



REFERENCES

Section 1: Introduction

Federal Emergency Management Agency (FEMA). 2022. *State Mitigation Planning Policy Guide*. April 19. Accessed 2022. https://www.fema.gov/sites/default/files/documents/fema_state-mitigation-planning-policy-guide_042022.pdf.

Section 2: State Profile

Anderson, James Donald. 1979. "Vandalia: The First West Virginia?" *West Virginia Archives and History* 375-92. Vandalia: The First West Virginia?

Bennett, Danny. n.d. "West Virginia State Wetland Program Summary." Accessed 2023. https://www.nawm.org/pdf_lib/state_summaries/west_virginia_state_wetland_program_summary_083115.pdf#:~:text=West%20Virginia%27s%20vegetated%20wetlands%20can%20be%20separated%20into,by%20trees%20%28woody%20plants%20%20feet%20or%20taller%29.

Centers for Disease Control and Prevention (CDC). 2020. *Disability and Health Overview*. September 16. <https://www.cdc.gov/ncbddd/disabilityandhealth/disability.html>.

--. 2022. *Disability Impacts All of Us*. <https://www.cdc.gov/ncbddd/disabilityandhealth/infographic-disability-impacts-all.html>.

--. 2022. *Populations and Vulnerabilities*. February. Accessed 2023. <https://www.cdc.gov/nceh/tracking/topics/PopulationsVulnerabilities.htm>.

--. 2021. *Culture and Language*. December 9. <https://www.cdc.gov/healthliteracy/culture.html>.

DataUSA. n.d. *West Virginia*. Accessed 2022. <https://datausa.io/profile/geo/west-virginia/>.

FACTS, USA. 2023. *Temperatures in West Virginia Over Time*. Accessed 2023. <https://usafacts.org/issues/climate/state/west-virginia>.

Federal Emergency Management Agency (FEMA). 2020. *Community Lifelines*. Accessed 2022. <https://www.fema.gov/emergency-managers/practitioners/lifelines>.

Geography. 2022. *The State of West Virginia*. Accessed 2022. <https://geography.name/the-state-of-west-virginia/>.

Geoscience News and Information. 2022. *West Virginia Lakes, Rivers and Water Resources*. Accessed 2022. <https://geology.com/lakes-rivers-water/west-virginia.shtml>.

Marshall University. n.d. *West Virginia: The Mountain State*. Accessed 2023. <https://www.marshall.edu/herp/pages/aboutwv.htm>.



- Mullenex, Ron. 2010. *Topography*. November. Accessed 2023. <https://www.wvencyclopedia.org/articles/747>.
- National Alliance to End Homelessness. n.d. *West Virginia*. Accessed 2023. <https://endhomelessness.org/homelessness-in-america/homelessness-statistics/state-of-homelessness-report/west-virginia/>.
- National Archives. 2019. *West Virginia Statehood, June 20, 1863*. July. Accessed May 2023. <https://www.archives.gov/legislative/features/west-virginia>.
- National Oceanic and Atmospheric Administration (NOAA). 2023. National Centers for Environmental information, Climate at a Glance: Statewide Time Series. <https://www.ncei.noaa.gov/access/monitoring/climate-at-a-glance/statewide/time-series>.
- National Park Service (NPS). n.d. *West Virginia*. Accessed 2023. <https://www.nps.gov/state/wv/index.htm>.
- Region I Planning & Development Council. 2023. *WVARC Boundary Map*. March 2. Accessed May 2023. <https://cdn.sanity.io/files/2avbnain/production/28e3b3fb780e554fa994f273ecf7f2737d5e307f.pdf>.
- Rice, Otis K, and Stephan W Brown. 2023. *History of West Virginia*. Accessed 2023. <https://www.wvencyclopedia.org/articles/414>.
- Runkle, J., K.E. Kunkel, R. Frankson, B.C. Stewart, and J. Spaccio. 2022. *West Virginia State Climate Summary 2022. NOAA Technical Report NESDIS 150-WV*. Silver Spring. <https://statesummaries.ncics.org/chapter/wv>.
- United Nations Children’s Fund (UNICEF). 2016. "Child-Centered Disaster Risk Reduction: Contributing to Resilient Development."
- U.S. Census Bureau. 2023. *United States Census*. Accessed 2023. [https://data.census.gov/table?q=West+Virginia+visitors&g=0400000US54\\$0500000](https://data.census.gov/table?q=West+Virginia+visitors&g=0400000US54$0500000).
- U.S. Census. 2023. *U.S. Census Bureau Advanced Search*. Accessed 2023. <https://data.census.gov/advanced>.
- U.S. Department of Defense (DOD). 2021. *2021 Demographics: Chapter 2: Active Duty Members*. Accessed 2023. <https://demographics.militaryonesource.mil/chapter-2-geographic-location-usa/>.
- U.S. Fish and Wildlife Service. n.d. *Critical Habitat*. Accessed 2023. <https://www.fws.gov/project/critical-habitat>.
- U.S. Department of Housing and Urban Development (HUD). 2023. *SOCDS Building Permits Database*. May. Accessed May 2023. <https://socds.huduser.gov/permits/>.
- USAFacts.org. 2022. *Our Changing Population: West Virginia*. July. Accessed May 2023. <https://usafacts.org/data/topics/people-society/population-and-demographics/our-changing-population/state/west-virginia/?endDate=2020-01-01&startDate=2010-01-01>.
- U.S. Geological Survey (USGS). 2023. *Hydrologic Unit Maps*. April. Accessed May 2023. <https://water.usgs.gov/GIS/huc.html>.
- West Virginia Association of Regional Councils. 2023. *What are Regional Planning & Development Councils?* Accessed 2023. <https://www.wvregionalcouncils.com/>.



West Virginia Division of Natural Resources (WVDNR). 2023. *West Virginia Wildlife Management Areas*. Accessed 2023. <https://wvdnr.gov/lands-waters/wildlife-management-areas/>.

West Virginia Department of Environmental Protection (WVDEP). 2023. *Chesapeake Bay Program*. Accessed 2023. <https://dep.wv.gov/WWE/watershed/wqmonitoring/Pages/ChesapeakeBay.aspx>.

--. 2023. *Watershed Groups*. Accessed 2023. <https://dep.wv.gov/WWE/watershed/WatershedImprovementBranch/Pages/default.aspx>.

--. n.d. *West Virginia State Wetland Program Summary*. Accessed 2023. https://www.nawm.org/pdf_lib/state_summaries/west_virginia_state_wetland_program_summary_083115.pdf.

--. 2013. "West Virginia Watersheds: A Closer Look." November. Accessed May 2023. <https://dep.wv.gov/WWE/wateruse/WVWaterPlan/Documents/WatershedACloserLookNovember2013.pdf>.

WV Economic Development. n.d. *Opportunity Zones*. Accessed 2023. <https://westvirginia.gov/opportunity-zones/>.

WV Emergency Management Division (WVEMD). 2018. "West Virginia Statewide Standard Hazard Mitigation Plan Update."

West Virginia University (WVU). 2011. Population Projection for West Virginia Counties. WVU.

World Atlas. 2021. *West Virginia*. Accessed 2022. <https://www.worldatlas.com/maps/united-states/west-virginia>.

Section 3: Planning Process

Federal Emergency Management Agency (FEMA). 2022. *State Mitigation Planning Policy Guide*. April 19. Accessed 2022. https://www.fema.gov/sites/default/files/documents/fema_state-mitigation-planning-policy-guide_042022.pdf.

Section 4: Risk Assessment

Belomar Regional Council. 2022. "Hazard Mitigation Plan 2022 Update."

Brooke Hancock Jefferson Metropolitan Planning Commission. 2018. "Region 11 Hazard Mitigation Plan."

Centers for Disease Control and Prevention (CDC). 2022. *At A Glance: CDC/ATSDR Social Vulnerability Index*. October. Accessed 2023. https://www.atsdr.cdc.gov/placeandhealth/svi/at-a-glance_svi.html.

Federal Register. 2022. *Annual Update of the HHS Poverty Guidelines*. 01 18. <https://www.federalregister.gov/documents/2022/01/21/2022-01166/annual-update-of-the-hhs-poverty-guidelines>.

Federal Emergency Management Agency (FEMA). 2023. *Disaster Declarations*. January. <https://www.fema.gov/disaster/declarations>.



- . 2022. "State Mitigation Planning Policy Guide, FP 302-094-2."
- . 2021. *Fire Management Assistance Grant Program and Policy Guide: FP-104-21-0002*.
https://www.fema.gov/sites/default/files/documents/fema_fmaggpg_063121.pdf.
- . n.d. *Social Vulnerability*. Accessed 2023. <https://hazards.fema.gov/nri/social-vulnerability>.
- Jefferson County. 2018. "2018 Multi-Jurisdictional Hazard Mitigation Plan."
- Mid-Ohio Valley Regional Council. 2022. "Regional Hazard Mitigation Plan."
- Region 2 Planning and Development Council. 2018. "2017 Multi-Jurisdictional Hazard Mitigation Plan."
- Region 4 Planning and Development Council. 2022. "Hazard Mitigation Plan Update."
- Region 8 Planning and Development Council. 2018. "2018 Multi-Jurisdictional Hazard Mitigation Plan."
- Region 9 Regional Planning and Development. 2022. "Multi-Jurisdictional Hazard Mitigation Plan 2022 Update for Berkeley and Morgan County."
- Region VI Planning and Development Council. 2018. "Multi-Jurisdictional Hazard Mitigation Plan Update."
- Region VII Planning and Development Council. 2017. "Hazard Mitigation Plan."
- Regional Intergovernmental Council. 2022. "Region 3 Hazard Mitigation Plan."
- West Virginia Region I Planning and Development Council. 2022. "West Virginia Region I Hazard Mitigation Plan."
- West Virginia Board of Risk and Insurance Management (BRIM). 2022. "List of State-Owned and -Leased Facilities."
- West Virginia Emergency Management Division (WVEMD). 2022. List of Critical Facilities.

Section 5: Hazard Overview

Emergency Management Accreditation Program. 2020. July 15. <https://emap.org/index.php/root/about-emap/96-emap-em-4-2016>.

Section 5.1: Dam Failure

- Association of State Dam Safety Officials. 2023. *Dam Incident Database Search*. February 20. Accessed May 15, 2023. <https://damsafety.org/Incidents>.
- . 2022. *Dams 101*. Accessed 2022. <https://damsafety.org/dams101>.
- . 2021. *Dam Failures and Incidents*. Accessed 2023. <https://damsafety.org/dam-failures>.
- . 2015. *Living with Dams: Extreme Rainfall Events*. Accessed 2023.
https://www.damsafety.org/sites/default/files/ASDSO-LivingWithDams-ExtremeRainfallEvents-NO%202-WEB_0.pdf.
- Centers for Disease Control and Prevention (CDC). 2018. *Emergency Responders: Tips for taking care of yourself*. March 19. Accessed 2023. <https://emergency.cdc.gov/coping/responders.asp>.



