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#### SLIDES: Thoughts on Regulatory Mechanisms for Natural Resource Development: Alternatives to Command and Control, Including a Look at Open Source Approaches

Stanley Dempsey

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#### Citation Information

Dempsey, Stanley, "SLIDES: Thoughts on Regulatory Mechanisms for Natural Resource Development: Alternatives to Command and Control, Including a Look at Open Source Approaches" (2014). *Natural Resource Industries and the Sustainability Challenge (Martz Winter Symposium, February 27-28)*.

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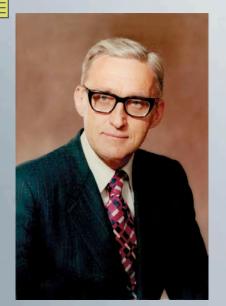
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# Thoughts on Regulatory Mechanisms for Natural Resource Development: Alternatives to Command and Control, Including a Look at Open Source Approaches

by

**Stanley Dempsey** 

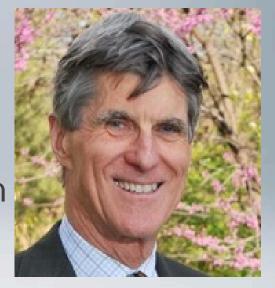
February 28, 2014



#### Clyde Martz

\*student assistant--cite checking and indexing American Law of Mining + RMMLF tasks

David Getches
\*worked together as Trustees of the
Rocky Mountain Mineral Law Foundation





Charles Wilkinson
\*was privileged to present to his
students of mining law



# GLOBAL POPULATION ESTIMATES AND MINERAL SUPPLY/DEMANDS

#### **Global Population**

- 2014 -- 7.2 Billion people
- 2025 -- 8.1 Billion people
- 2050 -- 9.6 Billion people

Supply/Demand

 OK for now -- but new discoveries are required

 With billions of people on the planet, many who want better living conditions (access to clean water and electricity and consumer goods), there will be many new mines and expansions of existing mines.



- Dramatic new exploration techniques
- •GPS and a variety of Geological Information Systems
- Drones and remote sensing
- Advanced geophysics and









Scale -- big mines and equipment

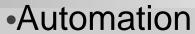










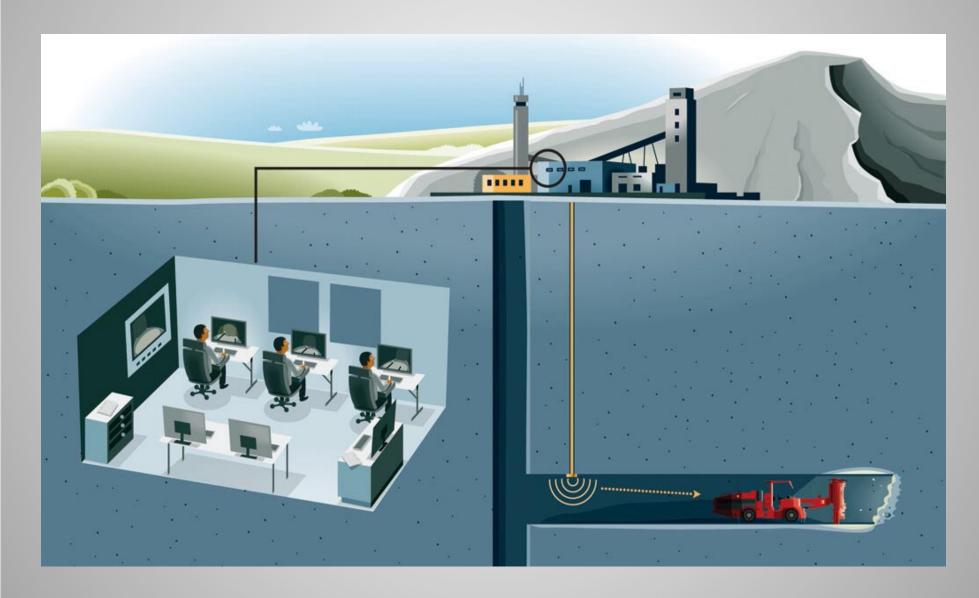


- Open pit mines and transportation of ore
- Underground mines
- Process control
- Railroads
- Port loading facilities

















