

CHAPTER 6. REFERENCES

CHAPTER 6. REFERENCES

- AECOM. 2011. *Acoustic Investigation, Virginia Development Plan Amendment*. Available at: http://dpti.sa.gov.au/_data/assets/pdf_file/0006/99150/Acoustic_Investigation__Virginia_Development_Plan_Amendment,_May_2011_AECOM.pdf as of July 19, 2013.
- Albright, L. B., D. D. Gillette, and A. L. Titus. 2002. *New Records of Vertebrates from the Late Cretaceous Tropic Shale of Southern Utah*. Abstracts, 2002 Rocky Mountain Section of the Geological Society of America Annual Meeting, Cedar City, Utah.
- . 2007a. Plesiosaurs from Upper Cretaceous (Cenomanian-Turonian) Tropic Shale of Southern Utah, Part 1: Pliosauridae. *Journal of Vertebrate Paleontology* 27(1):31–40.
- . 2007b. Plesiosaurs from Upper Cretaceous (Cenomanian-Turonian) Tropic Shale of Southern Utah, Part 2: Polycotylidae. *Journal of Vertebrate Paleontology* 27(1):41–58.
- Alton Coal Development, LLC (ACD). 2004. Alton Amphitheater Coal Mining Project and Lease by Application. Huntington, Utah: Talon Resources, Inc.
- . 2007–2008. Coal Hollow Project Mining Permit Application Package. C/025/0005. Submitted to Utah Division of Oil, Gas, and Mining, Salt Lake City.
- . 2008. Coal Hollow Project Mining Permit Application Package. Appendix 3-5. Huntington, Utah: Talon Resources, Inc.
- . 2009. *Alton Coal Development Coal Hollow Mining and Reclamation Plan*. Vol. 3. Appendix 3-5. 2009. Approved by Utah Division of Oil, Gas, and Mining.
- . 2012. *Summary of PM₁₀ Data Collected at Coal Hollow Mine During the Second Quarter, 2012*. Submitted to Utah Department of Environmental Quality. Available at: <http://www.deq.utah.gov/businesses/altoncoal/index.htm> as of July 15, 2013.
- . 2013. Personal communication between K. Nicholes, ACD, and N. Ulacky, SWCA Environmental Consultants. Regarding staffing and production levels at the Coal Hollow Mine. July 17, 2013. Email.
- . 2014. *Summary of PM₁₀ Data Collected at Coal Hollow Mine, Utah [1st Quarter 2013 through 4th Quarter 2013]*. Available at: <https://deq.utah.gov/businesses/A/altoncoal/index.htm#airmon> as of September 7, 2017.
- . 2015a. *2014 Annual Report; Alton Coal Development LLC, Coal Hollow Mine, C/025/0005*. Available at: <https://fs.ogm.utah.gov/FILES/COAL/PERMITS/025/C0250005/2015/INCOMING/03302015.4859.pdf> as of September 7, 2017.
- . 2015b. *Summary of PM₁₀ Data Collected at Coal Hollow Mine, Utah Annual Report, 2014*. Available at: <https://deq.utah.gov/businesses/A/altoncoal/index.htm#airmon> as of September 7, 2017.
- . 2016a. *2015 Coal Mining Annual Report; Alton Coal Development LLC, Coal Hollow Mine, C/025/0005*. Available at: <https://fs.ogm.utah.gov/FILES/COAL/PERMITS/025/C0250005/2016/INCOMING/08312016.5249.pdf> as of September 7, 2017.
- . 2016b. *Summary of PM₁₀ Data Collected at Coal Hollow Mine, Utah Annual Report, 2015*. Available at: <https://deq.utah.gov/businesses/A/altoncoal/index.htm#airmon> as of September 7, 2017.
- . 2017. *2016 Coal Mining Annual Report; Alton Coal Development LLC, Coal Hollow Mine, C/025/0005*. Available at: <https://fs.ogm.utah.gov/FILES/COAL/PERMITS/025/C0250005/2017/INCOMING/03312017.5423.pdf> as of September 7, 2017.

- Aoude, A. 2008. Personal communication between A. Aoude, Utah Division of Wildlife Resources, and G. Weekley, SWCA Environmental Consultants. June 2008.
- Applied Geotechnical Engineering Consultants. 2007. Preliminary Radiation Assessment. Prepared for Alton Coal Development, LLC. St. George, Utah: Applied Geotechnical Engineering Consultants, Inc.
- Arabasz, W. J., R. B. Smith, J. C. Pechmann, K. L. Pankow, and R. Burlacu. 2006. *Annual Technical Report: Integrated Regional and Urban Seismic Monitoring—Wasatch Front Area, Utah, and Adjacent Intermountain Seismic Belt*. U.S. Geological Survey Cooperative Agreement No. 04HQAG0014. Salt Lake City: University of Utah, Department of Geology and Geophysics.
- Arabasz, W. J., J. Ake, M. K. McCarter, and A. McGarr. 2002. *Mining-Induced Seismicity near Joes Valley Dam: Summary of Ground-Motion Studies and Assessment of Probable Maximum Magnitude*. Prepared for the State of Utah School and Institutional Trust Lands Administration, Salt Lake City.
- Association of National Park Authorities. 2013. The Impacts of Tourism. Available at: <http://www.nationalparks.gov.uk/learningabout/ourchallenges/tourism/impactsoftourism.htm> as of July 2, 2013.
- Bainbridge, D. A. 1990. The Restoration of Agricultural Lands and Drylands. In *Environmental Restoration: Science and Strategies for Restoring the Earth*, edited by J. Berger. Washington, D.C.: Island Press.
- Bainbridge, D. A., and J. E. Lovich. 1999. Anthropogenic Degradation of the Southern California Desert Ecosystem and Prospects for Natural Recovery and Restoration. *Environmental Management* 24 (3):309–326.
- Bainbridge, D. A., R. McAller, M. Fidelibus, R. Franson, A. C. Williams, and L. Lippit. 1995. *A Beginner's Guide to Desert Restoration*, edited by the National Park Service, Denver Service Center.
- Barrick Gold Corporation. 2009. *Cowal Gold Mine E42 Modification. Modified Request*. Project No. Hal-09-34. Document No. 00309646.DOC. Available at: <http://barrick.com/files/cowal/Cowal-E42-Modification-Modified-Request.pdf> as of May 15, 2013.
- Baruch-Mordo, S., J. S. Evans, J. P. Severson, D. E. Naugle, J. D. Maestas, J. M. Kiesecker, M. J. Falkowski, C. A. Hagen, and K. P. Reese. 2013. Saving Sage-Grouse from the Trees: A Proactive Solution to Reducing a Key Threat to a Candidate Species. *Biological Conservation* 167:233–241.
- Beck, J. L., D. L. Mitchell, and B. D. Maxfield. 2003. Changes in the Distribution and Status of Sage-Grouse in Utah. *Western North American Naturalist* 63:203–214.
- Beier, P. 2006. Effects of Artificial Night Lighting on Terrestrial Mammals. In *Ecological Consequences of Artificial Night Lighting*, edited by C. Rich and T. Longcore. Washington, D.C.: Island Press.
- Bell, F. G., and L. J. Donnelly. 2006. *Mining and Its Impact on the Environment*. New York: Taylor and Francis Group.
- Belnap, J., and D. A. Gillette. 1997. Disturbance of Biological Soil Crusts: Impacts on Potential Wind Erodibility of Sandy Desert Soils in Southeastern Utah. *Land Degradation & Development* 8:355–362. Available at: http://sbsc.wr.usgs.gov/products/pdfs/Belnap_and_Gillette_1997_Disturbance_of_biological.pdf as of June 20, 2013.
- Belnap, J., J. H. Kaltenecker, R. Rosentreter, J. Williams, S. Leonard, and D. Eldridge. 2001. *Biological Soil Crusts: Ecology and Management*. Denver, Colorado: U.S. Department of the Interior, Bureau of Land Management, U.S. Geological Survey.

- Bergquist, E., P. P. Evangelista, T. J. Stohlgren, and N. Alley. 2007. Invasive Species and Coal Bed Methane Development in the Powder River Basin, Wyoming. *Environmental Monitoring and Assessment* 128(1–3):381–394.
- Bernales, H., K. R. Hersey, and J. Shannon. 2015. *Utah Big Game Annual Report 2015*. Available at: https://wildlife.utah.gov/hunting/biggame/pdf/annual_reports/15_bg_report.pdf as of June 23, 2017.
- Best Friends Animal Society. 2011. Who We Are. Our Story. Available at: <http://bestfriends.org/Who-We-Are/Our-Story> as of June 21, 2013.
- Blue Ribbon Advisory Council. 2007. *Climate Change and Utah: The Scientific Consensus*. Available at: http://www.insc.utah.edu/~steenburgh/papers/utah_climate_report_2007.pdf as of June 3, 2013.
- Boden, T., K. Krahulec, D. Tabet, A. Rupke, and M. D. Vanden Berg. 2015. *Utah's Extractive Resource Industries 2014*. Circular 120, Utah Geological Survey. Available at: <http://files.geology.utah.gov/online/c/c-120.pdf> as of March 29, 2016.
- Bortle, J. E. 2001. The Bortle Dark-Sky Scale. *Sky and Telescope* 101(2):126–129.
- Boswell, R., K. Rigrtrup, J. McKenzie, B. Nadolski, B. James, J. Eyre, L. Church, W. Bunting, D. Alberts, S. Petersen et al. 2016. Alton Coal FEIS Greater Sage-Grouse Land Use Plan Amendment Conformance Meeting [June 28, 2016]. Cedar City, Utah: U.S. Department of the Interior, Bureau of Land Management. Cedar City Field Office.
- Bosworth, W. R. 2003. *Vertebrate Information Compiled by the Utah Natural Heritage Program: A Progress Report*. Prepared for Utah Reclamation Mitigation and Conservation Commission and the U.S. Department of the Interior. Salt Lake City: Utah Department of Natural Resources. Available at: <http://dwrcdc.nr.utah.gov/ucdc/ViewReports/vertprt.htm> as of January 23, 2014.
- Bowers, W. E., A. A. Aigen, and E. R. Landis. 1976. *Coal Resources of the Alton, Utah, Emria Site*. Open File Report 76-386. Washington, D.C.: U.S. Department of the Interior, Geological Survey.
- Boyle, M. A., and K. A. Kiel. 2001. A Survey of House Price Hedonic Studies of the Impact of Environmental Externalities. *Journal of Real Estate Literature* 9(2):117–144.
- Boynton, R. M., and K. F. Purl. 1989. Categorical Color Perception under Low-Pressure Sodium Lighting with Small Amounts of Added Incandescent Illumination. *Lighting Research and Technology* 21:23–27.
- Briggs, P. 2004. Effect of Barn Conversion on Bat Roost Sites in Hertfordshire, England. *Mammalia* 68(4):353–364.
- Brode, R. W. (EPA). 2015. *Proposed Updates to AERMOD Modeling System*. Paper presented at U.S. EPA 11th Modeling Conference, August 12, 2015, at Research Triangle Park, North Carolina. Available at: https://www3.epa.gov/ttn/scram/11thmodconf/presentations/1-5_Proposed_Updates_AERMOD_System.pdf as of June 14, 2017.
- Buchanan, B. W. 2006. Observed and Potential Effects of Artificial Night Lighting on Anuran Amphibians. In *Ecological Consequences of Artificial Night Lighting*, edited by C. Rich and T. Longcore. Washington, D.C.: Island Press.

