

Appendix: Recent Topical Syntheses

Many of the recent topical synthesis reports cited in this report are listed below. Readers are urged to review the reference sections of each chapter for a more complete list.

Great Basin Ecosystems (also see “Meadows” below)

Chambers, J.C.; Brooks, M.L.; Pendleton, B.K.; Raish, C.B., eds. 2013. The southern Nevada agency partnership science and research synthesis: science to support land management in southern Nevada. Executive summary. Gen. Tech. Rep. RMRS-GTR-304. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 79 p.

Chambers, J.C.; Brooks, M.L.; Pendleton, B.K.; Raish, C.B., eds. 2013. The southern Nevada agency partnership science and research synthesis: science to support land management in southern Nevada. Gen. Tech. Rep. RMRS-GTR-303. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 207 p.

Chambers, J.C.; Devoe, N.; Evenden, A., eds. 2008. Collaborative management and research in the Great Basin—examining the issues and developing a framework for action. Gen. Tech. Rep. RMRS-GTR-204. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 66 p.

Lake Tahoe Basin

Hymanson, Z.P.; Collopy, M.W., eds. 2010. An integrated science plan for the Lake Tahoe basin: conceptual framework and research strategies. Gen. Tech. Rep. PSW-GTR-226. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 368 p.

Forest Ecology Including Climate Change

Busse, M.D.; Hubbert, K.D.; Moghaddas, E.Y. 2014. Fuel reduction practices and their effects on soil quality. Gen. Tech. Rep. PSW-GTR-241. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 156 p.

Elliot, W.J.; Miller, I.-S.; Audin, L., eds. 2010. Cumulative watershed effects of fuel management in the western United States. Gen. Tech. Rep. RMRS-GTR-231. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 299 p.

Jain, T.B.; Battaglia, M.A.; Han, H.-S.; Graham, R.T.; Keyes, C.R.; Fried, J.S.; Sandquist, J.E. 2012. A comprehensive guide to fuel management practices for dry mixed conifer forests in the northwestern United States. Gen. Tech. Rep. RMRS-GTR-292. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 331 p.

Joyce, L.A., Blate, G.M.; Littell, J.S.; McNulty, S.G.; Millar, C.I.; Moser, S.C.; Neilson, R.P.; O'Halloran, K.; Peterson, D.L. 2008. Adaptation options for climate-sensitive ecosystems and resources: national forests: preliminary review of adaptation options for climate-sensitive ecosystems and resources. Synthesis and Assessment Product 4.4. Washington, DC: U.S. Climate Change Science Program. 126 p. Chapter 3.

Keane, R.E.; Tomback, D.F.; Aubry, C.A.; Bower, A.D.; Campbell, E.M.; Cripps, C.L.; Jenkins, M.B.; Mahalovich, M.F.; Manning, M.; McKinney, S.T.; Murray, M.P.; Perkins, D.L.; Reinhart, D.P.; Ryan, C.; Schoettle, A.W.; Smith, C.M. 2012. A range-wide restoration strategy for whitebark pine (*Pinus albicaulis*). Gen. Tech. Rep. RMRS-GTR-279. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 108 p.

Kliejunas, J.T. 2011. A risk assessment of climate change and the impact of forest diseases on forest ecosystems in the Western United States and Canada. Gen. Tech. Rep. PSW-GTR-236. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 70 p.

Kliejunas, J.T.; Geils, B.W.; Glaeser, J.M.; Goheen, E.M.; Hennon, P.; Kim, M.-S.; Kope, H.; Stone, J.; Sturrock, R.; Frankel, S.J. 2009. Review of literature on climate change and forest diseases of western North America. Gen. Tech. Rep. PSW-GTR-225. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 54 p.

Knapp, E.E.; Estes, B.L.; Skinner, C.N. 2009. Ecological effects of prescribed fire season: a literature review and synthesis for managers. Gen. Tech. Rep. PSW-GTR-224. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 80 p.

Luce, C.; Morgan, P.; Dwire, K.; Isaak, D.; Holden, Z.; Rieman, B. 2012. Climate change, forests, fire, water, and fish: building resilient landscapes, streams, and managers. Gen. Tech. Rep. RMRS-GTR-290. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 207 p.

