GROUNDWATER GOVERNANCE – IMPACT OF AWARENESS-RAISING AND CITIZEN PRESSURE ON GROUNDWATER MANAGEMENT AUTHORITY IN THE UNITED STATES

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This presentation is based on a chapter in a forthcoming book, Advances in Groundwater Governance edited by Alberto Garrido, Professor of Agricultural and Resource Economics, Complutense University of Madrid, Spain

The increasing importance of groundwater was recognized by Environmental Protection Agency Director, William Reilly

"Ground Water resources are of vital importance to this country – to the health of our citizens, the integrity of many of our ecosystems, and the vigor of the economy."

(US EPA, 1991)

TARGET GROUPS TO ACHIEVE SCIENCE BASED GROUNDWATER MANAGEMENT:

• Policy-makers /elected representatives
• Groundwater-user stakeholders
• The public and those organizations and interest groups that have opinions and perspectives
• Journalists & publishers /radio, TV and print media
• Organizations and individuals active with social media via blogs and other postings.

What defines a groundwater stakeholder?

Groundwater governance does not start from a blank page. Today's governance is built on the palimpsest of the past.

pal-imp-sest pal-imp-sest/ noun
A manuscript or piece of writing material on which the original writing has been effaced to make room for later writing but of which traces remain.

Something reused or altered but still bearing visible traces of its earlier form
The Codex Ephraemi Rescriptus, a Greek manuscript of the Bible from the 5th century

The Archimedes Palimpsest

Awareness, information and education are essential for science based decisions about groundwater allocation, protection, and sustainability.

Groundwater governance is a dynamic and evolutionary process involving collective influences on policy and water management decisions.

Citizens, non-governmental organizations, professional associations, and industry interest groups influence the way in which groundwater resources are managed.

Decisions about the use of groundwater are rooted in complex connections of:
- political structure
- historical precedent
- hydrogeological conditions
- legal rights
- vested interests
- perceptions of future need

GOVERNANCE OUTCOME STAKEHOLDERS
- Those directly involved as end-users (water utilities, irrigators).
- Indirect economic beneficiaries such as agricultural suppliers, engineering companies and developers.
- Individuals and organizations with environmental, ecological, health related and socioeconomic priorities that could be affected by decisions about groundwater use and source protection priorities.

ORGANIZATIONAL INSTITUTIONAL AND CORPORATE ELEMENTS OF GOVERNANCE

Examples of impacts from citizen pressure on management policy
- Aquifer overdraft in California
- Buying agricultural water rights in “buy and dry” deals
- Hydraulic fracturing and produce-water disposal
- Aquifer impacts of bottled water companies
- Aquifer Storage Recovery quality issues
- Legacy contaminants from past industrial activities

https://blog.v-comply.com/governance-styles/
EXAMPLES OF IMPACTS FROM CITIZEN PRESSURE ON MANAGEMENT POLICY
• Aquifer overdraft in California

EXAMPLES OF IMPACTS FROM CITIZEN PRESSURE ON MANAGEMENT POLICY
• Buying agricultural water rights in “buy and dry” deals

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• Legacy contaminants from past industrial activities
Environmental governance is a concept in political ecology and environmental policy that advocates sustainability (sustainable development) as the supreme consideration for managing all human activities—political, social and economic.

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