- Chambers, David. 2023. *Long-term Risk of Tailings Dam Failure*. Accessed 2023. <https://www.nps.gov/articles/aps-v13-i2-c8.htm>.
- Federal Emergency Management Agency (FEMA). 2023. *Disaster Declarations for States and Counties*. Accessed 2023. <https://www.fema.gov/data-visualization/disaster-declarations-states-and-counties>.
- . 2016. *Be Aware of Potential Risk of Dam Failure in Your Community*. August. Accessed 2023. https://www.fema.gov/sites/default/files/2020-08/fema_dam-safety_aware-community_fact-sheet_2016.pdf.
- . 2013. *Federal Guidelines for Inundation Mapping of Flood Risks Associated with Dam Incidents and Failures*. July. Accessed 2022. https://www.fema.gov/sites/default/files/2020-08/fema_dam-safety_inundation-mapping-flood-risks.pdf.
- . 2013. *Living With Dams*. February. Accessed 2023. https://www.fema.gov/sites/default/files/2020-08/fema_living-with-dams_p-956.pdf.
- . 2012. *Assessing the Consequences of Dam Failure*. March. Accessed 2022. <https://damsafety.org/sites/default/files/files/FEMA%20TM%20AssessingtheConsequencesofDamFailure%20March2012.pdf>.
- Flanagan, Barry, Edward Gregory, Elaine Hallisy, Janet Heitgerd, and Brian Lewis. 2011. "A Social Vulnerability Index for Disaster." *Journal of Homeland Security and* 8 (1).
- Kossoff, D., Dubbin, W.E., Alfredsson, M., Edwards, S.J., Macklin, M.G., and K.A. Hudson-Edwards. 2014. *Mine tailings dams: Characteristics, failure, environmental impacts, and remediation*. Accessed 2023. <https://www.sciencedirect.com/science/article/abs/pii/S0883292714002212?via%3Dihub>.
- Leslie, Jackques. 2019. "Yale Environment 360." In an Era of Extreme Weather, Concerns Grow Over Dam Safety. July 9. Accessed 2023. <https://e360.yale.edu/features/in-an-era-of-extreme-weather-concerns-grow-over-dam-safety>.
- Mine Safety and Health Administration. 2023. *Safety Topic: Impoundments and Dams*. Accessed 2023. <https://www.msha.gov/safety-and-health/safety-and-health-materials/safety-topics/safety-topic-impoundments-and-dams>.
- . 2022. *Buffalo Creek Mine Disaster 50th Anniversary*. February 26. Accessed 2023. <https://www.msha.gov/buffalo-creek-mine-disaster-50th-anniversary#:~:text=Buffalo%20Creek%20Mine%20Disaster%3A%20Feb.&text=Three%20coal%20waste%20dams%20in,another%20900%2Dplus%20were%20damaged>.
- National Performance of Dams Program. 2018. *NPDP Dam Incident Database*. December 22. Accessed 2023. http://npdp.stanford.edu/dam_incidents.
- National Oceanic and Atmospheric Administration (NOAA) National Centers for Environmental Information. 2022. *State Climate Summaries 2022 - West Virginia*. Accessed 2023. <https://statesummaries.ncics.org/chapter/wv/>.



- Texas Commission on Environmental Quality (TCEQ). 2021. *Reducing the Consequences of Dam Failure*. December 6. Accessed 2023. <https://www.tceq.texas.gov/downloads/publications/gi/chapter-10-gi-357.pdf>.
- U.S. Army Corps of Engineers (USACE). 2023. *National Inventory of Dams*. Accessed 2023. <https://nid.sec.usace.army.mil/#/>.
- U.S. Department of Agriculture (USDA). 2023. *Disaster Designation Information*. Accessed 2023. <https://www.fsa.usda.gov/programs-and-services/disaster-assistance-program/disaster-designation-information/index>.
- West Virginia Department of Environmental Protection (WVDEP). 2023. *Definition of a Dam*. Accessed 2023. <https://dep.wv.gov/WWE/ee/ds/Pages/DefinitionofaDam.aspx>.
- . 2023. *Frequently Asked Questions*. Accessed 2023. <https://dep.wv.gov/WWE/ee/ds/Pages/dsfaqs.aspx#hazardpotential>.
- . 2023. *Monitoring and Emergency Action Plans*. March 22. <https://dep.wv.gov/WWE/ee/ds/services/Pages/dseap.aspx>.
- West Virginia Department of Transportation (WVDOT). 2020. *Fact Sheet – Demographic and Social*. Accessed 2023. https://transportation.wv.gov/highways/programplanning/LRTP/Documents/FactSheet_Demographic_Final.pdf.
- West Virginia Emergency Management Division (WVEMD). 2018. *2018 West Virginia Statewide Standard Hazard Mitigation Plan Update*. Accessed 2023.
- West Virginia University GIS Technical Center (WVU GISTC). 2019. *Statewide Dams*. December 5. Accessed 2023. https://data.wvgis.wvu.edu/pub/RA/_resources/Dam/WV_Dams_20191205.pdf.

Section 5.2: Drought

- Borunda, Alejandra. 2020. "Science." National Geographic. September 17. Accessed 2022.
- Federal Emergency Management Agency (FEMA). 2023. *Disaster Declarations for States and Counties*. Accessed 2023. <https://www.fema.gov/data-visualization/disaster-declarations-states-and-counties>.
- Moreland, Joe. 2016. *Drought*. December 7. Accessed 2023. <https://pubs.usgs.gov/of/1993/ofr93-642/pdf/ofr93-642.pdf>.
- National Centers for Environmental Information. 2023. *Index*. Accessed 2023. <https://www.ncei.noaa.gov/access/monitoring/dyk/spi-description>.
- . 2023. *Overview*. Accessed 2023. <https://www.ncei.noaa.gov/access/monitoring/historical-palmers/overview>.
- . 2023. *Storm Events Database*. February. Accessed 2023. <https://www.ncdc.noaa.gov/stormevents/>.
- . 2022. *State Climate Summaries 2022 - West Virginia*. Accessed 2023. <https://statesummaries.ncics.org/chapter/wv/>.



- National Drought Mitigation Center. 2023. *How Does Drought Affect Our Lives?* Accessed 2023. <https://drought.unl.edu/Education/DroughtforKids/DroughtEffects.aspx>.
- . 2023. *Measuring Drought*. Accessed 2023. <https://drought.unl.edu/ranchplan/DroughtBasics/WeatherandDrought/MeasuringDrought.aspx>.
- National Drought Mitigation Center, University of Nebraska. 2023. *Drought Impact Reporter*. Accessed 2023. <https://unldroughtcenter.maps.arcgis.com/apps/MapSeries/index.html?appid=de6fb79dcf704cb69b60b4fa268fce4d>.
- National Integrated Drought Information System. 2022. *What is Drought*. Accessed 2022. <https://www.drought.gov/what-is-drought/drought-basics>.
- National Weather Service (NWS) Climate Prediction Center (CPC). 2023. *Crop Moisture Index (CMI)*. Accessed 2023. <https://www.drought.gov/data-maps-tools/crop-moisture-index-cmi>.
- . 2022. *What is meant by the term drought?* Accessed 2022. https://www.weather.gov/bmx/kidscorner_drought.
- National Oceanic and Atmospheric Administration (NOAA) - NIDIS. n.d. "Wildfire Management." Drought.gov. Accessed 2022. <https://www.drought.gov/sectors/wildfire-management>.
- National Public Radio (NPR). 1999. *Drought - West Virginia*. August 2. Accessed 2023. <https://www.npr.org/1999/08/02/1054796/drought-west-virginia>.
- Tuckwiller, Tara. 1999. "Drought of 1999." West Virginia Archives & History. August 3. Accessed 2023. <https://archive.wvculture.org/history/disasters/droughtof199901.html>.
- U.S. Climate Resilience Toolkit. 2021. *Early Warning Information Increases Options for Drought Mitigation*. August 26. Accessed 2023. <https://toolkit.climate.gov/case-studies/early-warning-information-increases-options-drought-mitigation>.
- U.S. Department of Agriculture (USDA). 2022. *Disaster Designation Information*. Accessed 2022. <https://www.fsa.usda.gov/programs-and-services/disaster-assistance-program/disaster-designation-information/index>.
- . 2017. *2017 Census of Agriculture State Profile - West Virginia*. Accessed 2023. https://www.nass.usda.gov/Publications/AgCensus/2017/Online_Resources/County_Profiles/West_Virginia/cp99054.pdf.
- U.S. Environmental Protection Agency (U.S. EPA). 2016. EPA 430-F-16-050. August. Accessed 2023.
- U.S. Forest Service. 2023. *National Fire Danger Rating System*. Accessed 2023. <https://www.fs.usda.gov/detail/cibola/landmanagement/resourcemanagement/?cid=stelprdb5368839>.
- U.S. Geological Survey (USGS). 2023. *Climate*. Accessed 2023. <https://www.usgs.gov/science/science-explorer/climate/>.



West Virginia Archives & History. 1999. "Proclamation by Governor Cecil H. Underwood." West Virginia Archives & History. May 15. Accessed 2023.

<https://archive.wvculture.org/history/disasters/droughtof199903.jpg>.

West Virginia Department of Environmental Protection (WVDEP). 2020. "2020 Annual Water Resources Report." November. Accessed 2023.

https://www.wvlegislature.gov/legisdocs/2021/committee/interim/WATER/WATER_20211031234567.pdf.

West Virginia Department of Transportation (WVDOT). 2020. *Fact Sheet – Demographic and Social*. Accessed 2023.

https://transportation.wv.gov/highways/programplanning/LRTP/Documents/FactSheet_Demographic_Final.pdf.

West Virginia Emergency Management Division (WVEMD). 2018. *2018 West Virginia Statewide Standard Hazard Mitigation Plan Update*. Accessed 2023.

—. 2016. *Emergency Operations Plan - Incident Specific Annex 6 Drought*. January. Accessed 2023.

<https://emd.wv.gov/Preparedness/Resources/Documents/WV%20EOP%202016/IS%2006%20-%20Drought%20FINAL%201-6-16.pdf>.

Section 5.3: Earthquake

Federal Emergency Management Agency (FEMA). 2023. *Declared Disasters*. Accessed 2023.

<https://www.fema.gov/disaster/declarations>.

—. 2023. *National Risk Index*. Accessed 2023. <https://hazards.fema.gov/nri/map#>.

Michigan Tech. 2023. *How Do We Measure Earthquake Magnitude?* Accessed 2023.

<https://www.mtu.edu/geo/community/seismology/learn/earthquake-measure/#:~:text=The%20moment%20magnitude%20scale%20is,the%20earthquake%20at%20multiple%20stations>.

National Aeronautics and Space Administration (NASA). 2019. *Can Climate Affect Earthquakes, Or Are the Connections Shaky?* October 29. Accessed November, 2022. <https://climate.nasa.gov/news/2926/can-climate-affect-earthquakes-or-are-the-connections-shaky/>.

University of Washington. 2014. *Section 5: Sediment*. Accessed November 2022. https://cig.uw.edu/wp-content/uploads/sites/2/2014/11/ps-sok_sec05_sediment_2015.pdf.

U.S. Department of Agriculture (USDA). 2023. *Disaster Designation Information*.

<https://www.fsa.usda.gov/programs-and-services/disaster-assistance-program/disaster-designation-information/index>.

U.S. Geological Survey (USGS). 2023. *Earthquake Magnitude, Energy Release, and Shaking Intensity*. Accessed 2023. <https://www.usgs.gov/programs/earthquake-hazards/earthquake-magnitude-energy-release-and-shaking->



- . 2012. "Natural Disasters and Severe Weather." Center for Disease Control and Protection. December 03. Accessed August 22, 2022. <https://www.cdc.gov/disasters/winter/guide.html>.
- Center for Climate and Energy Solutions. 2021. "Equity in Resilience: Addressing the unequal health impacts of extreme heat." September 13. Accessed 2023. <https://www.c2es.org/2021/09/equity-in-resilience-addressing-the-unequal-health-impacts-of-extreme-heat/#:~:text=Some%20physiological%20conditions%20can%20make,especially%20sensitive%20to%20heat%20exposure.>
- Charleston, WV Weather Forecast Office. 2023. *NWS Charleston, WV Product Issuance Criteria*. Accessed 2023. <https://www.weather.gov/rlx/criteria>.
- Federal Emergency Management Agency (FEMA). 2023. *Disaster Declarations for States and Counties*. Accessed 2023. <https://www.fema.gov/data-visualization/disaster-declarations-states-and-counties>.
- National Oceanic and Atmospheric Administration (NOAA). 2009. *National Weather Service, Heat Wave*. June 25. Accessed August 30, 2022. <https://w1.weather.gov/glossary/index.php?word=heat+wave>.
- NOAA National Centers for Environmental Information (NCEI). 2022. *State Climate Summaries 2022 West Virginia*. <https://statesummaries.ncics.org/chapter/wv/>.
- National Weather Service (NWS). 2021. "Weather Related Fatality and Injury Statistics." National Weather Service. Accessed August 23, 2022. <https://www.weather.gov/hazstat/>.
- U.S. Environmental Protection Agency (U.S. EPA). 2022. *Heat Island Effect*. June 6. Accessed August 30, 2022. <https://www.epa.gov/heat-islands>.
- U.S. Department of Agriculture (USDA). 2023. *Disaster Designation Information*. Accessed 2023. <https://www.fsa.usda.gov/programs-and-services/disaster-assistance-program/disaster-designation-information/index>.
- . 2017. *2017 Census of Agriculture State Profile - West Virginia*. Accessed 2023. https://www.nass.usda.gov/Publications/AgCensus/2017/Online_Resources/County_Profiles/West_Virginia/cp99054.pdf.
- West Virginia Department of Transportation (WVDOT). 2020. *Fact Sheet – Demographic and Social*. Accessed 2023. https://transportation.wv.gov/highways/programplanning/LRTP/Documents/FactSheet_Demographic_Final.pdf.
- West Virginia Emergency Management Division (WVEMD). 2018. *2018 West Virginia Statewide Standard Hazard Mitigation Plan Update*. Accessed 2023.

