Environmental Assessment of the McMurdo Dry Valleys: Witness to the Past and Guide to the Future

Organizing Committee

John Priscu (Chair-Montana State University) Peter Doran (Louisiana State University) Adrian Howkins (Colorado State University) Berry Lyons (The Ohio State University) Diana Wall (Colorado State University)



Electronic copies of previous environmental stewardship reports can be found at:

http://www.mcmlter.org/about/environmental-stewardshipmcmurdo-dry-valleys

AGENDA

DAY 1; Sunday, 1 May 2016

Arrive Denver, shuttle to hotel and check-in at the Best Western College Ave, Fort Collins, CO

WELCOME SOCIAL AND DINNER: "Mayor of Old Town" 632 S. Mason St. Fort Collins, CO 80524, phone: 970-682-2410

DAY 2; Monday, 2 May 2016 (Colorado State Univ., Grey Rock Rm., Lory Student Center)

- 0830 h Introduction (J. Priscu)
- **0850 h** Welcome (P. Cutler, NSF-PLR)
- **0855 h** Environmental stewardship: A vision from NSF-PLR (P. Penhale)
- **0910 h** P. Morin: Imaging disturbance in the MCM
- **0925 h** Environmental stewardship in MCM: International coordination (C. Harris)
- **0945 h** Historical perspectives of environmental stewardship (A. Howkins)
- **1005 h** Synergy between science and stewardship in the MCM: Why is it necessary? (B. Lyons)
- 1025 h BREAK
- **1040 h** Climate change and physical drivers in the MCM (P. Doran)
- **1100 h** Responses to human perturbation in the McMurdo Dry Valleys (D. Wall)
- **1120 h** Environmental Stewardship: Lessons from the Arctic (W. Vincent)
- **1140 h** Tourism, helicopter use, and former sites of known pollution (N. Gilbert)
- **1200 h** Environmental Stewardship: Bridges into classrooms (B. Adams)
- 1220 h LUNCH: Sack lunches provided
- **1340 h** Group assignments and charges; Groups I, II and III meet separately to consider questions 1, 2, 3 & 4
- **1630 h** Reconvene as a group for wrap up
- 1730 h ADJOURN

1900 h DINNER: BBQ at home of Diana Wall, 1525 Independence Road, Shuttles provided.

DAY 3; Tuesday, 3 May 2016 (Colorado State Univ., Grey Rock Rm., Lory Student Center)

- **0830 h** Review and schedule update (J. Priscu)
- **0845 h** Groups I, II and III meet jointly to consider questions 1, 2, 3 & 4
- 1030 h BREAK
- **1100 h** Groups I, II and III meet separately to consider questions 5, 6, 7, 8 & 9
- 1245 h LUNCH: Sack lunches provided
- **1345 h** Groups I, II and III meet jointly to discuss objectives 5, 6, 7, 8 & 9
- **1545 h** Break into writing groups for each objective; prepare Draft Report
- **1800 h** Reconvene as a group for wrap up
- 1830 h ADJOURN

1930 h DINNER: "Mainline" 125 S College Ave, Fort Collins, CO 80524, Shuttles provided.

Day 4; Wednesday, 4 May 2016 (Colorado State Univ., Grey Rock Rm., Lory Student Center)

- **0800 h** Draft reports available
- **0830 h** Groups I, II and III meet separately to discuss draft reports
- 0930 h BREAK
- 0945 h Groups I, II and III meet jointly to complete draft reports
- 1145 h Wrap up and ADJOURN (majority of participants)
- 1215 h LUNCH: Sack lunches provided (for all participants)
- **1300 h** Finalize draft report (organizing committee, discussion group leaders, and rapporteurs)
- 1730 h **DINNER** (organizing committee, discussion group leaders, and rapporteurs): "Jay's Bistro" 135 W Oak St, Fort Collins, CO 80524 (970) 482-1876

Specific questions to be considered by the break-out groups:

