

Institutional Water Use

Presentation to the Executive Water Finance Board

Governor's Office of Management and Budget

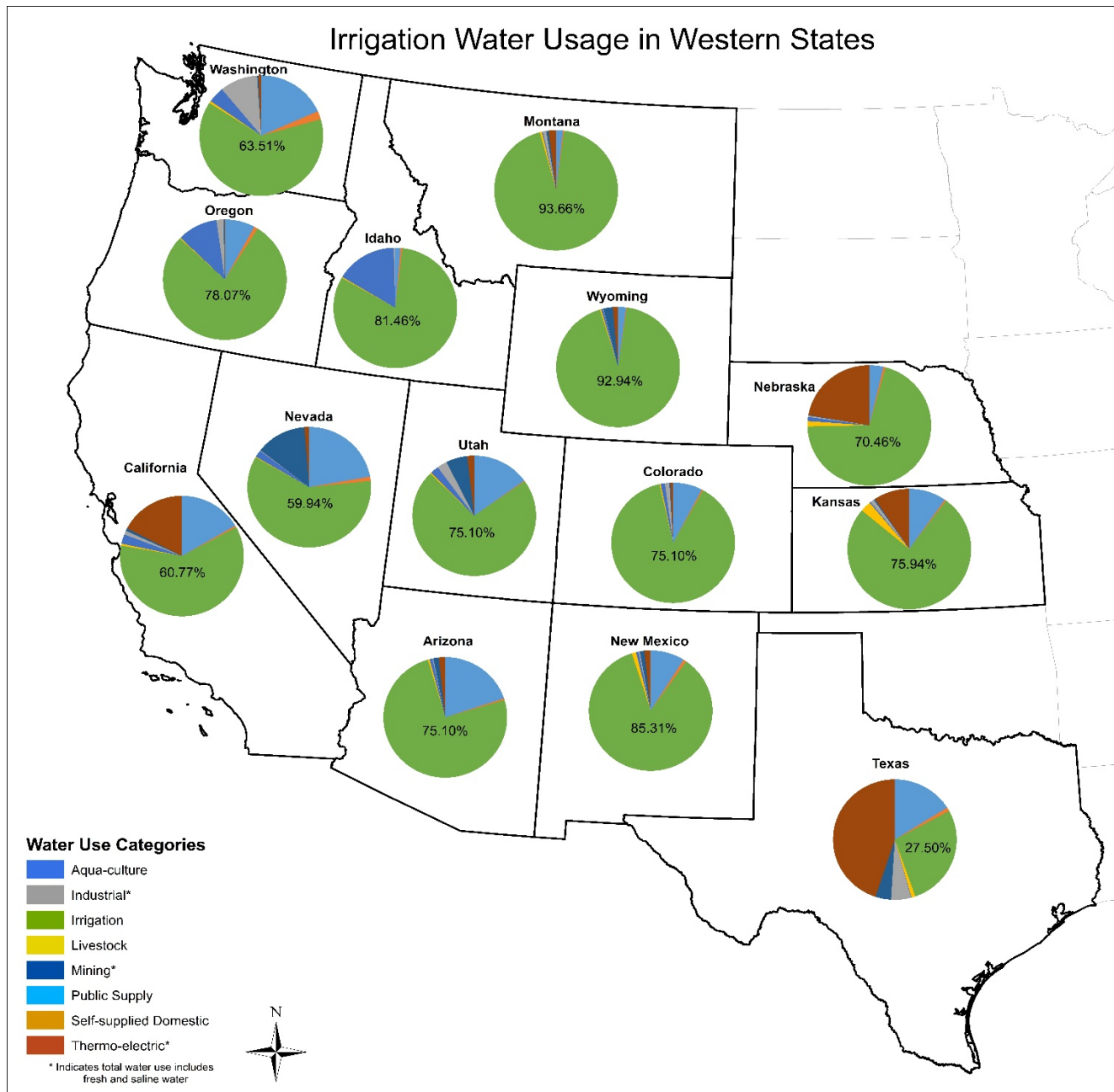
State of Utah

By

Warren Peterson

David Wright

Roy McDaniel



Irrigation Water Use in Agriculture, 2010

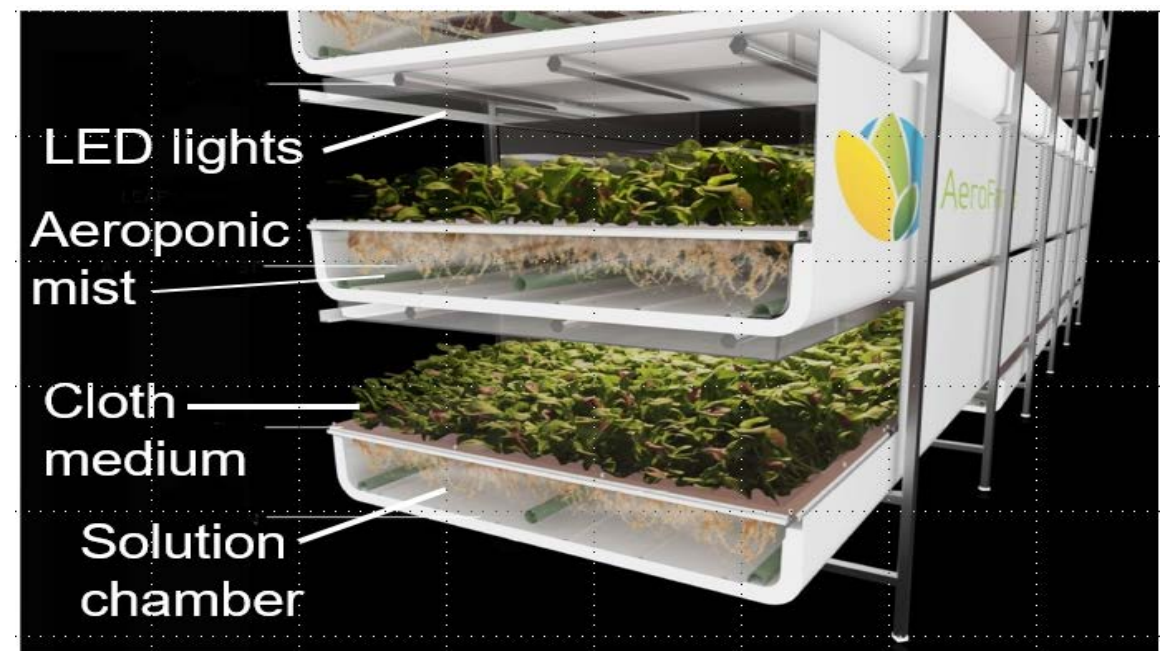
Utah – 75.10%

Idaho – 81.46%

California – 60.77%

Envision Utah study: 98% of Utahns want to increase food self- sufficiency

- July 30, 2015 Utah Dept. of Ag and Food news release



Water Conservation Efforts

Local Leaders and Members

THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS
THE QUORUM OF THE TWELVE APOSTLES
47 EAST SOUTH TEMPLE STREET, SALT LAKE CITY, UTAH 84143-1200

June 25, 2002

To: General Authorities and the following leaders in the United States and Canada:
Area Authority Seventies; Stake, Mission, and District Presidents; Bishops and
Branch Presidents

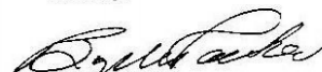
Dear Brethren:

Stake Building Specialists for Water Conservation

In an effort to implement water conservation measures, we ask each stake presidency to call a specialist for each meetinghouse and recreational property to assist the local facilities management (FM) group in the watering of lawns, trees, and shrubs. This could be an opportunity for the participation of prospective elders, less-active members, and responsible Aaronic Priesthood youth.

Under the direction of the stake physical facilities representative, the specialist should perform the responsibilities which are printed on the reverse side of this letter. The specialist should be assigned to monitor the lawn at each meetinghouse and adjust the irrigation system based on current weather conditions and watering needs.

Sincerely,



Boyd K. Packer
Acting President
Quorum of the Twelve

Water Conservation Efforts

“The Church seeks to follow environmentally friendly practices in landscaping and water conservation.”