Section 5.5: Flood

- Centers for Disease Control and Prevention (CDC). 2022. *Floodwater After a Disaster or Emergency*. October 04. Accessed May 24, 2023. <https://www.cdc.gov/disasters/floods/floodsafety.html>.



- Chew, Bruce, William D Eggers, Joshua Knight, RJ Krawiec, and Mahesh Kelkar. 2021. *Rebuilding Trust in Government*. Accessed 2023. <https://www2.deloitte.com/us/en/insights/industry/public-sector/building-trust-in-government.html>.
- Federal Emergency Management Agency (FEMA). 2022. *Disaster Declarations for States and Counties*. November 25. Accessed 2022. <https://www.fema.gov/data-visualization/disaster-declarations-states-and-counties>.
- . 2022. *Financial Losses by State*. June 30. Accessed May 19, 2023. https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fnfipservices.floodsmart.gov%2Fsites%2Fdefault%2Ffiles%2Fnfip_financial-losses-by-state_20220630.xlsx&wdOrigin=BROWSELINK.
- . 2022. *National Flood Insurance Program*. October. Accessed October 13, 2022. https://www.fema.gov/sites/default/files/documents/fema_nfip-flood-insurance-full-manual_102022.pdf.
- . 2020. *Flood Insurance Study Status*. July 13. <https://www.fema.gov/flood-maps/change-your-flood-zone/status/flood-insurance-study>.
- . 2019. *Riverine Flooding*. Accessed January 03, 2023. <https://hazards.fema.gov/nri/riverine-flooding>.
- . 2018. *Dam Consideration in Flood Mapping Studies*. October. Accessed May 17, 2023. https://www.fema.gov/sites/default/files/2020-08/damsafety_fs1.pdf.
- . 2016. *What is a Levee?* May 17. Accessed May 17, 2023. https://www.fema.gov/sites/default/files/2020-08/fema_what-is-a-levee_fact-sheet_0512.pdf#:~:text=The%20National%20Flood%20Insurance%20Program%20%28NFIP%29%20defines%20a,so%20as%20to%20reduce%20risk%20from%20temporary%20flooding.%E2%80%9D.
- . n.d. *Glossary*. Accessed May 24, 2023. https://www.floodmaps.fema.gov/tutorials/check-ras/0.3_glossary.shtml.
- Harris, Tom. 2001. *How Floods Work*. June. Accessed October 13, 2022. <https://science.howstuffworks.com/nature/natural-disasters/flood.htm>.
- Marsh McLennan. 2021. *Sunk costs: The socioeconomic impacts of flooding*. June 03. Accessed May 19, 2023. https://www.marshmclennan.com/content/dam/mmc-web/insights/publications/2021/june/Sunk-Cost_Socioeconomic-impacts-of-flooding_vF.pdf.
- National Geographic. 2022. *Floodplain*. May 20. Accessed October 13, 2022. <https://education.nationalgeographic.org/resource/flood-plain>.
- . 2022. *The Many Effects of Flooding*. September 08. Accessed May 24, 2023. <https://education.nationalgeographic.org/resource/many-effects-flooding/>.
- National Oceanic and Atmospheric Administration (NOAA). 2022. *State Climate Summaries 2022: West Virginia*. Accessed May 17, 2023. <https://statesummaries.ncics.org/chapter/wv/>.
- . 2022. *Understanding Stormwater Inundation*. February 15. Accessed January 03, 2023. <https://coast.noaa.gov/stormwater-floods/understand/>.



- . 2021. *SEVERE WEATHER 101*. December 15. Accessed October 13, 2022.
<https://www.nssl.noaa.gov/education/svrwx101/floods/faq/>.
- National Weather Service (NWS). 2019. *Flood Related Hazards*. September 16. Accessed January 03, 2023.
<https://www.weather.gov/safety/flood-hazards>.
- . 2019. *WHAT IS FLASH FLOODING?* February 28. Accessed January 03, 2023.
<https://www.weather.gov/phi/FlashFloodingDefinition>.
- . 2009. *National Weather Service*. June 25. Accessed October 5, 2022.
<https://www.weather.gov/phi/FlashFloodingDefinition>.
- . No date. *Flood Related Products*. Accessed July 24, 2023. <https://www.weather.gov/safety/flood-products>.
- O'Connor, Jim E., Gordon E. Grant, and John E. Costa. 2002. *The Geology and Geography of Floods*. American Geophysical Union.
- Southon, Mercia Patricia, and Dr Clinton D. van der Merwe. 2018. *Flooded with risks or opportunities: Exploring flooding impacts on tourist accommodation*. February 26. Accessed May 19, 2023.
https://www.ajhtl.com/uploads/7/1/6/3/7163688/article_36_vol_7__1__2018.pdf.
- State of West Virginia. 2018. *West Virginia Statewide Standard Hazard Mitigation Plan Update 2018*. Accessed May 17, 2023.
<https://emd.wv.gov/MitigationRecovery/Documents/WV%20State%20Hazard%20Mitigation%20Plan%20FINAL%2011-2018.pdf>.
- U.S. Global Change Research Program. 2018. *Chapter 21: Midwest*.
<https://nca2018.globalchange.gov/chapter/21/>.
- U.S. Army Corps of Engineers (USACE). 2023. *Causes and Types of Dam Failures*. January 18. Accessed May 17, 2023. <https://www.hec.usace.army.mil/confluence/rasdocs/ras1dtechref/latest/performing-a-dam-break-study-with-hec-ras/estimating-dam-breach-parameters/causes-and-types-of-dam-failures>.
- . 2023. *National Inventory of Dams*. Accessed May 17, 2023. <https://nid.sec.usace.army.mil/#/>.
- . 2023. *National Levee Database*. Accessed May 17, 2023.
<https://levees.sec.usace.army.mil/#/levees/search/in=@state:West%20Virginia&viewType=detail&resultsType=system&advanced=true&hideList=false&eventSystem=false>.
- U.S. Environmental Protection Agency (U.S. EPA). 2022. *Weather and Climate*. August 01. Accessed May 17, 2023. <https://www.epa.gov/climate-indicators/weather-climate>.
- . 2016. EPA 430-F-16-050. August. Accessed 2023.
- U.S. Geological Survey (USGS). 2018. *Floods and Recurrence Intervals*. June 11. Accessed May 24, 2023.
<https://www.usgs.gov/special-topics/water-science-school/science/floods-and-recurrence-intervals#overview>.



West Virginia University (WVU). 2022. *West Virginia Population Projection by Counties 2020-2040, Summary Table*. October. Accessed May 19, 2023. https://business.wvu.edu/files/d/73f29801-fb12-40d4-b8d0-5802a29742be/wvsummary_2022.pdf.

World Health Organization (WHO). 2020. *Floods*. April 29. Accessed May 24, 2023. https://www.who.int/health-topics/floods/#tab=tab_2.

West Virginia Department of Transportation (WVDOT). 2020. *Fact Sheet – Demographic and Social*. December 03. Accessed May 19, 2023. https://transportation.wv.gov/highways/programplanning/LRTP/Documents/FactSheet_Demographic_Final.pdf#:~:text=Projections%20from%20the%20University%20of%20Virginia%20Demographics%20Research,will%20pass%20West%20Virginia%20by%20the%20late%202020%E2%80%99s%20

Section 5.6: Hazardous Materials

Crawford, M. 2022. "The Social Cascades of Exposure to Flood Induced Natech Events on Vulnerable Populations in Hampton Roads, Virginia." May 31. Accessed August 2022. <https://vtechworks.lib.vt.edu/handle/10919/110374>.

Cruz, Ana Maria, and Maria Camila Suarez-Paba. 2019. *Advances in Natech research: An overview*. Accessed 2023. <https://www.sciencedirect.com/science/article/pii/S2590061719300134>.

Federal Aviation Administration. 2023. *What are Dangerous Goods?* Accessed 2023. https://www.faa.gov/hazmat/what_is_hazmat.

Federal Emergency Management Agency (FEMA). 2019. "Hazardous Materials Incidents." August. Accessed November 2022. <https://www.fema.gov/sites/default/files/2020-07/hazardous-materials-incident.pdf>.

Krausmann, Elisabeth, Serkan Girgin, and Amos Necci. 2019. "Natural hazard impacts on industry and critical infrastructure: Natech risk drivers and risk management performance indicators." European Commission Joint Research Centre. Accessed November 3, 2022. doi:<https://doi.org/10.1016/j.ijdr.2019.101163>.

National Fire Protection Association (NFPA). 2022. *What is Hazardous Materials?* Accessed 2023. <https://www.nfpa.org/News-and-Research/Publications-and-media/Blogs-Landing-Page/NFPA-Today/Blog-Posts/2022/04/15/What-is-Hazardous-Material>.

National Institutes of Health (NIH). n.d. *Emergency Planning Community Right-to-Know Act*. Accessed 2023. <https://nems.nih.gov/environmental-programs/Pages/Emergency-Planning-Community-Right-to-Know-Act.aspx>.

National Oceanic and Atmospheric Administration (NOAA). 2016. *Oil spills: A major marine ecosystem threat*. Accessed 2023. <https://www.noaa.gov/explainers/oil-spills-major-marine-ecosystem-threat>.

U.S. Government Accountability Office (GAO). 2022. *WatchBlog*. March 02. Accessed November 4, 2022. <https://www.gao.gov/blog/>.

U.S. Census Bureau. 2023. *United States Census*. Accessed 2023. [https://data.census.gov/table?q=West+Virginia+visitors&g=0400000US54\\$0500000](https://data.census.gov/table?q=West+Virginia+visitors&g=0400000US54$0500000).



- U.S. Code Title 49.B.I.A.105.A. n.d. <https://www.ecfr.gov/current/title-49/subtitle-B/chapter-I/subchapter-A/part-105/subpart-A>.
- U.S. Code Title 49.B.I.C.172. n.d. <https://www.ecfr.gov/current/title-49/subtitle-B/chapter-I/subchapter-A/part-105/subpart-A>.
- U.S. Department of Transportation (DOT). 2023. *Incident Statistics*. Accessed May 21, 2023. <https://www.phmsa.dot.gov/hazmat-program-management-data-and-statistics/data-operations/incident-statistics>.
- U.S. Environmental Protection Agency (U.S. EPA). 2023. *CERCLA Hazardous Substances Defined*. Accessed 2023. <https://www.epa.gov/epcra/cercla-hazardous-substances-defined>.
- . 2023. "National Priorities List." May 21. Accessed May 2023. <https://www.epa.gov/superfund/national-priorities-list-npl-sites-state#WV>.
- . 2023. *Superfund*. <https://www.epa.gov/superfund>.
- . 2015. "Hazard Communication Standard for Chemical Labels and Safety Data Sheets In GHS Format." December. Accessed May 2023. https://www.epa.gov/sites/default/files/2016-01/documents/hazard_communication_standard-safety_data_sheets_epa_dec_2015.pdf.
- . n.d. "Climate Adaptation - Chemical Exposure and Health." <https://www.epa.gov/arc-x/climate-adaptation-chemical-exposure-and-health>.
- U.S. EPA, FEMA, U.S. DOT. 1987. "Technical Guidance for Hazard Analysis: Emergency Planning for Extremely Hazardous Substances." December. Accessed 2023. https://www.epa.gov/sites/default/files/2015-09/documents/technical_guidance_for_hazard_analysis.pdf.
- West Virginia Department of Environmental Protection (WVDEP). 2023. *Superfund Section*. <https://dep.wv.gov/dlr/oer/CERCLA/Pages/default.aspx>.
- . 2022. "RCRA Hazardous Waste." WWE Programs. Accessed November 3, 2022. <https://dep.wv.gov/WWE/Programs/hazwaste/Pages/default.aspx>.

