

SAP Customer Success Story
Public Sector – State and Local Government



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Wendy Underhill, Plant Maintenance Administrator,
State of California Department of Water Resources

AT A GLANCE

Company

- Name: State of California Department of Water Resources (DWR)
- Location: Sacramento, California
- Industry: Public sector – state and local government
- Products and services: Maintenance of the State Water Project; dam safety and flood control services; water management and conservation activities; future water needs planning; and promotion of recreational opportunities
- Revenue: US\$8 billion
- Employees: 2,600
- Web site: www.dwr.water.ca.gov
- Implementation partner: Saber Corporation

Challenges and Opportunities

- The existing operational logging solution used a word processing document and required manual intervention.
- Each of DWR's 7 area control centers comprises a unique physical environment that requires an easily customized solution.
- Inability to share information across the enterprise resulted in wasted time and effort, and in staff frustration.
- Highly paid operations staff members work 12-hour shifts – setting a common time to train would be difficult and expensive.

Objectives

- Improve operational efficiency by automating repetitive tasks
- Implement a forms solution easily tailored for each plant
- Find a way to easily interact with data from the mySAP™ ERP application without requiring detailed knowledge of the back-end system
- Deploy a quickly ramped-up solution needing little or no staff training

SAP® Solutions and Services

- Latest version of mySAP ERP
- SAP® functionality for plant maintenance
- SAP Interactive Forms software by Adobe

Implementation Highlights

- SAP Interactive Forms deployed at same time as upgrade to latest version of mySAP ERP and plant maintenance functionality
- Implementation lasted only 6 weeks
- 70 users went live (with an additional 400 to 500 users relying on data provided by the forms)

Why SAP

- Satisfied existing SAP customer
- Ability to leverage extended operations functionality in mySAP ERP

Benefits

- Easier to log into SAP portal than into 3rd-party software
- Forms can be completed via the Internet, without requiring access to the LAN
- Increased ROI as measured by minimal training requirements for highly paid staff members (an estimated time savings of 45 minutes per operator)
- Increased staff efficiency because common data is easily duplicated and reused

Existing Environment

Mapper legacy system

Third-Party Integration

- Database: Oracle
- Hardware: Sun
- Operating system: Sun Solaris

STATE OF CALIFORNIA DEPARTMENT OF WATER RESOURCES

SAP® Interactive Forms Software by Adobe Streamlines Operational Efficiency, Increases Morale, and Delivers Ongoing ROI

With 29 operating plants and 2,600 employees, the State of California's Department of Water Resources (DWR) is responsible for maintaining and operating the California Aqueduct – part of the overall State Water Project that also includes dam safety and flood control services; water management and conservation activities; and future water needs planning. Predictably, the operations management requirements of this public services organization are extensive – and they demand advanced IT functionality to efficiently address such concerns as equipment outages and replacements; monitoring of flood control structures, levees, and water channels; and repairs and maintenance of a large heavy-equipment fleet.

California DWR initially turned to SAP in July 2000 to help meet these challenges. After six successful years of leveraging its SAP® R/3® Enterprise software, DWR decided to upgrade to the latest version of the mySAP™ ERP application. The upgrade would enable DWR to take advantage of enhanced functions for asset, fleet, and operations management.



Opportunity Knocks

During the course of the upgrade to mySAP ERP, Wendy Underhill, plant maintenance administrator, noticed an opportunity – and seized it. DWR’s plant maintenance operation, comprising 70 operators across seven area control centers and 29 plants, is required to produce daily “Midnight Conditions” reports. These reports provide a legal record of the midnight operational status of each plant and include information such as water flow rates, wattage and electricity usage, special conditions, and barrier and gate status. Difficult on the best of days, this reporting process historically challenged operators’ patience – and diverted their highly compensated time from more strategic pursuits.

“Our legacy system – a UNIX-based program called Mapper – was a real dinosaur,” says Underhill. “Reporting was based on a static word processing template that required operators to save the document to their hard drives, manually insert all of the data

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– some of which, I might add, does not change from day to day – perform any necessary calculations themselves, and then post the reports to the Mapper database. And then wait. In many cases, there was a 6- or 7-hour-long delay before the operators could even view what they had posted. It was a really frustrating process.”

