

## Additional Resources on Climate Change Impacts for the Rogue Valley

### Climate change and Human Health

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1. U.S. Global Change Research Program. 2016. The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment. <http://dx.doi.org/10.7930/JOR49NQX>
2. Rudolph L, Gould S, Berko J. Climate Change, Health, and Equity: Opportunities for Action. 2015. Public Health Institute, Oakland, CA.
3. <http://www.phi.org/resources/?resource=climate-change-health-and-equity-opportunities-for-action>

This study reviewed existing literature to better understand the barriers and opportunities for public health's engagement with climate change.

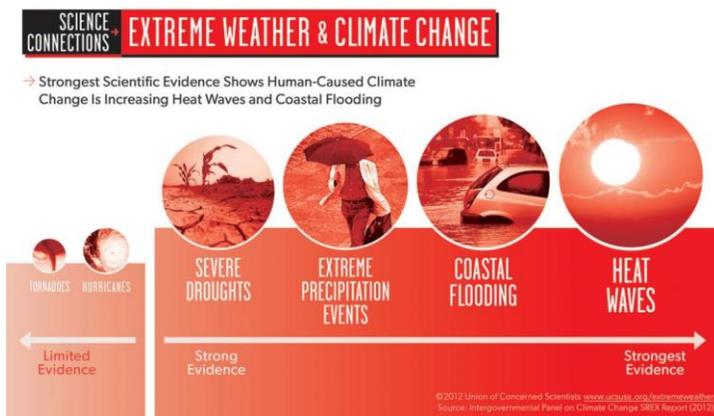
Some of the impacts that were outlined in the report included:

- Heat-related morbidity and mortality; More than 70,000 people died in the European heat wave of 2003; 655 excess deaths in California's 2006 heat wave
  - Injuries and fatalities associated with other extreme weather events such as flooding, severe storms, or wildfires; Hurricane Katrina caused over 1,800 deaths
  - Ground level ozone increases with rising temperatures; more asthma attacks, heart attacks, decreases in lung function, increased hospital admissions.
  - More frequent and intense wildfires will expose people to smoke that contains particulate matter (PM) and numerous chemicals, exacerbating asthma and other respiratory disease, and worsening heart disease.
  - Plants, like ragweed, produce more pollen, and lengthens the pollen season. Ragweed season is already about 3 weeks longer than it used to be.
  - Extreme rainfall and flooding may cause contamination of drinking water supplies with untreated sewage or chemicals.
  - Extreme heat, weather events and drought lead to declines in crop yields. Food prices increase, leading to greater food insecurity.
  - Warmer air and water temperatures cause higher levels of microbial contamination, and changes in the geographic distribution of mosquitos and ticks that carry diseases such as West Nile virus, Lyme disease, or malaria.
  - Climate change threatens to displace millions of climate refugees; Hurricane Katrina alone displaced more than 400,000 people in the Mississippi Gulf region.
  - Violence, civil strife, conflict, and associated displacement are all likely to increase with climate-exacerbated tensions over land and resources.
  - Rates of depression, anxiety disorders, post-traumatic stress disorders, substance abuse, and suicides are all expected to rise as the effects of climate change worsen. The effects will be felt most keenly among children, the poor, the elderly, and those with existing mental health conditions.
4. Union of Concerned Scientists. 2015. Climate Change and Your Health: The Hidden Health Risks of Flooding in a Warming World.