- Bureau of Land Management (BLM). 1979. *Zion Management Framework Plan*. Washington, D.C.: U.S. Department of the Interior, BLM, Cedar City District, Kanab Resource Area, Zion Planning Unit.
- . 1989. *Competitive Coal Leasing*, Manual 3420. Washington, D.C.: U.S. Department of the Interior, BLM.
- . 1991. *Wildlife 2000: The Riparian-Wetlands Initiative for the 1990s. A Strategy for Future Waterfowl Habitat Management on Public Lands*. Washington, D.C.: U.S. Department of the Interior, BLM.
- . 1995. *Warm Springs Project Preliminary Draft Environmental Impact Statement. Kane, Iron, and Washington Counties, Utah; Coconino County, Arizona; Clark County, Nevada*. Washington, D.C.: U.S. Department of the Interior, BLM.
- . 1997. *Standards for Rangeland Health and Guidelines for Grazing Management on BLM Lands in Utah*. BLM-UT-GI-97-001-4000. Washington, D.C.: U.S. Department of the Interior, BLM.
- . 1999. *Grand Staircase-Escalante National Monument Approved Management Plan Record of Decision*. Cedar City, Utah: U.S. Department of the Interior, BLM, Cedar City Field Office.
- . 2001a. *Biological Soil Crusts: Ecology and Management*. TR 1730-2. Denver, Colorado: U.S. Department of the Interior, BLM, Colorado State Office.
- . 2001b. *Horse Valley Prescribed Burn EA and Associated Burn Plan*. Washington, D.C.: U.S. Department of the Interior, BLM.
- . 2002. *South Canyon Prescribed Burn DNA and Associated Burn Plan*. Washington, D.C.: U.S. Department of the Interior, BLM.
- . 2003. *Riparian Area Management*. TR 1737-16 1999, Revised 2003. A User Guide to Assessing Proper Functioning Condition and the Supporting Science for Lentic Areas Available at <https://www.blm.gov/or/programs/nrst/files/Final%20TR%201737-16%20.pdf> as of September 21, 2017.
- . 2004. *Southwest Utah Support Area Fire Management Plan*. Cedar City, Utah: U.S. Department of the Interior, BLM, Cedar City Field Office.
- . 2005a. *Southern Utah Support Area Fire Management Plan Environmental Assessment*. Washington, D.C.: U.S. Department of the Interior, BLM.
- . 2005b. *Final Analysis of the Management Situation for the Kanab Resource Management Plan and Environmental Impact Statement*. Kanab, Utah: U.S. Department of Agriculture, BLM, Kanab Field Office.
- . 2005c. *Instruction Memorandum No. UT 2005-091, Utah Riparian Management Policy*. Washington, D.C.: U.S. Department of the Interior, BLM.
- . 2007. *Kanab Field Office Draft Resource Management Plan and Environmental Impact Statement*. Kanab, Utah: U.S. Department of the Interior, BLM, Kanab Field Office.
- . 2008a. *BLM National Environmental Policy Act Handbook H-1790-1*. Available at: https://www.ntc.blm.gov/krc/uploads/366/NEPAHandbook_H-1790_508.pdf as of August 29, 2017.
- . 2008b. *Kanab Field Office Record of Decision and Approved Resource Management Plan*. BLM-UT-PL-09-006-1610, October 2008. Kanab, Utah: U.S. Department of the Interior, BLM, Kanab Field Office.
- . 2008c. *Richfield Field Office Planning Area-Proposed Resource Management and Final Environmental Impact Statement*. Richfield, Utah: U.S. Department of the Interior, BLM, Richfield Field Office.

- . 2008d. *Kanab Field Office Proposed Resource Management Plan and Final Environmental Impact Statement*. BLM-UT-PL-08-002-1610; UT-110-2007-022; FES 08-24. Kanab, Utah: U.S. Department of the Interior, BLM, Kanab Field Office.
- . 2008e. *West Tavaputs Plateau Natural Gas Full Field Development Plan: Draft Environmental Impact Statement*. UT-070-05-055. February 2008. Appendix 0. Price, Utah: U.S. Department of the Interior, BLM, Utah Field Office.
- . 2008f. *Instruction Memorandum No. 2008-204. Offsite Mitigation*. September 30, 2008.
- . 2010a. Lower Robinson Creek and Upper Kanab Creek Proper Functioning Condition Assessment. Lotic Checklist forms from November 2, 2010, plus maps, photographs, etc. On file, SWCA Environmental Consultants, Salt Lake City, Utah.
- . 2010b. *South Canyon Vegetation Enhancement Environmental Assessment*. UT-040-09-03. Cedar City, Utah: U.S. Department of the Interior, BLM, Color Country District Office.
- . 2010c. *Upper Kanab Creek Watershed Vegetation Management Project Environmental Assessment. Environmental Assessment*. UT-040-09-03. Washington, D.C.: U.S. Department of the Interior, BLM.
- . 2010d. *Instructional Memorandum 2010-061. Guidance on Estimating Nonmarket Environmental Values*. February 16, 2010. Available at: http://www.blm.gov/wo/st/en/info/regulations/Instruction_Memos_and_Bulletins/national_instruction/2010/IM_2010-061.html as of July 16, 2013.
- . 2011a. *Upper Kanab Creek Watershed Vegetation Management Project Environmental Assessment*. Environmental Assessment UT-040-09-03. Washington, D.C.: U.S. Department of the Interior, BLM.
- . 2011b. *Biological Soil Crusts: Ecology and Management*. Technical Reference 1730-2. Available at: <http://www.blm.gov/nstc/library/pdf/CrustManual.pdf> as of July 11, 2013.
- . 2013a. *Utah Greater Sage-Grouse Draft Land Use Plan Amendment and Environmental Impact Statement*. Washington, D.C.: U.S. Department of the Interior, Bureau of Land Management. Available at: http://www.blm.gov/ut/st/en/prog/planning/SG_RMP_rev.html as of January 1, 2014.
- . 2013b. *Instruction Memorandum No. 2013-131, Change 1. Guidance on Estimating Nonmarket Environmental Values*. September 12, 2013. Available at: http://www.blm.gov/wo/st/en/info/regulations/Instruction_Memos_and_Bulletins/national_instruction/2013/IM_2013-131__Ch1.html as of October 30, 2013.
- . 2013c. Fact Sheet on the BLM's Management of Livestock Grazing. February 5, 2013. Available at: <http://www.blm.gov/wo/st/en/prog/grazing.html> as of July 18, 2013.
- . 2015a. *Utah Greater Sage-Grouse Approved Resource Management Plan Amendment*. Available at: https://eplanning.blm.gov/epl-front-office/projects/lup/68351/87600/104856/Utah_ARMPA.pdf as of June 29, 2017.
- . 2015b. *Record of Decision and Approved Resource Management Plan Amendments for the Great Basin Region, Including the Greater Sage-Grouse Sub-Regions of Idaho and Southwestern Montana Nevada and Northeastern California Oregon Utah*. Available at: https://eplanning.blm.gov/epl-front-office/projects/lup/68351/87599/104855/GB_ROD_9.21.15_508_lowres.pdf as of June 29, 2017.

- Bureau of Land Management (BLM) and U.S. Forest Service (USFS). 2015. *Utah Greater Sage-Grouse Proposed Land Use Plan Amendment and Final Environmental Impact Statement*. DOI-BLM-UT-9100-2013-0002-EIS. Available at: <https://eplanning.blm.gov/epl-front-office/eplanning/planAndProjectSite.do?methodName=dispatchToPatternPage¤tPageId=99423> as of June 29, 2017.
- Burton, P. 2008. Personal communication between P. Burton, Utah Division of Oil, Gas, and Mining, and B. Gaddis, SWCA Environmental Consultants. September 30, 2008.
- California Department of Transportation (Caltrans). 2002. *Transportation Related Earthborne Vibrations (Caltrans Experiences)*. Technical Advisory, Vibration TAV-02-01-R9601. Sacramento: California Department of Transportation, Division of Environmental Analysis, Office of Noise, Air Quality, and Hazardous Waste Management.
- Carr, E. L. 1989. *Evaluation of Night Sky Model and Human Perception of Night Sky Glow*. No. SYSAPP-89/106. August 1989. San Rafael, California: Systems Applications, Inc.
- Chae, Y. S. 1978. Design of Excavation Blasts to Prevent Damage. *Civil Engineering-American Society of Civil Engineers* 48(4):77–79.
- Chow, V. T., D. R. Maidment, and L. W. Mays. 1988. Chapter 5: Surface Water. In *Applied Hydrology*, pp. 127–174. New York: McGraw-Hill, Inc.
- Christenson, T. 2008. Personal communication between Tom Christenson, U.S. Department of Interior, Bureau of Land Management, and George Weekley, SWCA Environmental Consultants. May 1, 2008.
- Church, L. 2010. Personal communication between L. Church, BLM Kanab Field Office, and B. Gaddis, SWCA Environmental Consultants. November 28, 2010.
- Clarke, K. 2015. Personal communication between Kathleen Clarke, Director of Utah Public Lands Policy Coordinating Office, and Keith Rigtrup, U.S. Department of Interior, Bureau of Land Management, Color County District Planner. Written Communication.
- Clarke, K. 2017. Personal Communication between Kathleen Clarke, Director of Utah Public Lands Policy Coordinating Office, and Ed Roberson, U.S. Department of Interior, Bureau of Land Management Utah State Director. June 30, 2017. Written communication.
- Colborn, T., F. S. vom Saal, and A. M. Soto. 1993. Developmental Effects of Endocrine-Disrupting Chemicals in Wildlife and Humans. *Environmental Health Perspectives* 101(5):378–384.
- Commons, M. L., R. K. Baydack, and C. E. Braun. 1999. Sage Grouse Response to Pinyon-Juniper Management, compiled by S. B. Monson and R. Stevens. In *Ecology and Management of Pinyon-Juniper Communities within the Interior West*. Fort Collins, Colorado: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.
- Community Environmental Monitoring Program. 2011. Station Wind Rose Cedar City Utah. Available at: <http://www.cemp.dri.edu> as of February 11, 2014. On file, SWCA Environmental Consultants, Salt Lake City, Utah.
- Connelly, J. W., and L. A. Doughty. 1989. Sage Grouse Use of Wildlife Water Developments in Southeastern Idaho. In *Wildlife Water Developments: A Proceedings of the Wildlife Water Development Symposium*, edited by G.K. Tsukamoto and S. J. Stiver. Reno: Nevada Department of Fish and Game.

