

Utility Asset Management Programming: Performance, Sustainability and Resilience – Moving from Academia to Practice

Many utility asset management programs have been developed following the U.S. Environmental Protection Agency (EPA) core definition of maintaining a level of service at the lowest life cycle cost. Most utilities, however, only incorporate performance measures into their asset management plans. A holistic approach to asset management is more beneficial because it takes into account the short and long term goals of the utility and can provide better service socially, economically, and environmentally.

An analysis of the Town of Blacksburg wastewater utility's practices and data was performed using an asset management framework developed at Virginia Tec. This theoretical framework supports the three key aspects of asset management: performance, sustainability, and resilience. Where gaps were identified, recommendations were made as to what practices, goals, and data the Town can add to their current plan so that their program is more holistic.

Research has shown that many utilities have trouble adapting to asset management plans because job roles and responsibilities change and are often not well defined. To help the Town of Blacksburg adapt to their new asset management plan with performance, sustainability and resiliency goals, a work process flow was designed. A work process flow allows for visible changes in job responsibility to be more easily recognized as well as allow for future changes to be made.

Key Words: Asset management, performance, sustainability, resilience