

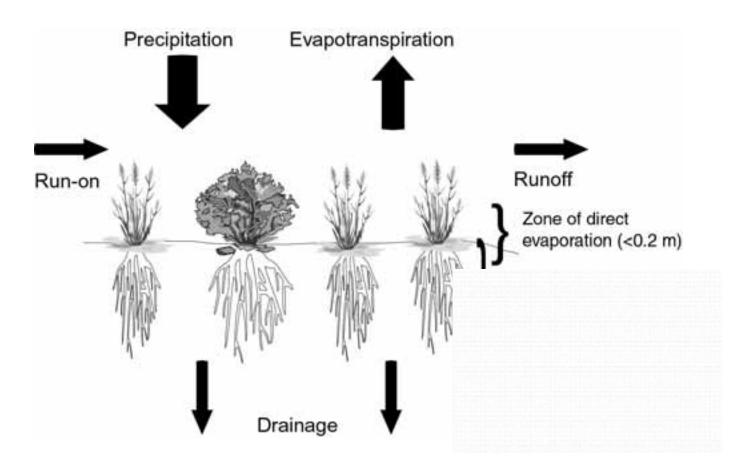
# Revegetation Design on ET Covers – An Ecological Approach

Amy D. Forman
Environmental Surveillance, Education, and
Research Program
S.M. Stoller Corporation



## ET Cover Components

- Soil cap
- Plant community



#### Protective Cap/Biobarrier Experiment

- 4 cap configurations
- 3 precipitation regimes
- 2 vegetation types



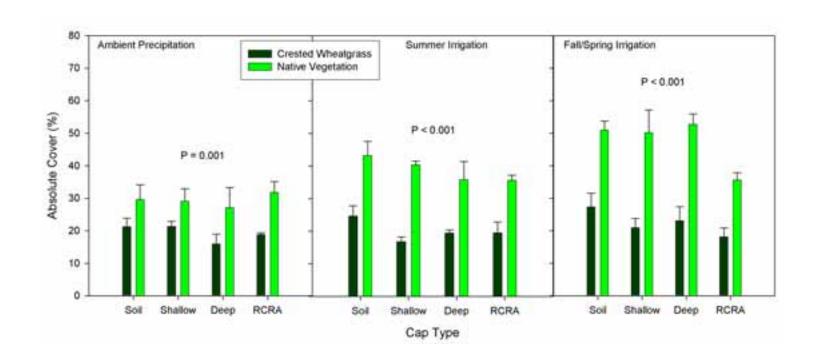
## Revegetation Design

- Choosing plant materials
- Planting and establishment
- Long-term vegetation change

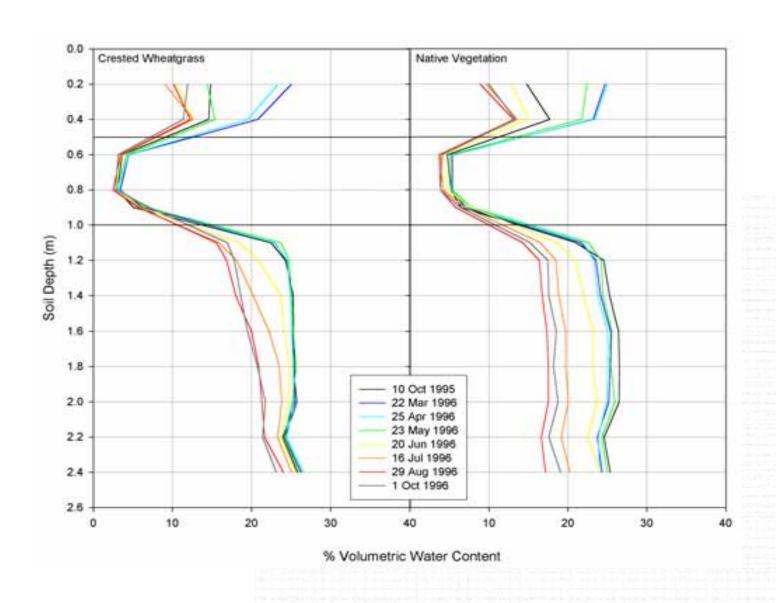
#### Plant Materials

- Native vs. introduced species
- Growth forms and root distributions
- Phenology
- Seed vs. seedlings
- Genetics