- Connelly, J. W., C. A. Hagen, and M. A. Schroeder. 2011. Characteristics and Dynamics of Greater Sage-Grouse Populations. In *Greater Sage-Grouse: Ecology and Conservation of a Landscape Species and Its Habitats, Studies in Avian Biology No. 38*, edited by S. T. Knick and J. W. Connelly. Berkeley: University of California Press, and Norman, Oklahoma: Cooper Ornithological Society.
- Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun. 2000. Guidelines for Management of Sage Grouse Populations and Habitat. *Wildlife Society Bulletin* 28(4):967–985.
- Connelly, J. W., S. T. Knick, M. A. Schroeder, and S. J. Stiver. 2004. Conservation Assessment of Greater Sage-Grouse and Sagebrush Habitats. Unpublished Report. June 2004. Cheyenne, Wyoming: Western Association of Fish and Wildlife Agencies.
- Conover, M. R., W. C. Pitt, K. K. Kessler, T. J. DuBow, and W. A. Sanborn. 1995. Review of Human Injuries, Illness and Economic Losses Caused by Wildlife in the U.S. *Wildlife Society Bulletin* 23:407–414.
- Cordova, R. M. 1981. *Ground-Water Conditions in the Upper Virgin River and Kanab Creek Basins Area, Utah, with Emphasis on the Navajo Sandstone*. No. 70. Reston, Virginia: U.S. Geological Survey.
- Crawford, J. A., R. A. Olson, N. E. West, J. C. Mosley, M. A. Schroeder, T. D. Whitson, R. F. Miller, M. A. Gregg, and C. S. Boyd. 2004. Ecology and Management of Sage-Grouse and Sage-Grouse Habitat. *Journal of Range Management* 57(1):2–19.
- Crocker-Bedford, D. C., and J. J. Spillett. 1981. *Habitat Relationships of the Utah Prairie Dog*. Publication No. 1981-0-677-202/4. Ogden, Utah: U.S. Department of Agriculture, Forest Service, Intermountain Region.
- Crowther, S. 2013. Personal communication between S. Crowther, Utah Division of Wildlife Services, and J. Eyre, SWCA Environmental Consultants. September 12, 2013.
- CSX Corporation. 2016. Fuel Efficiency. Available at: <https://www.csx.com/index.cfm/about-us/the-csx-advantage/fuel-efficiency/>. Accessed January 24, 2018.
- Curtis, R., and S. N. Frey. 2007. Alton and Long Valley Greater Sage-Grouse Report. Unpublished Report. September 20, 2007. Cedar City: Southern Utah University and Logan: Utah State University Extension Berryman Institute.
- Cooperative Wildlife Management Unit (CWMU). 2008. Alton CMWU. Utah Cooperative Wildlife Management Unit Association. Available at: <http://www.cwm Utahwildlife.org/units/Alton.htm> as of January 6, 2011.
- Dale, L., J. C. Murdoch, M. A. Thayer, and P. A. Waddell. 1999. Do Property Values Rebound from Environmental Stigmas? Evidence from Dallas. *Land Economics* 75(2):311–326.
- Dark Sky Partners (DSP). 2014. Personal communication between D. R. Davis and C. Luginbuhl, DSP, and N. Ulacky, SWCA Environmental Consultants. January 27, 2014. Regarding revised figures and dust decrease. Email.
- Davis, D. R. 2013. Personal communication between D. R. Davis, Dark Sky Partners, and N. Ulacky, SWCA Environmental Consultants. July 09, 2013. Regarding definition of fully shielded light fixtures. Email.

- de Molenaar, J. G., M. E. Sanders, and D. A. Jonkers. 2006. Road Lighting and Grassland Birds: Local Influence in Road Lighting on a Black-Tailed Godwit Population. In *Ecological Consequences of Artificial Night Lighting*, edited by C. Rich and T. Longcore. Washington, D.C.: Island Press.
- de Vor, F., and H. L. F. de Groot. 2009. The Impact of Industrial Sites on Residential Property Values: A Hedonic Pricing Analysis for the Netherlands. May 4, 2009. Tinbergen Institute Discussion Paper 09-035/3. Available at Social Science Research Network: <http://ssrn.com/abstract=1398803> or <http://dx.doi.org/10.2139/ssrn.1398803> as of July 2, 2013.
- DiTomaso, J. M. 2000. Invasive Weeds in Rangelands: Species, Impacts, and Management. *Weed Science* 48(2):255–265.
- Doelling, H. H., and R. L. Graham. 1972. Southwestern Utah Coal Fields: Alton, Kaiparowits Plateau, and Kolob-Harmony: Utah Geological and Mineralogical Survey Monograph 1. Salt Lake City: Utah Geological Survey.
- Doelling, H. H., F. D. Davis, and C. J. Brant. 1989. *The Geology of Kane County, Utah*. Bulletin 124. Salt Lake City: Utah Department of Natural Resources and Utah Geological and Mineral Survey.
- Doherty, K. E., T. Boulinier, and J. D. Nichols. 2003. Local Extinction and Turnover Rates at the Edge and Interior of Species' Ranges. *Annales Zoologici Fenniciis* 40:145-153.
- Doherty, K.E., D.E. Naugle, B.L. Walker, and J.M. Graham. 2008. Greater Sage-Grouse Winter Habitat Selection and Energy Development. *Journal of Wildlife Management* 72(1):187–195.
- Duel, M., and A. G. Kim. 1988. *Methane Control Research: Summary of Results 1964–80*. Bulletin 687. Washington, D.C.: U.S. Department of the Interior, Bureau of Mines.
- Duncombe, W., M. Robbins, and D. A. Wolf. 1999. *Retire to Where? A Discrete Choice Model of Residential Location*. Available at: <https://www.maxwell.syr.edu/uploadedFiles/cpr/people/faculty/duncombe/retire.pdf> as of July 16, 2013.
- DuRoss, C. 2008. Personal communication between C. DuRoss, Utah Geological Survey, and J. Ernstsen, SWCA Environmental Consultants.
- Eaton, J.G. 1991. Biostratigraphic Framework for Upper Cretaceous Rocks of the Kaiparowits Plateau, Southern Utah. In *Stratigraphy, Depositional Environments, and Sedimentary Tectonics of the Western Margin, Cretaceous Western Interior Seaway: Geological Society of America Special Paper 260*, edited by J. D. Nations and J. G. Eaton.
- . 1993. Therian Mammals from the Cenomanian (Upper Cretaceous) Dakota Formation, Southwestern Utah. *Journal of Vertebrate Paleontology* 13(1):105–124.
- . 1995. Cenomanian and Turonian (Early Late Cretaceous) Multituberculate Mammals from Southwestern Utah. *Journal of Vertebrate Paleontology* 15(4):761–784.
- Eaton, J.G., R. L. Cifelli, J. H. Hutchison, J. I. Kirkland, and J. M. Parrish. 1999. Cretaceous Vertebrate Faunas from the Kaiparowits Plateau, South Central Utah. Utah Geological Survey Miscellaneous Publication 99-1.
- Edwards, T. C., C. Homer, S. Bassett, A. Falconer, R. Ramsey, and D. Wight. 1995. *Utah Gap Analysis: An Environmental Information System*. Final Project Report 95-1. Logan: Utah State University, Utah Cooperative Fish and Wildlife Research Unit.

- Five County Association of Government (FCAOG). 1981. Alton Master Plan. Archived at the Utah State Archives and Records Service, Salt Lake City, Utah.
- . 1998. *Garfield County, Utah General Plan*. FCAOG, Division of Community and Economic Development, Panguitch, Utah.
- . 2007a. *Garfield County, Utah General Plan*. FCAOG, Division of Community and Economic Development, Panguitch, Utah.
- . 2007b. *Southwest Utah Regional Wildfire Protection Plan*. FCAOG, in cooperation with the Color Country Interagency Fire Center, Cedar City, Utah, and St. George, Utah.
- . 2011. *Kane County, Utah General Plan*. FCAOG Division of Community and Economic Development, St. George, Utah.
- Forman, R. T. T., and L. E. Alexander. 1998. Roads and Their Major Ecological Effects. *Annual Review of Ecology and Systematics* 29:207–231.
- Forman, R. T. T., D. Sperling, J. A. Bissonette, A. P. Clevenger, C. D. Cutshall, V. H. Dale, L. Fahrig, R. France, C. R. Goldman, K. Heanue et al. 2003. *Road Ecology: Science and Solutions*. Washington, D.C.: Island Press.
- Foster, D. A., L. Grignon, E. Hammer, and B. Warren. 1996. *Inventory of Bats in High Plateau Forests of Central and Southern Utah*. Utah: U.S. National Park Service, Bryce Canyon National Park.
- Foster, J. R., A. L. Titus, G. Winterfeld, M. C. Hayden, and A. H. Hamblin. 2001. *Paleontological Survey of the Grand Staircase-Escalante National Monument, Garfield and Kane Counties, Utah*, edited by Utah Geological Survey, Salt Lake City. Special Study 99.
- Fox, J. 2010. Personal communication between J. Fox, U.S. Fish and Wildlife Service, and J. H. Hornbeck, SWCA Environmental Consultants. September 13, 2010.
- Frey, S. N. 2008. Effect of Habitat Restoration on Sage-Grouse Land Use and Habitat Use of Greater Sage-Grouse in Southern Utah. Unpublished data emailed to H. Hornbeck, SWCA Environmental Consultants, Salt Lake City, Utah. Unpublished pages.
- . 2009. Personal communication between Dr. S. N. Frey, Utah State University Extension, Logan, and J. H. Hornbeck, SWCA Environmental Consultants. Regarding *Strategic Management Plan for Sage-Grouse 2002*. State of Utah Department of Natural Resources Publication 02-20, edited by J. H. Hornbeck.
- . 2010. 2010 End of Year Report. A21151. Unpublished manuscript. On file, Utah State University, Department of Wildland Resources, Logan, Utah.
- . 2013. Personal communication between S. N. Frey and A. Christensen, SWCA Environmental Consultants. September 10, 2013, Regarding End of the Year Report for Huet's Ranch 2010 Project Season.
- . 2017. ALC Interim Report May 2, 2017. Manuscript on file, SWCA Environmental Consultants, Salt Lake City, Utah.

- Frey, S. N., R. Curtis, and K. Heaton. 2013a. *Home Range and Movements of Greater Sage-Grouse in Its Southern-Most Distribution*. Logan: Utah State University.
- . 2013b. Response of a Small Population of Greater Sage-Grouse to Tree Removal: Implications of Limiting Factors. *Human–Wildlife Interactions* 7(2):260–272.
- Frey, S. N., S. G. Lupis, K. Heaton, T. A. Black, T. A. Messmer, and D. Mitchell. 2008. Color Country Greater Sage-Grouse (*Centrocercus urophasianus*) Local Conservation Plan. Unpublished Report. Logan: Utah's Community Based Conservation Program.
- Frontier Corporation USA. 2012. *Wetland and Stream Delineation Technical Report Alton Coal Tract Lease by Application Project*. Prepared for Alton Coal Development, LLC. Prepared by Dennis Wenger Sr. (Wetlands Ecologist), Jeff Boice (Wetlands Scientist), and Collin Covington (Wetlands Scientist) in July 2012 at Frontier Corporation USA.
- Garfin, G., G. Franco, H. Blanco, A. Comrie, P. Gonzalez, T. Piechota, R. Smyth, and R. Waskom. 2014. Ch. 20: Southwest. In *Climate Change Impacts in the United States: The Third National Climate Assessment*, edited by J. M. Melillo, T. C. Richmond, and G. W. Yohe. Available at: <http://nca2014.globalchange.gov/downloads> as of June 14, 2017.
- Gates, T.A. 2004. Hadrosaurian Dinosaur Diversity from the Upper Campanian Kaiparowits Formation, Southern Utah. *Journal of Vertebrate Paleontology* 24(3):63A.
- Gauthreaux, S. J., and C. G. Belser. 2006. Effects of Artificial Night Lighting on Migrating Birds. In *Ecological Consequences of Artificial Night Lighting*, edited by C. Rich and T. Longcore. Washington, D.C.: Island Press.
- Gelbard, J. L., and J. Belnap. 2003. Roads as Conduits for Exotic Plant Invasions in a Semiarid Landscape. *Conservation Biology* 17(2):420–432.
- Gillette, D.D., M.C. Hayden, and A.L. Titus. 1999. *Occurrence and Biostratigraphic Framework of a Plesiosaur from the Upper Cretaceous Tropic Shale of Southwestern Utah*. Utah Geological Survey Miscellaneous Publication 99-1.
- Gillette, D.D., L.B. Albright, A.L. Titus, and M. Graffam. 2001. Discovery and Paleogeographic Implications of a Therizinosaurid Dinosaur from the Turonian (Late Cretaceous) of Southern Utah, USA. *Journal of Vertebrate Paleontology* 21(3).
- Green, J. S., and J. T. Flinders. 1980. *Brachylagus Idahoensis*. *Mammalian Species* 125:1–4.
- Gubler, C. 2008. Personal communication between C. Gubler, U.S. Department of Interior, Bureau of Land Management, and J. H. Hornbeck, SWCA Environmental Consultants. August 21, 2008.
- Haas III, W. H., and W. J. Sarow. 2009. Retirement Migration Decision Making: Life Course Mobility, Sequencing of Events, Social Ties and Alternatives. December 10, 2009. *Community Development Society* 28(1):1997.
- Hadley, M. 2008. Personal communication between M. Hadley, Utah Division of Wildlife Resources, and G. Weekley, SWCA Environmental Consultants. June 2008.
- Hann, W. J., and D. L. Bunnell. 2001. Fire and Land Management Planning and Implementation across Multiple Scales. *International Journal of Wildland Fire* 10:389–403.