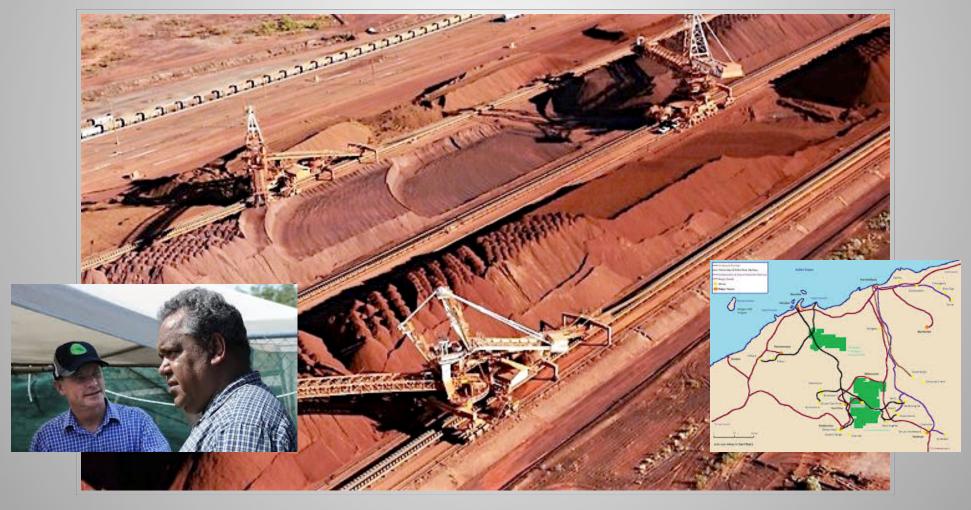
- Open Source/Crowd Sourcing problem solving
  - Goldcorp Challenge
  - NSAA/Planetary Asteroid and Moon Mining Challenge

#### REGULATORY REFORM IDEAS

- •Comparative law study of the permitting system used in England and Wales
  - The Town and Country Planning Act
    - Management by exception
- Study Special Regulatory Approaches
- Self Regulation
- The International Cyanide Code
  - •ISO 14001
  - LEED Certification

#### FRANCHISE AGREEMENTS

- •Study Mining or Franchise Agreements that are ratified by state governments in Australia
  - Mt Newman
  - Olympic Dam

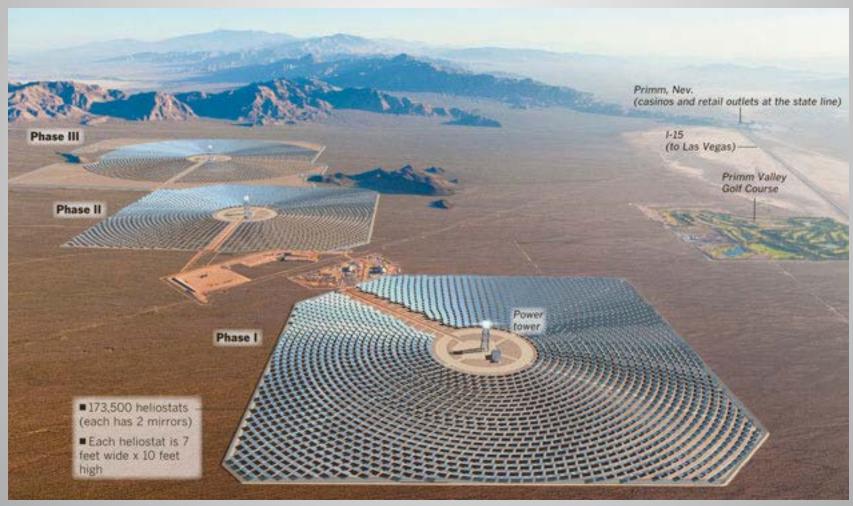


#### OPEN SOURCE LAWMAKING

- •Undertake research on open source lawmaking as it might apply to natural resource matters
- California Gold Rush mining district law as a laboratory for the study of open source lawmaking
  - Self initiation of claims
  - Self executing features of the miner's rules
    - title created by discovery of minerals in paying quantities
    - title maintained by work obligations
    - no royalty as a reward for discovery and development
    - relocation by rival locators -- use it or lose it
    - The taco trucks of Los Angeles

# STAKING A SOLAR SITE





#### OPEN SOURCE LAWMAKING

# Could we have used a location system approach to siting solar power plants on BLM lands?

- Let solar plant developers "stake" sites
- Tenure secure so long as specified work obligations are met -- fee title or long term lease when plant is complete and operating at a specified rate
- Sites subject to relocation by rival plant proponents if the original locator defaults - use it or lose it
- royalty to the government vs. no royalty as a reward for finding and developing the site

#### OPEN SOURCE LAWMAKING

#### Advantages:

- Solar developers are presumably better equipped than the government to know what makes a good site -- they will be investing their money in the site
- The crowd sourcing features of a location system lets everyone have a chance to put a site together - a good way to avoid cronyism in the grant of rights to the site
- Would require less cost of management of the process to the government

#### Disadvantages:

 Could generate land use conflicts with other interests, e.g. Tribes, miners, water developers, wilderness study areas, etc

### SUMMARY

- Include some programs about how things work
- Accept the challenge of big mines and big impacts
- Include as topics for the Center studies and conferences on comparative law subjects, and put effort into developing more effective regulatory approaches
- Pay particular attention to the power of open source lawmaking

I am optimistic about the future of sustainable mineral production, particularly because people are recognizing the issues involved, and are becoming more proficient at problem solving. I hope the Center will search for better ways to regulate.