

2024 - 2026 IT Strategic Plan

Agency: 440 Department of Environmental Quality

Date: 3/26/2024

Current IT State

In this section, describe the high-level strategy the agency will use to manage existing operational IT investments over the next year to 5 years. This section should align with identified Business Requirements for Existing Technology (BReTs). At minimum, please address the following questions in your description of your agency's strategy for managing existing operational IT investments:

Are there existing IT investments that will require additional funding over the next year to 5 years, such as license renewals, re-competition of current IT contracts, or system enhancements required by the Agency Strategic Plan?

If there are systems that will no longer support the agency's business needs, either through poor performance or excessive cost, how does IT leadership in the agency plan to address the issues?

If the agency does not have the staff or funding to meet increasing demand for IT services, how will IT leadership fulfill the requests?

DEQ is committed to using technology to provide more efficient service and to reduce operational costs. In addition, DEQ must meet certain State and Federal mandates for reporting which have direct impacts on the agency's IT resources and capabilities. DEQ's current technology-based initiatives include:

- Comprehensive Environmental Data System (CEDS): DEQ's system of record for environmental data. DEQ has converted the outdated legacy modules to an architecture that now enables integration among DEQ's enterprise applications and mobile/web deployments. DEQ continues to enhance the applications as needed to meet the business need. DEQ is looking at Oracle Permitting and Licensing as an evolution of our permit data management. The cloud based solution will allow ease of maintenance, online permitting, and mobile inspections.

- Enterprise Content Management System (ECM): DEQ's repository for documents of record, implementing approved document retention. DEQ is upgrading the system to include single sign-on and enhanced ability to integrate seamlessly with the other enterprise applications.

- Geographic Information System (GIS): Geospatial information across DEQ used for modeling, analysis, and public information. DEQ is implementing the GIS strategic plan to ensure future efforts in this area are focused, cost effective, and continue to provide staff with time and cost saving tools. DEQ has entered into a 3 year enterprise license agreement with ESRI as a cost savings measure to get the licensing and capabilities the agency needs at a better value.

- Oracle E-Business Suite EBS: DEQ's transaction and reporting database for financials, human resources, purchasing, and project costing. DEQ has used (EBS) as the Financial System of Record since 2000. DEQ's EBS system is deprecated and the agency is actively working on upgrading the system back to compliance. DEQ is taking a huge step forward by migrating to the Oracle ERP cloud. this will provide capability we do not currently have, ensure we do not miss critical upgrades, and allow the agency to adopt best practice business processes as provided by the system rather than customizing the system to outdated agency business processes.

- The exchange of GIS and other environmental data with EPA and others via the National Information Exchange Network (NEIN).

The dynamic nature of environmental regulation demands ever-changing environmental data for analysis and decision-making, requiring a sustained effort toward efficient capture, storage, protection, and exchange of this data.

By integrating CEDS, ECM, GIS, and EBS, DEQ is laying the foundation for future initiatives that will benefit citizens, the regulated community and other government agencies. DEQ's plans for the future include:

- Web-based permit application process and reporting for the regulated community;
 - Implementation of the VITA SharePoint offering to replace the agency's intranet;
 - Mobilization of more inspectors, water quality assessors, and monitoring staff with tools for on-site data capture and global positioning;
 - Sophisticated environmental data modeling and forecasting tools; and
 - Efficient data retrieval using Business Intelligence technology and an enterprise data warehouse.
- Response VITA mandates and Initiatives - Plan enough bandwidth and flexibility in our scheduled efforts to accommodate the myriad of unanticipated VITA efforts that require large blocks of agency effort to achieve.

Factors Impacting the Current IT

In this section, the agency will describe the changes in their business environment that will require or mandate changes to the agency's current IT investments. These are requirements and mandates from external sources, such as other agencies or business partners, the agency's customer base, product and service providers, or new federal or state legislation or regulations. The agency must identify the business value of the change, any important deadlines that must be met, and the consequences if the deadlines are not met. In your discussion, be sure to note whether the proposed enhancements are funded or not. If the agency's existing current IT investments will not need enhancement due to requirements or mandates from external sources in the foreseeable future, the agency should enter the following text rather than leave the Factors Impacting the Current IT section blank

For each mandated change, summarize your agency's response from your Agency Strategic Plan, and is it the opinion of agency IT leadership that the IT portion of the response is adequately funded?

Do the mandated changes effect IT in other Commonwealth agencies, or in other states? If so, how?