- Harju, S. M., M. R. Dzialak, R. C. Taylor, L. D. Hayden-Wing, and J. B. Winstead. 2010. Thresholds and Time Lags in Effects of Energy Development on Greater Sage-Grouse Populations. *The Journal of Wildlife Management* 74(3):437–448.
- Heady, L. T. and J. W. Laundré. 2005. Habitat Use Patterns within the Home Range of Pygmy Rabbits (*Brachylagus Idahoensis*) in Southeast Idaho. *Western North American Naturalist* 60:490–500.
- Heaton, W. 2009. Personal communication between W. Heaton, Cooperative Wildlife Management Unit, and L. Vernon, SWCA Environmental Consultants. January 6, 2009.
- Hem, J. D. 1985. *Study and Interpretation of the Chemical Characteristics of Natural Water*. U.S. Geological Survey Water-Supply Paper 2254. Washington, D.C.: U.S. Government Printing Office.
- Hendryx, M., and M. M. Ahern. 2008. Between Health Indicators and Residential Proximity to Coal Mining in West Virginia. *American Journal of Public Health* 98 (4):669–671.
- Hill, R. L., C. M. White, and J. T. Flinders. 2001. *Three-Toed Woodpecker Habitat Selection in a Managed Engelmann Spruce Forest on Monroe Mountain, Utah*. U.S. Geological Survey Technical Report, October 2001. Salt Lake City: Utah Department of Natural Resources.
- Hirano, T., M. Kiyota, and I. Aiga. 1995. Physical Effects of Dust on Leaf Physiology of Cucumber and Kidney Bean Plants. *Environmental Pollution* 89:255–261.
- Hogue, M. 2012. *The Utah Coal Industry: Economic and Fiscal Impacts*. Salt Lake City: University of Utah, Bureau of Economic and Business Research, David Eccles School of Business.
- Holloran, M. J. 2005. Greater Sage-Grouse (*Centrocercus Urophasianus*) Population Response to Natural Gas Field Development in Western Wyoming. Laramie, Wyoming: University of Wyoming, Department of Zoology and Physiology.
- Hospital-Data.com. 2017a. Kane County Hospital–Kanab, Utah. Available at: <http://www.hospital-data.com/hospitals/KANE-COUNTY-HOSPITAL-KANAB.html> as of May 26, 2017.
- . 2017b. Garfield Memorial Hospital–Panguitch, Utah. Available at: <http://www.hospital-data.com/hospitals/GARFIELD-MEMORIAL-HOSPITAL-PANGUITCH.html> as of May 26, 2017.
- . 2017c. Valley View Medical Center–Cedar City, Utah. Available at: <http://www.hospital-data.com/hospitals/VALLEY-VIEW-MEDICAL-CENTER-CEDAR-CIT913.html> as of May 26, 2017.
- Intergovernmental Panel on Climate Change (IPCC). 2007a. Climate Change 2007, the Physical Science Basis. Contribution of Working Group I to the 4th Assessment Report of the IPCC. Available at: <https://www.ipcc.ch/report/ar4/wg1/> as of September 15, 2017.
- . 2007b. Climate Change 2007, Synthesis Report. A Report of the Intergovernmental Panel on Climate Change. Available at: <https://www.ipcc.ch/report/ar4/syr/> as of September 15, 2017.
- International Dark-Sky Association (IDA). 2010. *Visibility, Environmental, and Astronomical Issues Associated with Blue-Rich White Outdoor Lighting*. Tucson, Arizona: International Dark-Sky Association.
- Jahanbani, F. 1998. The Status of Utah Coal in Global Resources. *Journal of the Minerals, Metals and Materials Society* 50:25.

- Jenkins, Wiley D., W. Jay Christian, Georgia Mueller, and K. Thomas Robbins. 2013. Population Cancer Risks Associated with Coal Mining: A Systematic Review. *PLOS ONE* 8 8:e71312. Available at: <https://doi.org/71310.71371/journal.pone.0071312>.
- Jones & Stokes. 2004. *Transportation- and Construction-Induced Vibration Guidance Manual*. Prepared for the California Department of Transportation Noise, Vibration, and Hazardous Waste Management Office. Sacramento, California: Jones & Stokes. Available at: <http://www.dot.ca.gov/hq/env/noise/pub/vibrationmanFINAL.pdf> as of July 18, 2013.
- Kane County. 2011. *Kane County General Plan for the Physical Development of the Unincorporated Area Pursuant to Section 17-27a-403 of the Utah Code*. Prepared by the Division of Community and Economic Development of the Five County Association of Governments under the Guidance and Direction of the Kane County Resource Development Committee. Available at: http://kane.utah.gov/att/38/store/m8_Kane-Co-Gen-Plan-Nov-11.pdf as of December 17, 2013.
- . 2012a. *Procedures for a Zone Change Request and Zone Change Request Form. Rev 10-12*. Kane County Planning Commission. Available at: http://kane.utah.gov/att/38/store/m8_Procedures-for-a-Zone-Change-10-2012.pdf as of June 20, 2013.
- . 2012b. *Kane County's Comments on the Draft Alton Coal Tract Lease by Application EIS*. January 27, 2012. Kanab, Utah: Kane County Commission.
- . 2013. *Kane County Land Use Ordinance*. Available at: http://kane.utah.gov/att/38/store/m8_20138-FINAL-Codified-Kane-County-Land-Use-Ordinance-Chapter-1-26.pdf as of August 29, 2016.
- Kavalunas, A. 2016. Personal communication between A. Kavalunas, Utah Division of Wildlife Resources, and L. Church, U.S. Department of Interior, Bureau of Land Management, Kanab Field Office. March 17, 2016.
- Keeling, C. D., R. B. Bacastow, A. E. Bainbridge, C. A. Ekdahl, P. R. Guenther, and L. S. Waterman. 1976. Atmospheric Carbon Dioxide Variations at Mauna Loa Observatory, Hawaii. *Tellus* 28(6):538–551.
- Keith, J., and C. Fawson. 1995. Economic Development in Rural Utah: Is Wilderness Recreation the Answer? *Annals of Regional Science* 29(3):303–313.
- Kem C. Gardner Policy Institute. 2016. *Utah Travel & Tourism Profile, State and Counties 2014–2015*. Available at: <https://travel.utah.gov/wp-content/uploads/Utah-Tourism-Profiles-2015-1.pdf> as of May 16, 2017.
- Lamm, N. B. 2005. Geologic Report of the Impacts of Bedrock and Surficial Units on the Distribution of Cultural Resources at the Alton Coal Field, Kane County, Utah. Appendix C. Stavish. Moab, Utah: Montgomery Archaeological Consultants.
- Lentsch, L. D., C. A. Toline, J. Kersher, J. M. Hudson, and J. Mizzi. 2000. *Range-Wide Conservation Agreement and Strategy for Bonneville Cutthroat Trout (Oncorhynchus Clarki Utah)*. Publication No. 00-19. Salt Lake City, Utah: Utah Division of Wildlife Resources.
- Leydecker, A., J. O. Sickman, and J. M. Melack. 1999. Episodic Lake Acidification in the Sierra Nevada, California. *Water Resources Research* 35(9):2793–2804.

- List, R., and D. W. MacDonald. 2003. Home Range and Habitat Use of the Kit Fox (*Vulpes Macrotis*) in a Prairie Dog (*Cynomys Ludovicianus*) Complex. *Journal of Zoology* 259(1):1–5.
- Lofquist, D., T. Lugaila, M. O’Connell, and S. Feliz. 2012. *Households and Families: 2010, 2010 Census Briefs*. Available at: <https://www.census.gov/prod/cen2010/briefs/c2010br-14.pdf> as of June 22, 2017.
- Longcore, T., and C. Rich. 2004. Ecological Light Pollution. *Frontiers in Ecology and the Environment* 2(4):191–198.
- Longcore, T., and C. Rich (eds.) 2005. *Ecological Consequences of Artificial Night Lighting*. Washington D.C.: Island Press.
- Loomis, J. 2000. *Economic Values of Wilderness Recreation and Passive Use: What We Think We Know at the Beginning of the 21st Century*. Available at: http://www.fs.fed.us/rm/pubs/rmrs_p015_2/rmrs_p015_2_005_013.pdf as of October 30, 2013.
- . 2005. *Updated Outdoor Recreation Use Values on National Forests and Other Public Lands*. Gen. Tech. Rep. PNW-GTR-658. Available at: https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs143_009616.pdf as of October 30, 2013.
- Lowe, P. N., W. K. Lauenroth, and I. C. Burke. 2003. Effects of Nitrogen Availability on Competition between *Bromus Tectorum* and *Bouteloua Gracilis*. *Plant Ecology* 167:247–254.
- Lowry, J. H., R. D. Ramsey, K. A. Thomas, D. Schrupp, W. Kepner, T. Sajwaj, J. Kirby, E. Waller, Scott Schrader, S. Falzarano, L. Langs Stoner, G. Manis, C. Wallace, K. Schulz, P. Comer, K. Pohs, W. Rieth, C. Velasquez, B. Wolk, K. G. Boykin, L. O’Brien, J. Prior-Magee, D. Bradford, and B. C. Thompson. 2007. Chapter 2 Land Cover Classification and Mapping. In *Southwest Regional Gap Analysis Final Report*, edited by J. S. Prior-Magee et al. Moscow, Idaho: U.S. Geological Survey, Gap Analysis Program. Available at: <http://swregap.nmsu.edu/report/SWReGAP%20Final%20Report%20Chapter%202%20Land%20Cover.pdf> as of January 27, 2014.
- Luginbuhl, C. B., P. A. Boley, and D. R. Davis. 2013a. The Impact of Light Source Spectral Power Distribution on Sky Glow. Submitted to *Journal of Quantitative Spectroscopy and Radiative Transfer*. On file, SWCA Environmental Consultants, Salt Lake City, Utah.
- Luginbuhl, C. B., P. A. Boley, D. R. Davis, and D. M. Duriscoe. 2013b. *The Effects of Lamp Spectral Distribution on Sky Glow over Observatories*. In Press. Unpublished pages.
- Lund, W. R. 2005. *Fatal Earth-Fall Landslide along Kanab Creek, Kane County, Utah*. Salt Lake City: Department of Natural Resources, Utah Geological Survey.
- Lutz, D. W., M. Cox, B. F. Wakeling, D. McWhirter, L. H. Carpenter, S. Rosenstock, D. Stroud, L. C. Bender, and A. F. Reeve. 2003. Impacts and Changes to Mule Deer Habitat. In *Mule Deer Conservation: Issues and Management Strategies*, edited by J. C. Devos Jr., M. R. Conover, and N. E. Hedrick.
- Lynch, E., D. Joyce, and K. Frstrup. 2011. An Assessment of Noise Audibility and Sound Levels in U.S. National Parks. *Landscape Ecology* 26:1297–1309.

