Water and Energy Nexus—Community of Practice

Michael Tinkleman and John Lyon

United States Environmental Protection Agency
What is the problem?

- Engineers and the public are concerned about water and the generation of energy.
- Water is often undervalued, and part of the price of doing business.
- How much water does it take to generate a product, like a car or biofuels?
- How can we prepare to address multi-variable, multiple societal benefit issues?
- GOE/GEOSS is part of the answer.
ASME Water Management Technology Vision & Roadmap Steering Committee Workshop Summary

• October 17, 2006
• Desert Research Institute, EPA and University of Nevada, Las Vegas, Nevada
Human Health and GEO Water Quality Community of Practice

Panel on Water Community of Practice (CP), John Lyon, Chair

- John Lyon and Gary Foley, EPA/ORD/NERL and NCER, “CP”
- Steve Young, EPA/OEI, “EPA AMI”
- Mary Gant, NIEHS-NIH, “GEOSS & Human Health”
- Thomas Karl, NOAA’s National Climatic Data Center, GEOSS and NIDIS - Owens
Health & Water
Community of Practice (CP)

GEO User Interface Committee
John Lyon and Gary Foley, EPA
2nd meeting, National Academy
May 2007

- **Research** Dr. Martin Allen, AwwaRF, Dr. Ahmad Fakheri, Bradley University, Dr. Robert Goldstein, EPRI, Dr. Richard Jacobsen, Idaho State University, Dr. I. S. Jawahir, University of Kentucky, Mr. Pramod Kulkarni, California Energy Commission, Dr. Russell LeFevre, IEEE, Mr. John Merson, Sandia National LaboratoriesDr. Nag B. Patibandla, Rensselaer Polytechnic Institute, Dr. Darrell Pepper, University of Nevada Las Vegas, Mr. Stephen Shulder, Constellation Energy, Dr. Michael Tinkleman, ASMEMs. Katie Jereza, Energetics (facilitator)


<table>
<thead>
<tr>
<th>3 Water Supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Resiliency of water supplies to attack</td>
</tr>
<tr>
<td>1 Utilizing non-traditional supplies</td>
</tr>
<tr>
<td>1 Imports and exports – and impact on local water region</td>
</tr>
<tr>
<td>1 Understanding water footprint of goods or services</td>
</tr>
<tr>
<td>1 Access to clean water and sanitation</td>
</tr>
<tr>
<td>1 Watershed protection especially in areas of urban sprawl, population growth</td>
</tr>
<tr>
<td>1 Sustainability; water reuse (especially industrial water reuse)</td>
</tr>
</tbody>
</table>
How does this help GEO

- Part of the same effort, system of systems
- Some of the same people
- Gets the word out, produces synergism
- Gets real feed back on what can be addressed and tasks to do so