

# **State & National Water Quality Regulatory Issues**

Western Coalition of Arid States Fall Conference

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# **Earth Day - April 22, 2009**

**Governor Brewer highlights water conservation and recycling as a priority issue for the state, directing ADWR and ADEQ to work together to improve sustainability and spread an ethic of conservation**

# Collaboration for Conservation

**There are many partners working to conserve Arizona's precious water supplies**

**Major governmental participants include:**

**Arizona Department of Water Resources**

**Arizona Department of Environmental Quality**

**Arizona Corporation Commission**

**Arizona Water Infrastructure Finance Authority**

**Arizona State Land Department**

**U.S. Department of Agriculture**

**U.S. Bureau of Reclamation**

**U.S. Environmental Protection Agency**

**Private sector, academic and nongovernmental partners must continue to grow**

**We can all do more**

# ADEQ'S 3 R's of Water Sustainability

- Reducing Water Waste
  - water efficient technologies and practices
  - emphasizing the water – energy nexus
  - full cost pricing
  - Water Infrastructure Finance Authority assistance
- Reusing and Recycling Water
  - personal stewardship
  - new partnership with ADWR and ACC for wastewater, groundwater recharge, graywater, stormwater, industrial process water
- Restoring Watersheds
  - collaborative planning
  - market-based tools
  - green infrastructure techniques

# Waters of the U.S.

## Life after *Rapanos / Carabell v. U.S.*

- Supreme Court issued divided ruling identifying two sets of standards (June 19, 2006)
  - Relatively permanent/surface connection
  - Significant nexus
- EPA & COE issue joint guidance (June, 2007, modified Dec, 2008) clarifying geographic scope of jurisdiction under CWA:
  - *Traditional navigable waters (TNW) & wetlands*
  - Non-navigable tributaries of TNWs that are *relatively permanent*
  - Case-by-case basis over non-navigable, not relatively permanent tributaries where there is a *significant nexus* to a TNW
- Challenges for western, arid states
  - Potential impacts to CWA 402 permitting programs especially for ephemeral, intermittent and headwaters streams

# Water Transfers

- EPA Final Water Transfers rule (FR 06/08)
- Important issue for western states
- Codifies long-standing EPA position, that NPDES regulations specifically exempt –
  - transfers of water from one WUS to another WUS where the water has not been subject to an “*intervening industrial, municipal, or commercial use*”
  - such transfers include routing water through tunnels, canals, channels, or natural streams for use in public water supply, irrigation, power generation, environmental restoration....
- Pollutants introduced by the transfer activity *would still* require NPDES permits
- Does not prevent states or tribes from using their additional authorities to control water transfers including non-NPDES permits

# Chronology of Carlota Mine Permit

- Pinto Creek is impaired for copper (1998)
- Original NPDES Permit issued by EPA R9 (July 2000) which included:  
8 outfalls to Pinto Creek or tributaries to Pinto Creek
  - 7 for stormwater discharges from impoundments to Pinto Creek and tributaries
  - 1 for groundwater pumping into Haunted Canyon, tributary to Pinto Creek, to maintain flow in Pinto Creek (per USFS FEIS)
- Permit required “offset” accomplished by remediation of upstream source of copper at Gibson Mine – largest source of copper in watershed
- Petition to Environmental Appeals Board to review the permit (Aug 2000)
- EPA issued TMDL for Pinto Creek (April 2001)
- Appeals Board denied review of the permit & EPA re-issues permit (Sept 2004)
- Petitioners appealed to the 9<sup>th</sup> Circuit Court which ruled that the permit was improperly issued under 40 CFR 122.4(i) and was vacated (Oct 2007)
- Final mandate issued (Jan 2008)
- Supreme Court declined to review (Jan 2009)



# ***Friends of Pinto Creek vs EPA***

- Decision found that a newly permitted discharge is allowed into a "impaired" waterway *only* if all existing discharges have already been identified and subjected to compliance schedule (40 CFR 122.4(i))
- The decision, first of its kind, could impact the siting and expansion of manufacturing facilities, wastewater plants and mines throughout the nation