- Manier, D. J., D. J. A. Wood, R. M. Donovan, M. J. Holloran, L. M. Juliusson, K. S. Mayne, S. J. Oyler-McCance, F. R. Quamen, D. J. Saher, and A. J. Titolo. 2013. *Summary of Science, Activities, Programs, and Policies that Influence the Rangewide Conservation of Greater Sage-Grouse (Centrocercus Urophasianus)*. U.S. Geological Survey Open-File Report 2013–1098, p. 170. Available at: <http://pubs.usgs.gov/of/2013/1098/> as of March 4, 2014.
- Marcus, J. J. 1997. *Mining Environmental Handbook*. London: Imperial College Press.
- Marvier, M., P. Kareiva, and M.G. Neubert. 2004. Habitat Destruction, Fragmentation, and Disturbance Promote Invasion by Habitat Generalists in a Multispecies Metapopulation. *Risk Analysis* 24(4):869–878.
- McComb, J. S. 2004. Measuring the Benefits of Remediating a Hazardous Waste Sites in Sydney, Nova Scotia. In *Environmental Applied Science and Management*. Toronto, Canada: Ryerson University.
- McCourt, C. 2008. Personal communication between C. McCourt, Alton Coal Development, LLC, and L. Vernon, SWCA Environmental Consultants.
- McKenzie, J. 2008. Personal communication between J. McKenzie, U.S. Department of Interior, Bureau of Land Management, Utah State Office, and L. Vernon, SWCA Environmental Consultants. September 22, 2008.
- . 2010. Personal communication between J. McKenzie, U.S. Department of Interior, Bureau of Land Management, Utah State Office, and A. Childs, SWCA Environmental Consultants. Regarding Alton risk of underground fires.
- . 2013. Personal communication between J. Mckenzie, U.S. Department of Interior, Bureau of Land Management, Utah State Office, and N. Ulacky, SWCA Environmental Consultants. November 12, 2013. Regarding updated Range of Coal Bonus Bids. Email.
- . 2014. Personal communication from J. McKenzie, U.S. Department of Interior, Bureau of Land Management, Utah State Office, to SWCA Environmental Consultants. January 8, 2014. *Alton LBA EIS–Coal Spontaneous Combustion* report. Email.
- Mid-America Regional Council. 2014. *What Is Sediment Pollution? Winter Watershed Tip*. Kansas City, Missouri: Mid-America Regional Council. Available at: http://cfpub.epa.gov/npstbx/files/ksmo_sediment.pdf as of February 28, 2014.
- Miller, M. W. 2006. Apparent Effects of Light Pollution on Singing Behavior of American Robins. *The Condor* 108(1):130–139.
- Monrad Engineering, Inc. 2012. *Rosemont Copper Project Light Pollution Mitigation Recommendation Report*. June 18, 2012. Available at: <http://www.rosemonteis.us/documents/light-pollution-mitigation-recommendation-report-2012> as of February 1, 2013.
- Moore, C. 2008. Personal communication between C. Moore, National Park Service, Night Sky Program Manager, and B. Gaddis, SWCA Environmental Consultants, on September 26, 2008
- Morishita, Don W. 1999. Canada Thistle. In *Biology and Management of Noxious Rangeland Weeds*, edited by R. Sheley, M. Borman and J. Petroff. Corvallis: Oregon State University Press.

- National Mining Association. 2016. *The Economic Contributions of U.S. Mining (2015 Update)*. Available at: <http://nma.org/wp-content/uploads/2016/09/Economic-Contributions-of-Mining-in-2015-Update-final.pdf> as of May 16, 2017.
- National Oceanic and Atmospheric Administration (NOAA). 2004. National Environmental Satellite Data and Information Service, National Climate Data Center Climatology of the United States No. 20 Monthly Station Climate Summaries, 1971–2000. Washington, D.C.: NOAA.
- . 2010. Earth System Research Laboratory, Global Monitoring Division, Trends in Atmospheric Carbon Dioxide, Recent Mauna Loa CO₂. Available at: <http://www.esrl.noaa.gov/gmd/ccgg/trends/> as of December 12, 2011.
- . 2013. Recent Global CO₂. Available at: <http://www.esrl.noaa.gov/gmd/ccgg/trends/global.html> as of July 2, 2013.
- National Park Service (NPS). 1983. *Bryce Canyon Statement for Management*. Available at: <http://archive.org/details/statementformana83usdep> as of June 30, 2013.
- . 1987. *General Management Plan Bryce Canyon National Park, Utah*. Available at: <http://Archive.Org/Details/Generalmanagemen87bryce> as of June 20, 2013.
- . 2006. National Register of Historic Places Registration Form for Panguitch Historic District. Salt Lake City: Utah Division of State History.
- . 2008a. Natural Lightscapes. Available at: <http://www.nature.nps.gov/air/lightscapes/> as of May 12, 2008.
- . 2008b. Bryce Canyon National Park. Available at: <http://www.nps.gov/brca/index.htm> as of May 20, 2008.
- . 2008c. *Annual Data Summary 2007 Gaseous Pollutant Monitoring Program Ozone, Sulfur Dioxide, Particulate Matter, Meteorological Observations*. Natural Resource Report NPS/NRPC/ARD/NR-2008/065. Available at: <http://www.nature.nps.gov/air/Monitoring/ads/ADSReport.cfm> as of November 4, 2010.
- . 2008d. Improve Monitoring Network Results, Bryce Canyon, 2005–2008, Most Recent 3-Year Design Values Used for PM_{2.5} Background Concentrations. Calculation Made in Accordance with Appendix N to CFR Part 50. Washington, D.C.: U.S. Department of the Interior, NPS.
- . 2009a. *Air Quality in National Parks: 2008 Annual Performance & Progress Report*. Available at: <http://www.nps.gov/yose/naturescience/upload/AQ.Trends.Parks.2008.pdf> as of June 27, 2013.
- . 2009b. *Alton Coal Mine Lightscape Analysis*. Washington, D.C.: U.S. Department of the Interior, NPS.
- . 2011. Bryce Canyon National Park: Acoustic Monitoring Report 2009–2010. Natural Resources Technical Report NPS/BRCA NRTR-2011/421. Available at: <https://irma.nps.gov/DataStore/Reference/Profile/2167773> as of August 11, 2017.

- . 2012a. *Air Quality Resources at Bryce Canyon National Park*. Air Quality Briefing Paper. March 2012. U.S. Department of the Interior, National Park Service, Natural Resource Stewardship & Science, Air Resources Division, Washington, D.C.
- . 2012b. *A Call to Action: Preparing for a Second Century of Stewardship and Engagement*. Available at: http://www.nps.gov/calltoaction/PDF/Directors_Call_to_Action_Report_2012.pdf as of July 17, 2013.
- . 2013a. Night Sky. Available at: <http://www.nature.nps.gov/night/> as of June 13, 2013.
- . 2013b. Bryce Canyon Astronomy & Night Sky Programs. Available at: <http://www.nps.gov/brca/planyourvisit/astronomyprograms.htm> as of June 13, 2013.
- . 2013c. Personal communication between J. Notar, NPS Air Resources Division, and L. Herr, Utah Division of Air Quality. On file, SWCA Environmental Consultants, Salt Lake City. Email.
- . 2014. *Foundation Document Bryce Canyon National Park Utah*. Available at: http://www.nps.gov/brca/learn/management/upload/BRCA_FD_SP.pdf as of March 14, 2016.
- . 2015. Air Quality Conditions & Trends by Park. Bryce Canyon National Park-Air Quality. 2015 Air Quality Summary. Available at: <https://www.nature.nps.gov/air/data/products/parks/index.cfm> as of June 19, 2017.
- . 2017. Annual Park Recreation Visitation (1904–Last Calendar Year), Bryce Canyon National Park. Available at: [https://irma.nps.gov/Stats/SSRSReports/Park%20Specific%20Reports/Annual%20Park%20Recreation%20Visitation%20\(1904%20-%20Last%20Calendar%20Year\)?Park=BRCA](https://irma.nps.gov/Stats/SSRSReports/Park%20Specific%20Reports/Annual%20Park%20Recreation%20Visitation%20(1904%20-%20Last%20Calendar%20Year)?Park=BRCA) as of June 6, 2017.
- National Park Service (NPS) and National Oceanic and Atmospheric Administration (NOAA). 2013. Personal communication regarding weather data from S. Haas, NPS, to B. Gaddis, SWCA Environmental Consultants. Charts, Graphs, and Excel Documents. On file, SWCA Environmental Consultants, Salt Lake City, Utah.
- Natural Resources Conservation Service (NRCS). 2013a. Web Soil Survey, Soil Survey Area (SSURGO), Kane County Area, Utah. Available at: <https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx> as of August 23, 2017.
- . 2013b. Plants Database. Greensboro, North Carolina: National Plant Data Team. Available at: <http://plants.usda.gov> as of September 8, 2013.
- Naugle, D. E., C. L. Aldridge, B. L. Walker, T. E. Cornish, B. J. Moynahan, M. J. Holloran, and K. Brown. 2004. West Nile Virus: Pending Crisis for Greater Sage-Grouse. *Ecology Letters* 7(8):704–713.
- Navarra, K. J., and R. J. Nelson. 2007. The Dark Side of Light at Night: Physiological, Epidemiological, and Ecological Consequences. *Journal of Pineal Research* 43(3):215–224.
- NoiseQuest. 2017. Noise Basics and Metrics. Available at: <http://www.noisequest.psu.edu/noisebasics-basics.html> as of June 22, 2017.
- Nydam, R. L. 1999. *Polyglyphanodontinae (Squamata; Teiidae) from the Medial and Late Cretaceous; New Taxa from Utah, U.S.A. and Baja California Del Norte, Mexico*. Utah Geological Survey Miscellaneous Publication 99-1, pp. 303–317.