- McDonald, P.M.; Fiddler, G.O. 2010.** Twenty-five years of managing vegetation in conifer plantations in northern and central California: results, application, principles, and challenges. Gen. Tech. Rep. PSW-GTR-231. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 87 p.
- McIver, J.D.; Stephens, S.L.; Agee, J.K.; Barbour, J.; Boerner, R.E.J.; Edminster, C.B.; Erickson, K.L.; Farris, K.L.; Fettig, C.J.; Fiedler, C.E.; Haase, S.; Hart, S.C.; Keeley, J.E.; Knapp, E.E.; Lehmkuhl, J.F.; Moghaddas, J.J.; Otrosina, W.; Outcalt, K.W.; Schwilk, D.W.; Skinner, C.N.; Waldrop, T.A.; Weatherspoon, C.P.; Yaussy, D.A.; Youngblood, A.; Zack, S. 2012.** Ecological effects of alternative fuel reduction treatments: principal findings of the national Fire and Fire Surrogates study (FFS). *International Journal of Wildland Fire*. <http://dx.doi.org/10.1071/WF11130>. (13 December 2013).
- North, M., ed. 2012.** Managing Sierra Nevada forests. Gen. Tech. Rep. PSW-GTR-237. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 184 p.
- North, M.; Stine, P.; O'Hara, K.; Zielinski, W.; Stephens, S. 2009.** An ecosystem management strategy for Sierran mixed-conifer forests. Gen. Tech. Rep. PSW-GTR-220. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 49 p.
- Peterson, D.L.; Agee, J.K.; Aplet, G.H.; Dykstra, D.P.; Graham, R.T.; Lehmkuhl, J.F.; Pilioid, D.S.; Potts, D.F.; Powers, R.F.; Stuart, J.D. 2009.** Effects of timber harvest following wildfire in western North America. Gen. Tech. Rep. PNW-GTR-776. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 51 p.
- Peterson, D.L.; Millar, C.I.; Joyce, L.A.; Furniss, M.J.; Halofsky, J.E.; Neilson, R.P.; Morelli, T.-L. 2011.** Responding to climate change in national forests: a guidebook for developing adaptation options. Gen. Tech. Rep. PNW-GTR-855. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 109 p.
- Reinhardt, E.; Keane, R.; Calkin, D.; Cohen, J. 2008.** Objectives and considerations for wildland fuel treatment in forested ecosystems of the interior western United States. *Forest Ecology and Management*. 256(12): 1997–2006.

Ryan, K.C.; Jones, A.T.; Koerner, C.L.; Lee, K.M., tech. eds. 2012. Wildland fire in ecosystems: effects of fire on cultural resources and archaeology. Gen. Tech. Rep. RMRS-GTR-42-vol. 3. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 224 p.

Shepherd, W.D.; Rogers, P.; Burton, D.; Bartos, D.L. 2006. Ecology, biodiversity, management, and restoration of aspen in the Sierra Nevada. Gen. Tech. Rep. RMRS-GTR-178. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 122 p.

Stephens, S.L.; McIver, J.D.; Boerner, R.E.J.; Fettig, C.J.; Fontaine, J.B.; Hartsough, B.R.; Kennedy, P.L.; Schwilk, D.W. 2012. The effects of forest fuel-reduction treatments in the United States. *BioScience*. 62(6): 549–560.

Vose, J.M.; Peterson, D.L.; Patel-Weynand, T. 2012. Effects of climatic variability and change on forest ecosystems: a comprehensive science synthesis for the U.S. forest sector. Gen. Tech. Rep. PNW-GTR-870. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 265 p.

Wiens, J.A.; Hayward, G.D.; Safford, H.D.; Giffen, C.M. 2012. Historical environmental variation in conservation and natural resource management. Chichester, United Kingdom: John Wiley & Sons. 352 p.

Post-Wildfire Management

Foltz, R.B.; Robichaud, P.R. 2013. Effectiveness of post-fire burned area emergency response (BAER) road treatments: results from three wildfires. Gen. Tech. Rep. RMRS-GTR-313. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 40 p.

Foltz, R.B.; Robichaud, P.R.; Rhee, H. 2008. A synthesis of postfire road treatments for BAER teams: methods, treatment effectiveness, and decisionmaking tools for rehabilitation. Gen. Tech. Rep. RMRS-GTR-228. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 152 p.

Meadows

Chambers, J.C.; Miller, J.R., eds. 2011. Geomorphology, hydrology, and ecology of Great Basin meadow complexes—implications for management and restoration. Gen. Tech. Rep. RMRS-GTR-258. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 125 p.

