**US Forest Service Vulnerability Assessments**

*Compiled by Office of Sustainability and Climate Change (w/ input from R/S/A Climate Change Coordinators)*

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| Region | Name | Location | Resources | Report |
| R-1 | Northern Rockies Adaptation Partnership | Idaho Panhandle, Kootenai, Nez Perce-Clearwater, Glacier, Beaverhead-Deerlodge, Custer, Gallatin, Helena, Lewis and Clark, Bitterroot, Flathead, Lolo, Custer, Bridger Teton, Caribou-Targhee, and Shoshone National Forests, Dakota Prairie National Grassland  Also: Grand Teton National Park, Yellowstone National Park, Glacier National Park | * Hydrology * Fisheries * Wildlife * Recreation * Forest vegetation * Non-forest vegetation * Disturbance * Ecosystem services | Draft GTR is process.  Website: <http://adaptationpartners.org/nrap/index.php> |
| R-1 | Nez Perce-Clearwater National Forests | Nez Perce and Clearwater National Forests | * Forested vegetation * Non-forested vegetation * Aquatic systems * Terrestrial species * Freshwater species * Ecosystem services * Cultural resources * Recreation | Vulnerability Assessment (natural resources):  <http://ecoadapt.org/data/documents/EcoAdapt_NPCWNF_VulnerabilityAssessment_v3_4Dec2014_smallres.pdf>  Vulnerability Assessment (socioeconomic):  <http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprd3804265.pdf>  Adaptation Report:  <http://ecoadapt.org/data/documents/NPCWAdaptationWorkshopReport_Final_14Apr2015.pdf> |
| R-1 | Watershed Vulnerability Assessment Lolo National Forest | All lands in Lolo National Forest | * Infrastructure * Hydrology * Infrastructure | In review for publication |
| R-1 | A Climate Change Vulnerability Assessment for Resources of Nez Perce-Clearwater National Forests | Nez Perce-Clearwater National Forests | * Aquatic systems * Vegetation * Wildlife | <http://ecoadapt.org/data/documents/EcoAdapt_NPCWNF_VulnerabilityAssessment_v3_4Dec2014_smallres.pdf>  Conducted by EcoAdapt in partnership with the forest plan revision Team |
| R-1 | Kootenai Idaho Panhandle Zone Climate Change Report | Kootenai and Idaho Panhandle National Forest | * Aquatic Systems * Vegetation * Ecosystem services * Disturbance * Wildlife * Special Areas * Socio-economic | <http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5345936.pdf> |
| R-2 | San Juan/Tres Rios Climate Change Ecosystem Vulnerability Assessment | San Juan National Forest | * Terrestrial ecosystems * Riparian ecosystems * Special species and habitats | Contact Trey Schillie to obtain a copy of the assessment – [tschillie@fs.fed.us](mailto:tschillie@fs.fed.us). |
| R-2 | Climate Change on the Shoshone National Forest, Wyoming | Shoshone National Forest | * Terrestrial and aquatic ecosystems * Hydrology * Disturbance * Fisheries * Wildlife | Contact Trey Schillie to obtain a copy of the assessment – [tschillie@fs.fed.us](mailto:tschillie@fs.fed.us). |
| R-2 | Assessing the Vulnerability of Watersheds to Climate Change | GMUG and White River National Forests | * Watersheds | Contact Trey Schillie to obtain a copy of the assessment – [tschillie@fs.fed.us](mailto:tschillie@fs.fed.us). |
| R-2 | Regional-Scale Climate Change Vulnerability Assessment for Infrastructure in the National Forests and Grasslands of the Rocky Mountain Region | Arapaho and Roosevelt, Grand Mesa, Uncompahre, and Gunnison, Pike-San Isabel, Rio Grande, San Juan, White River, Black Hills, Bighorn, Medicine Bow-Routt, and Shoshone National Forests and Nebraska National Forests and Grasslands.  Pawnee, Cimarron-Comanche, and Thunder Basin National Grasslands. | * Infrastructure | Contact Trey Schillie to obtain a copy of the assessment – [tschillie@fs.fed.us](mailto:tschillie@fs.fed.us). |