- O'Donoghue, Amy Joi. 2017. Intermountain Power Project Will Shutter Coal-Fired Power Plant near Delta. Available at: <http://www.deseretnews.com/article/865680637/intermountain-power-project-will-shutter-coal-fired-power-plant-near-delta.html> as of August 14, 2017.
- Office of Natural Resources Revenue (ONRR). 2017. Reported Revenues All Land Categories in Utah for FY 2016 by Reporting Year. Available at: <https://statistics.onrr.gov/ReportTool.aspx> as of July 11, 2017.
- Office of Surface Mining Reclamation and Enforcement (OSMRE). 1983. *Alluvial Valley Floor Identification and Study Guidelines. Final Report*. U.S. Department of Interior, OSMRE.
- Office of Surface Mining Reclamation and Enforcement (OSMRE) and the Bureau of Land Management (BLM). 2016. *Colowyo Coal Mine Collom Permit Expansion Area Project Federal Mining Plan and Lease Modification Environmental Assessment*. Available at: https://www.wrcc.osmre.gov/initiatives/colowyo/documents/Colowyo_Collom_EA_CH%201-7.pdf. Accessed January 30, 2018.
- Office of Surface Mining Reclamation and Enforcement (OSMRE) and U.S. Fish and Wildlife Service (USFWS). 2016. *Memorandum of Understanding between OSMRE, the Department of the Interior and the U.S. Fish and Wildlife Service*. Available at: https://www.osmre.gov/lrg/docs/2016_MOU_Migratory_Bird_Conservation.pdf as of August 10, 2017.
- Paine, B., J. Connors, and C. Szembek. 2012. *AERMOD Low Wind Speed Study*. Paper presented at the 10th EPA Modeling Conference, March 13, 2012, at Research Triangle Park, North Carolina. Available at: https://www3.epa.gov/ttn/scram/10thmodconf/presentations/1-12-AERMOD_Low_Wind_Speed_Evaluation_Study_Paine.pdf as of June 14, 2017.
- Pampush, G. L. 1980. *Status Report on the Long-Billed Curlew in the Colombia and Northern Great Basins*. Unpublished manuscript. On file, U.S. Department of the Interior, Fish & Wildlife Service, Portland, Oregon.
- Parrish, J. R., F. P. Howe, and R. E. Norvell. 2002. Utah Partners in Flight Avian Conservation Strategy Version 2.0. UDWR Publication No. 02-27. Salt Lake City: Utah Division of Wildlife Resources.
- Patriarca, E., and P. Debernardi. 2010. *Bats and Light Pollution*. Report prepared by Centro Regionale Chiroterri. On file, SWCA Environmental Consultants, Salt Lake City, Utah.
- Patricelli, G. L., J. L. Blickley, and S. L. Hooper. 2013. Recommended Management Strategies to Limit Anthropogenic Noise Impacts on Greater Sage-Grouse in Wyoming. *Human-Wildlife Interactions* 7(2):230–249. Available at: <http://digitalcommons.usu.edu/cgi/viewcontent.cgi?article=1002&context=hwi> as of September 10, 2015, 2017.
- Pechmann, J. 2008. Personal communication between J. Pechmann, University of Utah Seismograph Station, and G. Larson, SWCA Environmental Consultants, on October 3, 2008.
- Pennsylvania Department of Environmental Protection. 2008. What Is Mine Subsidence? Available at: <http://www.dep.state.pa.us/MSIHomeowners/WhatIsMS.html#2/> as of October 16, 2009.
- Perlich, P. S., M. T. Hogue, and J. C. Downan. 2010. *The Structure and Economic Impact of Utah's Coal Industry*. Salt Lake City: University of Utah Bureau of Economic and Business Research.
- Petersen, E. 2010. Personal communication between E. Petersen, Peterson Hydrologic, and B. Gaddis, SWCA Environmental Consultants. October 2010.

- Petersen Hydrologic. 2007. *Investigation of Groundwater and Surface-Water Systems in the 630-Acre Proposed Coal Hollow Mine Permit and Adjacent Area; Probable Hydrologic Consequences of Coal Mining; Recommended Monitoring Plan; Potential Alluvial Valley Floor Information; Kane County, Utah*. Huntington, Utah: Petersen Hydrologic,
- . 2008. *Reconnaissance Alluvial Valley Floor Investigation in the Alton Coal Tract LBA and Adjacent Areas, Kane County, Utah*. Kane County and Huntington, Utah: Petersen Hydrologic. Prepared for Alton Coal Development, LLC.
- . 2013. Selected Hydrologic Data for the Alton Coal Tract and Surrounding Areas. Data tables on file at SWCA Environmental Consultants, Salt Lake City, Utah.
- Petersen, S. L. 2006. *Alton Sage-Grouse Habitat Assessment and Mitigation Plan*. Prepared for Talon, Inc.
- . 2010. *Greater Sage-Grouse and Habitat Improvement Progress Report*. 2009–2010. Prepared for Alton Coal Development, LLC. Available at: <https://fs.ogm.utah.gov/FILES/COAL/PERMITS/025/C0250005/2010/INCOMING/10112010.pdf> as of September 15, 2017.
- . 2013a. *Greater Sage-Grouse Population Monitoring and Habitat Improvement. Progress Report for Alton Coal Development, LLC*. Prepared by Sage-Grouse Population and Habitat Consultant S. L. Petersen for 2012. Unpublished pages.
- . 2013b. Personal communication between S. Petersen, Brigham Young University, and A. Christensen, SWCA Environmental Consultants. October 1 and October 10, 2013. Regarding Alton sage-grouse. Email.
- . 2015. *Greater Sage-Grouse and Habitat Improvement Progress Report*. 2014–2015. Prepared for Alton Coal Development, LLC. Available at: <https://fs.ogm.utah.gov/FILES/COAL/PERMITS/025/C0250005/2016/INCOMING/07292016.5249.pdf>. Accessed September 22, 2017.
- . 2016. *Greater Sage-Grouse and Habitat Improvement Progress Report*. 2015–2016. Prepared for Alton Coal Development, LLC. Available at: <https://fs.ogm.utah.gov/FILES/COAL/PERMITS/025/C0250005/2017/INCOMING/03312017.5424.pdf>. Accessed September 22, 2017.
- Petersen, S. L., B. K. Nicholes, S. N. Frey, and D. L. Eggett. 2016. Response of Greater Sage-Grouse to Surface Coal Mining and Habitat Conservation in Association with the Mine. *Human-Wildlife Interactions* 10(2):205–216.
- Pfleider, Eugene P. (ed.) 1968. *Surface Mining*. American Institute of Mining Metallurgical Petroleum Engineers.
- Piechota, T. C., J. van Ee, J. R. Batista, K. A. Stave, and D. A. James. 2004. Potential Environmental Impacts of Dust Suppressants: "Avoiding Another Times Beach." Available at: http://digitalscholarship.unlv.edu/sea_fac_articles/233/ as of February 2, 2014.
- Pitchford, M., W. Malm, B. Schichtel, N. Kumar, D. Lowenthal, and J. Hand. 2007. Revised Algorithm for Estimating Light Extinction from Improve Particle Speciation Data. Technical Paper. *Journal of the Air and Waste Management Association* 57:1326–1336.
- Powell, J. 2008. Personal communication between J. Powell, U.S. Department of the Interior, Bureau of Land Management, Kanab Field Office Geologist, and J. Ernstsens, SWCA Environmental Consultants.

- Queensland Parks and Wildlife Service. 2006. *Assessment Report under the Environmental Protection Act 1994 About the Environmental Impact Statement for the Ensham Central Project*. December 2006. Environmental Protection Agency, Queensland Government. Available at: <http://www.ensham.com.au/updated/Reports/Supplementary%20Report/Supporting%20Documents/Ensham%20Central%20Project%20Assessment%20Report.pdf> as of November 6, 2013.
- Rechsteiner, Joe. 2008. Personal communication between J. Rechsteiner, U.S. Forest Service, and G. Weekley, SWCA Environmental Consultants. May 5, 2008.
- Reese, J. 2008. Personal communication between J. Reese, U.S. Department of the Interior, Bureau of Land Management, Kanab Field Office Rangeland Specialist, and J. Summerhays, SWCA Environmental Consultants. July 2008.
- Reiss, B. 2013. Personal communication between B. Reiss, Utah Division of Air Quality, and G. Semerad, SWCA Environmental Consultants. July 19, 2013. Email.
- Richards, A. B., and A. J. Moore. 1997. Blasting in an Urban Environment. In *Resourcing the 21st Century, Proceedings of the AusIMM 1997 Annual Conference, at Ballarat, Victoria, Australia*. Australasian Institute of Mining and Metallurgy.
- . 2009. *Blast Vibration Course: Measurement, Assessment, Control*. Available at: http://miningandblasting.files.wordpress.com/2009/09/blast-vibration-course_measurement_assessment_control.pdf as of July 19, 2013.
- Roberson, E. L. 2017. Personal communication from E. L. Roberson, U.S. Department of the Interior, Bureau of Land Management, Utah State Director, to K. Clarke, Director of Utah Public Lands Policy Coordinating Office. June 7, 2017. Letter.
- Rocky Mountain Coal Mining Institute. 2009. *Coal in Utah*. Available at: <http://www.rmcmi.org/docs/about-rmcmi-section/utah.pdf?sfvrsn=0> as of September 18, 2013.
- Romin, L. A., and J. A. Muck. 2002. *Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances*. 2002 Update (Originally published 1999). Available at: <http://www.oilandgasbmps.org/docs/UT35-RAPTOGUIDE.pdf> as of February 5, 2014.
- Romney, E. M., A. Wallace, and R. B. Hunter. 1987. Pulse Establishment of Woody Shrubs on Denuded Mojave Desert Land. In *Proceedings-Symposium on Shrub Ecophysiology and Biotechnology*, edited by E. D. McArthur, A. Wallace and M. R. Hafterkamp. Ogden, Utah: U.S. Forest Service.
- Rydell, J. 2006. Bats and Their Insect Prey at Streetlights. In *Ecological Consequences of Artificial Night Lighting*, edited by C. Rich and T. Longcore. Washington, D.C.: Island Press.
- Schaible, D. 2013a. Personal communication between D. Schaible, Utah Division of Wildlife Services, and A. Christensen, SWCA Environmental Consultants. November 11, 2013.
- Schaible, D. 2013b. Personal communication from D. Schaible, Utah Division of Wildlife Services, to J. Eyre, SWCA Environmental Consultants. July 1, 2013. Response to a request for lek counts at Alton–Sink Valley Lek. Email.
- Scoles-Sciulla, S. J., and L. A. DeFalco. 2009. Seed Reserves Diluted During Surface Soil Reclamation in Eastern Mojave Desert. *Arid Land Research and Management* 23:1–13.
- Shepard, J. P., J. Creighton, and H. Duzan. 2004. Forestry Herbicides in the United States: An Overview. *Wildlife Society Bulletin* 32(4):1020–1027.

- Siskind, D. E., V. J. Stachura, M. S. Stagg, and J. W. Kopp. 1980. *Structure Response and Damage Produced by Airblast from Surface Mining. Report of Investigations 8485*. Washington, D.C.: U.S. Bureau of Mines.
- Smith, J. 2008. Personal communication between J. Smith, Utah Division of Oil, Gas, and Mining, Permit Supervisor, and J. Ernsten, SWCA Environmental Consultants.
- Society for Mining, Metallurgy, and Exploration. 1992. *SME Mining Engineering Handbook*, edited by H. L. Hartman, Vol. 1, 2nd ed. Littleton, Colorado: Society for Mining, Metallurgy, and Exploration.
- Sourcewatch. 2009. Navajo Generating Station 2006 Emissions Data. Available at: http://www.sourcewatch.org/index.php?title=Navajo_Generating_Station as of September 2009.
- Southwest Regional Gap Analysis Project (SWReGAP). 2004. Provisional digital land cover map for the Southwestern United States. Version 1.0. U.S. Geological Survey National Gap Analysis Program. Logan: Utah State University, College of Natural Resources, RS/GIS Laboratory.
- State of Utah. 1993. *Utah State Implementation Plan, Section XVII, Visibility Protection*. Salt Lake City: Utah Air Quality Board.
- . 2008. *Utah State Implementation Plan, Section XX, Regional Haze, Addressing Regional Haze Visibility Protection for the Mandatory Federal Class I Areas Required under 40 CFR 51.309*. Salt Lake City: Utah Air Quality Board.
- . 2015. *Utah State Implementation Plan Section XX Regional Haze*. Available at: https://deq.utah.gov/Laws_Rules/daq/sip/docs/2015/07Jul/SecXXRegHaze201Final.pdf as of May 30, 2017.
- Stavish, P. 2006. *Development's Sink Valley-Alton Amphitheater Project Area, Kane County, Utah*. Report No. U-05-MQ-0346p. Moab, Utah: Montgomery Archaeological Consultants.
- . 2007. *Cultural Resource Inventory of Alton Coal Development's Sink Valley-Alton Amphitheater Project Area, Kane County, Utah*. Report No. U-05-MQ-0346p. Moab, Utah: Montgomery Archaeological Consultants.
- . 2008a. *Cultural Resource Inventory of Alton Coal Development's Project Area, Kane County, Utah*. Report No. U-05-MQ-1568b. Moab, Utah: Montgomery Archaeological Consultants.
- . 2008b. *Cultural Resource Inventory of Alton Coal Development's Additional Survey of 440 Acres in the Alton Coal Amphitheater, Kane County, Utah*. Moab, Utah: Montgomery Archaeological Consultants.
- . 2008c. *Cultural Resource Management Plan for Alton Coal Development's Proposed Development of the Alton Amphitheater and Sink Valley, Kane County Utah, Draft 2*. Submitted to State of Utah Public Lands Policy Coordination Office, Salt Lake City, Utah, and the Division of Oil, Gas, and Mining, Salt Lake City.
- Sterling Codifiers, Inc. 2013. Brian Head, Utah Town Code 9-12-6: Lighting. August 12, 2008. Available at: http://www.sterlingcodifiers.com/codebook/index.php?book_id=858 as of July 17, 2013.
- Stokes, W. L. 1986. *Geology of Utah*. Occasional Paper Number 6, Utah Museum of Natural History. Salt Lake City: Utah Department of Natural Resources, Geological and Mineral Survey.
- Stolt, M. H., J. C. Baker, T. W. Simpson, D. C. Martens, J. R. McKenna, and J. R. Fulcher. 2001. Physical Reconstruction of Mine Tailings after Surface Mining Material Sands from Prime Agricultural Land. *Soil Science* 166(1):29–37.

