The Colorado Plagues

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Just ‘cause I like Chuck
Resources
My Little State
My Not So Little State

- Population 4.1 M
- Projected 10 M by 2050
- 30M currently rely on the CO River for water
- 80% of water comes from snow melt
West Nile Virus
Public Health and Environmental Consequences

30–70% bird population reduction

204 known species infected

Increased pesticide application
Drought

Colorado

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional
Colorado ranks first nationally in production of millet.
Colorado’s production of sunflowers ranks fourth in the nation.
Colorado produces more than 100 million pounds of pinto beans each year.
Colorado’s leading vegetable crops are potatoes, cabbage, and onions.
Peaches, apples, and cantaloupe are Colorado’s largest fruit crops.
Cattle and Calves is Colorado’s number one agricultural commodity with 2.6 million head of cattle in the state.
Colorado’s sheep, lamb and wool production rank fourth in the nation.
Colorado’s 130,000 dairy cows produced more than 2.5 billion pounds of milk. Moo...
Over 4 million layers in Colorado producing more than 1 billion eggs each year.
There are over 40 aquaculture producers (or fish farmers).
There are 36,000 bee colonies in Colorado producing 2.7 million pounds of honey every year (Killer bees have arrived).
Agriculture contributes over $7 billion dollars to the Colorado state economy annually.
Pine Beetles
Public Health and Environmental Consequences

- Increased Insecticide Application
  - Carbaryl
  - Permethrin
  - Bifenthrin
  - Piperonyl butoxide (synergist)
Wildfires

2002 – Owens said “It looks as if all of Colorado is burning today”
Wildfires

- 2002 Hayman Fire – 137,760 acres
  - Destroyed 133 homes
- 2012 High Park Fire – 87,284 acres
- 2012 Waldo Canyon Fire – 18,247 acres
  - Destroyed 364 homes
- 2013 Black Forest Fire – 14,280 acres
  - Most destructive – 511 homes
- 2013 Royal Gorge Fire – 3,800 acres
- 2013 East Park Fire – 13,572 acres
- 2013 West Fork Fire – 110,405 acres
Public Health and Environmental Consequences

Increased PM10
Water Quality
Flooding
Public Health and Environmental Consequences

- Emergency Response
- Laboratory Considerations
Blizzards

31.8 inches  March 17–19, 2003

20.7 inches  December 20–21, 2006
Public Health and Environmental Consequences

- Sheltering
Tornadoes
Hantavirus
Impacts to Colorado

- Water
- Wildlife, ecosystems and forests
- Electricity
- Agriculture
- Tourism and outdoor recreation
Water

- No snowpack by 2100
Wildlife, Ecosystems, Forests

- Envelopes collapsing
Energy

- Coal – 57%
- Natural Gas – 27%
- Wind and Solar – 7%
- Hydroelectric – 5%
Agriculture

- Invasive Weeds
- Increased Growing Season
- Heat Stress
Tourism, Outdoor Recreation

Downhill Skiing – 2.6B
Rafting – 142M
Parks – 571M
Hunting/Fishing – 1.8B
Wildlife Viewing – 1.2B
My Thanks

- APHL
- CDPHE
- Colorado Climate Preparedness Project
- The Internet
- Citizen Scientists Everywhere!