

The background of the slide is a light gray gradient with several realistic water droplets of various sizes scattered across it. The droplets have highlights and shadows, giving them a three-dimensional appearance. The text is centered on the slide.

# WESTCAS 2017 ANNUAL CONFERENCE HOT TOPICS

1994 CWA ARID WEST AMENDMENTS

THE ARID WEST QUALITY RESEARCH PROJECT

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# PROBLEM WITH ARID WEST QUALITY STANDARDS

- STANDARDS NOT APPROPRIATE OR RELEVANT AT FEDERAL AND STATE LEVELS
- CRITERIA DOCUMENTS INADEQUATE
- ONLY A FRACTION OF CHEMICALS THAT COULD POLLUTE HAVE COMPLETED SCIENTIFICALLY DEFENSIBLE CRITERIA
- CRITERIA AND STANDARDS ARE ABSENT FOR SPECIAL TYPES OF ARID WEST WATERS
- FAILURE YEAR AFTER YEAR TO FUND SCIENCE FOR CWA STANDARDS DEVELOPMENT

# WESTCAS HAS MADE EFFORTS TO CORRECT THESE PROBLEMS

- H.R. 3948 WATER QUALITY ACT OF 1994
  - SEC. 304: "...THE ADMINISTRATOR SHALL DEVELOP AND PUBLISH GUIDANCE TO THE STATES ON DEVELOPMENT AND ADOPTION OF WATER QUALITY STANDARDS APPLICABLE TO ARID AREAS."
- S. 2093 WATER POLLUTION PREVENTION AND CONTROL ACT OF 1994
- ARID WEST WATER QUALITY RESEARCH PROJECT

# S. 2093 KEY PROVISIONS

- 1. PROPOSES ARID WEST WATER QUALITY RESEARCH TO DEVELOP APPROPRIATE AND RELEVANT STANDARDS FOR THESE UNIQUE WATERS
- 2. PROMOTES THE USE OF RECLAIMED WATER
  - FOR ENVIRONMENTAL BENEFIT
  - FOR PUBLIC WATER SUPPLIES
  - TO AUTHORIZE DISCHARGES FOR NET ENVIRONMENTAL BENEFITS



3. DEVELOP APPROPRIATE STANDARDS FOR CONSTRUCTED WATER CONVEYANCES BASED ON THEIR EXISTING AND PLANNED USE

4. ALLOWS FOR INTERIM WATER QUALITY STANDARDS FOR EPHEMERAL AND EFFLUENT DEPENDENT STREAMS UNTIL THE SCIENCE CATCHES UP

5. DEFINED RELEVANT TERMS:

- ARID WEST
- CONSTRUCTED WATER CONVEYANCE
- EFFLUENT DEPENDENT STREAM
- EPHEMERAL STREAM

6. CONGRESS ADOPTS AS A POLICY BENEFICIAL USE AS A GOAL




# ARID WEST WATER QUALITY RESEARCH PROJECT

## PROJECT PURPOSE:

- THE PURPOSE OF THE AWWQRP IS TO CONDUCT SCIENTIFIC RESEARCH AND DISSEMINATE SCIENTIFIC INFORMATION ON WESTERN EPHEMERAL AND EFFLUENT DEPENDENT WATERS TO HELP RESOLVE ISSUES OF SIGNIFICANCE TO BOTH THE REGULATED COMMUNITY AND REGULATIONS AT STATE, TRIBAL AND FEDERAL LEVELS.



# TO ACCOMPLISH THIS PURPOSE, RESEARCH ACTIVITIES HAVE FOCUSED ON THE FOLLOWING:

- WATER QUALITY CRITERIA AND STANDARDS FOR ARID WEST HABITATS;
  - WATER QUALITY CRITERIA FOR CHEMICALS OF CONCERN;
  - BIOLOGICAL AND ECOLOGICAL CRITERIA AND STANDARDS FOR ARID WEST ECOSYSTEMS
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# AWWQRP-FUNDED RESEARCH PROJECTS

- DISCHARGER SURVEY
- HABITAT CHARACTERIZATION STUDY
- EXTANT CRITERIA EVALUATION
- EVALUATION OF THE RELIABILITY OF BIOTIC LIGAND MODEL (BLM) PREDICTIONS FOR COPPER TOXICITY IN WATERS CHARACTERISTIC OF THE ARID WEST
- HARDNESS-DEPENDENT AMMONIA TOXICITY AND THE POTENTIAL USE OF THE WATER-EFFECT RATIO
- AQUATIC COMMUNITIES OF EPHEMERAL STREAMS



# AWWQRP-FUNDED SHORT DURATION PROJECTS

- RELATIVE ROLE OF SODIUM AND ALKALINITY VS. HARDNESS CATIONS IN CONTROLLING ACUTE AMMONIA TOXICITY TO AQUATIC ORGANISMS
- USE OF THE RECALCULATION PROCEDURE IN COMBINATION WITH BLM-BASED COPPER ACUTE CRITERIA
- ARID WEST WATER QUALITY RESEARCH PROJECT USER'S GUIDE



# AWWQRP AND WERF JOINTLY-FUNDED PROJECT

- EVALUATION OF WHOLE EFFLUENT TOXICITY TESTING AS AN INDICATOR OF AQUATIC HEALTH
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# THE RESULT OF APPLYING THE RESEARCH RESULTS

- EXTENDED OUTREACH
  - SELENIUM CRITERIA DEVELOPMENT
  - COPPER BLM DEVELOPMENT
  - COLORADO 309 SYMPOSIUM
  - COLORADO WASTEWATER UTILITY COUNCIL
  - CALIFORNIA, SANTA ANA REGION
  - ENVIRONMENT CANADA
  - WESTERN STATES WATER COUNCIL
  - EPA WATER QUALITY STANDARDS WORKSHOP ON EFFLUENT-DEPENDENT WATERS
  - STATE REGULATORY ACTIVITIES