- Stracher, G. B. (ed.) 2007. *Geology of Coal Fires: Case Studies from around the World: Reviews in Engineering Geology*. Vol. 18. DOI:10.1130/2007.4118(06).
- Sullivan, T. L., and T. A. Messmer. 2003. Perceptions of Deer-Vehicle Collision Management by State Wildlife Agency and Department of Transportation Administrators. *Wildlife Society Bulletin* 31:163–173.
- SWCA Environmental Consultants (SWCA). 2007a. *Alton Coal Tract LBA EIS Public Scoping Report*. Salt Lake City, Utah: SWCA.
- . 2007b. *Alton Coal Tract LBA EIS Draft Reconnaissance Survey Report*. Salt Lake City, Utah: SWCA.
- . 2008. Environmental Noise Data Sheets for the Alton Coal. Prepared for Alton Coal Development, LLC, and submitted to the U.S. Department of Interior, Bureau of Land Management, Salt Lake City, Utah.
- Tatum, V. L. 2004. Toxicity, Transport, and Fate of Forest Herbicides. *Wildlife Society Bulletin* 32(4):1042–1048.
- Taylor, R. L., B. D. Maxwell, and R. J. Boik. 2006. Indirect Effects of Herbicides on Bird Food Resources and Beneficial Arthropods. *Agriculture, Ecosystems, and Environment* 116(3–4):157–164.
- Taylor, R.L., B.L. Walker, D.W. Naugle, and S. Mills. 2012. Managing Multiple Vital Rates to Maximize Greater Sage-Grouse Population Growth. *The Journal of Wildlife Management* 76(2):336–347.
- Tilton, T. L. 2001. Geologic map of the Alton Quadrangle, Kane County, Utah. Miscellaneous Publication 01-4, 7.5-minute geologic map, cross sections, and text. Salt Lake City: Utah Geological Survey.
- . 2002. Late Cenomanian (Late Cretaceous Sciponoceras Gracile Biozone) Paleogeographic Evolution of the Grand Staircase-Escalante National Monument Region: Implications of Recent Advances in High-Resolution Ammonoid Biostratigraphy. Abstracts, 2002 Rocky Mountain Section of the Geological Society of America Annual Meeting, Cedar City, Utah.
- . 2004. Unpublished data from field notes and informal program reports. On file, U.S. Department of Interior, Bureau of Land Management, Kanab Field Office, Kanab, Utah.
- . 2005. Unpublished data from field notes and informal program reports. On file, U.S. Department of Interior, Bureau of Land Management, Kanab Field Office, Kanab, Utah.
- Titus, A. L., J. D. Powell, E. M. Roberts, S. D. Sampson, S. L. Pollock, J. I. Kirkland, and L. B. Albright. 2005. Late Cretaceous Stratigraphy, Depositional Environments, and Macrovertebrate Paleontology of the Kaiparowits Plateau, Grand Staircase-Escalante National Monument, Utah. In *Interior Western United States, GSA Field Guide*. 6, edited by J. L. Pederson and C. M. Dehler.
- Union Pacific. 2018. Operations and Fuel Conservation. Available at: <https://www.up.com/aboutup/environment/operations/index.htm>. Accessed January 24, 2018.
- U.S. Army Corp of Engineers (USACE). 2012a. *Jurisdictional Determination*. Sacramento, California: U.S. Army Engineer District. Prepared for the U.S. Department of the Interior, Bureau of Land Management, Kanab, Utah.
- . 2012b. Personal communication from J. Gibson, USACE, to H. Barber, BLM. Detailing the designation of lead federal agency for the proposed Alton Coal Tract Lease by application project. March 16, 2012. Letter.

- U.S. Census Bureau. 2007–2011a. American Community Survey, 5-Year Estimates, Selected Housing Characteristics. Available at: http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_11_5YR_DP04&prodType=table as of June 6, 2013.
- . 2007–2011b. American Community Survey, 5-Year Estimates, Poverty Status in the Past 12 Months for Selected Geographies (S1701). Available at: <http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t> as of June 5, 2013.
- . 2013a. Garfield County Quick Facts. Available at: <http://quickfacts.census.gov/qfd/states/49/49017.html> as of June 7, 2013.
- . 2013b. Iron County Quick Facts. Available at: <http://quickfacts.census.gov/qfd/states/49/49021.html> as of June 7, 2013.
- . 2013c. Kane County Quick Facts. Available at: <http://quickfacts.census.gov/qfd/states/49/49025.html> as of June 7, 2013.
- . 2013d. 1990 Census of Population and Housing Data. Available at: <http://censtats.census.gov/cgi-bin/pl94/pl94data.pl> as of June 7, 2013.
- . 2013e. Profile of General Population and Housing Characteristics: 2010 Census Summary File 1 (DP-1). Available at: http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_SF1_P1&prodType=table as of June 7, 2013.
- . 2013f. Poverty Thresholds by Size of Family and Number of Children 2012. Available at: <http://www.census.gov/hhes/www/poverty/data/threshld/> as of June 7, 2013.
- . 2013g. 2010 Demographic Profile Data for Selected Geographies (DP-1). Available at: <http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t> as of June 25, 2013.
- . 2013h. USA Quick Facts. Available at: <http://quickfacts.census.gov/qfd/states/00000.html> as of July 2, 2013.
- . 2013i. Salt Lake County Quick Facts. Available at: <http://quickfacts.census.gov/qfd/states/49/49035.html> as of November 11, 2013.
- . 2013j. Total Population, 2010 Census Summary File 1 (P1). Available at: <http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t> as of July 19, 2013.
- U.S. Congress. 2006. National Heritage Areas Act of 2006. Senate and House of Representatives of the United States of America.
- U.S. Climate Change Science Program (CCSP). 2008. Scientific Assessment of the Effects of Global Change on the United States—Summary and Findings. Washington, D.C.: CCSP.
- U.S. Department of Agriculture (USDA). 2008. Plants Database. Available at: <http://plants.usda.gov/> as of May 8, 2008.
- . 2012. Effects of Ozone Air Pollution on Plants. Available at: <http://www.ars.usda.gov/Main/docs.htm?docid=12462> as of June 26, 2013.
- U.S. Department of Housing and Urban Development (HUD). 1985. *Noise Guidebook: A Reference Document for Implementing the Department of Housing and Urban Development's Noise Policy*. Prepared by the Environmental Planning Division, Office of Environment and Energy.
- U.S. Department of Health and Human Services. 2011. *Current Intelligence Bulletin 64. Coal Mine Dust Exposures and Associated Health Outcomes*. Centers for Disease Control and Prevention. Available at: <http://www.cdc.gov/niosh/docs/2011-172/pdfs/2011-172.pdf> as of June 4, 2013.

- U.S. Department of the Interior (DOI). 1979. *Development of Coal Resources in Southern Utah. Part 2 Site Specific Analysis*. Kane, Utah: U.S. Department of the Interior.
- . 1980. *Petition to Designate Certain Federal Lands in Southern Utah Unsuitable for Surface Coal Mining*. Washington, D.C.: U.S. Department of the Interior.
- U.S. Department of the Interior (DOI) and U.S. Department of Energy (DOE). 2008. *Programmatic Environmental Impact Statement, Designation of Energy Corridors on Federal Land in the 11 Western States*. DOE/EIS-0386. Available at: http://corridoreis.anl.gov/documents/fpeis/vol1/WWEC_FPEIS_FrontI.pdf as of January 15, 2014.
- U.S. Department of Transportation (USDOT). 1975. *Highway-Wildlife Relationships, a State-of-the-Art Report*. Vol. 1. Report No. FHWA-RD-76-4. Washington, D.C.: USDOT.
- U.S. Environmental Protection Agency (EPA). 1974. *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*. EPA 550/9-74-004. Washington, D.C.: EPA.
- . 1992. *Workbook for Plume Visual Impact Screening and Analysis (Revised)*. Office of Air Quality Planning and Standards, Office of Air and Radiation. EPA-454/R-92-023 Research Triangle Park, North Carolina: Office of Air Quality.
- . 1995. *Compilation of Air Pollutant Emission Factors*. Available at: http://www.epa.gov/ttn/chief/ap42/toc_kwrd.pdf as of July 12, 2013.
- . 1998a. AP 42, Fifth Edition, Volume 1 Chapter 1: External Combustion Sources, Section 1.1 Bituminous and Subbituminous Coal Combustion. Available at: <https://www3.epa.gov/ttn/chief/ap42/ch01/final/c01s01.pdf>. Accessed January 25, 2018.
- . 1998b. Bituminous and Subbituminous Coal Combustion, Table 1.1-20 Default CO₂ Emission Factors for U.S. Coals. Vol. I, Ch. 1.1 of *Compilation of Air Pollutant Emissions Factors (AP-42)*. Washington, D.C.: EPA.
- . 2005. *Review of the National Ambient Air Quality Standards for Particulate Matter: Policy Assessment of Scientific and Technical Information*. Office of Air Quality Planning and Standards Staff Paper. Available at: http://www.epa.gov/ttn/naaqs/standards/pm/data/pmstaff/paper_20050630.pdf as of June 4, 2013.
- . 2007. Air Toxics Database. Dose-Response Assessment for Assessing Health Risks Associated with Exposure to Hazardous Air Pollutants, Table 1 and Table 2. Revised June 12, 2007. Available at: <http://www.epa.gov/ttn/atw/toxsource/summary.html> as of February 10, 2014.
- . 2008. *Prevention of Significant Deterioration Permit Issued Pursuant to the Requirements at 40 Code of Federal Regulations (CFR) Part 52.21*. PSD Permit No. AZ 08-01. Facility Name: Navajo Generating Station. San Francisco, California: Environmental Protection Agency, Region 9.
- . 2009. EPA Region 9 Electronic Permit Submittal System. El Paso Natural Gas Company Hackberry Co. Permit No. 1000165, May 13, 1998.
- . 2010. Radiation Protection: Uranium. November 13, 2010. Available at: <http://www.epa.gov/rpdweb00/radionuclides/uranium.html#inbody> as of January 1, 2014.

