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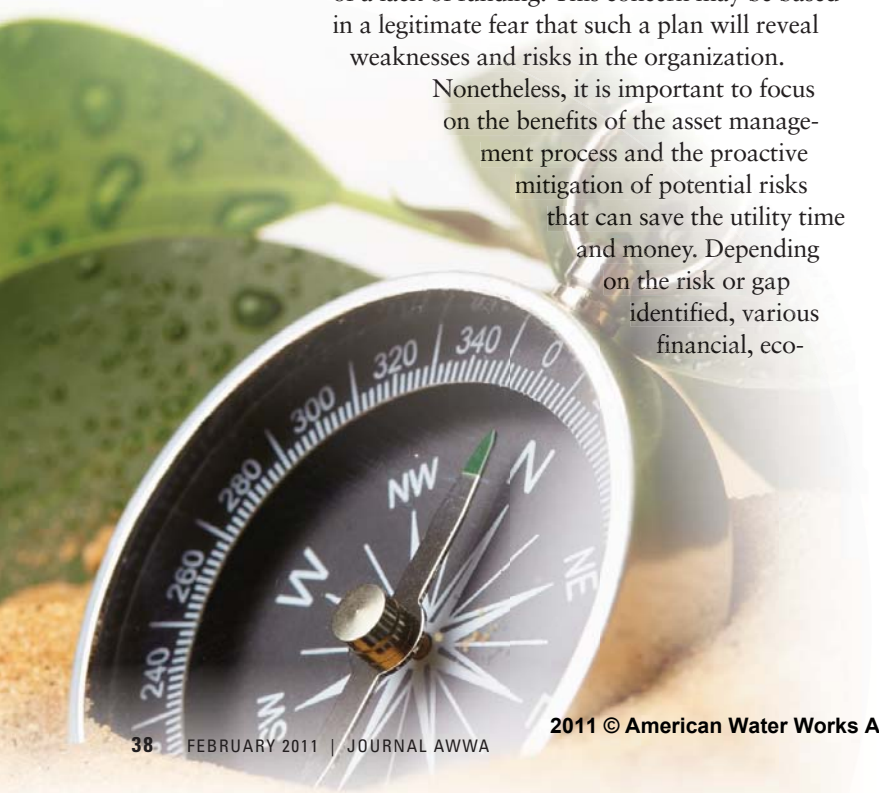
Navigating Service Level Expectations: Asset Management Planning

Condition assessment and asset management are core components of effective utility management. Although many utilities profess they are performing some form of asset management, most will also confess that there is room for improvement. However, some managers are still struggling with their boards and councils over why every organization needs an asset management plan. The complaint is made that the last thing a utility needs is another study or master plan to sit on the shelf and gather dust because of a lack of funding. This concern may be based in a legitimate fear that such a plan will reveal weaknesses and risks in the organization.

Nonetheless, it is important to focus on the benefits of the asset management process and the proactive mitigation of potential risks that can save the utility time and money. Depending on the risk or gap identified, various financial, economic, engineering, and operational tools can be applied. An important value of the plan and the process is to set community expectations with regard to both cost and level of service.



CHARTING THE COURSE

Utility general managers and public works directors are like captains navigating large vessels through diverse and unfamiliar terrain. Navigation is the process of monitoring and controlling the movement of a craft or vehicle by applying navigational skills. Navigating through the troubled waters of changing public and political expectations is one of the most challenging tasks for any manager.

Every organization—whether it is a local municipality, water district, regional wastewater authority, or state government—needs an asset management plan in order to communicate, manage, and adjust service expectations to achieve community sustainability goals based on cost and affordability. The asset management planning process is the required infrastructure, and it services the financial management planning process during which the real cost of ongoing services is splashed against a financial landscape of affordability and sustainability.

Getting your bearings. Many engineering and financial professionals are searching for answers about how to address the water industry's challenges of aging infrastructure, workforce depletion, changing regulations, resource and service sustainability, conservation, and revenue constraints. As each constituent in the

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process frames the issues based on silos of knowledge and perceptions, the deficit of solutions appears overwhelming. Only by taking a step back and looking at the big picture can the participants fully appreciate the coordination of expertise and skills that will be required to address the situation.

Navigating troubled waters. The value of an asset management plan or infrastructure financial management plan goes far beyond just good water utility management. The framework of the process and written documents can also be used by municipalities and regional and state governments. A plan can be developed for streets, government buildings, parks, and libraries as well as for water, sewer, and storm drain properties, facilities, and equipment.

The recent economic downturn is affecting revenue collection at all levels. Many local and state governments were not financially able to sustain their service offerings and infrastructure funding needs even before the recession. A lack of proper financial planning is being exacerbated by the recession and requires immediate attention. However, many organizations may lack the technical capacity, discipline, or community support to make the required adjustments to achieve short- and long-term sustainability. Yet, despite the obstacles, core service providers (e.g., utilities) still have the responsibility of rising to community expectations for services with a process to analyze and explain the increases in operational, capital replacement, and expansion costs.

