JOINT TECHNOLOGY COMMITTEE RESPONSES
AUGUST 23, 2023

Air Pollution Control Division Stationary Sources Data Modernization

1. **Which elements of the project are currently underway? Which elements have been completed since the department last updated the JTC? Is the project on schedule with initial plans?**

Response: The Stationary Sources database is the primary technology tool used by CDPHE's Air Pollution Control Division to manage permitting, inspections, enforcement, compliance, billing, emissions, and data reporting associated with stationary sources. This system supports regulatory actions associated with 2,500 companies with 14,000 emission facilities and 43,000 emission sources (like oil and gas, power utilities, manufacturing, construction, landfills, agriculture, and mining) while informing communities and individual constituents interested in industry performance.

There are multiple aspects of the Stationary Sources Project currently underway. For example, efforts to better understand the legacy system environment and processes, while researching and building the initial permit application processing component and infrastructure of Salesforce continue. This includes complex process flows, rules and automation logic, object creation, user profiles setup, and user interface design. This is the first of multiple processes to be completed for development.

Regarding the new data warehouse, the team completed the build of new views based on the legacy database used for permits, completed the foundational setup of Amazon Web Service's database hub where data is stored, and successfully consumed a snapshot of data to prove it could be queried and visualized using tools such as Tableau.

We are pleased the project is still on schedule with initial plans. Various technical updates include:

- The Salesforce Proof of Concept is complete and successful. Based on the success of the project and its low/no code setup, Salesforce was selected as the platform for the project.

- The initial build of Title V permitting components and workflow processes for the Title V team was completed in Salesforce.

- A new customer web portal was created.

- Two of the 35 electronic forms that will be available for the Title V Stationary Sources process were completed.

- Preparation of the Salesforce Land Development work (proof of concept) is being adapted for the new Salesforce licensing structure built for Title V, for production allowing for congruent user experience, capabilities, and the ability to more easily scale into other future processes.

- The AWS data pipeline is moving toward production

- An initial data visualization was shared with the public to create a feedback loop.

- The contract was finalized and work began for seven more processes in Salesforce. The initial design starts with OIT.
  - Relocation Notices
  - Notice of Start Up
  - Gasoline Service Station Application and Permitting
  - Surface Coating Application and Permitting
  - Crushers/Screens Application and Permitting
  - Crematory Incinerators Application and Permitting
  - Oil and Gas Well Completion Application and Permitting

2. **How much money has been obligated and spent at this point? Please break down amounts and spent separately.**

   Response: The following funds were spent through August 2023.

Project Area	Cost
Smart Comment Software	$54,000
Conga Software	$31,150
Salesforce Licenses, annual commitment	$165,000
Resources Focused on Integration/Mulesoft Resources	$40,000
Land Development Proof of Concept Build	$120,000
Resources for Amazon Warehouse Serices (AWS) setup/build	$176,150
Storage (AWS)	$1,035
Development of 7 additional work processes	$278,000
Integration resources (Salesforce/Onbase)	$208,000
Resources for Initial Title V process build	$300,000
Resources for Additional Title V process build	$250,000
Data Pipeline resources (Salesforce/AWS)	$100,000
Total	**$1,723,335**
Remaining Encumbered Funds	**$546,167**

3. **What is anticipated to be completed by the next quarterly update?**

   Response: By the next quarterly update, the program expects to complete:

- Continued build of the permitting process for Title V.

- Additional ingestion of data into the Data Lake from the primary legacy system.

- Launch of Land Development flow into production environment.

- Further development of Salesforce to begin to build seven additional processes (See list in Question #1).

- Integration between Salesforce and Onbase systems.

- Connectivity between Salesforce and Data Lake.

- Refinement of data visualization tool based on public feedback.

4. **When does the department/institution anticipate that the project will be complete?**

Response: The department anticipates it will take approximately three years to complete most components and business processes with additional elements and functionality to be phased-in over a five-year period.

5. **Are there any important concerns or updates you wish to share with the committee?**

Response: The project is progressing as planned for the initial year of implementation, which focused on overall project planning and scoping, platform and tool selection processes, proof of concepts, finalizing licensing and distribution of future work between OIT and contractors.