Ramstead, K.M.; Allen, J.A.; Springer, A.E. 2012. Have wet meadow restoration projects in the southwestern U.S. been effective in restoring geomorphology, hydrology, soils, and plant species composition? *Environmental Evidence*. 1(11): 16.

All-Terrain Vehicles

Meadows, D.; Foltz, R.B.; Geehan, N. 2008. Effects of all terrain vehicles on forested lands. Report No. 0823 1811-SDTDC. San Dimas, CA: U.S. Department of Agriculture, National Technology and Development Program. 124 p.

Rangeland Management

Briske, D.D., ed. 2011. Conservation benefits of rangeland practices: assessment, recommendations, and knowledge gaps. Washington, DC: U.S. Department of Agriculture, Natural Resources Conservation Service. 429 p.

Social Science

Absher, J.D.; Vaske, J.J.; Shelby, L.B. 2009. Residents' responses to wildland fire programs: a review of cognitive and behavioral studies. Gen. Tech. Rep. PSW-GTR-223. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 31 p.

Chavez, D.J.; Absher, J.D.; Winter, P.L. 2008. Fire social science research from the Pacific Southwest research station: studies supported by national fire plan funds. Gen. Tech. Rep. PSW-GTR-209. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 251 p.

Chavez, D.J.; Winter, P.L.; Absher, J.D., eds. 2008. Recreation visitor research: studies of diversity. Gen. Tech. Rep. PSW-GTR-210. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 216 p.

- Daniel, T.C.; Carroll, M.S.; Moseley, C.; Raish, C. 2007.** People, fire and forests: a synthesis of wildfire social science. Corvallis, OR: Oregon State University Press. 240 p.
- Foti, R.; Ramirez, J.A.; Brown, T.C. 2012.** Vulnerability of U.S. water supply to shortage: a technical document supporting the Forest Service 2010 RPA assessment. Gen. Tech. Rep. RMRS-GTR-295. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 147 p.
- Kruger, L.E.; Hall, T.E.; Stiefel, M.C., tech. eds. 2008.** Understanding concepts of place in recreation research and management. Gen Tech. Rep. PNW-GTR-744. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 204 p.
- Lynn, K.; MacKendrick, K.; Donoghue, E.M. 2011.** Social vulnerability and climate change: synthesis of literature. Gen. Tech. Rep. PNW-GTR-838. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 70 p.
- McCaffrey, S.M. 2006.** The public and wildland fire management: social science findings for managers. Gen. Tech. Rep. NRS-1. Newtown Square, PA: U.S. Department of Agriculture, Forest Service, Northern Research Station. 202 p.
- McCaffrey, S.M.; Olsen, C.S. 2012.** Research perspectives on the public and fire management: a synthesis of current social science on eight essential questions. Gen. Tech. Rep. NRS-104. Newtown Square, PA: U.S. Department of Agriculture, Forest Service, Northern Research Station. 40 p.
- McCaffrey, S.M.; Toman, E.; Stidham, M.; Shindler, B. 2012.** Social science research related to wildfire management: an overview of recent findings and future research needs. *International Journal of Wildland Fire*. 22: 15–24.
- McCool, S.F.; Burchfield, J.; Williams, D.R.; Carroll, M.; Cohn, P.; Kumagai, Y.; Ubhen, T. 2007.** Social science to improve fuels management: a synthesis of research on the impacts of wildland fires on communities. Gen. Tech. Rep. NC-269. Newtown Square, PA: U.S. Department of Agriculture, Forest Service, Northern Research Station. 36 p.

Peterson, D.L.; Millar, C.I.; Joyce, L.A.; Furniss, M.J.; Halofsky, J.E.; Neilson, R.P.; Morelli, T.L. 2011. Responding to climate change in national forests: a guidebook for developing adaptation options. Gen. Tech. Rep. PNW-GTR-855. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 109 p.

Smith, N.; Deal, R.; Kline, J.D.; Patterson, T.; Spies, T.; Blahna, D. 2011. Using ecosystem services as a framework for forest stewardship: executive summary. Gen. Tech. Rep. PNW-GTR-852. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 46 p.

Stein, S.M.; Menakis, J.; Carr, M.A.; Comas, S.J.; Stewart, S.I.; Cleveland, H.; Bramwell, L.; Radeloff, V.C. 2013. Wildfire, wildlands, and people: understanding and preparing for wildfire in the wildland-urban interface—a Forests on the Edge report. Gen. Tech. Rep. RMRS-GTR-299. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 36 p.