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Center for Water-Energy Efficiency

2018-19 Research Highlights

Kendra Olmos

Center for Water-Energy Efficiency

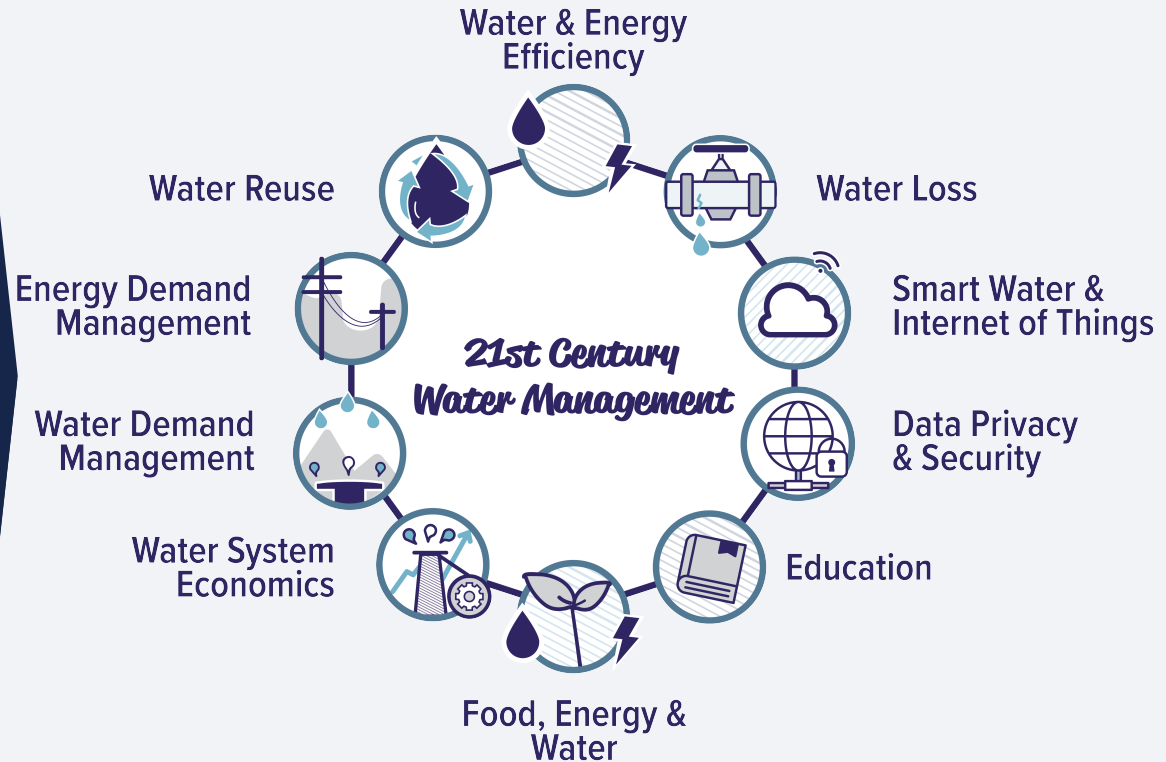
University of California, Davis



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Advance water
management
solutions for the
integrated savings of
water & **energy**
resources

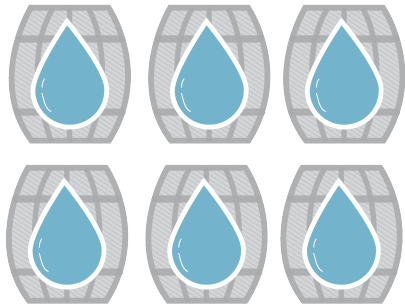


Introduction to CWEE



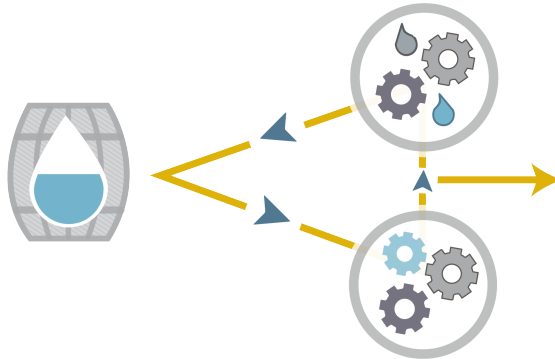
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Typical Wine Processing
w/ Indoor Water Reuse