6. **For multi-phase projects, has there been any insight gained through this phase of the project that will cause changes in the next requested phase of the project?**
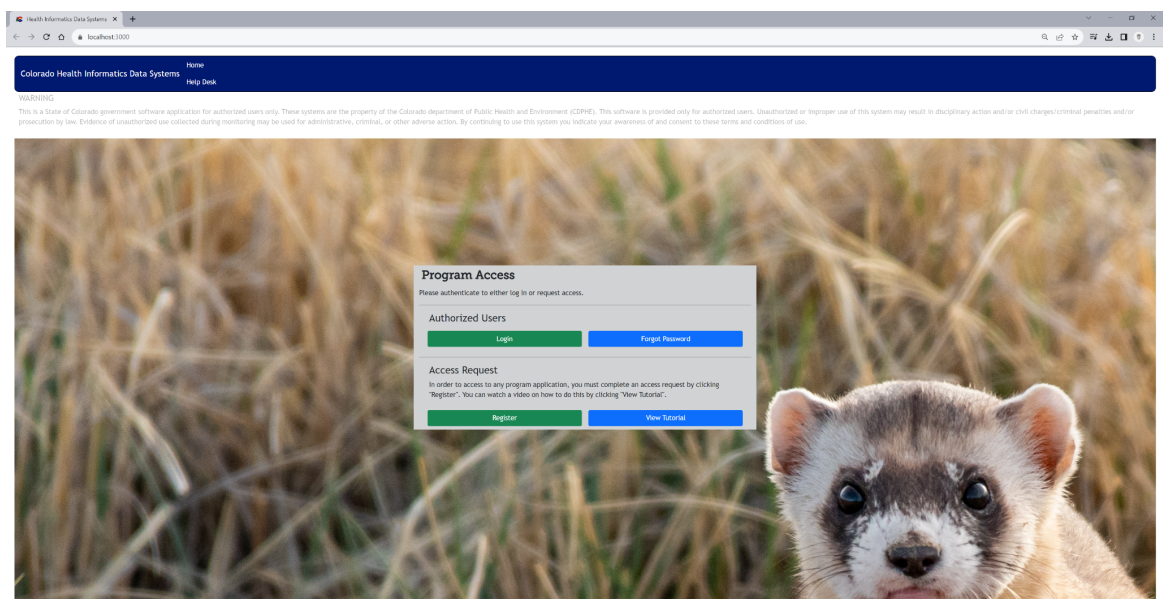
Response: Through this phase of the project, the division learned more about the approval processes with all the different teams. But, there are no changes to the project at this time.

Colorado Electronic Birth System Replacement (VESCO)

1. **Which elements of the project are currently underway? Which elements have been completed since the department last updated the JTC? Is the project on schedule with initial plans?**

Response: CDPHE's Center for Health and Environmental Data is in various phases of its upgrade to an off-the-shelf and cloud-based vital records system.

1. <u>HIDS Portal</u>. The Health Informatics Data System (HIDS) portal is the underlying platform for all Informatics data systems. The portal will provide the infrastructure in which the Marriage and Dissolution application will sit. The HIDS portal is currently undergoing a modernization effort to upgrade the portal to a cloud-based solution that will operate in Amazon Web Services (AWS). The division expects the new portal to be functional by September 2023.

2. <u>Marriage and Dissolution</u>. The division is in the project planning stage to migrate its Marriage and Dissolution system from current OIT servers to the HIDS Amazon Web Services cloud-based portal solution. This is scheduled to be completed by March 2024.

3. <u>ITOPS</u>. The division will develop a new application to receive data for Induced Terminations of Pregnancy (ITOPS). This new system will also be placed in the HIDS portal and is scheduled for development after completion of the Marriage and Dissolution system.

4. <u>Electronic Death Registry</u>. The division is in the development stage for a new system called COVES (Colorado Vital Events System) that will merge and upgrade both birth and death registration systems to the latest web-based applications and resolve outstanding technical debt. This new application will include a single sign-on for all users that need to register, modify or issue birth and death certificates instead of having to access two separate systems. COVES is on schedule to be deployed January 2024.

5. <u>Fetal Death</u>. The division is exploring using the COVES vendor to add a Fetal Death module.

2. **How much money has been obligated and spent at this point? Please break down amounts and spent separately.**

   Response: $1,410,064 was appropriated from the Capital IT fund for the Vital Event System of Colorado (VESCO) for use in FY 2023-2024. Currently, $301,980.84 has been encumbered with the Office of Information Technology for system development support, and $15,391.13 has been expended.

3. **What is anticipated to be completed by the next quarterly update?**

   Response: By the next quarterly update, the HIDS portal will be complete. This portal is the platform upon which the Marriage and Dissolution systems, along with the Induced Terminations of Pregnancy (ITOPS) system, will eventually sit once complete. Additionally, the new Electronic Death Registry system will be complete, resolving all of the outstanding technical debt.

4. **When does the department/institution anticipate that the project will be complete?**

   Response: The division anticipates that the systems involved with this project will be completed in the following order:

   - Electronic Death Registry: January 2024
   - Marriage and Dissolution: March 2024
   - Induced Terminations of Pregnancy (ITOPS): July 2024
   - Fetal Death: December 2024

5. **Are there any important concerns or updates you wish to share with the committee?**

   Response: There are no additional updates to share with the committee at this time.

6. **For multi-phase projects, has there been any insight gained through this phase of the project that will cause changes in the next requested phase of the project?**

   Response: There are no changes to the project at this time.