Enter SAP Interactive Forms software by Adobe. Enabled by the introduction of the software for work clearance management (WCM) and by a customized operations application developed for DWR using the ABAP™ programming language, SAP provided an attractive alternative to Mapper. DWR’s internal team of ABAP

developers had already produced two Adobe print forms as part of its WCM application. After Underhill witnessed how enthusiastically users responded to the forms, she decided to leverage them for her Midnight Conditions reporting requirements.

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Streamlined Operations via Interaction with SAP Data

Midnight Conditions reporting at California’s DWR involves seven area control centers, which cover operations at the 29 individual plants. Each control center has a unique physical environment, with different equipment and different configurations – as a result, each report contains data variables specific to each center. However, some reporting requirements are consistent across centers, and some data can be shared.

Most data required by the Midnight Conditions reports resides within the work clearance management functionality in mySAP ERP. During the era when they used the Mapper system, DWR operators were forced – due to the inflexibility of the system – to manually recreate shared operations data in each report. Working in conjunction with the team of ABAP developers, however, DWR was able to create interactive reports that can not only retrieve data from the SAP software automatically, but can also allow for easy duplication and sharing of that data.

“A lot of the operations information remains constant from day to day,” Underhill explains. “Now, operators can save the previous day’s report and only change what needs to be changed. This saves them a huge amount of time and effort.

“Even better, they can actually take their reports, save them to the hard drive, fill in the necessary details when they have time, and then post the reports back into [the] SAP [software] for immediate viewing. We’re still amazed by how efficient a process this has become.”

Because of the direct link to the SAP application, all of the data is controlled through the back end by DWR's normal SAP security protocols – which protect the Midnight Conditions reports from unauthorized access. These protocols also prevent more than

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one report being posted from an area control center each day – which protects data integrity and cumulative calculations. This level of protection had been unavailable in Mapper and, due to the effort of manually checking data and correcting errors, had translated into significant wasted staff time.

Rapid Implementation

Working in conjunction with Saber Corporation, an SAP implementation partner, Underhill's team had their new SAP Interactive Forms-based reports up and running within six weeks – which included a weeklong transfer of knowledge.

“Was that fast? That was extremely fast, considering we were replacing functionality that had taken almost two years to develop in Mapper,” says Underhill. Further, the solution was so intuitive that it required almost no additional staff training – a fact both Underhill and her operators fully appreciate.

“Operators are highly paid employees,” says Underhill, “so every hour of their time you divert to training ends up costing a lot of money. And from their perspective, the last thing they want to do after a 12-hour shift is spend more time at work. Because SAP Interactive Forms is simple, people only have to see the forms once to ‘get it.’ We trained each of our operators, on the job, in about 20 minutes. Our cost savings have been tremendous.”

Ongoing ROI

Though newly upgraded Midnight Conditions reports are still in their infancy, DWR has already witnessed positive results from the implementation. The reports are easier to manage, operators are spending far less time on them, and – due to the interaction with the SAP software – the data within the reports is more accurate. All of this has resulted in an increase in both operator morale and mutual respect for the daily challenges that Underhill and her staff members face.

While qualitative in nature, Underhill believes that each of these measures, over time, will yield real savings in the form of measurable increases in efficiency. She plans a six-month implementation “postmortem,” at which time she expects to see concrete metrics to support her hunch.

Looking ahead, Underhill envisions a much broader application for SAP Interactive Forms within her group. Many existing online DWR forms – such as travel expense reports and personnel requisition requests – still require a two-step process: first one employee completes the form and submits it to the appropriate department, and then another employee manually enters the data into the SAP application. “We haven’t made any firm decisions yet,” she says, “but it seems pretty logical that any time we collect internal data that requires entry into [the] SAP [application], we could make use of the interactive forms. Because of our fantastic experience with the Midnight Conditions reports, we’re going to really be paying attention to other opportunities for future implementation.”

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