make documents available for EPA and Federal Land Manager (FLM) review when required, saving time in when they are able to start reviewing the documents.
			Increases Productivity/ R-G-T: Tracking permits through the ERSS will allow management to see spikes in workload and assign staff resources appropriately.
			Increases Productivity/ R-G-T: Tracking permits through the ERSS will allow staff to pull permits and start working without delays in being assigned projects.

COST BENEFIT ANALYSIS

Handling and data entry workload for existing reports and notifications is 3.8 FTEs and approximately $262,126.40 in staff time costs. All cost estimates are based on the Environmental Scientist II midpoint salary ($5,302/mo), with estimates of benefits, at the rate of $33.52/hr. Quad-O/Oa workload is estimated be an additional 30.3 FTEs and the additional staff time costs would be approximately $2,111,760.00. Based on current estimates of staff review time and amount of Quad-O/Oa related reports and estimates of software time savings, 14.3 FTE would be needed to handle the additional report workload in addition to the software system. HB1024 authorized and additional 10 FTEs and a $500,000 software system for reporting. Based on estimated time savings in paper processing and data entry of exiting reports and the future Quad-O/Oa reports, **the proposed new e-reporting tool would save approximately $997,974.20 each year in staff-time costs**.

KEY CONSTRAINTS AND/OR RISKS

While mandated to adopt Quad-O/Oa and given monies for an Environmental Regulatory Software System tool by HB1024, there still exists risks in the adoption of new rules and the development, transition, and deployment of any new software system. AQPCP will work to mitigate these risks as best we can to ensure the successful development and deployment of a new Environmental Regulatory Software System and the adoption of two new federal regulations.

TABLE **2**: RISKS OF PERFORMING THE PROJECT

Risk	Impact	Response
1. The Department will have substantial training time required to migrate staff, the regulated community and the public to a new system.	**1.1.** Staff time may be diverted from existing work to training, which could result in core work not being done.	**1.1.1.** Management will be consulted about workload shuffling to ensure that priority work is being done and that we meet our legal requirements. **1.1.2.** Training will be developed to minimize learning time on staff on the new software.
2. The Department will have substantial training time required to migrate the regulated community and the public to a new system.	**2.1.** Staff time may be diverted from existing work to training the regulated community, which could result in core work not being done.	**2.1.1.** Training and outreach, will we be developed and conducted early in the development process to minimize staff time educating users of the new system. **2.1.2.** The regulated community will be contacted to setup CROMERR accounts so that they will have access as soon as the tool goes live. **2.1.3.** Members of the regulated community will be contacted to test the system during development and about developing training tools.
3. The Department will have a substantial amount of data to migrate to the new system.	**3.1.** Data migration issues will likely arise requiring QA/QC.	**3.1.1.** Workflows will be researched and develop prior to data migration to ensure that the data migrated will work with the new workflows. **3.1.2.** Existing data will be reviewed for quality and requirements and

Risk	Impact	Response
		only the required and/or good data will be transferred to new system.
	3.2. Data migration issues may occur in existing systems used to upload data to EPA.	**3.2.1.** Data schemas will be researched and reviewed to ensure data uploads will be successful.
4. The new system will result in change and require new business rules for our existing permitting and compliance workflows.	**4.1.** Current workflows may be disrupted resulting delays in review or potential loss of the work within the system.	**4.1.1.** Current workflows will be researched and evaluated prior to the development stage to use in customization and implementation. **4.1.2.** Existing workflows and processes will be modified as needed to best fit the new electronic system. **4.1.3.** Training will be developed to educate staff on new procedures and following new processes and data QA/QC will be an annual performance metric.
	4.2. Change can be difficult for some staff.	**4.2.1.** Staff will be involved in the development and testing of the new system to give them a voice in the process. **4.2.2.** Staff will be trained in any new workflows, business rules, and processes. **4.2.3.** Staff will be able to suggest changes and improvements to business rules, processes, and for future development and enhancements to the system. AQPC has a long running Kaizen culture that promotes ideas and efficiencies.

Risk	Impact	Response
5. The development and implementation of this new system will involve a lot of complexity.	**5.1.** Many steps must be taken in tandem or in sequence to successfully deploy the new system.	**5.1.1.** Existing data will be evaluated prior to migration. **5.1.2.** Existing workflows and processes will be evaluated and modified as needed to best fit the new electronic system. **5.1.3.** Other states that have implemented this tool will be contacted for lessons learned. **5.1.4.** AQPC will follow established PMI and ITD project management practices for managing the complexities, risks, etc. **5.1.5.** AQPC will follow established OMB/procurement/ITD/etc. policies, practices, procedure, etc. to ensure that the required steps are completed as smoothly as possible.
6. External entities and stakeholders.	**6.1.** Many outside entities are involved and AQPC has limited control over OMB, procurement, ITD, the vendor, and other stakeholders.	**6.1.1.** Outreach and stakeholder engagement will occur early in the development process and continue through to training and deployment. **6.1.2.** AQPC will follow established PMI and ITD project management practices for managing communication and stakeholder engagement.
7. Cost overruns	**7.1.** Cost overruns may occur due to unforeseen needs not included in the ERSS. **7.2.** Cost overruns may occur due to unforeseen architecture issues.	**7.1.1.** Business practices will be evaluated prior to contracting to ensure that most AQPCP processes can be migrated to the ERSS. **7.2.1.** ITD will be consulted in the collaborative procurement group to ensure that architecture needs are met and ITD architecture group will

Risk	Impact	Response
		be consulted as needed during the configuration and development of the system.
	7.3. Cost overruns may occur in cloud-hosting fees, if requirements of the ERSS exceeds expected cloud hosting parameters.	**7.3.1.** ITD architecture member will be in the collaborative procurement group to ensure that the cloud hosting specifications and needs are evaluated and reasonably represented in the cost prior to contracting.

TABLE **3**: RISKS OF NOT PERFORMING THE PROJECT

Risk	Impact	Response
1. The Department will have Quad-O/Oa adopted without an electronic system in place to handle the volume of notifications and reports.	**1.1.** AQPC staff will be buried in the anticipated 22,500 notifications and reports expected within the 1st 6 months of adopting Quad-O/Oa/Oa.	**1.1.1.** The Department will commit to the procurement, development, and implantation of this new system at all levels of management.
	1.2. AQPC staff will likely never catch up on report review.	
	1.3. The time and money to retroactively add them into a system would be immense (estimated $997,975/year).	