

Introduction to Environmental Health Issues

Natural Gas Development: A Public Health Concern Water, Land, and Air Pathways

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2005 People's Oil and Gas Summit: Toxics in Our Communities
Farmington, NM, October 28-29, 2005

ISSUES

- **Depletion of potable and arable water**
 - Competition for already marginal drinking and agricultural water supplies
 - Reduction in potable water quantity because of introduced contaminants
- **Downstream watershed impacts**
 - Increases in salinity, total dissolved solids, siltation, “selenity”, and other toxic trace elements released from underground
- **Release of toxic industrial chemicals into the ecosystem**
 - Exposure through water, air, and land



Photo: Colorado Environmental Coalition & EcoFlight



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Depletion

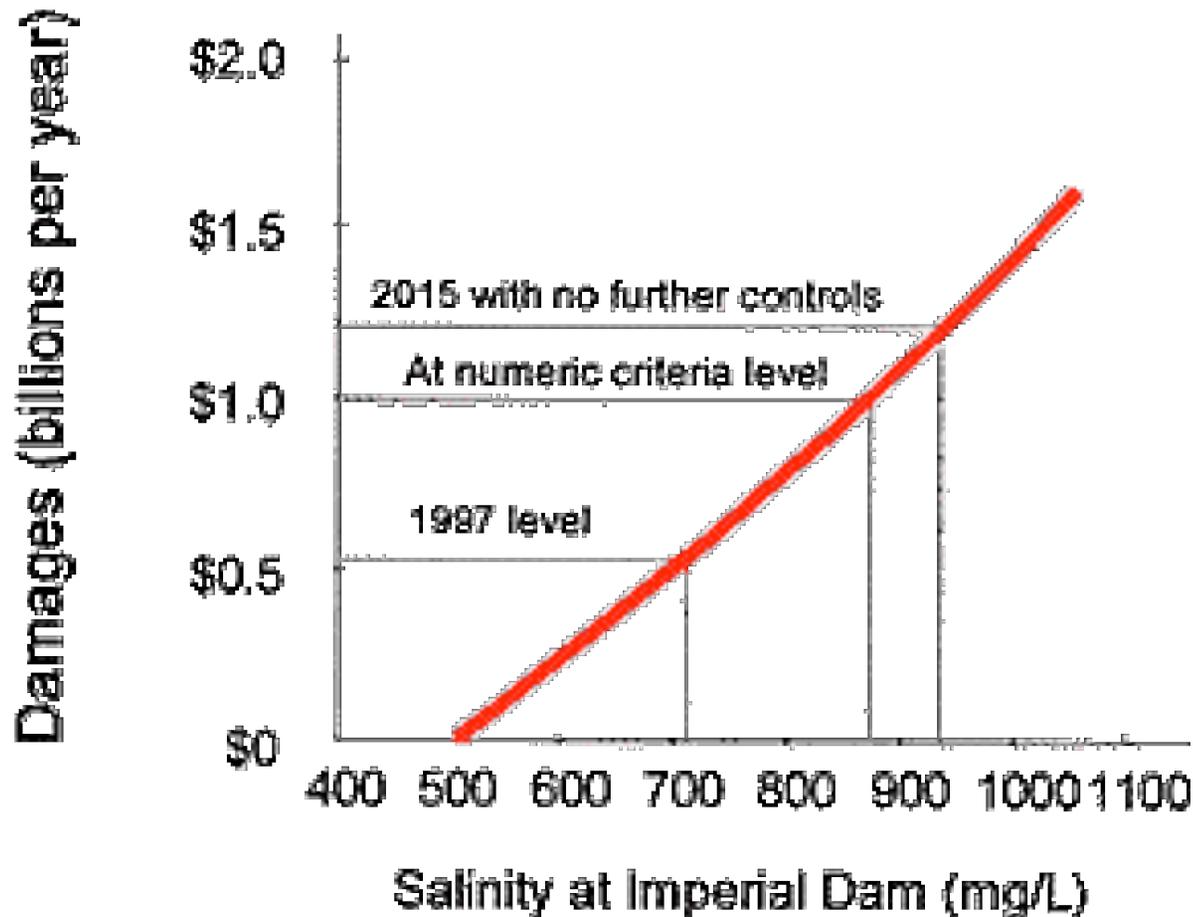




Photos: San Juans Citizens Alliance; OGAP

Salinity

Damages vs Salinity



Source: US Dept. Interior



Photo: WCC

San Miguel County, Colorado

February 18, 2005



Photo: WCC

02/18/2005



Photo: WCC

Assorted Toxic Chemicals

- 2-Butoxyethanol
- Acrolein
- Acrylamide
- Diethylene glycol monomethyl ether
- Ethoxylated nonylphenol
- Formamide
- Glutaraldehyde
- Methyl tert-butyl ether (MTBE)
- Naphthalene
- Polyglycerine methyl glucoside
- Styrene
- Tetramethylammonium chloride
- Toluene
- Xylene

Biocides

- 2-Bromo-2nitro-1,3-propanediol
- 2-Mercaptobenzothiazole
- 2-(Thiocyanomethylthio)benzothiazole
- Ethyl octynol
- Methylene bis(thiocyanate)
- Methylisothiocyanate (bdp)
- Chromium (several forms)
- Tetrahydro-3,5-dimethyl-2H-1,3,5-thiadiazine-2 thione



AIRBORNE COMPOUNDS OF CONCERN

- Aromatic naphtha
- Aromatic solvents
- Butanol
[N-butyl alcohol]
- 2-Butoxy ethanol
(2-BE)
- 2-ethylhexanol
- Benzene
- Ethylbenzene
(Trimethylbenzene)
- Ethyl octanol
- Diesel 1 and 2
- Dust
- Glutaraldehyde
- Glycol ethers
- Isobutyl alcohol
(2-methyl-1-propanol)
- Metallic and organic mercury
- Methyl tert-butyl ether
(MTBE)
- Naphthalene
- PAHs
- Toluene
- Xylene



Photo: OGAP



Photo: Colorado Environmental Coalition & EcoFlight



Photo: Deb Thomas

Bush taking aggressive measures to drill for oil

**Local residents will no longer be consulted
every time wells are proposed**

**Associated Press, MSNBC
October 18, 2005**

Taking Action

- Need record of source and quantity of fresh water used for drilling
- Monitor quality and quantity of potable and arable water one year before breaking ground at the well pad at time of permitting
- Water quality monitoring continued on a regular basis throughout the life of the well
- Upon re-stimulation, sampling should commence again

Taking Action, continued

- Need public record of the complete recipe, including chemicals, injected at each fracing
- Air quality monitoring begun before drilling and continued throughout the life of the wells
- Air and water quality data provided to each homeowner in the area
- Promulgation of regulations for well pad storm water runoff

For people who care about the American West

HighCountryNews.org

Methamphetamine fuels the West's oil and gas boom

by Patrick Farrell, October 3, 2005