[http://www.ucusa.org/global\\_warming/science\\_and\\_impacts/impacts/global-warming-and-flooding.html#.V216Q44X\\_hM](http://www.ucusa.org/global_warming/science_and_impacts/impacts/global-warming-and-flooding.html#.V216Q44X_hM)

## Climate Change and Natural Disasters

1. Headwaters Economics. 2016. Insights from wildfire science: A resource for fire policy discussions <http://headwaterseconomics.org/wildfire/insights/>
2. Headwaters Economics. 2015. Reducing Wildfire Cost to Communities. <http://headwaterseconomics.org/wildfire/solutions/reducing-wildfire-risk/>
3. Union of Concerned Scientists. 2014. Playing with Fire: How Climate Change and Development Patterns are Contributing to the Soaring Cost of Western Wildfires. [http://www.ucusa.org/global\\_warming/science\\_and\\_impacts/impacts/climate-change-development-patterns-wildfire-costs.html#.V21\\_644X\\_hM](http://www.ucusa.org/global_warming/science_and_impacts/impacts/climate-change-development-patterns-wildfire-costs.html#.V21_644X_hM)
4. U.S. Global Change Research Program. 2014. Third National Climate Assessment. Chapter on Extreme Weather. <http://nca2014.globalchange.gov/highlights/report-findings/extreme-weather>
5. Headwaters Economics. 2013. The Rising Cost of Wildfire Protection. <http://headwaterseconomics.org/wphw/wp-content/uploads/fire-costs-background-report.pdf>
6. IPCC. 2012. Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaption. [http://ipcc-wg2.gov/SREX/images/uploads/SREX-All\\_FINAL.pdf](http://ipcc-wg2.gov/SREX/images/uploads/SREX-All_FINAL.pdf)
7. Headwaters Economics. Online tool. Identifying Communities at Risk to Wildfire. The interactive map allows users to identify the location, scale, and frequency of wildfire threats to their communities. <http://headwaterseconomics.org/wildfire/homes-risk/identifying-communities-risk-wildfire/>
8. New FEMA Climate Change Portal (still being expanded) <http://www.fema.gov/climate-change>
9. U.S. Climate Resilience Toolkit. <http://toolkit.climate.gov/>



## Climate Change and Agriculture

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1. Mozell, M. R. and L. Thach. 2014. The impact of climate change on the global wine industry. *Wine Economics and Policy* 3:81-89.  
<http://www.sciencedirect.com/science/article/pii/S2212977414000222>
2. U.S. Global Change Research Program. 2014. Third National Climate Assessment. Chapter on Agriculture. 2014.  
<http://nca2014.globalchange.gov/report/sectors/agriculture>
3. National Climate Change Adaptation Research Facility. 2013. Adapting Agriculture to Climate Change. Policy Guidance Brief (Australia).  
[https://www.nccarf.edu.au/sites/default/files/attached\\_files\\_publications/AGRICULTURE\\_A4Printable.pdf](https://www.nccarf.edu.au/sites/default/files/attached_files_publications/AGRICULTURE_A4Printable.pdf)
4. USDA. 2013. Climate Change and Agriculture in the United States: Effects and Adaptation.  
[http://www.usda.gov/oce/climate\\_change/effects\\_2012/CC%20and%20Agriculture%20Report%20\(02-04-2013\)b.pdf](http://www.usda.gov/oce/climate_change/effects_2012/CC%20and%20Agriculture%20Report%20(02-04-2013)b.pdf)
5. Economic effects of climate change on the California wine industry: Research in progress. UC Davis. [http://aic.ucdavis.edu/publications/posters/wine\\_climate6.pdf](http://aic.ucdavis.edu/publications/posters/wine_climate6.pdf)

## Climate Change in the Rogue Valley/Southern Oregon

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1. Oregon Climate Change Research Institute (OCCRI). 2016. City of Ashland Climate Trends and Projections (DRAFT).
2. Jackson County Climate and Health Action Plan. 2013. Jackson County Public Health.  
<https://public.health.oregon.gov/HealthyEnvironments/climatechange/Documents/AdaptationPlans/adaptation-plan-jackson.pdf>  
Primary impacts include:
  - Decrease in air quality, increase in ozone leading to cardiac and respiratory illness
  - Decrease in water quality and quantity. Well failure. Groundwater contamination.
  - Mental health issues related to quality of life, deterioration, and economic stress particularly on local farming
  - Potential increases in water-, food-, and vector-borne disease.
3. The Rogue Basin Action Plan for Resilience Watersheds and Forests in a Changing Climate. Southern Oregon Forest Restoration Collaborative. 2013. Available at:  
<http://www.mfpp.org/wp-content/uploads/2011/04/SOFRC-Watersheds-and-Forests-Climate-Adaptation-Plan-FINAL21.pdf>
4. The Resource Innovation Group and the Geos Institute. 2008. Preparing for Climate Change in the Rogue River Basin of Southwest Oregon. Available at:  
<http://climatewise.org/projects/799-rogue-river-basin>

