

# This presentation premiered at WaterSmart Innovations

[watersmartinnovations.com](http://watersmartinnovations.com)



Educating professionals in  
Landscape water conservation

online professional  
master's degree



Masters of Professional Studies in Horticulture **MPSH**  
with specialization in **WATER EFFICIENT LANDSCAPE MANAGEMENT**

[psc.usu.edu/mpsh](http://psc.usu.edu/mpsh)

**Dr. Larry Rupp, PhD**

Professor of Landscape Horticulture  
Department of Plants, Soils & Climate  
Utah State University



**Adrea Wheaton, MPSH**

Program Coordinator  
Center for Water-Efficient Landscaping  
Utah State University

# What is the Center for water-efficient Landscaping?



## RESEARCH AREAS:



IRRIGATION, WATER USE  
& DROUGHT



WATER-WISE & NATIVE PLANTS



SUSTAINABLE TURFGRASS



URBAN WATER CONSERVATION

## CURRENT RESEARCH

- research on water requirements of trees and turfgrass,
- effects of short-term drought on landscapes,
- development and use of drought tolerant grasses and landscape plants,
- characterization of community-wide landscape water demand and use patterns.

# What is the Center for water-efficient Landscaping?



## Extension outreach:

- Qualified Water Efficient Landscaper (QWEL) program
- Master Gardener classes
- Low-water landscaping fact sheets
- Center for Water Efficient Landscaping Website ([cwel.usu.edu](http://cwel.usu.edu))

## Teaching:

- Masters of Professional Studies in Horticulture (MPSH) online degree

# Who are the Professors and mentors?



## DR Larry Rupp

**MPSH PROGRAM FACULTY ADVISER**

**TEACHES:** Water Efficient Landscaping Seminar

**RESEARCH INTERESTS:** Development of plants native to the Intermountain West for introduction in the nursery industry for water-conserving landscapes



## DR Janna Endler-Wada

**TEACHES:** Water Law & Policy

**RESEARCH INTERESTS:** Human dimensions of drought and climate change, urban landscape water use, and wetlands

# Who are the Professors and mentors?



## DR Paul Johnson

**TEACHES:** Professional Turf and Urban Landscape Water Management

**RESEARCH INTERESTS:** Turfgrass development with increased drought and salt tolerance for adaptation to arid environments



## DR Kelly Kopp

**TEACHES:** Irrigation Design

**RESEARCH INTERESTS:** Efficient irrigation, plant water-use efficiency evaluations, irrigation system design, smart water application technologies

# Who are the Professors and mentors?

CENTER FOR  
**WATER-EFFICIENT**  
LANDSCAPING



**Andrea Wheaton, mps h**

**PROGRAM COORDINATOR**

**TEACHING ASSISTANT: Low Water Landscaping**



**Diana Wenschel I, MS**

**TEACHES: Readings in Water Conservation**

**RESEARCH INTERESTS: Urban Water Conservation**

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# Why a graduate program in Water-efficient Landscape Management?

- With an estimated **60% of drinking water** in the western U.S. applied to urban landscapes, water conservation in the landscape is an important issue
- **Conserving water** while **preserving landscape quality** is best managed by individuals with an understanding of both landscape horticulture and design, and water management and conservation.
- The purpose of this degree is to provide horticulturists with the knowledge and skills needed to effectively promote landscape water conservation. As water becomes more precious, the demand for these skills will continue to increase.




On water issues in the west:


‘The solution is a mosaic. And, it’s made up of a lot of different pieces. And each one of those pieces has to be carefully calibrated in relation to the other pieces.’