| R-2 | Rocky Mountain Region Vulnerability Assessments | Arapaho and Roosevelt, Grand Mesa, Uncompahre, and Gunnison, Pike-San Isabel, Rio Grande, San Juan, White River, Black Hills, Bighorn, Medicine Bow-Routt, and Shoshone National Forests and Nebraska National Forests and Grasslands.  Pawnee, Cimarron-Comanche, and Thunder Basin National Grasslands. | * Vegetation   Other:   * Glaciated Valleys * Low-Gradient Streams * Great Plains Streams * Alpine * Sub-alpine Spruce-Fir * Ponderosa Pine | Final GTRs unfinished. Drafts available upon request. |
| R-2 | Gunnison Basin Climate Change Vulnerability Assessment | GMUG National Forest | * Terrestrial Ecosystems * Aquatic Ecosystems | <http://wwa.colorado.edu/publications/reports/TNC-CNHP-WWA-UAF_GunnisonClimChangeVulnAssess_Report_2012.pdf> |
| R-3 | Assessing Climate Change Vulnerability for Ecosystems of the Southwestern U.S. | Apache-Sitgreaves, Coconino, Coronado, Kaibab, Prescott, Tonto, Carson, Cibola, Gila, Lincoln and Santa Fe National Forests | * Upland ecosystems | Contact Priya Shahani for a copy of the assessment: [priyacshahani@fs.fed.us](mailto:priyacshahani@fs.fed.us). |
| R-3 | Socio-Economic Vulnerability to Climate-Related Changes to National Forests in the Southwest | Apache-Sitgreaves, Coconino, Coronado, Kaibab, Prescott, Tonto, Carson, Cibola, Gila, Lincoln and Santa Fe National Forests | * Socio-economic * Ecosystem services | Contact Priya Shahani for a copy of the assessment: [priyacshahani@fs.fed.us](mailto:priyacshahani@fs.fed.us). |
| R-4 | Intermountain Adaptation Partnership | Ashley, Boise, Bridger-Teton, Dixie, Fishlake, Manti-LaSal, Payette, Salmon-Challis, Sawtooth, Caribou-Targhee, Humboldt-Toiyabe, and Uinta-Wasatch-Cache National Forests | * Physical Resources * Vegetation * Terrestrial species * Aquatic species * Infrastructure * Recreation * Cultural heritage * Ecosystem Services * Disturbance | In progress.  Website: <http://adaptationpartners.org/iap/index.php> |
| R-5 | Climate Adaptation Project for the Sierra Nevada | Modoc, Lassen, Plumas, Sierra, Sequoia, Inyo, Eldorado, Tahoe, Humboldt-Toiyabe, and Stanislaus National Forests; Lake Tahoe Basin Management Unit;  Also: Kings Canyon/Sequoia and Yosemite National Parks | * Forested vegetation * Non-forested vegetation * Aquatic systems * Terrestrial species * Freshwater species * Ecosystem services | Climate Report: <http://ecoadapt.org/data/documents/GeosInstitute2013SierraProjections_FINAL.pdf>  Vulnerability Assessment:  <http://ecoadapt.org/data/documents/EcoAdapt_CALCC_SierraNevadaVulnerabilityAssessment_26Feb2014.pdf>  Adaptation Report:  <http://ecoadapt.org/data/documents/EcoAdapt_CALCC_SierraNevadaAdaptationStrategies_26Feb2014.pdf>  Website:  [www.ecoadapt.org/programs/adaptation-consultations/calcc](http://www.ecoadapt.org/programs/adaptation-consultations/calcc) |
| R-5 | Southern California Climate Adaptation Project | Cleveland, Los Padres, San Bernardino, and Angeles National Forests | * Forested vegetation * Non-forested vegetation * Aquatic systems | In progress.  Website:  [www.ecoadapt.org/programs/adaptation-consultations/socal](http://www.ecoadapt.org/programs/adaptation-consultations/socal) |
| R-5 | Northern California Climate Adaptation Project | Six Rivers, Klamath, Shasta-Trinity, and Mendocino National Forests;  Also: BLM lands in the Arcata and Redding field office areas and portions of the Ukiah field office area | * Forested vegetation * Non-forested vegetation * Aquatic systems * Terrestrial species * Freshwater species * Ecosystem services | Just beginning.  Website:  <http://ecoadapt.org/programs/adaptation-consultations/usfs> |
| R-6 | Blue Mountains Adaptation Partnership | Wallowa-Whitman, Umatilla and Malheur National Forests | * Vegetation * Hydrology & infrastructure * Fisheries | Complete; report in draft form below  <http://adaptationpartners.org/bmap/docs/BMAP_final.pdf> |