During any budgetary belt-tightening, the common process of balancing the budget usually uses two financial tools: snippers—cutting staff positions through layoffs and hiring freezes without formally reducing services—and a hammer—deferring maintenance and capital projects. Deferring a project means it is still required but that it likely will have to be done at a higher cost through unplanned maintenance and inflation. Without identifying the costs or developing a plan, managers are unable to adequately explain risks and options to deferral. As a result, informed and effective decision-making will not occur, and the perpetual underfunding of an agency's crisis mode will continue.

Fundamentally, systemic and chronic operating and capital deficits are addressed by cutting back on real service levels, reducing the asset base, or obtaining additional revenue. The current practice of cutting resources and staff without reducing service levels is not sustainable.

Finding a safe harbor. The desired goal in asset management is to identify operational issues and funding gaps and then apply a broad range of financial tools to help address the specific concern integrated with other plans (GFOA, 2010). Exploring all available options—whether operational, structural, economic, or financial—to mitigate specific risks is a key component of the whole process. With sustainability as a goal, developing and leveraging an asset management partnership over the long term are critical.

Craig Close, asset management and financial services expert for a leading engineering firm, explains, "The asset management process is not just about creating a document but developing a partnership to solve problems. The relationship that develops and the work that is produced can identify operational efficiencies and capital budgeting savings as well as become a powerful tool in mitigating [US Environmental Protection Agency] consent orders" (Close, 2010). Many agencies are starting a phased approach for asset management planning. They are first targeting a major concern such as regulatory compliance or a critical asset failure risk and developing the asset management plan to address that specific issue. The overall asset management framework and developed process can then be used to expand to other asset classes, risks, and needs.

Exploring changing tides and currents. A growing trend in the financial markets is that bondholders, credit agencies, underwriters, and financial advisors are asking for an asset management plan as evidence of prudent leadership and sound financial management. Investors want to be assured that the water supply plan links to a comprehensive capital plan that is folded into a long-term viable financial plan. Other uses and benefits of the asset management plan have included protecting credit scores, gaining better interest rates when issuing debt, and justifying recommended rate increases to stakeholders. It can also be anticipated that asset management plans could become a requirement for utilities to gain access to low-interest-rate loans and grants.

PILOTING THROUGH THE PROCESS

Sustainable management requires the integration of asset management and long-term financial planning. This concept is captured through the development of a comprehensive asset management plan. The process of developing asset management or infrastructure financial management policies, strategies, and plans includes three major steps: service planning, asset management planning, and financial planning.

Understanding service planning basics. Service planning is the process of determining which services are needed by the community and what level of service is required to meet goals using available resources only (Figure 1). This can include services provided through assets defined as worth more than $5,000 and a minimum three-year service life (e.g., park services require a park, water services require infrastructure) or non-assets (e.g., community relations and conservation services require only staff) but also entails measuring results and outcomes.

Service planning may include strategic planning for a community for a period of 20–50 years, determining the services required to achieve the strategic community

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outcomes, engaging with the community to agree on optimum levels of service to suit available resources, determining how the services are to be provided, and what means are to be used to measure progress on achieving community outcomes.

Service planning can assist organizations by asking

- Where are we now?
- Where do we want to go?
- How do we get there?
- How do we know we are there?

Service plans are an essential tool in rational and coordinated decision-making about levels and types of services in which resources, funding, people, and assets are used through clear links to long-term financial planning (IPWEA, 2010).

Service plans are also effective public communication and policy-level decision-making tools that can provide a road map, prioritize community activities, and assist in managing risk and community expectations. It may be implied, but many governments or water utilities have not really asked who their customers are and what they value. The water industry seems to believe that customers don't understand the value of its service when they resist increasing taxes or rates. Developing service standards or customers' expectations involves understanding stakeholders' values and making clear the levels of service and an option of choices (Figure 2).

When a gap is identified between the cost of real sustainability and funding the service level, negotiations about how to reset new stakeholder expectations are needed. Level-of-service determination is a public process contained within the bookends of regulatory compliance and affordability and can be applied to a program or an individual asset. Service planning is a great chance to engage elected officials in the planning process and makes planning more meaningful to participants, especially those without a financial background. It is essential to align financial strategy with service strategy (GFOA, 2010).

Public relations and outreach programs should not be a one-way communication (e.g., pushing educational brochures to customers), but should create an interactive two-way conversation about service-level expectations, costs, and risks. According to Katz & Associates (2010), "Gaining the perspectives of stakeholders on key messages, controversial issues, and policy issues can help shape the way an outreach program is designed and implemented."

Beginning asset management planning. In international law, the captain of a ship is usually the legally responsible person for passage planning (leaving the dock, being en route, approaching the destination, and mooring). However, larger vessels delegate this responsibility to a ship's navigator (asset manager). Passage planning is a start-to-finish endeavor. As applied to asset management, a voyage requires the three major phases of appraisal, planning, and execution and monitoring.