Section 5.7: Landslides

- Board. 2014. *Getting A Grip on Landslides in W. VA*. April 25. Accessed 2022. <https://www.wvpublic.org/news/2014-04-25/getting-a-grip-on-landslides-in-w-va>.
- Centers for Disease Control and Prevention (CDC). 2018. *Landslides & Mudslides*. January 12. Accessed May 25, 2023. <https://www.cdc.gov/disasters/landslides.html>.
- Chew, Bruce, William D Eggers, Joshua Knight, RJ Krawiec, and Mahesh Kelkar. 2021. *Rebuilding Trust in Government*. Accessed 2023. <https://www2.deloitte.com/us/en/insights/industry/public-sector/building-trust-in-government.html>.
- Federal Emergency Management Agency (FEMA). 2023. *Disaster Declarations for States and Counties*. Accessed May 25, 2023. <https://www.fema.gov/data-visualization/disaster-declarations-states-and-counties>.



—. 2017. Fact Sheet: *Recognize Landslide Warning Signs*. Accessed 2023. <https://www.fema.gov/press-release/20210318/fact-sheet-recognize-landslide-warning-signs>.

—. 2022. *West Virginia Landslide Tool*. Accessed 2022. <https://wvu.maps.arcgis.com/apps/webappviewer/index.html?id=cb01c47cfa884309b4f38dcd7542f805>.

Geertsema, Marten, Lynn Highland, and Laura Vaugeouis. 2009. *Environmental Impact of Landslides*. January. Accessed May 25, 2023.

Highland, Lynn M., and Peter Bobrowsky. 2008. "The Landslide Handbook - A Guide to Understanding Landslides." USGS. November 15. Accessed July 7, 2022. https://pubs.usgs.gov/circ/1325/pdf/C1325_508.pdf.

Kite, Dr. J. Steven. 2021. *West Virginia Landslide Risk Assessment*. March. Accessed 2022. https://data.wvgis.wvu.edu/pub/RA/_resources/Landslide/Landslide_Characteristics_AlleghanyPlateauAndMntnsSouth_MLRA.pdf.

U.S. Department of Homeland Security (U.S. DHS). 2022. *Landslides & Debris Flow*. November 11. Accessed May 25, 2023. <https://www.ready.gov/landslides-debris-flow>.

U.S. Geological Survey (USGS). 2023. *What is a landslide hazard map?* Accessed April 2023. <https://www.usgs.gov/faqs/what-landslide-hazard-map>.

—. 2022. *Landslide Hazard Information*. Accessed 2022. <https://geology.com/usgs/landslides/>.

—. 2004. *Landslide Types and Processes*. Accessed 2023. <https://pubs.usgs.gov/fs/2004/3072/fs-2004-3072.html>.

U.S. Global Change Research Program. 2018. *Chapter 21: Midwest*. <https://nca2018.globalchange.gov/chapter/21/>.

West Virginia Department of Transportation (WVDOT). 2020. *Fact Sheet – Demographic and Social*. December 03. Accessed May 19, 2023. https://transportation.wv.gov/highways/programplanning/LRTP/Documents/FactSheet_Demographic_Final.pdf#:~:text=Projections%20from%20the%20University%20of%20Virginia%20Demographics%20Research,will%20pass%20West%20Virginia%20by%20the%20late%202020%E2%80%99s%20

West Virginia Division of Forestry. 2021. *Logging in West Virginia*. July 13. Accessed May 25, 2023. <https://wvforestry.com/logging/#:~:text=Logging%20in%20West%20Virginia%20The%20wood%20industry%20of,the%20largest%20employer%20in%20many%20of%20these%20counties>.

West Virginia Emergency Management Division (WVEMD). 2018. *2018 West Virginia Statewide Standard Hazard Mitigation Plan Update*. Accessed 2023.

—. 2018. *Recognizing Landslide Risk on Your Property*. Accessed 2023. https://data.wvgis.wvu.edu/pub/RA/_resources/Landslide/LandslidesOnYourProperty_Brochure.pdf.



West Virginia Geological and Economic Survey. 2020. *Homeowner's Guide to Geologic Hazards*. February 12. Accessed May 25, 2023. <https://www.wvgs.wvnet.edu/www/geohaz/geohaz3.htm>.

West Virginia University GIS Technical Center (WVU GISTC). 2021. *Type of Landslide*. October 4. Accessed 2022.

West Virginia University (WVU). 2022. *West Virginia Population Projection by Counties 2020-2040, Summary Table*. October. Accessed May 19, 2023. https://business.wvu.edu/files/d/73f29801-fb12-40d4-b8d0-5802a29742be/wvsummary_2022.pdf.

--. 2020. *Recognizing Landslide Risk on Your Property*. November 30. Accessed May 25, 2023. https://data.wvgis.wvu.edu/pub/RA/_resources/Landslide/LandslidesOnYourProperty_Brochure.pdf.

Section 5.8: Levee Failure

American Society of Civil Engineers (ASCE). 2022. *ASCE's 2021 Infrastructure Report Card*. Accessed 2023. <https://infrastructurereportcard.org/cat-item/levees-infrastructure/#:~:text=It%20is%20estimated%20that%20%2421,levees%20is%20likely%20much%20higher.>

—. 2020. *West Virginia Infrastructure Report Card*. Accessed November 27, 2022. <https://infrastructurereportcard.org/state-item/west-virginia/>.

Centers for Disease Control and Prevention (CDC). 2022. *CDC/ATSDR Social Vulnerability Index*. <https://www.atsdr.cdc.gov/placeandhealth/svi/index.html>.

Federal Emergency Management Agency (FEMA). 2023. *Declared Disasters*. Accessed 2023. <https://www.fema.gov/disaster/declarations>.

—. 2020. *What Is A Levee?* Accessed May 12, 2023. https://www.fema.gov/sites/default/files/2020-08/fema_what-is-a-levee_fact-sheet_0512.pdf.

U.S. Army Corps of Engineers (USACE). n.d. *National Levee Database*. Accessed November 28, 2022. <https://levees.sec.usace.army.mil/#/>.

U.S. Department of Agriculture (USDA). 2023. *Disaster Designation Information*. <https://www.fsa.usda.gov/programs-and-services/disaster-assistance-program/disaster-designation-information/index>.

U.S. Global Change Research Program. 2017. "Highlights of the U.S. Global Change Research Program Climate Science Special Report." Accessed November 2022. https://science2017.globalchange.gov/downloads/CSSR_Executive_Summary.pdf.

West Virginia Board of Risk and Insurance Management (BRIM). 2022. "List of State-Owned and -Leased Facilities."

West Virginia Emergency Management Division (WVEMD). 2022. List of Critical Facilities.

West Virginia University GIS Technical Center (WVU GISTC). 2022. *WV State GIS Data Clearinghouse*. Accessed 2022. <https://wvgis.wvu.edu/data/data.php>.



Section 5.9: Pandemic

- Center on Budget and Policy Priorities. 2022. *Tracking the COVID-19 Economy's Effects on Food, Housing, and Employment Hardships*. February 22. Accessed November 25, 2022. <https://www.cbpp.org/research/poverty-and-inequality/tracking-the-covid-19-economys-effects-on-food-housing-and>.
- Centers for Disease Control and Prevention (CDC). 2022. *Bird Flu Virus Infections in Humans*. May 4. Accessed November 25, 2022. <https://www.cdc.gov/flu/avianflu/avian-in-humans.htm>.
- . 2020a. *Diseases Carried by Vectors*. December 21. Accessed November 25, 2022. <https://www.cdc.gov/climateandhealth/effects/vectors.htm>.
- . 2020b. *Pandemic Influenza*. May 12. Accessed November 25, 2022. <https://www.cdc.gov/flu/pandemic-resources/index.htm>.
- . 2015. *Influenza (Flu)*. <https://www.cdc.gov/flu/>.
- . n.d. *Epidemic Disease Occurrence, Level of disease*. Accessed November 25, 2022. <https://www.cdc.gov/csels/dsepd/ss1978/lesson1/section11.html#:~:text=Epidemic%20refers%20to%20an%20increase,a%20more%20limited%20geographic%20area>.
- Felman, Adam. 2020. "What to know about pandemics." *Medical News Today*, March 30.
- Hartman, Melissa. 2021. *The Environmental Toll of Fighting COVID-19*. April 20. Accessed November 25, 2022. <https://publichealth.jhu.edu/2021/the-environmental-toll-of-fighting-covid-19>.
- Hazarie, Surendra, David Soriano-Panos, Alex Arenas, Jesus Gomez-Gardenes, and Ghoshal Gourab. 2021. *Interplay between population density and mobility in determining the spread of epidemics in cities*. August 23. Accessed November 25, 2022. <https://www.nature.com/articles/s42005-021-00679-0>.
- Karaye IM, Horney JA. 2020. "The Impact of Social Vulnerability on COVID-19 in the U.S.: An Analysis of Spatially Varying Relationships." *Am J Prev Med*. 317-325.
- Mayo Clinic. 2020. *Bird flu (avian influenza)*. November 13. Accessed November 25, 2022. <https://www.mayoclinic.org/diseases-conditions/bird-flu/symptoms-causes/syc-20368455>.
- . 2022. *Influenza (flu)*. Accessed November 25, 2022. <https://www.mayoclinic.org/diseases-conditions/flu/symptoms-causes/syc-20351719#:~:text=Influenza%20is%20a%20viral%20infection,that%20cause%20diarrhea%20and%20vomiting>.
- Rocklöv, Joacim, and Robert Dubrow. 2020. *Nature Immunology*. April 29. Accessed November 25, 2022. <https://www.nature.com/articles/s41590-020-0648-y>.
- Shang, Yunfeng, Haiwei Li, and Ren Zhang. 2021. "Effects of Pandemic Outbreak on Economies: Evidence From Business History Context." *Frontiers in Public Health*. March 12. Accessed November 25, 2022. <https://www.frontiersin.org/articles/10.3389/fpubh.2021.632043/full>.



- Snyder, Shepherd. 2022. *Poultry Researchers, Department of Agriculture Officials Monitoring Nationwide Wave Of Bird Flu*. April 22. Accessed November 25, 2022. <https://www.wvpublic.org/health-science/2022-04-22/poultry-researchers-department-of-agriculture-officials-monitoring-nationwide-wave-of-bird-flu>.
- U.S. Environmental Protection Agency (U.S. EPA). 2022. *West Nile Virus*. August 2. Accessed November 25, 2022. <https://www.epa.gov/climate-indicators/>.
- West Virginia Department of Health & Human Resources. 2022. *Lyme Disease. Office of Epidemiology & Prevention Services*. Accessed November 25, 2022. <https://oeps.wv.gov/lyme/pages/default.aspx>.
- . 2022. *Mosquito-Bourne Diseases*. Accessed November 25, 2022. <https://oeps.wv.gov/arboviral/Pages/mbd.aspx>.
- . 2022. *Tickborne Diseases*. Accessed November 25, 2022. <https://oeps.wv.gov/arboviral/Pages/tbd.aspx>.
- . 2022. *Outbreaks*. Office of Epidemiology & Prevention Services. Accessed November 25, 2022. <https://oeps.wv.gov/outbreaks/pages/default.aspx>.
- World Health Organization (WHO). 2023. *WHO Coronavirus (COVID-19) Dashboard*. <https://covid19.who.int/>.
- . 2022. *Coronavirus disease (COVID-19)*. Accessed November 25, 2022. https://www.who.int/health-topics/coronavirus#tab=tab_1.
- . 2020. *Modes of transmission of virus causing COVID-19: implications for IPC precaution recommendations*. March 29. Accessed November 25, 2022. <https://www.who.int/news-room/commentaries/detail/modes-of-transmission-of-virus-causing-covid-19-implications-for-ipc-precaution-recommendations>.
- . 2015. *The WHO Pandemic Phases*. <https://www.ncbi.nlm.nih.gov/books/NBK143061/>.
- WV News. 2022. *CDC releases more information on West Virginia swine flu cases*. August 12. Accessed November 25, 2022. https://www.wvnews.com/news/wvnews/cdc-releases-more-information-on-west-virginia-swine-flu-cases/article_a6c02698-1a80-11ed-8353-7f722fb7ff6d.html.