| R-6 | North Cascadia Adaptation Partnership | Mt. Baker-Snoqualmie National Forest, Okanogan-Wenatchee National Forest  Also: North Cascades National Park Complex, and Mount Rainier National Park | * Hydrology * Vegetation * Wildlife * Fisheries | <http://www.fs.fed.us/pnw/pubs/pnw_gtr892.pdf> |
| R-6 | South Central Oregon Adaptation Partnership | Deschutes, Fremont-Winema, and Ochoco National Forests, Crooked River National Grassland  Also: Crater Lake National Park | * Hydrology & infrastructure * Ground water dependent ecosystems * Fisheries * Wildlife * Forested vegetation * Non-forested vegetation * Disturbance * Recreation * Ecosystem services | In progress.  Website:  <http://adaptationpartners.org/scoap/index.php> |
| R-6 | Southwest Washington Adaptation Partnership | Gifford Pinchot National Forest | * Fisheries * Vegetation * Disturbance * Special habitats * Ecosystem services * Recreation | In progress.  Website:  <http://adaptationpartners.org/swap/index.php> |
| R-6 | Olympic Adaptation Partnership | Olympic National Forest  Also: Olympic National Park | * Hydrology and roads * Fish * Vegetation * Wildlife | Complete:  <http://www.fs.fed.us/pnw/pubs/pnw_gtr844.pdf> |
| R-6 | The Rogue Basin Action Plan for Resilient Watersheds & Forests in a Changing Climate | Rogue Basin | * Vegetation * Agriculture * Disturbance * Hydrology * Ecosystem services * Economics | Complete:  <http://www.mfpp.org/wp-content/uploads/2011/04/SOFRC-Watersheds-and-Forests-Climate-Adaptation-Plan-FINAL21.pdf> |
| R-6 | **Climate Change and Forest Trees in the Pacific Northwest: A Vulnerability Assessment and Recommended Actions for National Forests** | National Forests in Oregon and Washington | * Tree species | Complete:  <http://ecoshare.info/projects/ccft/> |
| R-8 | Climate Change Adaptation and Mitigation Management Options (CCAMMO) | National forests in Alabama, National Forests in Mississippi, National Forests in North Carolina, Ouachita, Ozark – St. Francis, Apalachicola, Ocala, Osceola, Chattahoochee-Oconee, Daniel Boone, Land between the lakes National Recreation Area, Kisatchie,, El Yunque, Francis Marion & Sumter, Cherokee, National Forests and Grasslands in Texas, and George Washington and Jefferson National Forests | * Disturbance * Hydrology * Ecosystems services * Species and habitats * Recreation | Complete – Book  <https://www.crcpress.com/Climate-Change-Adaptation-and-Mitigation-Management-Options-A-Guide-for/Vose-Klepzig/9781466572751> |
| R-8 | Southeast Regional Vulnerability Assessment | National forests in Alabama, National Forests in Mississippi, National Forests in North Carolina, Ouachita, Ozark – St. Francis, Apalachicola, Ocala, Osceola, Chattahoochee-Oconee, Daniel Boone, Land between the lakes National Recreation Area, Kisatchie,, El Yunque, Francis Marion & Sumter, Cherokee, National Forests and Grasslands in Texas, and George Washington and Jefferson National Forests | * Disturbance * Hydrology * Wildlife * Fisheries * Recreation * Working land issues | Complete  <http://climatehubs.oce.usda.gov/sites/default/files/Southeast%20Vulnerability%20Assessment%20Final.pdf> |
| R-8 | North Carolina’s Emerging Forest Threats: management Options for Healthy Forests | North Carolina, subregional | * Disturbance * Hydrology * Wildlife * Fisheries * Recreation | Complete  <http://www.treesearch.fs.fed.us/pubs/42328> |
| R-8 | Protecting Your Forest Asset: Managing Risks in Changing Times | National forests in Alabama, National Forests in Mississippi, National Forests in North Carolina, Ouachita, Ozark – St. Francis, Apalachicola, Ocala, Osceola, Chattahoochee-Oconee, Daniel Boone, Land between the lakes National Recreation Area, Kisatchie,, El Yunque, Francis Marion & Sumter, Cherokee, National Forests and Grasslands in Texas, and George Washington and Jefferson National Forests | * Disturbance * Hydrology * Wildlife * Fisheries * Recreation | Complete  <http://www.pinemap.org/publications/fact-sheets/Protecting_Your_Forest_Asset.pdf> |