## **Permit Status of Carlota Copper Project**

- Stormwater outfalls 001 through 007 have no permit coverage therefore no discharges are allowed
- Augmentation discharges to Haunted Canyon (outfall 008) covered under Carlota's MSGP permit as "uncontaminated groundwater"
  - Unlike the other outfalls, discharges from 008 have copper levels <1 ug/L and are not expected to "cause or contribute to an exceedance of the surface water quality standard"



# Multi-Sector General Permit

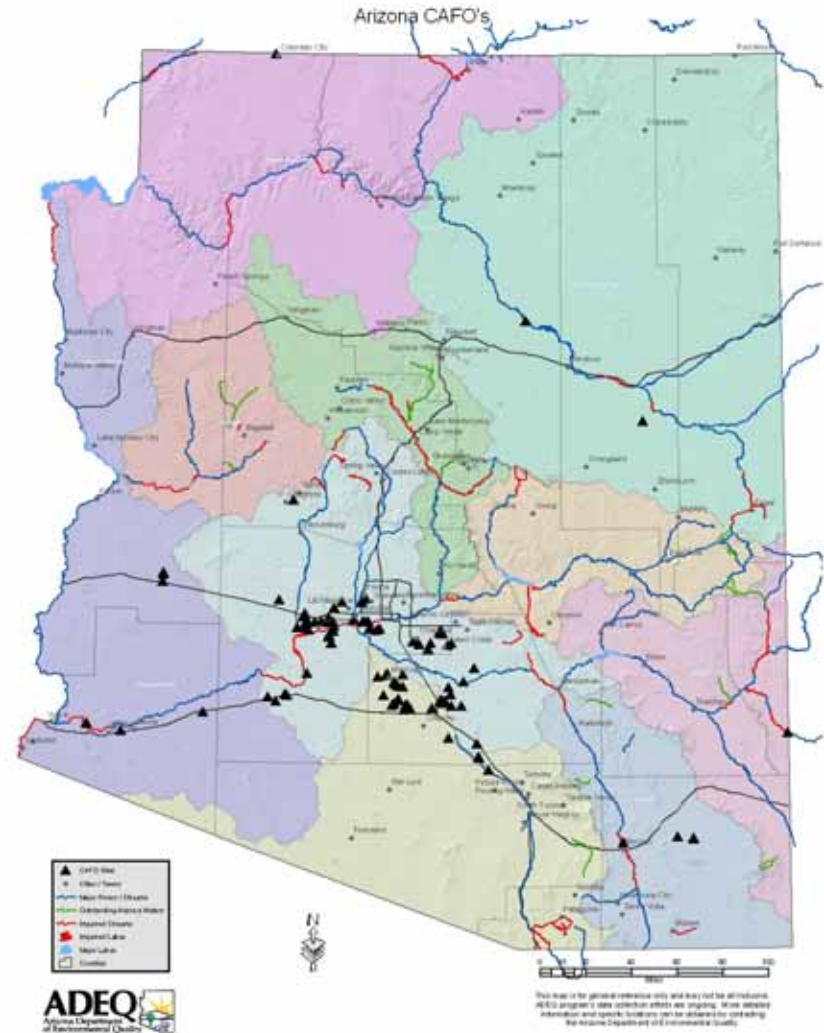
- EPA issues 2008 MSGP in September, 2008 for non-delegated states and Indian Country Land
- Arizona patterns draft on 2008 MSGP
  - Parts 1 – 7: general requirements; Part 8 sector specific
  - Bi-weekly stakeholder worksessions May, 2009 – Oct, 2009
- Arizona-centric modifications
  - EPA's "climates with irregular SW runoff" adopted as a statewide condition for AZ
  - Sampling & monitoring tied to wet seasons
    - Summer – June 1 to October 31
    - Winter – November 1 to May 31
  - Monitoring expanded for discharges to impaired and outstanding Arizona waters
  - Construction permit requirements included for pre-mining phase – Sectors G & J
  - Annual reporting submittal requirements limited to facilities that discharge to impaired & OAWs

# EPA National Priorities for CAFOs

- Identify and address large CAFOs most likely to need NPDES permits
- Utilize strategically targeted inspections and enforcement
- Focus on size, type and proximity to impaired water or priority watersheds
- Ensure proper manure management through permit coverage
- Employ sampling and modeling tools in compliance investigations

