

DOE Dashboards Eliminate Redundancy, Improve Accuracy, and Speed Decision-Making – 14363

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ABSTRACT

Dashboards consolidate and deliver strategic information from a variety of resources in one place, in a user friendly, web-based tool. Data can be accessed from a desktop workstation or by a mobile device via the Project Data Management System (PDMS) in the middle of a meeting. Dashboards are used to report the updated figures from the U.S. Department of Energy (DOE), Richland Operations Office (RL) prime contractor's current funds and spending forecast, cost and schedule performance indexes, and safety metrics. Their implementation has improved reporting efficiency and quality, while reducing redundancy by implementing consistent reporting requirements across all groups.

INTRODUCTION

The Mission Support Alliance (MSA) Portfolio Management (PFM) organization has implemented a series of dashboards for RL that display information from the Integrated Data-mart (ITD), as well as other Hanford Site sources. Dashboards provide visual rendering of data with drill-down capability for use in strategic planning and analyses. Users are able to scan large amounts of data quickly and easily, and can spot data discrepancies that need resolution. Because dashboards are web-based, they can be easily accessed and viewed from desktop workstations or mobile devices connected to the Hanford Local Area Network (HLAN). Data sources range from customized output created by the client, to other database connections and Microsoft SharePoint® systems.

DESCRIPTION

Building on the ITD effort of integrating multiple data sources into a single location, dashboards provide a cohesive look at the Hanford Site life cycle technical scope, schedule, cost and risk data that HLAN users can access. MSA PFM created a suite of tools that eliminated the need for redundant spreadsheet systems tracking the same data, reduced errors and latency associated with collecting data in spreadsheets, and enforced consistent reporting requirements across all groups. The dashboards provide tailored reports and customizable renderings for project reporting, displaying work performance and progress at various scales.

Dashboards convey project status (either through representation of work flow, performance data or key performance indicators) to managers or department staff responsible for monitoring the project. In addition to providing consolidated financial and safety metrics, a suite of dashboards has been developed to provide information on:

- the current status of DOE-RL Key Performance Goals (KPGs),
- the latest budget status,
- upcoming project events and action items,
- completion status of DOE-RL Tri Party Agreement (TPA) Milestones,
- 2015 Vision progress, and
- the complete list of waste sites and facilities, and their respective status.

These accessible, transparent measures of progress provide management and staff a clear sense of project direction.



Fig. 1. Key Performance Goals Dashboard

The combination of automating manual processes, exposing data gaps early and providing a comprehensive perspective of the data in a visual context adds significant value. The dashboards are a window into the production data environment, thus rendering the most qualified and up-to-date data allowing for more informed and rapid decision-making.

CONCLUSIONS

RL's most prominent dashboards are the KPG scorecard and the TPA Milestone

tracker. Users have found that these features clearly and effectively illustrate the overall project condition, identifying items of specific importance within the “big picture” of the program. The filtering and selection controls are straightforward to use within the dashboard, meeting the project-specific needs of different users within the various projects areas. Specific data detail can be accessed through other controls or drill-down features.

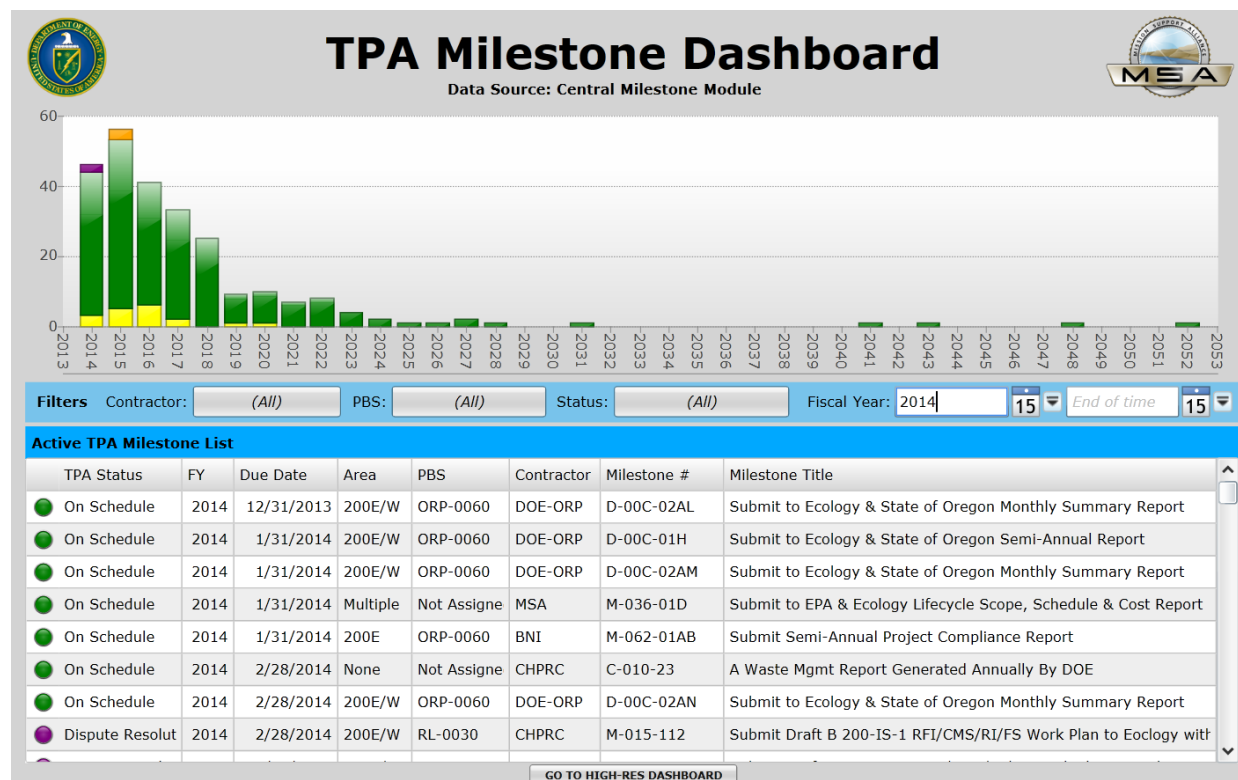


Fig. 2. TPA Milestone Dashboard

When seeing the TPA Milestone dashboard for the first time, Jonathan Dowell, then RL’s Assistant Manager of River and Plateau (AMRP) said, “I can see that this has already saved me at least two days a month worth of work, and I know it will be accurate. And that’s just me!”

Once the foundation for the data was set in the ITD, other dashboard efforts logically followed. The waste site and facilities performance measurements dashboards each eliminated four separate hard copy data lists. This dashboard set improved analyst productivity, eliminated substantial scope overlap and the possibility of double (or inconsistent) reporting by the various workgroups.

The real benefit of the dashboard project is measured by the amount of added value that each dashboard provides to the customer. The AMRP dashboard “delivered exactly what we needed to help us more effectively manage our clean-up mission,” said Jon Peschong, Director of RL’s Central Plateau Remediation. He added, “It’s a one-stop shop for all the information I need and it’s somewhat unprecedented in my career.”



Fig. 3. AMRP Dashboard

The AMRP Dashboard is a groundbreaking efficiency that provides an enhanced and transparent communicating tool for AMRP staff and the contributing contractors. "This new method may very well be the new reporting standard in project management, because not only does it save time, but it improves the communication between DOE and the contractors by eliminating the suspicion, which can sometimes surround metrics," said DOE-RL's Jim Payne.