Water Efficiency: Rainwater Collection and Reuse

Strategy: Collect rainwater on-site and air conditioner/refrigeration condensate to be used in water based cooling and heating equipment, for toilet flushing, and for irrigation if needed.

Relevant Store Scale/Type: M-L/New, Adapted, Existing

Initial Cost:

1. Cisterns, filters, treatment chemicals, and piping.

Return on Investment:

1. Return is typically reached in twelve years with examples as little as four years.
2. Tank sizing is critical for determining payback.

Operator Benefits:

1. Reduces municipally treated water utility bills.
2. Helps meet and exceed local storm water regulations.

Technical Considerations:

1. Need to consider freezing conditions; ideally locate cistern below grade or on the interior.
2. Discuss use of minimally treated rainwater with local officials and health department to determine an appropriate level of treatment.

Product/Manufacturer Suggestions, Resources & Examples:

Environmental Building News Alternative Water Sources:
http://www.buildinggreen.com/auth/article.cfm/2008/4/29/Alternative-Water-Sources-Supply-Side-Solutions-for-Green-Buildings/

The Texas Manual on Rainwater Harvesting:
www.twdb.state.tx.us/publications/reports/RainwaterHarvestingManual_3rdedition.pdf

Case Study: Sam's Club, Fayetteville, AR:
http://walmartstores.com/FactsNews/NewsRoom/6699.aspx