| R-9 | Climate Change Response Framework | Allegheny, Chequamegon-Nicolet, Chippewa, Green Mountain & Finger Lakes, Hiawatha, Hoosier, Huron-Manistee, Mark Twain, Monongahela, Ottawa, Shawnee, Superior, Wayne, and White Mountain National Forests | * Vegetation * Terrestrial species * Disturbance * Hydrology * Ecosystem function * Management Implications | Published:   * Wisconsin: [www.nrs.fs.fed.us/pubs/46393](http://www.nrs.fs.fed.us/pubs/46393) * Michigan: [www.nrs.fs.fed.us/pubs/45688](file:///C:\Users\prbutler\AppData\Local\Temp\www.nrs.fs.fed.us\pubs\45688) * Minnesota: [www.nrs.fs.fed.us/pubs/45939](file:///C:\Users\prbutler\AppData\Local\Temp\www.nrs.fs.fed.us\pubs\45939) * Central Hardwoods: [www.nrs.fs.fed.us/pubs/45430](http://www.nrs.fs.fed.us/pubs/45430) * Central Appalachians: [www.nrs.fs.fed.us/pubs/47885](file:///C:\Users\prbutler\AppData\Local\Temp\www.nrs.fs.fed.us\pubs\47885)   In process:   * Mid-Atlantic * New England * Urban   Website: [www.forestadaptation.org/vulnerability-assessment](http://www.forestadaptation.org/vulnerability-assessment) |
| R-10 | Tongass National Forest | Tongass National Forest | * Fisheries * Vegetation * Water | Vulnerability Assessment Report:  <http://ecoadapt.org/data/documents/EcoAdapt_Tongass_VulnerabilityAssessmentReport_FINAL_22Nov214_smallres.pdf> |
| R-10 | Climate Change Vulnerability Assessment for the Chugach National Forest and the Kenai Peninsula | Chugach National Forest | * Hydrology * Wildlife * Vegetation | Draft available upon request. |

**Other reports with a climate change and vulnerability component**

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| R-8 | Southern Forests Futures Project | Southern Region | * Comprehensive | Complete – Multiple GTRs  <http://www.srs.fs.usda.gov/futures/> |
| R-8 | Francis Marion National Forest Plan Assessment | Francis Marion National Forest, South Atlantic Coastal Plain | * Comprehensive   <http://www.fs.fed.us/im/directives/fsh/1909.12/wo_1909.12_10.docx> | Complete (Draft)  <http://www.fs.usda.gov/detail/scnfs/landmanagement/planning/?cid=stelprdb5393142>  CCRC Adaptation Example  <http://www.fs.usda.gov/ccrc/climate-projects/adaptation-examples/francis-marion-national-forest>  U.S. Climate Resilience Toolkit – Taking Action  <https://toolkit.climate.gov/taking-action/incorporating-climate-change-new-forest-management-plan> |
| R-8 | El Yunque National Forest Plan Assessment | El Yunque National Forest, Caribbean | * Terrestrial ecosystems * Aquatic ecosystems * Ecosystem services * Hydrology * Wildlife * Socio-economic * Cultural | Complete (Draft)  <http://www.fs.usda.gov/detail/elyunque/landmanagement/planning/?cid=stelprdb5411336>  GTR (Final)  <http://www.treesearch.fs.fed.us/pubs/45918> |
| R-8 | Nantahala-Pisgah National Forest Plan Assessment | Nantahala-Pisgah National Forest, Southern Appalachian | * Aquatic ecosystems * Hydrology * Recreation * Disturbance | Complete (Draft)  <http://www.fs.usda.gov/detail/nfsnc/home/?cid=stelprdb5436772> |
| R-8 | National Forests in Texas Plan Assessment | Angelina National Forest, Sabine National Forest, Sam Houston National Forest, Davy Crockett National Forest | * Comprehensive | In progress (FY16) |
| ALL | Template for Assessing Climate Change Impacts and Management Options (TACCIMO) | National, regional, subregional tool | * Comprehensive | Ongoing Literature Review  <http://www.taccimo.info/>  GTR (Final)  <http://www.treesearch.fs.fed.us/pubs/45382> |