Asset management doesn't have a universally accepted definition, but some examples are:

- "a systematic process to obtain the maximum value from physical assets . . . managing assets to minimize the total cost of owning and operating them while delivering the level of service that customers desire" (HDR, 2010).
- "managing infrastructure assets to minimize the total cost of owning and operating them, while continuously delivering the service levels customers desire, at acceptable levels of risk" (HDR, 2010).
- "managing assets effectively to ensure service-ability to customers" (HDR, 2010).
- "the lifecycle management of physical assets to achieve the stated outputs of the enterprise" (AMC, 2011).

Asset management planning includes defining the services required to meet community needs identified in the service planning process, how those services will be provided, the assets and funding required to supply the services, and the performance measures needed to assess whether the community's service outcomes are being achieved.

FIGURE 1 Identify funding gap

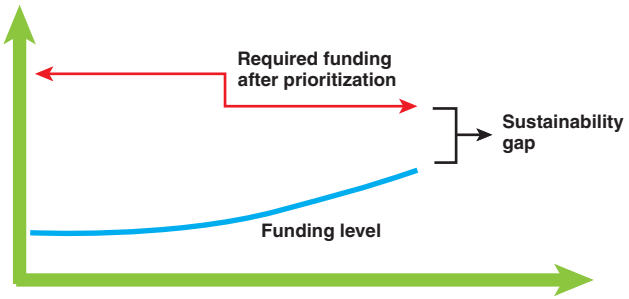
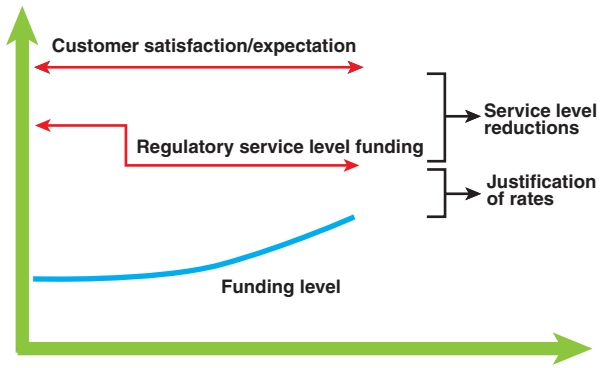


FIGURE 2 Service level adjustments



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When planning an asset management program, the renewal, replacement, and upgrade of existing assets as well as addition of new assets need to be considered. A significant component of the plan is a long-term cash-flow projection. Changes in capital requirements resulting from drought and water supply planning, climate change, new regulations, and updated condition assessments require an integrated framework of operational and financial planning to begin to address the issues. Changes in demand and revenues must continually be monitored and tested under various capital planning and financial scenarios.

Many asset management scenarios have emerged from Australia and New Zealand. In 2007, HDR led a strategic study on asset management for the Water Research Foundation. The Asset Management Research Needs Roadmap project "helped determine key research needs in this field, tailored to the specific conditions of the North American water and wastewater industries" (Graham, 2010). This knowledge base must continue to grow and be available for utilities of all sizes to develop and implement innovative solutions.

Tackling financial planning. Financial planning is not a static task, but rather offers the ability to capture a current snapshot and develop a forecast of the future financial condition, given various assumptions and variables. Long-term financial plans typically extend the funding projections for capital expenditures and delivery of services over a 10-year period. As long-term capital plans are developed, longer-term financial forecasts can be created to estimate debt ratios over the maturity periods for 30-year debt issuances. Financial plans should cover at least a five- to 15-year period used for developer connection fee calculations. A comprehensive financial plan will include a forecast of various financial metrics used to determine a utility's credit rating as well as a user-rate affordability index for different demographics within the jurisdiction.

Accuracy and reliability of financial projections vary over the planning period ranging from good accuracy in the early (one to three) years to a lesser degree of accuracy in the later years of the period. These relative accuracies are taken into account in annual updating and review of long-term financial plans (IPWEA, 2010). The results of local government financial sustainability reports may indicate that the initial versions of the long-term financial plan's revenue levels will be insufficient to sustain existing service levels in the future.

Generally speaking, there are not enough funds to satisfy all needs. Managers must make choices based on available resources. Utility services are derived from infrastructure; therefore, managing the infrastructure is key to providing reliable services. An asset management plan or infrastructure financial planning process is the most effective way to identify issues and develop solutions while setting community and stakeholder expectations.

STAYING ON COURSE

The water industry is engaged in a complex conflict, fighting for basic sustainable resources—including funding. So when the finance officer, city manager, or board member balks at any asset management plan request, do not give up—just reframe the concept to be the integration of engineering and operations with strategic financial planning. Every utility should provide assurance to the community that the water, wastewater, and storm drain systems have or will have a financially sustainable level of service at an acceptable level of risk.

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