Documenting Project Performance

Although nonfinancial project closeout activities can be an overlooked area in project management (see "Paying Forward at Project Completion," *EM* September 2008, p. 24), these activities, particularly preparation of a carefully crafted project summary, can be vital to the future success of the organization and project team.

by David Elam

David L. Elam, Jr., CIH, CQM, is principal consultant with Summa Consultants Inc. E-mail: delam@summaconsultants.com.

We spend significant energy on the front-end of a project to pitch, plan, and launch it, but we spend comparably little time documenting project outcomes. As a result, the value of our efforts and the benefits we provide are easily overlooked. While regulatory compliance and cost-avoidance may have been the assumed benefits of many environmental projects in a robust economy, these benefits are of value only if a company is able to remain in operation.

As project managers, we can better serve our company and clients by understanding and clarifying project benefits at the outset, establishing appropriate metrics for those benefits, and then documenting performance in terms of metrics using written project summaries.

A Carefully Crafted Project Summary

To write an effective project summary, we must begin at the project charter stage by establishing project objectives and relevant measurement metrics. This can be challenging for environmental projects because many of them derive from regulatory requirements. For example, consider the facility that wants to obtain an air permit for a multifuel boiler. We can easily accept the default objective as obtaining the permit on schedule in accordance with an established budget; however, we can better document project accomplishments by expanding the project objective to describe the fuels that the boiler will be able to burn, the operational flexibility those fuels will offer, and the cost savings that fuel flexibility will provide.

Documenting these objectives in clear terms allows us to remain on track during the permitting process and to evaluate actual performance against those objectives when the boiler is operational. Some may dismiss these suggested efforts, arguing that they are common sense and obvious to those involved in the project; however, this approach provides important historical information when an organization is considering operational changes and staff reductions in challenging economic times.

Most of us can think of projects that were undertaken with certain cost-saving goals that were later abandoned due to changes in management. In these cases, management is criticized for not understanding the issues. And while this may be a fair criticism, we share responsibility if, as the technical authorities for those projects, we have not documented and communicated project benefits in terms that those less familiar with the technical aspects of the project can appreciate.

Underlying Data

When selecting metrics for documenting project performance, it is easy to first think in terms of cost savings, either in absolute dollars or percentages, on a quarterly or annual basis. And while this information is indeed the "bottom line," cost-savings data alone do not offer a complete picture nor do they allow us to gauge the real value of a project when looking back from a distant point in the future. We must capture the raw information—for example, kilowatt hours saved, gallons of water reclaimed, tons of feedstock saved, and tons of waste eliminated—that drives the cost savings. This information will allow us to recalculate cost savings based on the changing value of factors that influence costs. Otherwise, we will be left to evaluate project benefits based on general inflation rates, an approach

that neglects the variation in the individual inflation rates that likely have a greater effect on environmental projects. Clearly, we need to understand project benefits in terms of the raw inputs and outputs so that we can evaluate the project in terms of its initial value, present value, and cumulative value.

The underlying data that drive cost savings for a project can also benefit sustainability initiatives and greenhouse gas (GHG) inventories. For example, consider a water reclamation system that reduces freshwater consumption, wastewater discharges to the publicly owned treatment works (POTW), and offsite disposal of a hazardous waste stream. Although the project yields cost savings associated with reduced water use, reduced POTW fees, and reduced offsite disposal costs, additional electricity is required to operate the pumps associated with the water reclaim system. Without documentation of the underlying data, the facility will not be able to document the true sustainability benefits and GHG reductions that the project achieves. Instead, those unfamiliar with the project will conclude that the company simply increased bottom-line performance by purchasing more electricity. Given the expectation of GHG regulations in the foreseeable future, the underlying input and output data for projects may prove useful in documenting historical baselines and reductions.

Communicating Project Value

Project managers understand the value of the projects we perform and manage. They are essential to the mission of our organizations. We can better serve our organizations by making sure that others understand the value of our work. An effective way to communicate the value of our projects is to prepare project summaries that document the scope of work, the financial aspects of project, the people involved on the project, and the benefits the project produced. Importantly, the project summary should address the project's effect on process inputs and outputs so that the project value can be reevaluated as the cost or value of those inputs and outputs change.

For the project owner, project summaries will provide useful information for company communications, support sustainability initiatives, demonstrate the value of an operation or an individual, and may eliminate waste. For engineering and consulting firms, project summaries can communicate service value to clients at project completion, document experience of individuals and the firm, and support cross-training efforts. There's a good chance we'll need project information to document operational performance, prepare for a new project, or to round out a resume. So the real issues are when we'll prepare the project summary and what it will contain. In conclusion, we're better served by thinking about the project summary when we define project objectives during the project scoping phase and writing it during the project close-out phase. em