Section 5.10: Radiological Incidents

- Centers for Disease Control and Prevention (CDC). 2022. *CDC/ATSDR Social Vulnerability Index*. <https://www.atsdr.cdc.gov/placeandhealth/svi/index.html>.
- . 2019. *Nuclear Power Plant Accidents*. December. Accessed May 2023. https://www.cdc.gov/nceh/multimedia/infographics/nuclear_power_plant_accidents.html.
- Federal Emergency Management Agency (FEMA). 2023. *Declared Disasters*. Accessed 2023. <https://www.fema.gov/disaster/declarations>.
- Hancock County Office of Emergency Management. 2021. "2021/2022 Emergency Preparedness Information." November. Accessed 2023. https://emd.wv.gov/About/News/Documents/EPI_BeaverValley_Hancock_mailer%202021-2022.pdf.



National Public Radio (NPR). 2022. *NPR*. February 8. Accessed November 27, 2022. <https://www.npr.org/2022/02/08/1079339405/west-virginia-ban-nuclear-power-coal>.

U.S. Environmental Protection Agency (U.S. EPA). 2023. *Radiation Health Effects*. February. Accessed May 2023. <https://www.epa.gov/radiation/radiation-health-effects>.

U.S. Nuclear Regulatory Commission (NRC). 2023. *Event Notification Reports*. January. Accessed May 2023. <https://www.nrc.gov/reading-rm/doc-collections/event-status/event/index.html>.

--. 2021. *Emergency Classification*. March 29. Accessed 2023. <https://www.nrc.gov/about-nrc/emerg-preparedness/about-emerg-preparedness/emerg-classification.html>.

--. 2020. *Backgrounder on Biological Effects of Radiation*. July 08. <https://www.nrc.gov/reading-rm/doc-collections/fact-sheets/bio-effects-radiation.html>.

—. 2020. *Emergency Planning Zones*. November. Accessed May 2023. <https://www.nrc.gov/about-nrc/emerg-preparedness/about-emerg-preparedness/planning-zones.html>.

U.S. Department of Agriculture (USDA). 2023. *Disaster Designation Information*. <https://www.fsa.usda.gov/programs-and-services/disaster-assistance-program/disaster-designation-information/index>.

U.S. Geological Survey (USGS). 2022. *National Hydrography Dataset*. <https://www.usgs.gov/national-hydrography/national-hydrography-dataset>.

Wai, K., Krstic, D., Nikezic, D. et al. 2020. "External Cesium-137 doses to humans from soil influenced by the Fukushima and Chernobyl nuclear power plants accidents: a comparative study." *Scientific Reports*. Accessed 2022. <https://doi.org/10.1038/s4159>.

West Virginia Board of Risk and Insurance Management (BRIM). 2022. "List of State-Owned and -Leased Facilities."

West Virginia Department of Transportation (WVDOT). 2022. *GIS Data*. <https://transportation.wv.gov/IT/GIS/Pages/DataCatalog.aspx>.

West Virginia Emergency Management Division (WVEMD). 2022. List of Critical Facilities.

—. 2019. *REP Plans and Procedures*. January. Accessed May 2023. <https://emd.wv.gov/REP%20Program/Pages/REP-Plans-and-Procedures.aspx>.

--. n.d. *REP Program*. Accessed October 22, 2022. <https://emd.wv.gov/REP%20Program/Pages/default.aspx>.

West Virginia University GIS Technical Center (WVU GISTC). 2022. *WV State GIS Data Clearinghouse*. Accessed 2022. <https://wvgis.wvu.edu/data/data.php>.

Section 5.11: Radon Exposure

4Weather. 2022. Radon Gas Testing and Mitigation. Accessed 2022. <https://www.4weather.ca/radon-gas/>.



- American Lung Association. 2022. "Radon Testing Disparities: West Virginia." <https://www.lung.org/getmedia/99fe1727-1b89-4e54-9210-4649e237d1c5/Radon-Testing-Disparity-report-for-West-Virginia-2022-08-14.pdf>.
- American Lung Association. n.d. West Virginia. <https://www.lung.org/research/state-of-lung-cancer/states/west-virginia>.
- BMJ. 2005. Radon in homes and risk of lung cancer: collaborative analysis of individual data from 13 European case-control studies. Accessed 2022. <https://www.bmj.com/content/330/7485/223>.
- Centers for Disease Control and Prevention (CDC). 2022. *Radon*. Accessed 2023. <https://www.cdc.gov/radon/index.html>.
- Chew, Bruce, William D Eggers, Joshua Knight, RJ Krawiec, and Mahesh Kelkar. 2021. *Rebuilding Trust in Government*. Accessed 2023. <https://www2.deloitte.com/us/en/insights/industry/public-sector/building-trust-in-government.html>.
- Donne, Frank J. Delle. 2014. *Radon. What does 4pCi/L mean and why is it important?* January 16. <https://rhinj.com/radon-monmouth-middlesex-nj/#:~:text=Radon%2C%20like%20other%20radioactive%20materials%2C%20are,the%20late%201800s%20to%20the%201930s.&text=Radon%2C%20like%20other%20radioactive,1800s%20to%20the%201930s.&text=other%20radioactive%20materi>.
- Duke University. 2023. Team. Accessed 2023. <https://dataclimatehealth.duke.edu/registered-collaborators/team/>.
- Federal Emergency Management Agency (FEMA). 2021. *Disaster Declarations for States and Counties*. February 25. Accessed 2022. <https://www.fema.gov/data-visualization/disaster-declarations-states-and-counties>.
- International Radon Association. 2022. *Radon in West Virginia*. Accessed 2022. <https://radon.org/radon-in-west-virginia/>.
- Merriam Webster. 2023. *Dictionary*. Accessed 2023. <https://www.merriam-webster.com/dictionary/radon>.
- National Oceanic and Atmospheric Administration (NOAA). 2022. *State Climate Summaries 2022: West Virginia*. Accessed May 23, 2023. <https://statesummaries.ncics.org/chapter/wv/>.
- Pennsylvania Department of Environmental Protection (PA DEP) 2023. Radon. Accessed 2023. <https://www.dep.pa.gov/Business/RadiationProtection/RadonDivision/Monitoring/Pages/Publications.aspx>.
- Pennsylvania Emergency Management Agency (PEMA). 2019. *Commonwealth of Pennsylvania 2018 State Hazard Mitigation Plan*. October. Accessed 2022. <https://pahmp.com/wp-content/uploads/2020/01/PA-2019-SHMP-Update-October-2019-Update.pdf>.
- Stebbins, Samuel. 2022. *How the Smoking Rate in West Virginia Compares to the Nation*. Accessed 2022. <https://247wallst.com/state/how-the-smoking-rate-in-west-virginia-compares-to-the-nation/>.



- U.S. Global Change Research Program. 2017. "Highlights of the U.S. Global Change Research Program Climate Science Special Report." Accessed November 2022.
https://science2017.globalchange.gov/downloads/CSSR_Executive_Summary.pdf.
- University of Virginia. 2023. "United States Population Projections." Weldon Cooper Center for Public Service. Accessed January 2023. <https://demographics.coopercenter.org/united-states-interactive-map>.
- U.S. Environmental Protection Agency (U.S. EPA). 2023. *Radionuclide Basics: Radon*. May 12.
<https://www.epa.gov/radiation/radionuclide-basics-radon>.
- . 2022. *EPA Map of Radon Zones*. November 30. Accessed May 3, 2023. <https://www.epa.gov/radon/epa-map-radon-zones>.
- . 2022. *Health Risk of Radon*. <https://www.epa.gov/radon/health-risk-radon>.
- . 2022. *Radon*. Accessed 2022. <https://www.epa.gov/radon>.
- . 2022. *Radon-Resistant Construction Basics and Techniques*. November 10. Accessed May 23, 2023.
<https://www.epa.gov/radon/radon-resistant-construction-basics-and-techniques>.
- . 2022. *What is EPA's Action Level for Radon and What Does it Mean?* July 13. Accessed May 23, 2023.
<https://www.epa.gov/radon/what-epas-action-level-radon-and-what-does-it-mean#:~:text=The%20average%20indoor%20radon%20concentration,4%20pCi%2FL%20action%20level>.
- . 2022. *What is radon gas? Is it dangerous?* October 24. Accessed May 3, 2023.
<https://www.epa.gov/radiation/what-radon-gas-it-dangerous#:~:text=Radon%20is%20naturally%20in%20the,other%20holes%20in%20the%20foundation>.
- . 2016. "A Citizen's Guide to Radon: The Guide to Protecting Yourself and Your Family." Accessed June 2023.
https://www.epa.gov/sites/default/files/2016-12/documents/2016_a_citizens_guide_to_radon.pdf.
- . 2014. *West Virginia - EPA Map of Radon Zones*. August. Accessed May 2023.
https://www.epa.gov/sites/default/files/2014-08/documents/west_virginia.pdf.
- . 2012. *Terminology Services*. August 2. Accessed 2022.
https://sor.epa.gov/sor_internet/registry/termreg/searchandretrieve/glossariesandkeywordlists/search.do?details=&vocabName=Radon%20Glossary%20of%20Terms.
- . n.d. *Radon Zones Map*. Accessed May 23, 2023. <https://www.epa.gov/sites/default/files/2018-12/documents/radon-zones-map.pdf>.
- West Virginia Department of Environmental Protection (WVDEP). n.d. *Radon Levels for West Virginia*. Accessed 2022. https://wv-radon.info/WV_general.html.

Section 5.12: Severe Storm

- Centers for Disease Control and Prevention (CDC). 2022. *Lightning Strike Victim Data*. Accessed 2023.
<https://www.cdc.gov/disasters/lightning/victimdata.html>.



- Chew, Bruce, William D Eggers, Joshua Knight, RJ Krawiec, and Mahesh Kelkar. 2021. *Rebuilding Trust in Government*. Accessed 2023. <https://www2.deloitte.com/us/en/insights/industry/public-sector/building-trust-in-government.html>.
- Federal Emergency Management Agency (FEMA). 2023. *Disaster Declarations for States and Counties*. Accessed May 20, 2023. <https://www.fema.gov/data-visualization/disaster-declarations-states-and-counties>.
- . 2023. Inland Wind Decay Maps. Provided via email by Mike Bilder of FEMA Region 3 on September 7, 2023.
- Grieser, Juergen, and Marc Hill. 2019. *How to Express Hail Intensity*. Accessed 2023. <https://journals.ametsoc.org/view/journals/apme/58/10/jamc-d-18-0334.1.xml>.
- MetroNews. 2021. *Justice issues State of Preparedness for all 55 counties ahead of Hurricane Ida remnant*. <https://wvmetronews.com/2021/08/29/justice-issues-state-of-preparedness-for-all-55-counties-ahead-of-hurricane-ida-remnants/>.
- National Hurricane Center (NHC). 2010. *NHC Issuance Criteria Changes for Tropical Cyclone Watches/Warnings*. Accessed November 15, 2021. https://www.nhc.noaa.gov/watchwarn_changes.shtml#:~:text=Hurricane%20Watch%3A%20An%20announcement%20that,within%20the%20specified%20coastal%20area.&text=Hurricane%20Warning%3A%20An%20announcement%20that,within%20the%20specified%20coastal%20area.
- National Oceanic and Atmospheric Administration (NOAA). 2023. *Bow Echoes*. Accessed 2023. <https://www.noaa.gov/jetstream/derechos/bow-echoes>.
- . 2022. *NWS Glossary*. <https://w1.weather.gov/glossary/>.
- . 2022. *STATE CLIMATE SUMMARIES 2022*. <https://statesummaries.ncics.org/chapter/wv/>.
- . 2018. *Number of Cloud-To-Ground Flashes by State from 2008 to 2017*. Accessed 2023. https://www.weather.gov/media/safety/08-17Flash_Density_State.pdf.
- . 2011. *Tropical Cyclone Climatology*. <https://www.nhc.noaa.gov/climo/>.
- . n.d. *Damaging Winds*. Accessed 2023. <https://www.nssl.noaa.gov/education/svrwx101/wind/types/>.
- . n.d. *Severe Weather 101*. Accessed 2023. <https://www.nssl.noaa.gov/education/svrwx101/thunderstorms/>.
- . n.d. *Severe Weather 101*. Accessed 2022. <https://www.nssl.noaa.gov/education/svrwx101/wind/types/>.
- National Severe Storms Laboratory (NSSL). 2021. *Severe Weather 101 - Hail Basics*. Accessed 2021. <https://www.nssl.noaa.gov/education/svrwx101/hail/>.
- National Weather Service (NWS). 2023. *Severe Weather Awareness*. January 15. Accessed May 24, 2023. https://www.weather.gov/mob/Severe_Tstorms#:~:text=A%20WARNING%20is%20issued%20for%20smaller%2C%20more%20specific,and%20generally%20last%20for%20less%20than%20one%20hour.
- . 2022. *Storm Prediction Center Severe Risk*. https://www.weather.gov/media/ewx/iwt/SPC_WPC_Differences.pdf.
- . 2021. *National Weather Service Glossary*. Accessed 2021. <https://forecast.weather.gov/glossary.php>.



