Emerging Certifications

1. Direct Potable Reuse Water Treatment Certification

2. Stormwater Certification
Advanced Water Treatment

Reverse Osmosis, UF, MF

Advance Oxidation, UV, Ozone
Treatment Trains

PRE-TREATMENT
- SCREENING
- GRIT REMOVAL

CONVENTIONAL-TREATMENT PROCESS
- PRIMARY CLARIFIER
- ACTIVATED SLUDGE
- SECONDARY CLARIFIER
- CHEMICALS
- SEDIMENTATION
- FILTRATION
- DISINFECTION

DPR PATH (TO TAP)

- SCREENING
- MBR
- DISINFECTION

- REVERSE OSMOSIS
- DISINFECTION/OXIDATION

- MF/UF
- DISINFECTION

- REVERSE OSMOSIS
- DISINFECTION/OXIDATION
Reverse Osmosis UF MF
Advance Oxidation UV OZONE

Ozone, UV

Advanced Oxidation

UV
Stormwater Certification

Collection

Stormwater Treatment
Emerging Certifications

Question

Stormwater Management

Advanced Water Treatment

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Advanced Water Treatment

Potable Reuse Does Not Have A Certification Curricula

Potable Reuse Features Complex Treatment Processes

Direct Wastewater Reuse Will Happen
Advanced Water Treatment

Potable Reuse Does Not Have A Certification Curricula
Direct Wastewater Reuse Will Happen
Utilities Rely on Existing Wastewater & Water Certifications to Draw Staff
Potable Reuse Features Complex Treatment Processes to Maintain Water Quality Under Variable & Challenging Source Water Conditions
Conservation, Ocean Desalting, and Wastewater Are New Sources of Water

Water Industry Will Have to Be a Driving Force for More Reuse
Illicit Discharge Detection & Elimination (IDDE)

Construction Site Stormwater Runoff Control

Post-Construction Stormwater Management in New & Redevelopment

Polluiton Prevention/Good Housekeeping for Municipal Operators
Currently Operators Have A Voluntary Certification

Some Ordinances Require An Operator Certification
Questions

1. Do Advance Water Treatment Operators Need A Separate Certification?  Yes  No

2. Who Should Operate An Advanced Water Treatment Facility?  
   Water Operators or Wastewater Operators
3. Do Stormwater Operators Need A Separate Certification?  

Who should operate stormwater collection and treatment facilities?
4. Options for AWT Certification

a. specific direct potable reuse certification

b. supplemental direct potable reuse certification beyond existing water or wastewater certification

c. add-on direct potable reuse certification to append to an existing water or wastewater operator certification