<https://www.mormonnewsroom.org/article/environmental-conservation-stewardship-efforts>



Indoor Water Usage

- The Church operates some small Public Water Systems
- Water Meter Readings in Cities with Secondary Systems
 - Use approximately 0.1 acre-feet of water per year
 - 800 gallons per week
 - Amount varies based on age of facility
- Resource Advisor – Monitors Utility Usage, including water



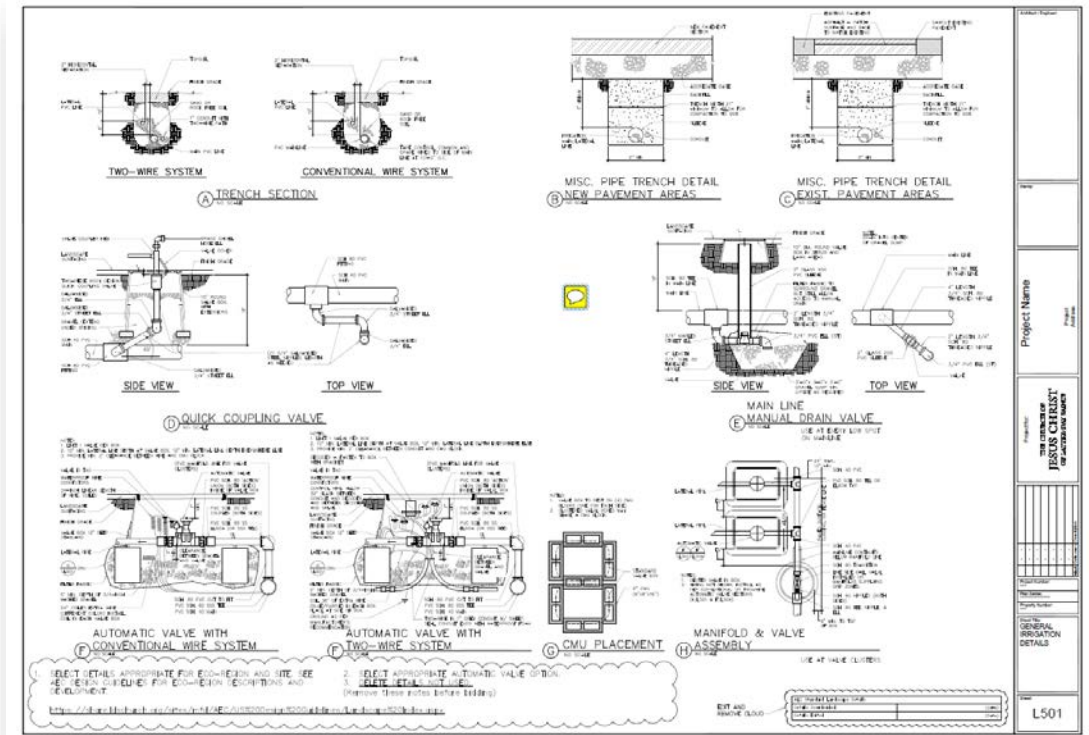
Church Headquarters Facilities



- Smart controller technology
- 32 smart controllers at various headquarter facilities
- Estimated 30% water savings
- Use of recycled water in fountains before it is returned to the stream

Current Landscape Designs

- Reduced the size of lawns
 - 1 acre of landscaped area
 - 35%-45% lawn
 - 55%-65% shrub/planter
- Encourage the use of:
 - Smart controllers,
 - Hydrometers,
 - Rain sensors,
 - Drip irrigation
 - Head-to-head coverage



Water Conservation Guidelines:

A Guide for Facilities Managers,
June 17, 2015

Water Conservation Guidelines: A Guide for Facilities Managers

Introduction

As the demand rises for limited water supplies, it is critical to efficiently manage this resource. This document provides actions that will conserve water and reduce utility costs.

Remember, regardless of the recommended actions listed below; follow all local jurisdiction restrictions.

Table of Contents

- Quick reference essential irrigation operation
- Emergency water condition strategies
- Landscape considerations
- Who should be part of water conservation efforts?
- Stake building specialists for water conservation letter June 25, 2002
- Recommended water conservation actions
- Water audit techniques
- Irrigation controller run times

Adaptation of Eco-Regions

- Based on North American Commission for Environmental Cooperation
- Recommended landscape plans
- Recommended use of smart controllers, hydrometers, rain sensors, drip irrigation, etc.

Ecoregion 10.1: Northern Cold Desert

The tables below provide the recommended irrigation run times measured in minutes per week. This is a useful reference but does not account for system specific precipitation rates, distribution uniformity, or soil types. Evapotranspiration averages and the following sprinkler precipitation rates determined the run times below:

Spray: 1.6 inches/hour

Rotor: 0.7 inches/hour

Rotary Nozzle: 0.5 inches/hour

Weather, climatic conditions, and local restrictions supersede the recommendations provided in the tables. Adjust run times as required to respond to these additional variables.