- . 2020. Definitions, Thresholds, Criteria for Warnings, Watches and Advisories. <https://www.weather.gov/ctp/wwaCriteria>.
- . 2012. *Air Pressure and Wind*. November 9. Accessed 2021. https://www.weather.gov/media/zhu/ZHU_Training_Page/winds/pressure_winds/pressure_winds.pdf.
- . n.d. *Saffir-Simpson Hurricane Scale*. Accessed November 15, 2021. <https://www.weather.gov/mfl/saffirsimpson>.
- The Tornado and Storm Research Organisation (TORRO). n.d. *The TORRO Hailstorm Intensity Scale*. <https://www.torro.org.uk/research/hail/hscale>.
- U.S. Global Change Research Program. 2018. *Chapter 9: Extreme Storms*. November. Accessed May 21, 2023. <https://science2017.globalchange.gov/chapter/9/>.
- . n.d. *Highlights of the U.S. Global Change Research Program*. https://science2017.globalchange.gov/downloads/CSSR_Executive_Summary.pdf.
- University Corporation for Atmospheric Research. 2022. *Hurricanes*. Accessed 2023. <https://scied.ucar.edu/learning-zone/storms/hurricanes>.
- . 2023. *Where Thunderstorms Happen*. Accessed 2023. <https://scied.ucar.edu/learning-zone/storms/where-thunderstorms-happen>.
- West Virginia Emergency Management Division (WVEMD). 2018. *2018 West Virginia Statewide Standard Hazard Mitigation Plan Update*. Accessed 2023.
- West Virginia University (WVU). 2022. *West Virginia Population Projection by Counties 2020-2040, Summary Table*. October. Accessed May 19, 2023. https://business.wvu.edu/files/d/73f29801-fb12-40d4-b8d0-5802a29742be/wvsummary_2022.pdf.
- West Virginia Department of Transportation (WVDOT). 2020. *Fact Sheet – Demographic and Social*. December 03. Accessed May 19, 2023. https://transportation.wv.gov/highways/programplanning/LRTP/Documents/FactSheet_Demographic_Final.pdf#:~:text=Projections%20from%20the%20University%20of%20Virginia%20Demographics%20Research,will%20pass%20West%20Virginia%20by%20the%20late%202020%E2%80%99s%20

Section 5.13: Subsidence

- Chew, Bruce, William D Eggers, Joshua Knight, RJ Krawiec, and Mahesh Kelkar. 2021. *Rebuilding Trust in Government*. Accessed 2023. <https://www2.deloitte.com/us/en/insights/industry/public-sector/building-trust-in-government.html>.
- Federal Emergency Management Agency (FEMA). 2023. *Disaster Declarations for States and Counties*. Accessed May 22, 2023. <https://www.fema.gov/data-visualization/disaster-declarations-states-and-counties>.
- National Geographic. 2022. *Karst*. July 15. Accessed May 24, 2023. <https://education.nationalgeographic.org/resource/karst/>.



- National Park Service (NPS). 2022. *Karst Landscapes*. April 27. Accessed May 24, 2023. <https://www.nps.gov/subjects/caves/karst-landscapes.htm>.
- National Wildlife Federation (NWF). 2021. *Reclaiming Degraded Lands for People and Wildlife*. April 28. Accessed May 24, 2023. <https://blog.nwf.org/2021/04/reclaiming-degraded-lands-for-people-and-wildlife>.
- State of West Virginia. 2022. *West Virginia State Code*. Accessed May 24, 2023. <https://code.wvlegislature.gov/33-30-6/>.
- U.S. Geological Survey (USGS). 2019. *Land Subsidence*. March 2. <https://www.usgs.gov/mission-areas/water-resources/science/land-subsidence>.
- West Virginia Department of Environmental Protection (WVDEP). 2023. *Office of Abandoned Mine Lands and Reclamation*. Accessed May 24, 2023. <https://dep.wv.gov/dlr/aml/Pages/default.aspx>.
- West Virginia Department of Transportation (WVDOT). 2020. *Fact Sheet – Demographic and Social*. December 03. Accessed May 19, 2023. https://transportation.wv.gov/highways/programplanning/LRTP/Documents/FactSheet_Demographic_Final.pdf#:~:text=Projections%20from%20the%20University%20of%20Virginia%20Demographics%20Research,will%20pass%20West%20Virginia%20by%20the%20late%202020%E2%80%99s%20
- West Virginia Emergency Management Division (WVEMD). 2018. 2018 West Virginia Statewide Standard Hazard Mitigation Plan Update. Accessed 2023.
- West Virginia Geological and Economic Survey (WVGES). 2023. *Underground and Surface Coal Mines*. http://www.wvgs.wvnet.edu/gis/cbmp/all_mining.html.
- West Virginia Geological and Economic Survey (WVGES). 2016. *West Virginia Tax Districts Containing Karst Terrain*. August 18. Accessed May 22, 2023. http://www.wvgs.wvnet.edu/www/geology/docs/WV_Tax_Districts_Containing_Karst_Terrain.pdf.
- West Virginia University (WVU). 2022. *West Virginia Population Projection by Counties 2020-2040, Summary Table*. October. Accessed May 19, 2023. https://business.wvu.edu/files/d/73f29801-fb12-40d4-b8d0-5802a29742be/wvsummary_2022.pdf.
- Whittaker, Barry N., and David J. Reddish. 1989. *Subsidence: Occurrence, Prediction and Control*. Accessed May 02, 2023. <https://www.sciencedirect.com/bookseries/developments-in-geotechnical-engineering/vol/56/suppl/C>.

Section 5.14: Utility Failure

- Beakes, M. P., J. W.. Moore, S. A. Hayes, and S. M. Sogard. 2014. *Wildfire and the effects*. Accessed July 10, 2022. <https://www.noaa.gov/sites/default/files/legacy/document/2020/Oct/07354626510.pdf>.
- Beanblossom, Robert. 2019. "Forest Fires." WV Encyclopedia. October 15. Accessed November 7, 2022. <https://www.wvencyclopedia.org/articles/2021#:~:text=In%20recent%20times%2C%20about%201%2C100,and%20346%2C000%20acres%20burned%2C%20respectively>.



- Beddoes, Benjamin. 2022. "West Virginia's fall wildfire season is underway." WHSV 3. October 6. Accessed November 7, 2022. <https://www.whsv.com/2022/10/06/west-virginias-fall-wildfire-season-is-underway/>.
- Butcher, Kristin. 2019. *Wildfire Exposure To Critical Habitat Of Endangered And Threatened Species In California*. May 18. Accessed July 10, 2022. <https://repository.usfca.edu/cgi/viewcontent.cgi?article=2425&context=thes>.
- California Ecosystems Climate Solutions. 2020. *Mitigating the Lasting Effects of Wildfire*. November 18. Accessed July 10, 2022. <https://california-ecosystem-climate.solutions/mitigating-the-lasting-effects-of-wildfire/>.
- Chew, Bruce, William D Eggers, Joshua Knight, RJ Krawiec, and Mahesh Kelkar. 2021. *Rebuilding Trust in Government*. Accessed 2023. <https://www2.deloitte.com/us/en/insights/industry/public-sector/building-trust-in-government.html>.
- De La Torre, Amanda. 2021. *The Different Types of Wildland Fires*. February 26. Accessed July 1, 2022. <https://www.supplycache.com/blogs/news/the-different-types-of-wildland-fires>.
- Federal Emergency Management Agency (FEMA). 2023. *Disaster Declarations for States and Counties*. Accessed 2023. <https://www.fema.gov/data-visualization/disaster-declarations-states-and-counties>.
- . 2021. *Disaster Declarations for States and Counties*. February 25. Accessed 2022. <https://www.fema.gov/data-visualization/disaster-declarations-states-and-counties>.
- FireSafe Sonoma. 2020. *How Does Wildfire Impact Soil Health?* Accessed July 10, 2022. <https://www.firesafesonoma.org/how-does-wildfire-impact-soil-health/>.
- Fraser, Andrew, Mikhail Chester, and B. Shane Underwood. 2019. "Wildfire risk, post-fire debris flows, and transportation infrastructure vulnerability." August 23. Accessed November 2022. <https://par.nsf.gov/servlets/purl/10194663>.
- National Academies Press. 2020. *Implications of the California Wildfires for Health, Communities, and Preparedness: Proceedings of a Workshop*. Accessed July 10, 2022. <https://nap.nationalacademies.org/read/25622/chapter/4>.
- National Aeronautics and Space Administration (NASA) Jet Propulsion Laboratory, California Institute of Technology. 2022. *California Fire Led to Spike in Bacteria, Cloudiness in Coastal Waters*. March 3. Accessed July 10, 2022. <https://www.jpl.nasa.gov/news/california-fire-led-to-spike-in-bacteria-cloudiness-in-coastal-waters>.
- National Park Service (NPS). 2021. *Cultural Resource Data for Fire Management*. August 31. Accessed July 10, 2022. <https://www.nps.gov/articles/cultural-resource-data-for-fire-management.htm>.
- National Wildfire Coordinating Group. 2021. *Glossary of Wildland Fire Terminology*. July. Accessed July 1, 2022. <https://www.nwcg.gov/sites/default/files/data-standards/glossary/pms205.pdf>.



- National Oceanic and Atmospheric Administration (NOAA) National Centers for Environmental Information (NCEI). 2022. *State Climate Summaries 2022: West Virginia*. Accessed May 23, 2023. <https://statesummaries.ncics.org/chapter/wv/>.
- Pennsylvania Emergency Management Agency (PEMA). 2019. "Commonwealth of Pennsylvania 2018 State Hazard Mitigation Plan." <https://pahmp.com/wp-content/uploads/2020/01/PA-2019-SHMP-Update-October-2019-Update.pdf>.
- Philip, Hayley N. 2019. *California Megafires and the Effects on Agriculture*. January 3. Accessed July 10, 2022. <https://dirt-to-dinner.com/california-megafires-and-the-effects-on-agriculture/>.
- Snow, Meghan. 2022. "How Does Wildfire Impact Wildlife and Forests." U.S. Fish and Wildlife Service. October 11. Accessed November 2022. <https://www.fws.gov/story/2022-10/how-does-wildfire-impact-wildlife-and-forests>.
- State of West Virginia. 2019. Accessed November 2022. <https://governor.wv.gov/News/press-releases/2019/Pages/Gov.-Justice-declares-State-of-Emergency-for-all-55-counties-due-to-drought-conditions.aspx>.
- The Nature Conservancy. 2018. "Wildfires Impact Minorities." The Nature Conservancy. Accessed November 2022. <https://www.nature.org/en-us/about-us/where-we-work/united-states/washington/stories-in-washington/wildfires-impact-minorities/>.
- The White House. n.d. *Healthy Forest : An Initiative for Wildfire Prevention and Stronger Communities*. Accessed July 10, 2022. <https://georgewbush-whitehouse.archives.gov/infocus/healthyforests/sect2.html>.
- U.S. Census. 2023. *U.S. Census Bureau*. Accessed 2023. <https://data.census.gov/all?q=West+Virginia+>.
- U.S. Department of Agriculture (USDA). 2023. *Disaster Designation Information*. Accessed 2023. <https://www.fsa.usda.gov/programs-and-services/disaster-assistance-program/disaster-designation-information/index>.
- U.S. Department of Agriculture (USDA) Forest Service. n.d. *Fire Terminology*. Accessed July 10, 2022. <https://www.fs.fed.us/nwacfire/home/terminology.html>.
- U.S. Department of Homeland Security (U.S. DHS). 2022. *Wildfires*. May 31. Accessed July 10, 2022. <https://www.ready.gov/wildfires>.
- U.S. Department of the Interior (U.S. DOI), Office of Wildland Fire. 2022. *Teaming Up to Take On the Double Threat of Invasives and Wildfires*. March 1. Accessed July 10, 2022. <https://www.doi.gov/wildlandfire/teaming-take-double-threat-invasives-and-wildfires>.
- U.S. Department of Energy (DOE). 2021. "State of West Virginia Energy Sector Risk Profile." <https://www.energy.gov/sites/default/files/2021-09/West%20Virginia%20Energy%20Sector%20Risk%20Profile.pdf>.
- U.S. Fire Administration. 2022. "What is the WUI?" WUI. June 8. Accessed November 7, 2022. <https://www.usfa.fema.gov/wui/what-is-the-wui.html>.