- 1. How is projected climate change in the area going to influence environmental management decisions?
- 2. We now have the dry valleys ASMA with new ASPA's in place since the last environmental review. How have these managed and protected areas provided environmental protection to the environment?
- 3. Are current guidelines for the response to environmental incidents (e.g., spills and other releases) adequate?
- 4. Should we begin monitoring for invasive species and could we predict the timing of introduction through models or experiences in other regions?
- 5. To what level do we need to catalogue sampling sites and sites of instrument deployment, camping sites and helicopter landing sites?
- 6. Do we need to do a better job of tracking visitation to the valleys?
- 7. Will extended season research affect the integrity of the environment?
- 8. What are the current regulations for handling hazardous materials and are they adequate?
- 9. How will UAVs and submersible ROVs affect the environment and what rules should be placed on their use?

Group I Discussion Leader: Takacs-Vesbach, C. Rapporteur: Howard-Williams, C. Adams, B. Chiuchiolo, A. Cunningham, J. Cutler, P. Gilbert, N. Gooseff, M. Guglielmin, M. Hogg, I. Hughes, Kelly Kauffman, L. Lee, H. K. Morin, P. Petit, E. Voytek, M.

Group II

Discussion Leader: Lee, C. Rapporteur: Vincent, W. Barrett, J. Connell, L. Doerr, T. Doran, P. Harris, C. Howkins, A. Jaros, C. Klein, A. McGinn, N. Scofield, O. Sletten, R. Swanger, K. Walker, M. Williams, N.

Group III

Discussion Leader: Cannone, N. Rapporteur: Morgan-Kiss, R. Christensen, K. Cox, Keith Fritsen, C. Hawes, I. Hobbie, J. Hughes, Kevin Kennicutt, C. Levy, J. Lyons, W.B. McKnight, D. Obryk, M. Poirot, C. Wall, D. Wilch, T.

Cross-group "floaters":

Penhale, P. Priscu, J.

Local CSU helpers:

Andriuzzi, W. Chignell, S. Gullet, P. Shaw, A.

PARTICIPANTS

Name

Adams, Byron Andriuzzi. Walter Barrett, Jeb Brett. Melissa Cannone, Nicoletta Chignell, Steve Chiuchiolo, Amy Connell, Laurie Doran, Peter Gilbert, Neil Gooseff. Michael Guglielmin, Mauro Gullet, Poppie Harris, Colin Hawes, Ian Hobbie, John Hogg, Ian Howard-Williams, Clive Howkins, Adrian Hughes, Kevin Jaros, Chris Kennicutt, Chuck Kline, Andrew Lee, Charles Lee, Hong Keum Levy, Joe Lyons, Berry McKnight, Diane Morgan Kiss, Rachael Morin, Paul Obryk, Maciek Pettit, Erin Poirot, Ceisha Priscu. John Schofield, Oscar Shaw, Ashley Sletten, Ron Swanger, Kate Takacs-Vesbach, Cristina Vincent, Warwick Voytek, Mary Wall. Diana

Institute

Brigham Young University Colorado State University Virginia Tech Portland State University University of Insubria, Italy Colorado State University Montana State University University of Maine Louisiana State University New Zealand University Colorado University of Insubria, Italy Colorado State University Environ. Research and Assessment, UK University of Canterbury, NZ Marine Biological Lab University of Waikato, NZ Nat. Inst. Water and Atm. Res, NZ Colorado State University British Antarctic Survey, UK University Colorado Texas A&M Texas A&M University University of Waikato, NZ Korean Polar Res. Inst., S. Korea University of Texas, Austin The Ohio State University University of Colorado Miami University University of Minnesota Portland State University University of Alaska Antarctic New Zealand, NZ Montana State University Rutgers University Colorado State University University of Washington University of Massachusetts - Lowell University of New Mexico Laval University, Canada NASA Headquarters Colorado State University

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PHI

Cox, Keith

ASC

Christensen, Kaneen Cunningham, Jenny Doerr, Ted Kauffman, Liz Walker, Meghan Williams, Nathan

NSF

Cutler, Paul Fritsen, Chris McGinn, Nature Penhale, Polly Wilch, Thomas Petroleum Helicopters International

