

Gravelly Landscape Collaborative
Meeting Notes: November 28, 2018

Community Climate Conversation Hosts: Gravelly Landscape Collaborative, Madison Valley Ranchlands Group, Ruby Watershed Council, Ghosts of the Madison Mule Deer Foundation, Madison Conservation District, Madison River Foundation

Attending: John Anderson, Elaine Hundley, David Stout, John Wagoner, John Crumley, Paul Jurenas, Tom Urell, Mike Berry, Jon Siddoway, John Taylor, Cindy Gockel, Jack Finley, Cathie Jean, J. Frederick, Tim Eagan, Darcie Warden, Carol Delisi, Dean Waltee, Dan Durham, Steve Primm, Gordon Ash, Dave Delisi, Kaye Suzuki, Kevin Suzuki, Chelsea Pardo, Kim Johnston, Ethan Kunard, Abi King, Kris Inman, Jennifer Boyer.

Notes GLC September 2018 – Approved.

Trap Line: Greater Yellowstone Coalition is hosting Green Drinks in Bozeman, December 12th 5-8pm.

Community Climate Conversation

Dr. Cathy Whitlock, Professor of Earth Sciences & Fellow, Montana Institute on Ecosystems, Montana State University presented research on Climate Change and the Montana Climate Assessment. <http://montanacclimate.org/>

Whitlock is a paleoclimatologist, studying soil, lake sediment, tree rings, pollen, diatoms to understand past and present trends and variation in climate. When discussing climate it is important to understand the distinction between weather (variation and extreme events) and climate (trend).

The Montana Climate Assessment looked at 1) climate 2) water 3) forests and 4) agriculture. The Assessment was stakeholder driven, with many listening sessions about the questions citizens had and how they wanted the information delivered.

Montana's climate is warming faster than other parts of the country because we do not have the moderating affect of a water body / ocean. By mid-century, we will experience a rise in temperature of 4.5F to 6F depending on global efforts to stabilize greenhouse gas emissions. By the end of the century we could see a rise of 10 F.

Precipitation will be seasonal with less rain in the summer. We are extending our growing season 12 days since the 1950s. Snowpack will decline, and we can expect more moisture as rain and slush.

The increase in rain and temperature will affect runoff. Peak runoff is 10-15 days earlier now than it was in 1948. With less snowpack, our river systems will have decreased summer flows.

Summers will be hotter, with 35 days over 90 F. All of these conditions increase the threat of drought, flash droughts and fires.

Forest responses are varied across the state because our forests are varied. We could see an increase in production in some areas, in other areas we could see a rise in fire and insect infestations. Changing species composition is also happening (i.e. whitebark pine).

Changing climate in Montana means changes for different economies 1) micropolitan, those communities based on lifestyle and natural amenities, 2) resource based economies including mining, timber and agriculture and 3) poor, rural communities that are isolated.

The Montana Climate Assessment provides a broad framework but the next step is to drill down and look at what the Greater Yellowstone Ecosystem impacts may be. This regional analysis could support management decisions and climate adaptation approaches for land and resource managers as well as local businesses. One of the first steps in developing this level of analysis would be to host listening sessions with stakeholders throughout the GYE to help identify important questions and information that would support their decisions, businesses and management.