- U.S. Global Change Research Program. 2017. "Highlights of the U.S. Global Change Research Program Climate Science Special Report." Accessed November 2022.
https://science2017.globalchange.gov/downloads/CSSR_Executive_Summary.pdf.
- Valentin, Vanessa, and John Stormont. 2019. "Evaluating Post-Wildfire Flood Impacts on Transportation Infrastructure for Mitigation Planning." Southern Plains Transportation Center. November 30. Accessed November 2022.
<https://static1.squarespace.com/static/526c7a98e4b023d8f09390ed/t/5e0a72f98863c530b1ef2473/1577743118017/SPTC15.1-50-F-Valentin+Final+Report+123019.pdf>.
- West Virginia Department of Transportation (WVDOT). 2020. *Fact Sheet – Demographic and Social*. Accessed 2023.
https://transportation.wv.gov/highways/programplanning/LRTP/Documents/FactSheet_Demographic_Final.pdf.
- West Virginia Rivers. 2018. "9 categories of wildfire causes." February. Accessed November 7, 2022.
<https://wvrivers.org/2018/02/the-truth-about-fires-and-forest-health/>.

Section 5.15: Wildfire

- Beakes, M. P., J. W. Moore, S. A. Hayes, and S. M. Sogard. 2014. *Wildfire and the effects*. Accessed July 10, 2022.
<https://www.noaa.gov/sites/default/files/legacy/document/2020/Oct/07354626510.pdf>.
- Beddoes, Benjamin. 2022. "West Virginia's fall wildfire season is underway." WHSV 3. October 6. Accessed November 7, 2022. <https://www.wHSV.com/2022/10/06/west-virginias-fall-wildfire-season-is-underway/>.
- Butcher, Kristin. 2019. *Wildfire Exposure To Critical Habitat Of Endangered And Threatened Species In California*. May 18. Accessed July 10, 2022.
<https://repository.usfca.edu/cgi/viewcontent.cgi?article=2425&context=thes>.
- California Ecosystems Climate Solutions. 2020. *Mitigating the Lasting Effects of Wildfire*. November 18. Accessed July 10, 2022. <https://california-ecosystem-climate.solutions/mitigating-the-lasting-effects-of-wildfire/>.
- Chew, Bruce, William D Eggers, Joshua Knight, RJ Krawiec, and Mahesh Kelkar. 2021. *Rebuilding Trust in Government*. Accessed 2023. <https://www2.deloitte.com/us/en/insights/industry/public-sector/building-trust-in-government.html>.
- De La Torre, Amanda. 2021. *The Different Types of Wildland Fires*. February 26. Accessed July 1, 2022.
<https://www.supplycache.com/blogs/news/the-different-types-of-wildland-fires>.
- Federal Emergency Management Agency (FEMA). 2021. *Fire Management Assistance Grant Program and Policy Guide: FP-104-21-0002*.
https://www.fema.gov/sites/default/files/documents/fema_fmaggpg_063121.pdf.
- FireSafe Sonoma. 2020. *How Does Wildfire Impact Soil Health?* Accessed July 10, 2022.
<https://www.firesafesonoma.org/how-does-wildfire-impact-soil-health/>.



- Fraser, Andrew, Mikhail Chester, and B. Shane Underwood. 2019. "Wildfire risk, post-fire debris flows, and transportation infrastructure vulnerability." August 23. Accessed November 2022. <https://par.nsf.gov/servlets/purl/10194663>.
- National Aeronautics and Space Administration (NASA) Jet Propulsion Laboratory, California Institute of Technology. 2022. *California Fire Led to Spike in Bacteria, Cloudiness in Coastal Waters*. March 3. Accessed July 10, 2022. <https://www.jpl.nasa.gov/news/california-fire-led-to-spike-in-bacteria-cloudiness-in-coastal-waters>.
- National Academies Press. 2020. *Implications of the California Wildfires for Health, Communities, and Preparedness: Proceedings of a Workshop*. Accessed July 10, 2022. <https://nap.nationalacademies.org/read/25622/chapter/4>.
- National Park Service. 2021. *Cultural Resource Data for Fire Management*. August 31. Accessed July 10, 2022. <https://www.nps.gov/articles/cultural-resource-data-for-fire-management.htm>.
- . n.d. "Wildland Fire Program." Accessed January 2023. <https://www.nps.gov/orgs/1965/wildfires-prescribed-fires-fuels.htm>.
- National Wildfire Coordinating Group. 2021. *Glossary of Wildland Fire Terminology*. July. Accessed July 1, 2022. <https://www.nwccg.gov/sites/default/files/data-standards/glossary/pms205.pdf>.
- National Interagency Fire Center (NIFC). n.d. *Fire Information*. Accessed 2023. <https://www.nifc.gov/>.
- National Weather Service (NWS). n.d. *Understanding Wildfire Warnings, Watches and Behavior*. Accessed 2023. <https://www.weather.gov/safety/wildfire-ww>.
- Philip, Hayley N. 2019. *California Megafires and the Effects on Agriculture*. January 3. Accessed July 10, 2022. <https://dirt-to-dinner.com/california-megafires-and-the-effects-on-agriculture/>.
- Reiff, Nathan, Somer Anderson, and Vikki Velasquez. 2022. "How Fire Season Affects the Economy." Investopedia. October 24. Accessed November 2022. <https://www.investopedia.com/how-fire-season-affects-the-economy-5194059>.
- Snow, Meghan. 2022. "How Does Wildfire Impact Wildlife and Forests." U.S. Fish and Wildlife Service. October 11. Accessed November 2022. <https://www.fws.gov/story/2022-10/how-does-wildfire-impact-wildlife-and-forests>.
- U.S. Department of Agriculture (USDA). 2023. *Disaster Designation Information*. Accessed 2023. <https://www.fsa.usda.gov/programs-and-services/disaster-assistance-program/disaster-designation-information/index>.
- U.S. Department of the Interior Office of Wildland Fire. 2022. *Teaming Up to Take On the Double Threat of Invasives and Wildfires*. March 1. Accessed July 10, 2022. <https://www.doi.gov/wildlandfire/teaming-take-double-threat-invasives-and-wildfires>.
- U.S. Fire Administration. 2022. "What is the WUI?" WUI. June 8. Accessed November 7, 2022. <https://www.usfa.fema.gov/wui/what-is-the-wui.html>.



- . 2019. *Most California wildfire is in wildland-urban interface area with less fuel, more people*. Accessed 2023. <https://phys.org/news/2019-09-california-wildfire-wildland-urban-interface-area.html#:~:text=The%20Federal%20definition%20of%20WUI%20describes%20two%20specific,area%20where%20houses%20and%20wildland%20vegetation%20directly%20intermingle>.
- U.S. Geological Survey (USGS). 2018. *Ecosystems on the Edge: Landscape and Fire Ecology of Forests, Deserts, and Tundra*. Accessed 2023. <https://www.usgs.gov/centers/alaska-science-center/science/ecosystems-edge-landscape-and-fire-ecology-forests-deserts>.
- Valentin, Vanessa, and John Stormont. 2019. "Evaluating Post-Wildfire Flood Impacts on Transportation Infrastructure for Mitigation Planning." Southern Plains Transportation Center. November 30. Accessed November 2022. <https://static1.squarespace.com/static/526c7a98e4b023d8f09390ed/t/5e0a72f98863c530b1ef2473/1577743118017/SPTC15.1-50-F-Valentin+Final+Report+123019.pdf>.
- West Virginia Emergency Management Division (WVEMD). 2018. *2018 West Virginia Statewide Standard Hazard Mitigation Plan Update*. Accessed 2023.
- West Virginia Rivers. 2018. "9 categories of wildfire causes." February. Accessed November 7, 2022. <https://wvrivers.org/2018/02/the-truth-about-fires-and-forest-health/>.
- West Virginia University (WVU). 2022. *West Virginia Population Projection by Counties 2020-2040, Summary Table*. October. Accessed May 19, 2023. https://business.wvu.edu/files/d/73f29801-fb12-40d4-b8d0-5802a29742be/wvsummary_2022.pdf.
- West Virginia Department of Transportation (WVDOT). 2020. *Fact Sheet – Demographic and Social*. December 03. Accessed May 19, 2023. https://transportation.wv.gov/highways/programplanning/LRTP/Documents/FactSheet_Demographic_Final.pdf#:~:text=Projections%20from%20the%20University%20of%20Virginia%20Demographics%20Research,will%20pass%20West%20Virginia%20by%20the%20late%202020%E2%80%99s%.
- West Virginia Division of Forestry. 2022. "West Virginia Forestry crews respond to a new season of wildfires." Accessed January 2023. <https://wvforestry.com/west-virginia-forestry-crews-respond-to-a-new-season-of-wildfires/>.
- . 2020. "2020 State Forest Action Plan." Accessed November 2022. <https://wvforestry.com/wp-content/uploads/2021/02/WV-2020-SFAP-Final.pdf>.

Section 5.16: Winter Weather

- Chew, Bruce, William D Eggers, Joshua Knight, RJ Krawiec, and Mahesh Kelkar. 2021. *Rebuilding Trust in Government*. Accessed 2023. <https://www2.deloitte.com/us/en/insights/industry/public-sector/building-trust-in-government.html>.
- Columbia Climate School. 2018. *How Road Salt Harms the Environment*. December 11. Accessed May 22, 2023. <https://news.climate.columbia.edu/2018/12/11/road-salt-harms-environment/>.



- Federal Emergency Management Agency (FEMA). 2023. *Disaster Declarations for States and Counties*. Accessed May 22, 2023. <https://www.fema.gov/data-visualization/disaster-declarations-states-and-counties>.
- . 2020. *FEMA Snow Load Safety Guidance*. July. Accessed May 22, 2023. https://www.fema.gov/sites/default/files/2020-07/fema_snow_load_2014.pdf.
- National Geographic. 2022. *Nor'easter*. May 20. Accessed May 22, 2023. <https://education.nationalgeographic.org/resource/noreaster/>.
- National Oceanic and Atmospheric Administration (NOAA) National Centers for Environmental Information. 2022. *State Climate Summaries 2022 - West Virginia*. Accessed 2023. <https://statesummaries.ncics.org/chapter/wv/>.
- . 2022. *Regional Snowfall Index*. <https://www.ncei.noaa.gov/access/monitoring/rsi/>.
- National Severe Storms Laboratory (NSSL). 2023. *SEVERE WEATHER 101 - WINTER WEATHER BASICS*. January 04. Accessed May 22, 2023. <https://www.nssl.noaa.gov/education/svrwx101/winter/>.
- . 2023. *Severe Weather 101 - Winter Weather: Types of Winter Weather*. January 04. Accessed May 22, 2023. <https://www.nssl.noaa.gov/education/svrwx101/winter/types/>.
- National Weather Service (NWS). 2021. *Definitions, Threshold, Criteria for Warning*. NWS.
- . 2019. *Ice Storms*. July 31. Accessed May 22, 2023. <https://www.weather.gov/safety/winter-ice-frost>.
- . No date. *Glossary*. Accessed May 22, 2023. <https://forecast.weather.gov/glossary.php?word=HEAVY%20SNOW>.
- . No date. *Winter Weather Products (Non-Routine)*. <https://www.weather.gov/ffc/wntproducts>.
- U.S. Geological Survey (USGS). 2019. *Snowmelt Runoff and the Water Cycle*. June 12. Accessed May 22, 2023. <https://www.usgs.gov/special-topics/water-science-school/science/snowmelt-runoff-and-water-cycle#overview>.
- U.S. Global Change Research Program. 2018. *Chapter 9: Extreme Storms*. November. Accessed May 21, 2023. <https://science2017.globalchange.gov/chapter/9/>.
- West Virginia University (WVU). 2022. *West Virginia Population Projection by Counties 2020-2040, Summary Table*. October. Accessed May 19, 2023. https://business.wvu.edu/files/d/73f29801-fb12-40d4-b8d0-5802a29742be/wvsummary_2022.pdf.
- West Virginia Department of Transportation (WVDOT). 2020. *Fact Sheet – Demographic and Social*. December 03. Accessed May 19, 2023. https://transportation.wv.gov/highways/programplanning/LRTP/Documents/FactSheet_Demographic_Final.pdf#:~:text=Projections%20from%20the%20University%20of%20Virginia%20Demographics%20Research,will%20pass%20West%20Virginia%20by%20the%20late%202020%E2%80%99s%20