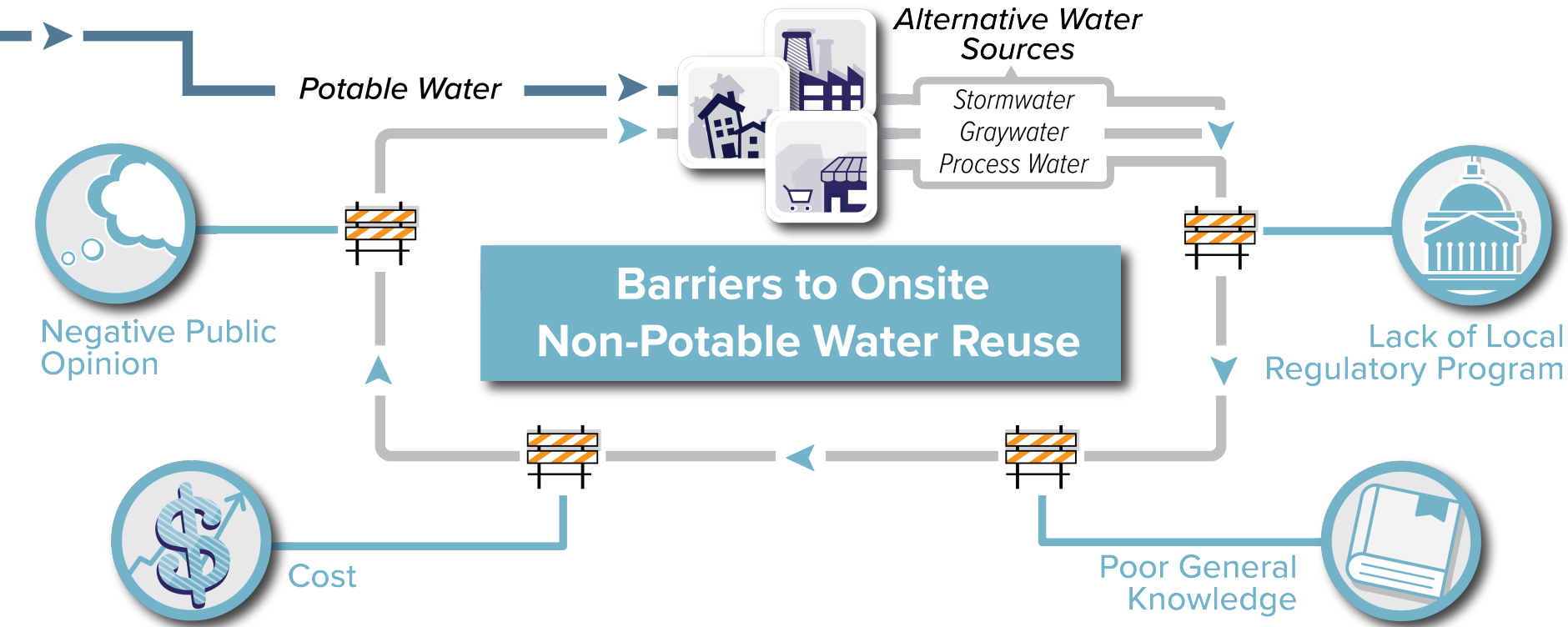
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Wine Industry Water Reuse: Potential



