Day 1 Speaker Schedule

8:30 – 8:45 An overview of responses to water pulse (Jim Ehleringer, Univ. of Utah)

8:45 – 9:10 Morphological and physiological constraints on pulse utilization. (Osvaldo Sala, Univ. of Buenos Aires, Argentina)

Session 1: Climatology and Hydrology

9:10 – 9:35 The pulse nature of precipitation in semiarid and arid regions (Bill Lauenroth, Colorado State Univ.)

9:35 – 10:00 The interaction of rainfall intensity and spatial patterns of soil and vegetation cover on semi-arid rangelands (Jeff Stone & David Goodrich, USDA/ARS, Tucson)

10:00 – 10:30 Coffee Break

10:30 – 10:55 Vertical and horizontal components of plant-available water: soil moisture heterogeneity in a semi-arid woodland (David D. Breshears, Orrin B. Myers and Fairley J, Barnes, Los Alamos National Laboratory)

Session 2: Soil carbon and nutrient dynamics

10:55 – 11:20 Effects of pulses on decomposition dynamics in arid and semi-arid ecosystems (Amy Austin, Univ. of Buenos Aires, Argentina)

11:20 – 11:45 The importance of pulse dynamics in nutrient availability: evidence and questions (I. C. Burke, E. C. Adair, R. L. McCulley, and P. Lowe, S. DelGrosso and W. K. Lauenroth, Colorado State Univ.)

11:45 – 12:10 Timing of soil nutrient pulses in semiarid ecosystems. (John Stark, Utah State Univ.)

12:10 – 13:10 Lunch Break and poster viewing

13:10 – 13:35 The effect of precipitation timing and amount on biological soil crusts: species composition and carbon and nitrogen balances (Jayne Belnap, USGS, Moab)

13:35 – 14:00 Pulse effects on carbon flux at the ecosystem scale (Dave Williams, Travis Huxman, Univ. of Arizona)

14:00 – 14: 30 Coffee Break

14:30 – 14:55 Long-term predictions for pulse effects on soil carbon and nitrogen using a stochastic soil moisture model (Amilcare Porporato, Polytechnic of Turin, Italy)

Session 3: Plant use of water and nutrient pulses

14:55 – 15:20 Sizes and shapes of root systems in pulse-driven arid ecosystems (Jochen Schenk, Univ. of Southern California)

15:20 – 15:45 Above- and Below-ground responses to transient rain events in Utah juniper (*Juniperus osteosperma*) and big sagebrush (*Artemisia tridentata*) (Josh Leffler, Ron Ryel, Utah State Univ.)

15:45 – 16:10 Summer pulse use in cold-desert shrubs and grasses (Susan Schwinning, Biosphere 2, Jim Ehleringer, Univ. of Utah).

16:10 – 16:35 Plastic strategies under pulsed conditions. (Ariel Novoplansky, Ben Gurion Univ. of the Negev, Israel)

Day 2 Speaker Schedule

Session 3 cont.

8:30 – 8:55 Summer pulse use in cold-desert shrubs and grasses (Susan Schwinning, Biosphere 2, Jim Ehleringer, Univ. of Utah).

8:55 – 9:20 Competition for pulsed resource (Deborah Goldberg, Univ. of Michigan)

9:20 – 9:45 Mediterranean versus desert species response to pulse gradients: Survival, growth, and diffuse competition. (Anna Sher, Univ. of New Mexico)

9:45 – 10:10 Is there competition for water aand N pulses in a cold desert community? (Renate Gebauer, Keene State College, Jim Ehleringer, Univ. of Utah)

10:10 – 10:40 Coffee Break

Session 4: Pulse use at the population level

10:40 – 11:05 Minimum recruitment frequency in plants with episodic recruitment (Kerstin Wiegand, Univ. of Giessen, Germany)

11:05 – 11:30 Recruitment of woody plants in semi-arid savannas: the role of spatial and temporal variability of soil moisture (Jake Weltzin, Univ. of Tennessee)

11:30 – 11:55	The wet 1980s followed by the 1989-91 drought: winners and losers among perennial vegetation in the Northern Mojave desert (Bob Webb, Todd Esque & Phil Medica, USGS, Tucson)
11:55 – 12:55	Lunch Break
12:55 – 13:55	Poster session
13:55 – 14:20	Shrub-grass transitions in the Jornada Basin in the past century: experimental and modeling evidence do not support climate hypotheses (Jim Reynolds, Duke Univ., Paul Kemp, University of San Diego)
14:20 – 14:45	Long-term dynamics of desert rodents: complex relationships between consumers and resources (Morgan Ernest, Jim Brown, Univ. of New Mexico)
14:45 – 15:10	Introduction to PrecipNet: improving understanding of precipitation effects on ecosystems through cross-disciplinary research networks. (Michael Loik, Univ. of California, Santa Cruz)
15:10 – 15:40	Coffee Break

Session 5: Diversity maintenance in pulse-driven ecosystems

15:40 – 16:05	The role of pulse-driven resource supply in diversity maintenance (Peter Chesson, Univ. of California, Davis)
16:05 – 16:30	Does high temporal variability in water supply promote coexistence amongst higher plants? (Jeremy Lundholme, Univ. of Guelph, Canada)
16:30 – 16:45	Closing Remarks

Day 3

8:30 – 9:00	Short general meeting to divide into smaller groups. Division into four groups by topic: GROUP I : Hydrologic Focus (chapters 2-4) GROUP II: Soil Metabolic Processes (chapters 5-7) GROUP III : Higher Plants (chapters 8-11) GROUP IV : Ecology (chapters 10-18)
9:00-10:00	Groups I and IV meet
10:00-11:00	Groups II and III meet

11:00 – 12:00	General meeting to summarize group meeting results
12:00- 13:00	Lunch Break
13:00- 14:30	Co-authors group meetings
14:30 –15:00	Conclusion. Collection of all written material.