

Efficiency, Quality, and Service? Lessons Learned Implementing a Dam Inspection Application

John Roche, Maryland Department of the Environment

The “paperless office”-a concept that has been promoted since the late 1970’s -has promised reduced costs, increased productivity, and a new era of interconnected data that can be shared with ease. The technology and sophistication available from smartphones, tablets constantly connected to the internet leads to the logical conclusion that a paperless office, or in the case of this presentation a paperless dam inspection, should be easier in 2020 than any time in the past. For many years, the Maryland Dam Safety Division managed data in three (3) separate Microsoft Access databases, and was required to report certain data in a proprietary asset management software. While these databases had many positive qualities, there was a program-wide push to modernize data collection and management. This initiative, coupled with a significantly increasing workload, led to an effort in early 2017 to leverage smartphone and GIS technology to implement paperless dam inspections and realize increased productivity and a more efficient means of data sharing. The dam inspection application project was met with enthusiasm but its first phase ultimately did not survive as it grew in complexity and suffered from the loss of a key staff member. In early 2018 ESRI approached Maryland Dam Safety to offer assistance with data collection, and in late 2018 ESRI launched a Dam Safety “Solution” that offered a customizable template and workflow to collect and report dam inspection data using an existing ESRI application. After a period of testing and adapting the templates to meet Maryland’s needs, the Dam Safety Division began using the application in August 2019. This presentation will provide a summary of lessons learned during the development and implementation of a dam inspection application; improvements that are planned to increase the usefulness of the application in Maryland; and ideas that may support a broader integration into non-inspection workflows that bring the concept of a “paperless office” even closer to reality.