Patricia Mulroy

# To promote water conservation we need to understand the mosaic issues



the role of  
turfgrass in low-  
water landscapes



Human behavior,  
motivation and  
education



water purveyor  
constraints

water law and  
policy issues



plant water needs and  
drought-tolerant plants



efficient  
irrigation  
technology

# How does the professional horticulture degree work?

- The MPSH Degree program is a **professional degree** based primarily on coursework and a capstone project.
- The MPSH Degree program consists of **33 credits of coursework** including 24 required courses and 9 credits of electives.
- The **Capstone Project** can be completed with a current employer in a field related to landscape water conservation, as part of an internship, or by working on a project or publication with an adviser from the Center for Water Efficient Landscaping
- The MPSH Degree program is now available **completely online** (with a one-week summer immersion course) or can be completed with face-to-face courses on the Logan Campus.

what are the

# Career opportunities for graduates?

- Water conservation specialists with water districts, cities, counties or federal agencies
- Directors or managers of water conservation gardens
- Extension specialists
- Water-efficient irrigation designers
- Specialists in water-efficient landscape design, build and/or maintenance
- Private sector consultants
- Public sector landscape managers

# Where are our MPSh graduates now?



**David Rice '02**

**CONSERVATION PROGRAM MANAGER**  
Weber Basin Water Conservation District



**Samuel Cook '10**

**WILDLANDS RESEARCHER**  
Camp Williams Military Base

# What are the mpsh degree coursework requirements?

The **MPSH** Degree program consists of **33 credits** of coursework including 24 required courses and 9 credits of electives.

## Required Courses include:

- Low-Water Landscapes
- Readings in Landscape Water Conservation
- Professional Turf and Urban Landscape Water Management
- Landscape Irrigation Design
- Professional Experience (Capstone Project)
- Climate Change
- Water Law and Policy in the US
- Summer Immersion Course



# What are the mpsh degree coursework requirements?

The **MPSH** is available as an **online degree** with a one-week '**Summer Immersion**' course in the Salt Lake City Area.

- Valuable hands-on instruction to supplement online coursework
- Meet faculty and fellow students
- Hear from and meet professionals in the water conservation industry
- Field trips to demonstration gardens, water conservation districts
- Present Capstone Project status and get feedback from faculty and peers



# What are the mpsh degree coursework requirements?

The **MPSH** Degree program consists of **33 credits** of coursework including 24 required courses and 9 credits of electives.

## **Elective courses are 9 credits of below:**

- Social and Environmental Psychology
- Instructional Graphic Production
- Grant Writing
- Managing Individuals and Groups
- Natural Resources/Environmental Economics
- Extension Education
- Environmental Education
- Geographic Information Systems

...others as appropriate





# What are the mpsh capstone project requirements?

- **Connect the student** with real-world application of water conservation in the landscape.
- **Complete a project** with a current employer in a field related to landscape water conservation, as part of an internship, or by working on a project or publication with an adviser from the Center for Water Efficient Landscaping.
- **The Three Components** of the Capstone Project:
  - Capstone Proposal
  - Capstone Experience
  - Capstone Communication
- Agencies or firms interested in projects for students are encouraged to contact **Larry Rupp or Adrea Wheaton**.

# What are the MPS Admission requirements?

- **Bachelor's Degree in Horticulture or related field**
  - Landscape Architecture
  - Residential Landscape Design
  - Plant Science
  - Soil Science
- **Prerequisites**
  - Herbaceous Plant Materials (*available online*)
  - Woody Plant Materials (*available online*)
  - Residential Landscapes
  - Arboriculture
  - Turfgrass Management
  - Fundamentals of Soil Science (*available online*)
- **Letter of Interest**
- **Interview with CWEL faculty members**



# What are the university Admission requirements?

- Apply to the School of Graduate Studies [rgs.usu.edu](https://rgs.usu.edu)
- Graduate Record Exam (GRE) score of 40<sup>th</sup> percentile or higher
- Minimum undergraduate GPA of 3.0
- Submit Letters of Recommendation
- Submit Statement of Purpose



please visit or contact

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for more info



**Utah State University**

DEPARTMENT OF PLANTS,  
SOILS, & CLIMATE