Section 6: State Capability Assessment

- Association of State Dam Safety Officials. 2023. *Association of State Dam Safety Officials*. Accessed 2023. <https://damsafety.org/west-virginia>.
- Federal Emergency Management Agency (FEMA). 2023. *Community Status Book Report: West Virginia*. May 31. Accessed May 2023. <https://www.fema.gov/cis/WV.pdf>.
- . 2022. *About BRIC: Reducing Risk through Hazard Mitigation*. Accessed 2022. <https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities/about>.
- . 2022. "Community Status Book Report." November 28. Accessed 2022. <https://www.fema.gov/cis/WV.pdf>.
- . 2022. *Hazard Mitigation Grant Program (HMGP)*. Accessed 2022. <https://www.fema.gov/grants/mitigation/hazard-mitigation>.
- . 2022. *High Hazard Potential Dams Grant Awards*. Accessed 2022. <https://www.fema.gov/emergency-managers/risk-management/dam-safety/rehabilitation-high-hazard-potential-dams/awards#2022>.
- . 2020. *Mission Areas and Core Capabilities*. <https://www.fema.gov/emergency-managers/national-preparedness/mission-core-capabilities>.
- . 2022. *Mitigation Maps*. Accessed 2022. <https://fema.maps.arcgis.com/apps/MapSeries/index.html?appid=f3bb86e451d74093a0bd46e4501aa9f1>.
- . 2022. *Pre-Disaster Mitigation (PDM) Grant*. Accessed 2022. <https://www.fema.gov/grants/mitigation/pre-disaster>.
- . 2022. *Safeguarding Tomorrow Revolving Loan Fund Program*. Accessed 2023. <https://www.fema.gov/grants/mitigation/storm-rlf#:~:text=The%20Safeguarding%20Tomorrow%20through%20Ongoing%20Risk%20Mitigation%20%28SORM%29,to%20reduce%20risks%20from%20natural%20hazards%20and%20disasters>.
- . 2021. *Notice of Funding Opportunity for Fiscal Year 2021 Flood Mitigation Assistance Grants*. Accessed 2022. <https://www.fema.gov/fact-sheet/notice-funding-opportunity-fiscal-year-2021-flood-mitigation-assistance-grants>.
- . 2021. *Region 3 Hazard Mitigation Planning*. Accessed 2023. <https://www.fema.gov/about/organization/region-3/media-collection/region-3-hazard-mitigation-planning>.
- RISE WV. n.d. *RISE West Virginia*. Accessed 2023. <https://wvfloodrecovery.com/program-details/>.
- Small Business Administration (SBA). n.d. *U.S. Small Business Administration*. Accessed 2023. <https://www.sba.gov/>.
- The White House. n.d. *FACT SHEET: The Bipartisan Infrastructure Investment and Jobs Act Creates Good-Paying Jobs and Supports Workers*. Accessed 2023. <https://www.whitehouse.gov/briefing-room/statements->



releases/2021/08/03/fact-sheet-the-bipartisan-infrastructure-investment-and-jobs-act-creates-good-paying-jobs-and-supports-workers/.

U.S. Department of Agriculture (USDA). N.d. *Rural Development*. Accessed 2023. <https://www.rd.usda.gov/wv>.

U.S. Department of Housing and Urban Development (HUD). 2021. *Community Development Block Grant Mitigation Program*. Accessed 2023. https://www.hud.gov/program_offices/comm_planning/cdbg-dr/cdbg-mit.

U.S. Environmental Protection Agency (U.S. EPA). 2022. *Green Streets, Green Jobs, Green Towns (G3) Grant Program*. Accessed 2022. <https://www.epa.gov/G3/green-streets-green-jobs-green-towns-g3-grant-program#:~:text=The%20Green%20Street-Green%20Jobs-Green%20Towns%20%28G3%29%20Grant%20Program%2C,provides%20support%20for%20urban%20green%20stormwater%20infrastructure%20projects>.

Verisk Analytics. 2023. *BCEGS*. Accessed 2023. <https://www.isomitigation.com/bcegs/what-why-when-and-what-do-i-do/>.

--. 2023. *Building Code Effectiveness Grading Schedule (BCEGS®)*. Accessed May 2023. <https://www.isomitigation.com/bcegs/>.

--. 2023. *CRS Data Visualizations*. April. Accessed 2023. <https://www.crsviz.com/>.

West Virginia. 2019. *Building Code 2018 of West Virginia*. Accessed 2023. https://up.codes/viewer/west_virginia/ibc-2018/chapter/1/scope-and-administration#divider_2.

West Virginia. 2010. "Title 87." Accessed 2023. https://www.publichealthlawcenter.org/sites/default/files/WV_Title%2087%20Fire%20Code_H_FINAL.pdf.

West Virginia Legislature. n.d. *West Virginia Code Chapter 15 Article 5*. Accessed May 2023. <https://code.wvlegislature.gov/15-5/>.

—. n.d. *West Virginia Code Chapter 31 Article 15*. Accessed May 2023. <https://code.wvlegislature.gov/31-15/>.

West Virginia Legislature's Office of Reference & Information. n.d. *West Virginia Code Section 7-1-3V*. Accessed 2023. <http://www.wvlegislature.gov/wvcode/ChapterEntire.cfm?chap=07&art=1§ion=3V#01>.

Wetmore, French, George Bernstein, David Conrad, Cynthia DiVincenti, Larry Larson, Doug Plasencia, and Russell Riggs. 2006. *The Evaluation of the National Flood Insurance Program Final Report*. Washington D.C.: American Institutes for Research.

West Virginia Community Advancement and Development (WVCAD). 2022. *State of West Virginia FY2022 Consolidated Annual Action Plan Final*. Accessed 2023. <https://wvcad.org/assets/files/resources/cdbg/FY2022-State-Of-West-Virginia-Consolidated-Annual-Action-Plan.pdf>.

--. n.d. *CDBG - Disaster Recovery*. Accessed 2023. <https://wvcad.org/resiliency/cdbg-disaster-recovery>.



- . n.d. *Community Development Block Grant-Mitigation (CDBG-MIT)*. Accessed 2023.
<https://wvcad.org/infrastructure/mit>.
- West Virginia Conservation Agency (WVCA). n.d. "APPENDIX B: Flood Warning System." Accessed 2023.
https://www.wvca.us/flood/pdf/08_Appendix_B_Flood_Warning_System.pdf.
- . n.d. "West Virginia Flood Protection Plan." Accessed 2023.
https://www.wvca.us/flood/pdf/wv_statewide_plan.pdf.
- West Virginia Department of Commerce. 2023. *West Virginia Department of Commerce*. Accessed 2022.
<https://commerce.wv.gov/wv-forward/wv-forward-2/>.
- West Virginia Department of Environmental Protection (WVDEP). 2023. *About DEP*. Accessed 2023.
<https://dep.wv.gov/About/Pages/default.aspx>.
- . 2023. *Dam Safety*. Accessed 2023. <https://dep.wv.gov/WWE/ee/ds/Pages/default.aspx>.
- . 2023. *Stream Partners Program*. Accessed 2023.
https://dep.wv.gov/WWE/getinvolved/WSA_Support/Pages/StreamPartners.aspx.
- West Virginia Department of Health and Human Resources. 2023. *WV Department of Health & Human Resources*. Accessed 2023. <https://dhhr.wv.gov/Pages/default.aspx>.
- West Virginia Department of Transportation (WVDOT). n.d. *Statewide Transportation Improvement Program*. Accessed 2023. <https://transportation.wv.gov/highways/programming/STIP/Pages/default.aspx>.
- West Virginia Division of Natural Resources (DNR). 2023. *West Virginia DNR*. Accessed 2023.
<https://wvdnr.gov/about/>.
- West Virginia Economic Development. n.d. Accessed 2023. <https://westvirginia.gov/>.
- West Virginia Emergency Management Division (WVEMD). 2022. "Floodplain Management." Accessed 2022.
<https://emd.wv.gov/MitigationRecovery/Pages/Floodplain-Management.aspx>.
- . 2016. *WV Emergency Operations Plan*. Accessed 2023.
<https://emd.wv.gov/Preparedness/Resources/Pages/WV-Emergency-Operations-Plan.aspx>.
- West Virginia Office of Miners Health Safety and Training. n.d. *West Virginia Office of Miners Health Safety & Training*. Accessed 2023. <https://minesafety.wv.gov/about-agency/>.
- West Virginia State Resiliency Office (WVSRO). 2023. *The Official Website of the State Resiliency Office*. Accessed 2023. <https://sro.wv.gov/Pages/default.aspx>.
- West Virginia Economic Development Authority (WVEDA). 2023. *About WVEDA*. Accessed 2023.
<https://eda.wv.gov/about/Pages/default.aspx>.
- West Virginia University GIS Technical Center (WVU GISTC). 2022. *West Virginia GIS Technical Center*. Accessed 2023. <http://www.wvgis.wvu.edu/>.



West Virginia University (WVU). 2023. *National Environmental Training Center for Small Communities (NETCSC)*. Accessed 2023. <https://www.nesc.wvu.edu/about-actat/national-environmental-training-center-for-small-communities>.

—. 2015. *WV Flood Tool*. Accessed 2023. <https://www.mapwv.gov/flood/>.

Section 7: Local Capability Assessment

West Virginia Association of Regional Councils (WVARC). 2023. What are Regional Planning and Development Councils? <https://www.wvregionalcouncils.com/>.

West Virginia Emergency Management Division (WVEMD). 2022. "Hazard Mitigation Planning." Accessed 2022. <https://emd.wv.gov/MitigationRecovery/Pages/Hazard-Mitigation-Planning.aspx>.

—. 2023. *Floodplain Management*. <https://emd.wv.gov/MitigationRecovery/Pages/Floodplain-Management.aspx>.

West Virginia University (WVU) College of Law. 2023. *Building Code*. <https://wvleap.wvu.edu/fundamental-tools/building-code>.

Section 8: Local Government Planning Coordination

Federal Emergency Management Agency (FEMA). 2023. *FEMA Grants*. March. Accessed May 2023. <https://www.fema.gov/grants>.

—. 2023. *Training and Education*. April. Accessed May 2023. <https://www.fema.gov/emergency-managers/national-preparedness/training>.

—. 2022. "Local Mitigation Planning." Local Mitigation Planning Policy Guide. April. Accessed May 2023. https://www.fema.gov/sites/default/files/documents/fema_local-mitigation-planning-policy-guide_042022.pdf.

—. 2021. January. Accessed May 2023. https://www.fema.gov/sites/default/files/documents/_fema-LK318-fact-sheet_102021.pdf.

—. n.d. *National Training and Education Division*. Accessed May 2023. <https://www.firstrespondertraining.gov/frts/npccatalog?id=2262>.

Section 9: Progress on Previous Plan

Federal Emergency Management Agency (FEMA). 2022. *State Mitigation Planning Policy Guide*. April 19. Accessed 2022. https://www.fema.gov/sites/default/files/documents/fema_state-mitigation-planning-policy-guide_042022.pdf.



Section 10: Goals for Hazard Mitigation

Federal Emergency Management Agency (FEMA). 2022. *State Mitigation Planning Policy Guide*. April 19. Accessed 2022. https://www.fema.gov/sites/default/files/documents/fema_state-mitigation-planning-policy-guide_042022.pdf.

Section 11: Mitigation Actions

None

Section 12: Adoption

None

Section 13: Review, Evaluation, and Implementation

Federal Emergency Management Agency (FEMA). 2022. *State Mitigation Planning Policy Guide*. April 19. Accessed 2022. https://www.fema.gov/sites/default/files/documents/fema_state-mitigation-planning-policy-guide_042022.pdf.