As described in the current operational IT investments, DEQ has multiple efforts underway over the next 2 to 4 years: The upgrade and migration of our 2 critical line of business systems to cloud based platforms. The OPaL and EBS conversion is documented in our BRnTs.

Agency IT leadership expects that these projects will be adequately funded either through grant, non general funds or general funds. DEQ Leadership has planned for IT projects and has maintained sufficient non general fund balances to fund the necessary upgrades. In addition, due to proper planning, DEQ is positioned to successfully apply for federal grants to fund mandated federal IT initiatives.

DEQ is committed to project management standards and has shifted to a modified agile development approach. Due to these factors, DEQ is able to initiate and deploy smaller, iterative projects that result in quicker delivery of upgraded technology.

Proposed IT Solutions

In this section, describe the high-level strategy the agency will use to initiate new IT investments over the next year to 5 years in support of the agency strategic objectives documented in your Agency Strategic Plan. The agency does not need to consider specific technologies at this time, however, the strategy should identify how the IT implementation will provide business value to the organization. This section should align with identified Business Requirements for New Technology (BRnTs). At minimum, please address the following questions in your description of your agency's strategy for initiating new IT investments:

What are the most important solutions, based on the priority assigned to the requirements by the business sponsors in your agency, and what is the approach to achieving these priority solutions?

If any new IT initiatives will be started in the upcoming budget biennium, is it the opinion of agency IT leadership that it is adequately funded?

Does the agency's current IT staff have the appropriate skill set needed to support future agency technologies? If not, what skill sets need to be acquired?

If the agency will be engaged in multiple new IT initiatives, how will agency IT staff and agency subject matter experts be used across the initiatives?

EBS- migrate current financial, HR, and budgeting operations and data to a cloud based system to ensure regular upgrades and to adopt industry best management practices in our business process by not allowing any customization to the new system.

CEDS- Migrate permitting processes to Oracle Permitting and Licensing (Opal). OPaL is a cloud based permitting system that allows easy configuration of screens and forms to better serve the business of DEQ and lessen the IT maintenance burden. OPaL will also facilitate DEQ's desired goal of increased online permit applications and mobile inspections.

DEQ will take the remaining applications currently in CEDS but not necessarily directly related to Permitting, and convert them from Oracle DBs to SQL server Dbs to decrease the maintenance burden on limited IT staff and reduce the cost of ownership for DEQ applications.

IT Strategic Plan Budget Tables

Agency:	440 Department of Environmental Quality			
Date:	3/26/2024			
Current IT Services				
	Costs Year 1		Costs Year 2	
Category	GF	NGF	GF	NGF
Projected Service Fees	\$2,676,283.36	\$1,082,468.05	\$2,756,571.86	\$1,114,942.09
VITA Infrastructure Changes				
Estimated VITA Infrastructure	\$2,676,283.36	\$1,082,468.05	\$2,756,571.86	\$1,114,942.09
Specialized Infrastructure				
Agency IT Staff	\$5,626,115.00		\$5,738,637.00	
Non-agency IT Staff				
Cloud Computing Service				
Other Application Costs				
Total:	\$8,302,398.36	\$1,082,468.05	\$8,495,208.86	\$1,114,942.09
Proposed IT Investments				
	Costs Year 1		Costs Year 2	
Category	GF	NGF	GF	NGF
Major IT Projects:	\$5,000,000.00		\$1,500,000.00	
Non-Major IT Projects:				
Agency-Level IT Projects:				
Major Stand Alone IT Procurements:	\$880,000.00		\$880,000.00	
Non-Major Stand Alone IT Procurements:				
Agency-Level Stand Alone IT Procurements:				
Procurement Adjustment:				
Total:	\$5,880,000.00	\$0.00	\$2,380,000.00	\$0.00
Projected Total IT Budget				

	Costs Year 1		Costs Year 2	
Category	GF	NGF	GF	NGF
Current IT Services	\$8,302,398.36	\$1,082,468.05	\$8,495,208.86	\$1,114,942.09
Proposed IT Investments	\$5,880,000.00	\$0.00	\$2,380,000.00	\$0.00
Total	\$14,182,398.36	\$1,082,468.05	\$10,875,208.86	\$1,114,942.09