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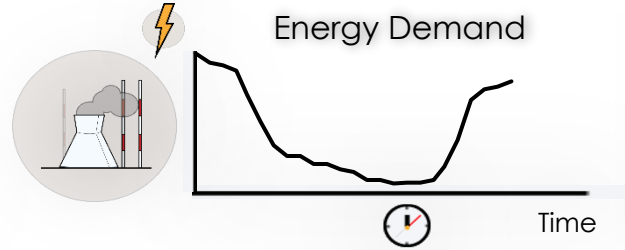
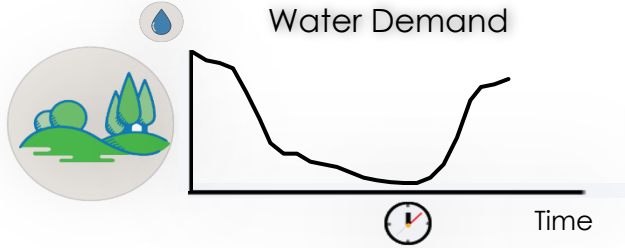


Water Reuse: Identifying Barriers

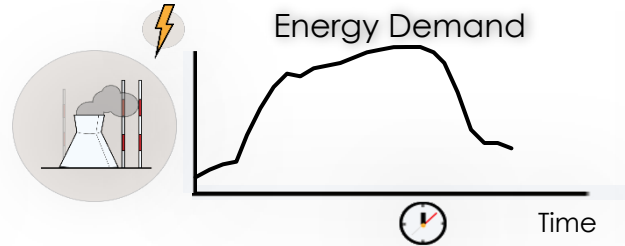
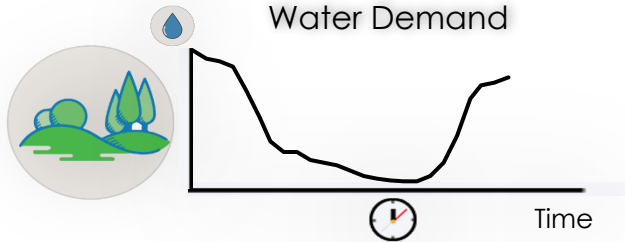


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Pump Supply Only



Energy Load Shifting



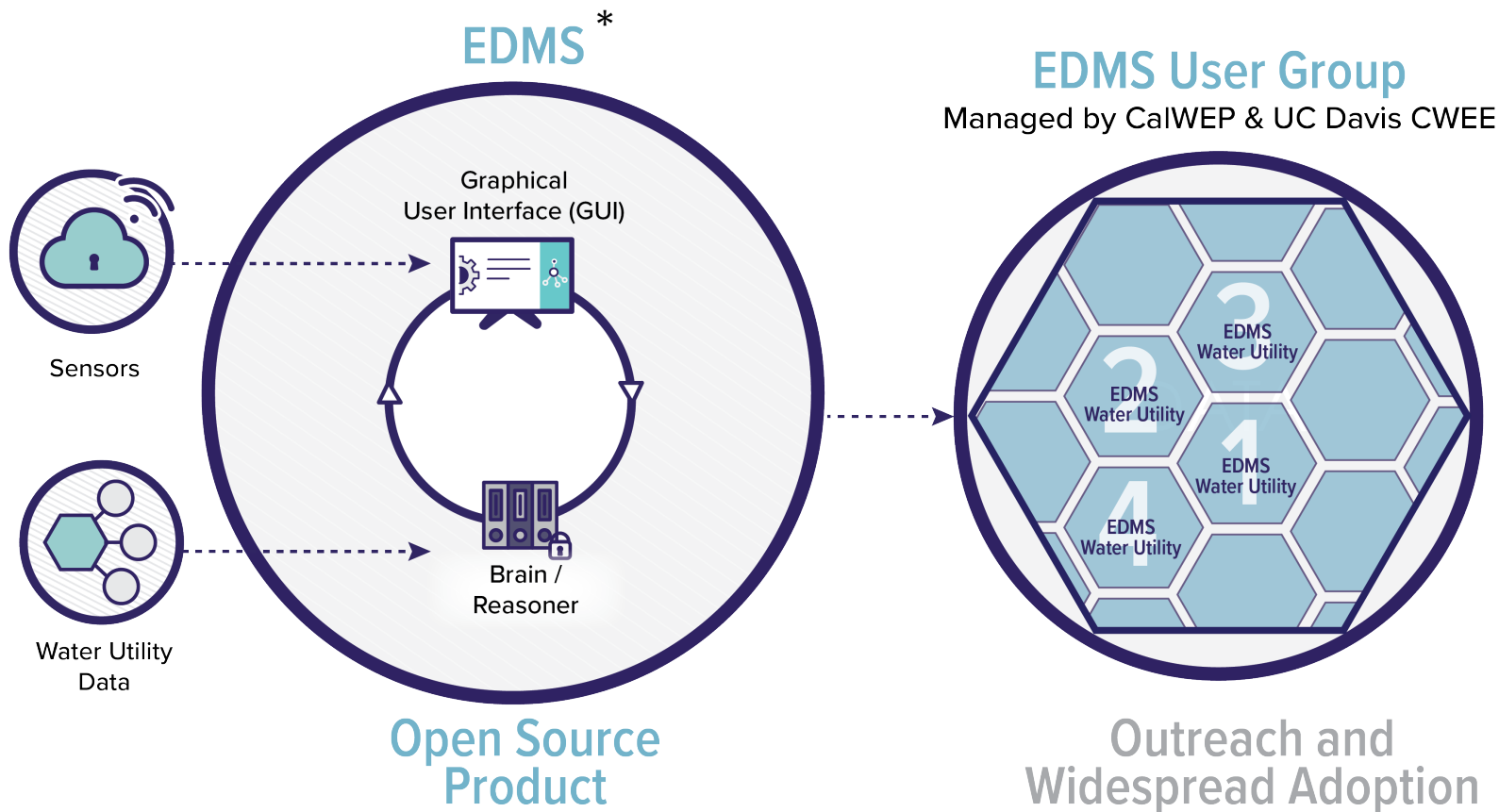
Load Shifting in the Water Sector: Potential