# AZ CAFO Facts

- Approx 120 CAFOs statewide
  - majority in two central rapidly urbanizing counties – Maricopa and Pinal
- Largest operations
  - Cattle feeding 130,000 head
  - Hogs 163,000 swine
  - Eggs 3.2 million hens
- Completed mapping project to locate facilities in proximity to streams, lakes, impaired and outstanding waters to target inspections (FY09)
- 85 inspections (FY08-09) yielded:
  - 6 NOC/NOV
  - 2 consent orders
  - 2 under negotiation
  - 1 facility required permitting



# Arizona's CAFO Program

- Aquifer Protection Permit Program – Groundwater Protection
  - All aquifers in Arizona are protected for drinking water use
  - Discharging facilities to groundwater must obtain permit coverage under a General Permit or Individual Permit
  - Nitrogen Management GP for CAFOs (AAC R18-9-403)
    - Requires use of BMPs, liners for impoundments and closure requirements to minimizing discharge of nitrogen from operations
- Arizona Pollutant Discharge Elimination System (AZPDES) Permit Program – Surface Water Protection
  - CAFO General Permit issued April, 2004 – expired earlier this year – written pre-2<sup>nd</sup> Circuit decision – *Waterkeepers Alliance v EPA*
  - 4 CAFOs obtained coverage under CAFO GP – those facilities are administratively continued until ADEQ re-issues or replaces the permit or the facility submits a notice of termination
  - States are required to adopt the EPA 2008 CAFO rule revisions by 12/4/09 (or 12/4/10 if statutory changes necessary)

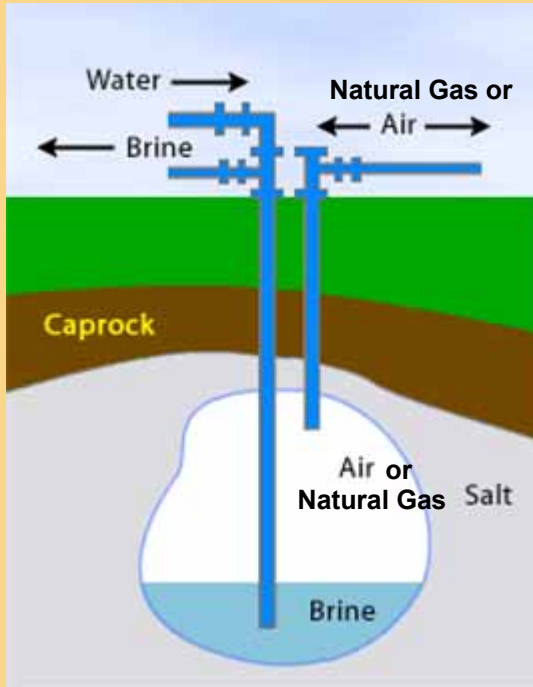
# Uranium Mining

## Aquifer Protection Permits (APPs)

- Facilities commonly found at uranium mine sites, including (but not limited to) waste rock piles, tailings, and impoundments, are required to operate under an APP because of potential discharges to an aquifer
- APP protects the aquifer from spills and leaks by requiring the use of treatment technology, monitoring, and financial assurance
- Three uranium mines in northern Arizona have APPs
  - only Arizona 1 Mine (pictured) has all the ADEQ permits required for operation
  - two other mines, Canyon and Pinenut, require additional APPs and air permits from ADEQ before operations can occur
- Rise in exploratory drilling for uranium in recent months in various locations across state



# Natural Gas Projects



- Natural gas storage involves the development of underground brine caverns (pictured left)
- The cavern is formed by an injection well where fresh water is injected into the subsurface to dissolve salt leaving behind a void where gas can be stored
- The brine solution is pumped back up to the surface and either stored in impoundments for evaporation and/or future natural gas displacement; or injected into an underlying aquifer
- ADEQ works closely with EPA Region 9 to coordinate APP permitting requirements that align with their Underground Injection Control (UIC) regulations for these facilities

## **Permitted:**

Adamana  
LPG Plains

## **Under Discussion:**

ANGS  
Multi-fuels