## Climate Change at the State and National and Level

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1. U.S. Global Change Research Program. 2014. Third National Climate Assessment. Chapter on the Northwest. <http://nca2014.globalchange.gov/>  
The National Climate Assessment is updated approximately every 4 years. The Third NCA was released in 2014. This report provides an overview of the science and also looks specifically at different regions of the United States, to identify vulnerabilities and areas of resilience. For the Northwestern U.S., they identify the following vulnerabilities:
  - Over allocation of water resources
  - Coastal erosion and flooding of coastal development
  - Ocean acidification affecting culturally and commercially important marine species
  - Increasing wildfire, insect outbreaks, and tree diseases in PNW forests that are likely to cause widespread tree mortality
  - Risks to agriculture from changes in plant diseases, pests and weeds; availability of irrigation water; loss of “chill hours”, and lower predictability of conditions
2. U.S. Global Change Research Program. 2014. Third National Climate Assessment. Topics include climate science, trends, impacts, adaptation, and mitigation. Specific sector and regional topics include agriculture, ecosystems, human health, energy, water, transportation, and others. <http://nca2014.globalchange.gov/>
3. EcoNorthwest. 2009. An overview of potential economic costs to Oregon of a Business-as-usual approach to climate change. Available at:  
[http://www.econw.com/media/ap\\_files/ECONorthwest\\_Publication\\_Economic-Costs-of-Climate-Change-Oregon\\_2009.pdf](http://www.econw.com/media/ap_files/ECONorthwest_Publication_Economic-Costs-of-Climate-Change-Oregon_2009.pdf)
4. Oregon Climate Change Research Institute at OSU provides Oregon and PNW climate change summary, model output, graphics, and other information.  
<http://occri.net/climate-science>
5. Oregon Climate Change Portal – has links to state reports and plans for both climate change mitigation (reducing greenhouse gas emissions) and adaptation (protecting people and nature from ongoing impacts).  
<http://www.oregon.gov/energy/GBLWRM/Pages/portal.aspx>

## Climate Change Communication and Tools for Outreach

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1. Climate Access <http://www.climateaccess.org/>
2. Al Gore and The Case for Optimism – TED talk.  
[https://www.ted.com/talks/al\\_gore\\_the\\_case\\_for\\_optimism\\_on\\_climate\\_change](https://www.ted.com/talks/al_gore_the_case_for_optimism_on_climate_change)

## Guidance on Climate Change Vulnerability Assessments

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1. Chapter 8 in Preparing for Climate Change: A guidebook for local, state, and regional governments.

[http://icleiusa.org/wp-content/uploads/2015/08/PreparingForClimateChange\\_Sept2007.pdf](http://icleiusa.org/wp-content/uploads/2015/08/PreparingForClimateChange_Sept2007.pdf)

2. Chapter 6 in Climate-Smart Conservation: Putting Adaptation Principles into Practice. [http://www.nwf.org/pdf/Climate-Smart-Conservation/NWF-Climate-Smart-Conservation\\_5-08-14.pdf](http://www.nwf.org/pdf/Climate-Smart-Conservation/NWF-Climate-Smart-Conservation_5-08-14.pdf)

Huelz's presentations on energy to Ashland City Council

<https://www.youtube.com/channel/UCKfSdaAOj02u2HZNBaM-QJg>

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