HB546 – Reuse and Recycling

Risks, Research Needs & Regulatory Implications

Nichole Saunders
Senior Attorney
Environmental Defense Fund

EDF
ENVIRONMENTAL DEFENSE FUND®
Finding the ways that work

Wastewater Strategies & Relative Risks

Alternative Produced Water Management Options

- Treatment → Storage & Transport → In-Field Recycling

- Robust Treatment → Leaves O&G Field → Discharge

- Robust Treatment → Leaves O&G Field → Use or Reuse

MORE RISK

Expanding & Encouraging In-Field Recycling – while reducing risk

- Recycling → Reduced fresh water use, AND…
  - Larger volumes of PW kept at surface for longer periods of time
  - New or modified mechanisms to transport and potentially greater transport distances
- Smart storage, transportation to reduce spill and leak risk
- Increased data and reporting
- Low-hanging fruit for fresh water challenges in New Mexico

Wastewater Strategies & Relative Risks

Alternative Produced Water Management Options

- Treatment → Storage & Transport → In-Field Recycling

- Robust Treatment → Leaves O&G Field → Discharge

- Robust Treatment → Leaves O&G Field → Use or Reuse

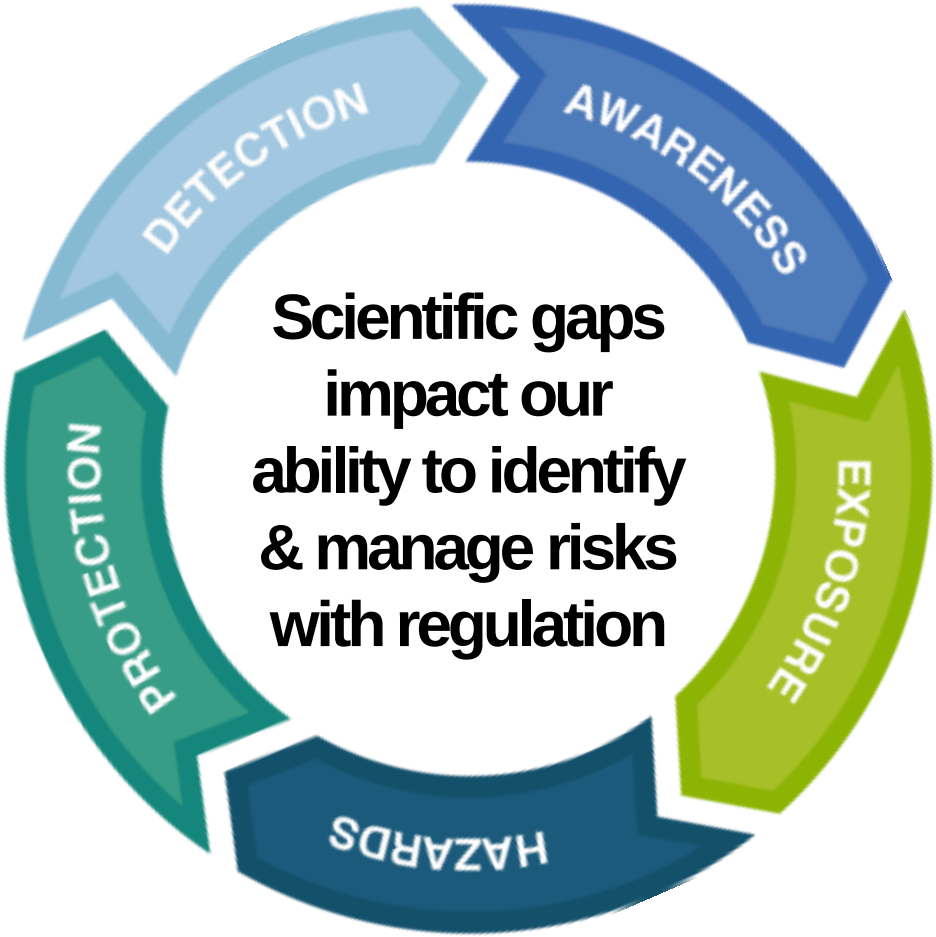
MORE RISK

Produced Water: What are the knowledge gaps?

**Legal Audience:*
Protection and Treatment

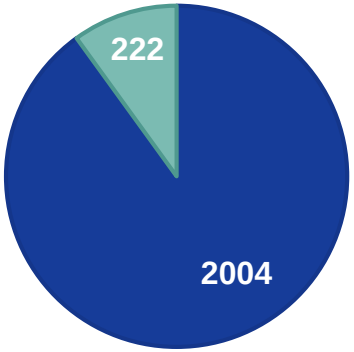
What do we need to know to develop protective standards and programs to treat, regulate, monitor chemicals of concern for *this wastewater*?

How clean is “clean”?



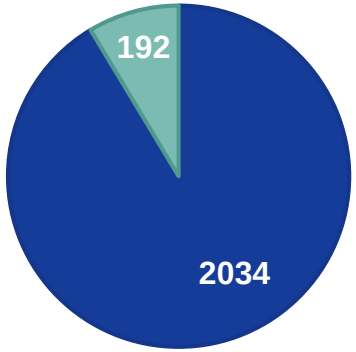
Knowledge Gaps: Potential Produced Water Chemicals

Toxicity Gaps



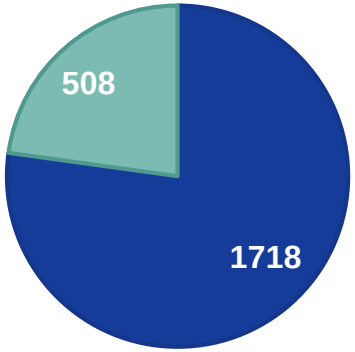
We have toxicity values necessary to conduct risk assessments or develop regulations for only ~**10%.**

Regulatory Gaps



Only ~***9%*** are found on major* water/waste regulatory lists.

Detection Gaps



We lack EPA-approved analytical methods for ~***77%.***

**Found on one of the following lists: Priority Pollutant, RCRA, TRI, NPDWR or CCL4, or EPA's Drinking Water Contaminant Human Health Effects Information*

Policy & Regulatory Implications

- **New Mexico specific data, research, analysis**
- **How clean is clean?**
  - Permitting: (e.g., “good enough quality” [40 CFR pt 435]; “no toxics in toxic amounts” [CWA])
  - Standards: water quality, irrigation, drinking water…
    - NM-specific assessment (EDF, Ongoing)
  - Treatment objectives
- **Methods and monitoring**
- **Land vs. water:** research and regulatory differences
- **Safety and public perception**
- **Other policy considerations** (e.g., MOA/MOUs, infrastructure, economics, etc.)

Looking forward: Filling Gaps

GROUNDWATER
PROTECTION COUNCIL

PRODUCED
WATER REPORT

Regulations, Current Practices & Research Needs