Business Requirements For Technology

Agency:	440 Department of Environmental Quality
Date:	3/26/2024
BRnT- DEQ eReporting	
BRT Type:	Business Requirement for New Technology
Requested Start:	2/1/2024
Mandate:	Yes
Mission Critical:	Yes
Description:	
Expand required information reporting capability per the EPA eReporting rule and enable ability to apply for permits and interact with the agency electronically to include Web-based permit application process and reporting for the regulated community and enable efficient data retrieval using Business Intelligence technology.	
DEQ - Security Audit & Security Risk management	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	3/13/2024
Mandate:	Yes
Mission Critical:	Yes
Description:	
The Department of Environmental Quality currently subscribes to the Commonwealth's Centralized Information Security Service and Centralized IT Audit Service and plans to continue using those services.	
DEQ - Vehicle Emissions Inspection Maintenance Pgm	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	4/1/2023

Mandate:	No
Mission Critical:	Yes
Description:	
This effort will provide Program Coordinator Services for Vehicle Emissions Inspection & Maintenance Program. The RFP solicits a single vendor to provide the following: (1) operating and maintaining a Vehicle Inspection Database (VID) system, (2) supplying and maintaining testing equipment for inspection stations, and (3) providing certain training and evaluation functions for the emissions inspection program (Air Check Virginia).	
DEQ BRnT - CEDS Replacement	
BRT Type:	Business Requirement for New Technology
Requested Start:	2/5/2024
Mandate:	No
Mission Critical:	Yes
Description:	
Replacement of CEDS with a SAAS application that meets evolving agency business needs, addresses new regulations, increases user efficiency and enhances customer service.	
DEQ BRnT Mitigation Trading System	
BRT Type:	Business Requirement for New Technology
Requested Start:	3/11/2024
Mandate:	No
Mission Critical:	No
Description:	
DEQ seeks to request proposals from vendors to provide an online mitigation credit trading system to be used by buyers and sellers of those credits. DEQ will not use the system directly, but will inform the vendor hosting the application when mitigation credits become available to the marketplace as part of the permitting process, and will expect to receive reports from the vendor regarding the disposition of the credits as trading activities occur. Note - the trading system will not house nor serve as the system of record for DEQ data.	

DEQ EBiz Upgrade BRnT	
BRT Type:	Business Requirement for New Technology
Requested Start:	6/1/2023
Mandate:	Yes
Mission Critical:	Yes
Description:	
EBiz upgrade	
DEQ Oracle Permitting and Licensing BRnT	
BRT Type:	Business Requirement for New Technology
Requested Start:	1/1/2024
Mandate:	No
Mission Critical:	Yes
Description:	
Enhance and/or establish online capability for environmental permitting, inspection and payments in order to meet changes in business needs, new regulations, and to increase user efficiency and customer service. Solution will replace large portions of CEDS.	

Commonwealth Projects >= \$250,000.00

Agency:	440 Department of Environmental Quality (DEQ)		
Date:	3/26/2024		
DEQ Oracle EBS Upgrade Project			
Category 3		Project Initiation Approval	
Project to upgrade the agency's existing Oracle EBS solution in order to modernize, bring into compliance, and to implement additional functionality. This will be done as a service solution as opposed to an on-premise Oracle implementation. Project will include the implementation of Oracle's ERP, HCM and EPM solutions with key integrations to state mandated and legacy systems for DEQ's Finance, Supply Chain, Human Resources and Budgeting functions.			
Project Start Date	5/25/2023	Project End Date	2/26/2025
Estimated Costs:	Total	General Fund	Non-General Fund
Project Cost	\$5,146,089.00	\$4,441,781.00	
Estimated first year of biennium:	\$0.00	\$0.00	\$0.00
Estimated second year of biennium:	\$0.00	\$0.00	\$0.00

Project Related Procurements

There are no procurements for this project

Commonwealth Procurements >= \$250,000.00

Agency:	440 Department of Environmental Quality (DEQ)
Date:	3/26/2024
Stand Alone Procurements:	
Procurement Name:	DEQ OPaL SAAS License Procurement
Procurement Date	9/29/2028
Procurement Description:	This PGR is for the purchase of the SAAS licenses needed to implement the solution being implemented by the DEQ Oracle Permitting and Licensing (OPaL) Implementation project that is being undertaken in order to replace and enhance DEQ's current CEDS system. This is being done as a software as a service solution as opposed to an on-premise custom-developed system. Project includes the implementation of OPaL with key integrations to state mandated and legacy systems, to include integration with DEQ's Oracle ERP/EPM/HCM SAAS solution that is currently being implemented. License procurement covers a period of 57 months, through September 2028.