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* Energy Demand Management System



Load Shifting in the Water Sector: Implementation



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Water Treatment Pond



UV Disinfection



Load Shifting in the Wastewater Sector: **Microgrid Potential**



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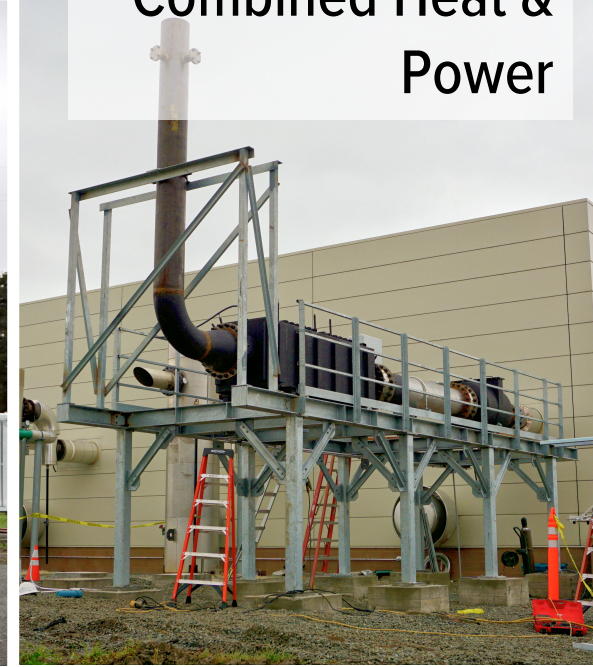
Flow Equalization Basins



Batteries



Combined Heat & Power



Load Shifting in the Wastewater Sector: Optimizing Operations

“

[Considering] the interdependent nature of water, energy, and food systems is critical to achieving long-term economic, environmental, and social goals.

“”



Tecnológico de Monterrey



Collaboration in Mexico



Webinars

- “Reducing Electricity Grid Imbalances through Energy Demand Management of Water Delivery Infrastructure”
- “Overcoming the Barriers to Onsite Non-Potable Water Reuse in California”
- “Energy Demand Management Systems for Potable Water Systems: A Case Study”

Workshop Topics

- Developing a Common Methodology for Evaluating **Energy Intensity** in **Water Systems**
- The **Future** of Water-Energy Programs and Rebates (Partnerships)
- **Energy Demand** Management in the **Water Sector**

Affiliates Program Benefits



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Part of the Energy and Efficiency Institute

Thank you