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Antarctic Integrated Systems Science Organisms & Ecosystems Environmental Policy Environmental Officer Earth Sciences kcox@phihelico.com

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SHUTTLES

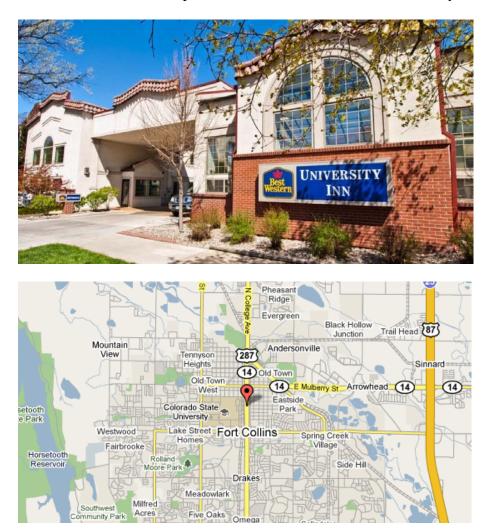
Shuttles from the Denver International Airport (DIA) to the hotel accommodations will be provided by Green Ride and will be pre-arranged. You will receive an email from Green Ride with details on when and where to meet the shuttle at DIA.



http://www.greenrideco.com/

HOTEL

Accommodations will be pre-booked at the Best Western University Inn.



Address: 914 S College Ave, Fort Collins, CO 80524 Phone: (970) 484-2984

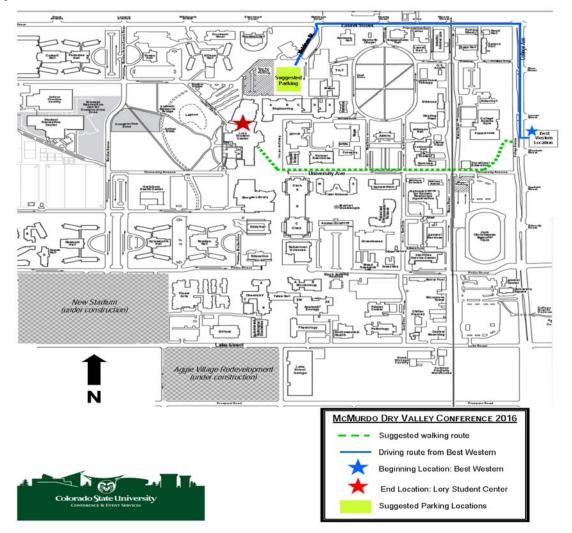
At the eastern edge of Colorado State University, this traditional hotel in the University Park neighborhood is 0.9 miles from the Lincoln Center entertainment venue and 1.2 miles from Moby Arena.

Relaxed rooms and suites have free WiFi and flat-screen TVs, plus mini-fridges, microwaves and coffeemakers. All have pillow-top mattresses and desks; suites add sofas, wet bars and extra TVs.

Freebies include continental breakfast, parking and a weekday local shuttle. There's a whirlpool and an indoor pool with a retractable roof, as well as a fitness center, a business center, a meeting room and a coin-operated laundry.

COLORADO STATE UNIVERSITY AND THE LORY STUDENT CENTER

The workshop will be held in the Lory Student Center on the Colorado State University campus. It is a half mile walk from the Best Western to the Lory Student Center. The meeting room location will be posted at the entrance to the student center.



MAX BUS RAPID TRANSIT (BRT)

If you want to explore Fort Collins, the MAX Bus Rapid Transit (BRT) serves major activity centers throughout the community including Midtown, CSU and Downtown. MAX links with other Transfort bus routes, Park-n-Rides, the City's bicycle/pedestrian trail system, and other local and regional transit routes to provide seamless service for passengers.



MAX follows a dedicated transit-only guideway (its own road) and mixed-traffic streets that run parallel to the BNSF Railway between the South Transit Center (south of Harmony Road) and Downtown. It is served by 12 stations and stops.

For schedules and fares:

http://www.ridetransfort.com/max