

## Case Studies: Organizational Change for Sustainability

People can significantly impact the environmental performance of their organization. Many factors influence an organization's use of resources, and changing an organization to improve environmental performance can be daunting.

The FEMP Institutional Change Team provides expertise grounded in social science principles to help organizations make the change to sustainability.

The case studies presented in this series build on this expertise. The studies are:

- specific to the unique aspects of federal workplaces
- descriptive of real-world conditions
- examples of strategies for institutionalizing change

We encourage you to contact the team (through Jerry Dion at FEMP) to discuss possible applications of the case study material to your organization's specific needs.

Jerry Dion  
Jerry.Dion@ee.doe.gov

## Summary

Use of champions, checklists, tapping and reinforcing existing staff motivation, and providing clear and persistent messaging led to an agency culture that supports conservation and efficiency efforts.



The U.S. Fish and Wildlife Service (FWS) experienced a major influx of Recovery Act funds, which provided the opportunity to integrate energy efficiency and water conservation into the Fish and Wildlife Service's culture and institutional practices. *Images courtesy US Fish and Wildlife Service.*

## Connecting Sustainability to the Agency's Mission

David Guthrie has been the energy coordinator for the U.S. Fish and Wildlife Service (FWS) Energy Management Program since 1990. Beginning with the American Recovery and Reinvestment Act (ARRA) and its financing of \$145 million in new energy efficiency projects and increased energy awareness, FWS experienced a major organizational overhaul. Mr. Guthrie's individual efforts worked within this overhaul to spread the message of the importance of energy efficiency and water conservation. His work has transformed the culture and institutional practices of the FWS over the last decade.

The FWS is a unique organization in that the personnel tend to be committed naturalists. This committed workforce provides a highly motivated base for carrying out energy efficient and low water use practices. FWS also has unique building and land types such as fish hatcheries and wildlife refuges. Together, these personnel and structure/land elements of FWS require innovative institutional guidelines and practices to provide a framework for large-scale energy efficiency and water conservation efforts.

Mr. Guthrie has been working to develop this framework through organizational outreach and energy awareness efforts. To do this, he has made presentations at numerous internal and external events, conferences, and training sessions. He has also championed and led small meetings with regional directors and staff. These small meetings filter information down to the field. By connecting to FWS staff in this way, people at the field level begin to make the issue of energy and water conservation their own, creating a "field level up" outreach effort as opposed to only "top down."

This personal approach is coupled with a series of FWS-focused energy efficiency and water conservation guidelines including the FWS carbon mitigation plan, as well as a custom FWS building energy and water consumption reporting database developed by Mr. Guthrie and his team. Mr. Guthrie has also developed a checklist to help

personnel ensure that systems and practices meet FWS guiding principles. Mr. Guthrie has also worked to compare and align LEED principles with guidelines from Executive Order 3514, Section 2g and FEMP, adapted to the context of an atypical building stock largely made up of fish hatcheries that use substantial process energy and pumping water for seven days a week, 5 months out of the year. The FWS now attains minimum LEED Silver certification for all new building construction and is targeting 2020 for carbon neutrality.

Mr. Guthrie also developed a chain of command for carrying out low energy and water conservation strategies. There are seven energy managers, or regional directors, at eight regional locations. All regional directors have undergone training sessions led by Mr. Guthrie. Mr. Guthrie spends two months out of the year gathering and reporting energy data, which is then given in reports to regional directors as well as FEMP. Mr. Guthrie is concerned that there is too much data and that reported data to meet federal energy manager requirements is not targeted enough toward specific problem areas in order to effectively make improvements.

### Social Science Principles Applied

- **Social Network & Communications**
- **Multiple Motivations**
- **Leadership**
- **Commitment**
- **Information & Feedback**
- **Infrastructure**
- **Social Empowerment**
- **Continuous Change**

## Roles, Rules, and Tools

As lead energy coordinator, David Guthrie has created a network of energy managers that all have clearly defined roles and responsibilities.

Guthrie has set up tools that include training of the energy managers, checklists for meeting FWS guidelines, tracking databases for energy and water consumption, and presentations at events and conferences, data reports, and well-financed energy projects.

## Principles Applied

David Guthrie uses three social science principles in his work: Social Networking & Communications, Leadership, and Social Empowerment.

### Social Network & Communications

Guthrie's presentations and outreach explained to others how he had changed and how others could change.

### Leadership

Guthrie translated his message through the chain of command.

### Social Empowerment

By not overemphasizing rules and guidelines and using presentations to get the word out, staff was self motivated and the message of energy awareness was translated from the field level up and not only from the top down.

## Lessons Learned

David Guthrie sees it as critical to keep getting the message out. By getting the word out without an overemphasis on top down directives, personnel from the field level up will be more passionate about the issues at stake. A motivated staff is critical to carrying out energy efficiency and

water conservation projects.

Also it is imperative to find creative sources of financing. In the case of FWS, ARRA has been a great help, since the more money invested in energy efficiency exposes more personnel to energy issues, leading to increased motivation. Guthrie is trying to push for ESPCs and UESC – Utility Energy Service Contracts. Guthrie believes that since FWS now has a motivated staff, the next step is new technology projects including renewables, small wind, solar hot water heaters and geothermal. The FWS already has about 1200 renewable energy projects and is still finishing ARRA work. Operations and maintenance also need to keep up with new technology.

## Supporting Documentation

February 17, 2012 interview with David Guthrie, energy coordinator of FWS.  
<http://www.fws.gov/>

## Keywords

champions, checklists, energy efficiency, culture change, training