# ARIZONA PROJECT PROFILE

## GLOBAL WATER CENTRE OF EXCELLENCE MARICOPA, AZ

**41%** Annual Energy Savings

**55** Tons Construction Waste Diverted

**68k** Gallons of Building Water Saved Annually


### LEED Facts

**GLOBAL WATER CENTRE**
**Maricopa , AZ**

LEED for New Construction v2.1
Certification Awarded February 29, 2008

| | |
|---|---|
| SILVER | 34* |
| Sustainable Sites | 5/14 |
| Water Efficiency | 4/5 |
| Energy & Atmosphere | 8/17 |
| Materials & Resources | 5/13 |
| Indoor Environmental Quality | 9/15 |
| Innovations & Design | 3/5 |

*Out of a possible 69 points



Photo by Jessie McCaskill courtesy Deutsch Architecture Group

# Global Water Centre of Excellence

## PROJECT BACKGROUND

The building is an administration facility on Global Water's wastewater treatment campus in Maricopa, Arizona. The Centre provides a customer service location to pay bills, a regional administration facility, and a home for the operations staff operating the plant. Most importantly, the Centre serves as an example of how recycled water can be used in the desert southwest in innovative and efficient ways.

The Main Lobby is designed as an educational area for everyone from customers and children to visiting regulatory officials. As part of the project, Global Water commissioned a variety of displays which demonstrate the recycled water process, how the facility was built, what LEED and the USGBC are about, and which other groups played a part in making the building environmentally friendly.

## SUSTAINABLE STRATEGIES

- **SS:** Global Water initiated an employee carpool program and provided up-close, covered parking for those who agree to carpool regularly.
- **WE:** Dual Plumbed Toilets and urinals are served with recycled water in a separate system, reducing the need for potable water and creating a 'closed loop', whereby the amount of water needed to flush toilets and urinals never leaves the recycled water system. All landscaping irrigation is also served by recycled water.
- **EA:** The project achieved an energy efficiency savings of over 40% over the ASHRAE 90.1 (1999 Edition) baseline guide.
- **MR:** The project team focused on the recycled and local materials credits, achieving all possible points in these categories. The recycled materials visible in the final building, such as the aluminum roof and recycled rubber flooring, are featured in a children's educational video, which runs on a loop in the facility's lobby.
- **EQ:** Views for 90% of occupied spaces were provided via large windows around the entire perimeter, with sizable interior fenestration at perimeter offices to share the outside with the center 'core' of workstations.
- **ID:** One point was awarded for Global Water's research project with the USDA, where recycled water is tested for its effect on crops and parkland plants through irrigation. Test fields with potable and recycled water were provided as part of construction, and there is an exhibit about the findings in the building's lobby.

## MEASUREABLE RESULTS

- 41% in Energy Savings equating to 186,880 KW annually
- 30.13% in Water saving equating to 68,250 gallons annually

## SUSTAINABLE DESIGN CHALLENGES

The documentation of recycled and local content in materials proved to be a challenge, particularly when there were several steps in the supply chain. In many cases the project team found manufacturers directly and contacted them for the needed documentation on the recycled and local content, rather than chasing the information through the subcontractor chain.


Photo by Shaun Kurry courtesy Cornerstone Photography

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## PROJECT TEAM

**Owner:** Global Water Resources
**Architect:** Deutsch Architecture Group
**Civil Engineer:** JMI & Associates
**Structural Engineer:** Caruso Turley Scott
**Landscape Architect:** RBF Consulting
**Mechanical Engineer:** Applied Engineering
**Electrical Engineer:** General Power Engineering
**CM:** Adolfson and Peterson Construction

Project Size (S.F.): 17,272 S.F.
Site Size (acres): 16.8 acres (overall treatment plant campus)
Construction Cost: $6.1 million

**Arizona Chapter**
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