# Native vs. Introduced Species



#### Root Distribution





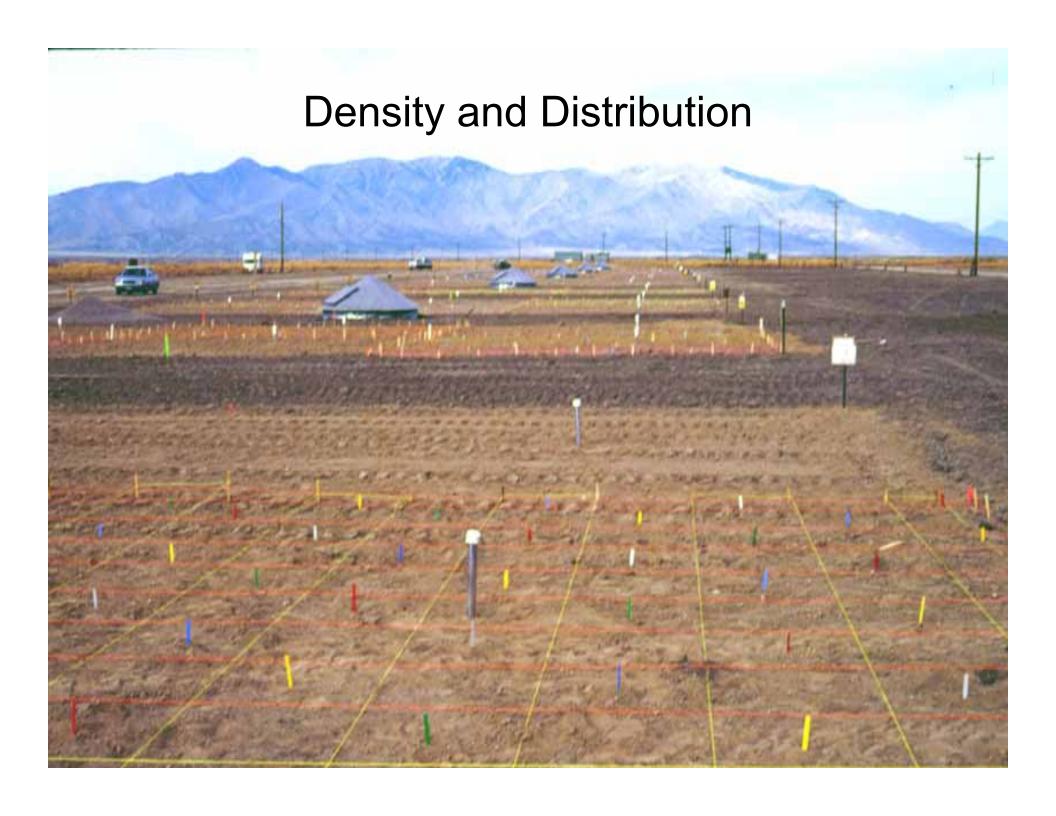






#### Planting and Establishment

- Density and distribution
- Mulch and fertilization
- Weed control
- Supplemental Irrigation





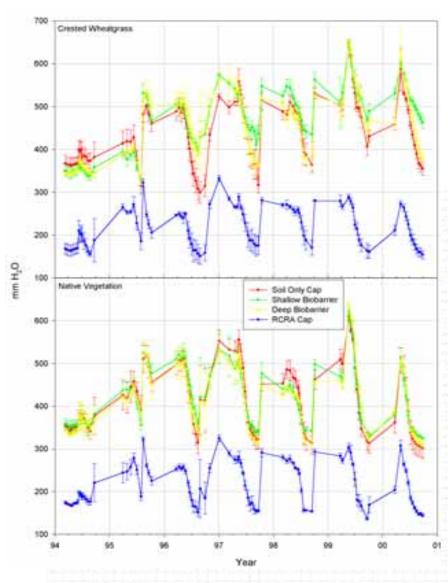




#### Long-term Vegetation Change

- Global climate change
- Species invasion
- Catastrophic disturbance

# Global Climate Change



# Species Invasion





#### Additional Considerations

- Borrow soil specifications
- Revegetation acceptance criteria
- Vegetation monitoring

## Acknowledgments

- Dr. Jay Anderson
- This project was funded by the U.S.
   Department of Energy, Idaho
   Operations Office through contract #
   DE-AC07-001D13658
- Numerous research assistants, graduate students, and summer interns contributed to this project.