- . 2012a. *Provisional Assessment of Recent Studies on Health Effects of Particulate Matter Exposure*. Available at: <http://www.epa.gov/ttn/naaqs/standards/pm/data/20121213psa.pdf> as of June 6, 2013.
- . 2012b. Ground-Level Ozone. Health Effects. Available at: <https://www.epa.gov/ozone-pollution> as of June 3, 2013.
- . 2012c. Carbon Monoxide. Health. Available at: <https://www.epa.gov/co-pollution> as of June 3, 2013.
- . 2012d. Sulfur Dioxide. Health. Available at: <http://www.epa.gov/air/sulfurdioxide/health.html> as of June 3, 2013.
- . 2012e. Lead in Air. Health. Available at: <https://www.epa.gov/lead-air-pollution> as of June 3, 2013.
- . 2012f. About Air Toxics. Available at: <http://www.epa.gov/air/toxicair/newtoxics.html> as of June 3, 2013.
- . 2012g. Acid Rain Program. Available at: <http://www.epa.gov/airmarkets/progsregs/arp/basic.html> as of August 27, 2013.
- . 2012h. Global Anthropogenic Non-Co₂ Greenhouse Gas Emissions: 1990–2030. Washington, D.C.: Office of Atmospheric Programs, Climate Change Division. Available at: <http://www.epa.gov/climatechange/EPAactivities/economics/nonco2projections.html> as of June 27, 2013.
- . 2013a. Particulate Matter Research. Available at: <http://www.epa.gov/research/airscience/air-particulatematter.htm#4> as of June 3, 2013.
- . 2013b. Nitrogen Dioxide. Health. Available at: <https://www.epa.gov/environmental-topics/air-topics> as of June 3, 2013.
- . 2013c. Environmental Justice. Available at: <https://www.epa.gov/environmentaljustice> as of September 6, 2013.
- . 2013d. National Pollutant Discharge Elimination System. National Menu of Stormwater Best Management Practices. Available at: <http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm> as of February 10, 2014.
- . 2014. *Iron: Corrosion, Scaling, and Metal Mobility Research*. On file at SWCA Environmental Consultants.
- . 2016. *Monitor Quick Look Report, Geographic Area: Utah; Pollutant: Lead; Location: Magna, Salt Lake County, Utah*. Available at: <http://www.airmonitoring.utah.gov/dataarchive/QL-ALL%20PARAMETERS2016.pdf> as of September 1, 2017.
- . 2017a. *Inventory of U.S. Greenhouse Gas Emissions and Sinks. 1990–2015. Executive Summary*. Available at: https://www.epa.gov/sites/production/files/2017-02/documents/2017_executive_summary.pdf as of June 20, 2017.
- . 2017b. Secondary Drinking Water Standards: Guidance for Nuisance Chemicals. Available at: <https://www.epa.gov/dwstandardsregulations/secondary-drinking-water-standards-guidance- nuisance-chemicals>. Accessed September 22, 2017.
- . 2018. TRI Facility Report: Intermountain Power Generating Station (84624NTRMN850BR) Releases of TRI Chemicals to the Environment. Available at: <https://www3.epa.gov/enviro/facts/tri/ef-facilities/#/Release/84624NTRMN850BR>. Accessed February 1, 2018.

- U.S. Environmental Protection Agency (EPA) and University of Las Vegas (UNLV). 2004. *Potential Environmental Impacts of Dust Suppressants: Avoiding Another Times Beach*. Available at: <http://faculty.unlv.edu/piechota/LinkFiles/epa-unlv-dust-suppressant-report-2004.pdf> and <http://www.epa.gov/esd/cmb/pdf/dust.pdf> as of September 17, 2013.
- U.S. Fish and Wildlife Service (USFWS). 1996. Chapter 36-Colorado Plateau Semi-Desert. In *Ecological Subregions of the United States*, edited by W. H. McNab and P. E. Avers. Washington, D.C.: U.S. Department of the Interior, Fish and Wildlife Service.
- . 2002. *Birds of Conservation Concern 2002*. Washington, D.C.: U.S. Department of the Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, Virginia.
- . 2003. *Monitoring Plan for the American Peregrine Falcon, a Species Recovered under the Endangered Species Act*. USFWS, Divisions of Endangered Species and Migratory Birds and State Programs, Pacific Region, Portland, Oregon. Available at: <http://ecos.fws.gov/docs/species/doc1164.pdf> as of February 10, 2014.
- . 2008. *Birds of Conservation Concern 2008*. USFWS, Division of Migratory Bird Management, Arlington, Virginia. Available at: <https://www.fws.gov/migratorybirds/pdf/management/BCC2008.pdf> as of May 30, 2017.
- . 2010. *Memorandum of Understanding between the U.S. Department of the Interior Bureau of Land Management and the U.S. Fish and Wildlife Service to Promote the Conservation of Migratory Birds*. Available at: http://www.blm.gov/pgdata/etc/medialib/blm/wo/Information_Resources_Management/policy/ib_attachments/2010.Par.67473.File.dat/IB2010-110_att1.pdf as of February 25, 2014.
- . 2012. *Utah Prairie Dog (Cynomys Parvidens) Revised Recovery Plan*. Washington, D.C.: U.S. Department of the Interior, Fish and Wildlife Service, Denver, Colorado.
- . 2013a. *Greater Sage-Grouse Conservation Objectives: Final Report*. Available at: <http://www.fws.gov/mountain-prairie/species/birds/sagegrouse/COT/COT-Report-with-Dear-Interested-Reader-Letter.pdf> as of May 14, 2013.
- . 2013b. *California Condor (Gymnogyps Californianus) 5-Year Review: Summary and Evaluation*. June 2013. Washington, D.C.: U.S. Department of the Interior, Fish and Wildlife Service, Pacific Southwest Region.
- U.S. Fish and Wildlife Service (USFWS) and Utah Prairie Dog Recovery Team. 2012. *Utah Prairie Dog (Cynomys Parvidens) Final Revised Recovery Plan*. Available at: http://www.fws.gov/mountain-prairie/species/mammals/utprairiedog/2012MarchRevisedRecoveryPlan_Final.pdf as of February 13, 2014.
- U.S. Forest Service (USFS). 1986. *Dixie National Forest Final Environmental Impact Statement and Land and Resource Management Plan*. U.S. Department of Agriculture, USFS, Dixie National Forest.
- . 1998. *Conservation Strategy and Agreement for the Management of Northern Goshawk Habitat in Utah*. USFS, Utah National Forests. Available at:
- . 2009. *White River National Forest Air Resource Management Plan, January 2009*. Washington, D.C.: U.S. Department of Agriculture, USFS, Rocky Mountain Region, Lakewood, Colorado.
- . 2013. *Greater Sage-Grouse Conservation Objectives: Final Report*. Available at: <http://www.fws.gov/mountain-prairie/species/birds/sagegrouse/COT/COT-Report-with-Dear-Interested-Reader-Letter.pdf> as of May 14, 2013.

- U.S. Forest Service (USFS) National Park Service (NPS), and U.S. Fish and Wildlife Service (USFWS). 2010. *Federal Land Managers' Air Quality Related Values Work Group (Flag): Phase I Report-Revised (2010)*. Natural Resource Report NPS/NRPC/NRR-2010/232. Available at: http://www.nature.nps.gov/air/Pubs/pdf/flag/FLAG_2010.pdf as of June 23, 2013.
- . 2011. *Federal Land Managers' Interagency Guidance for Nitrogen and Sulfur Deposition Analyses*. November 2011. Natural Resource Report NPS/NRSS/ARD/NRR—2011/465. Denver, Colorado: NPS.
- U.S Geological Survey (USGS). 2008. National Seismic Hazard Maps. Available at: <http://gldims.cr.usgs.gov/nshmp2008/viewer.htm/> as of October 3, 2008.
- University of Utah. 2008. University of Utah Regional/Urban Seismic Network Station Map. Available at: http://www.seis.utah.edu/STATION_MAP/isb.htm/ as of January 15, 2009.
- . 2011. University of Utah Seismograph Stations Press Release, January 3, 2011, 6:00 A.M. MST. Available at: <http://quake.utah.edu/EQCENTER/PRESS/utpress11.htm#20110103> as of July 10, 2013.
- . 2012. University of Utah Seismograph Stations Press Release, February 11, 2012, 10:15 P.M. MST. Available at: <http://quake.utah.edu/EQCENTER/PRESS/utpress12.htm#20120211> as of July 10, 2013.
- Utah Automated Geographic Reference Center. 2013. Kane County Tax Parcel Data. Available at: ftp://ftp.agrc.utah.gov/UtahSGID_Vector/UTM12_NAD83/CADASTRE/UnpackagedData/Parcels_Kane/ as of July 10, 2013.
- Utah Department of Health. 2005. *Health Status by Race and Ethnicity. Office of Public Health Assessment. May 2005*. Available at: http://health.utah.gov/opha/publications/raceeth05/RaceEth_Report.pdf as of December 5, 2012.
- . 2015. *Health Status by Race and Ethnicity 2015*. Available at: <http://www.health.utah.gov/disparities/data/race-ethnicity-report/2015HealthStatusbyRace&Ethnicity.pdf> as of May 26, 2017.
- Utah Department of Natural Resources (UDNR). 1981. *Ground Water Conditions in the Upper Virgin River and Kanab Creek Basins Area, Utah, with Emphasis on the Navajo Sandstone*. Salt Lake City: State of Utah Department of Natural Resources.
- . 2006. *Annual Review and Forecast of Utah Coal Production and Distribution*. Salt Lake City: Utah Department of Natural Resources, Geological Survey Division.
- Utah Department of Public Safety (UDPS). 2010. *2010 Crime in Utah Report*. Available at: <https://site.utah.gov/dps-criminal/wp-content/uploads/sites/15/2015/01/2010-year-end.pdf> as of May 26, 2017.
- . 2016. *2014 Crime in Utah Report*. Available at: <https://site.utah.gov/dps-criminal/wp-content/uploads/sites/15/2016/02/2014-Crime-in-Uah.pdf> as of May 26, 2017.

- Utah Department of Transportation (UDOT). 2007. Traffic on Utah Highways 2007. Available at: <http://www.udot.utah.gov/main/uconowner.gf?n=2363711025498494585> as of September 22, 2017.
- . 2008. Traffic on Utah Highways 2008. Available at: <http://www.udot.utah.gov/main/uconowner.gf?n=5829020562213603> as of September 22, 2017.
- . 2009. Traffic on Utah Highways 2009. Available at: <http://www.udot.utah.gov/main/uconowner.gf?n=14052524249945136> as of September 22, 2017.
- . 2010. Traffic on Utah Highways 2010. Available at: <http://www.udot.utah.gov/main/uconowner.gf?n=4911928288590442> as of September 22, 2017.
- . 2011. 2011 Traffic on Utah Highways. Available at: <http://www.udot.utah.gov/main/uconowner.gf?n=10717515279209789> as of September 22, 2017.
- . 2014. 2014 Traffic on Utah Highways. Available at: <http://www.udot.utah.gov/main/uconowner.gf?n=23660530071927911> as of June 6, 2017.
- . 2015. 2015 Traffic on Utah Highways. Available at: <http://www.udot.utah.gov/main/uconowner.gf?n=31138109419372828> as of June 6, 2017.
- . 2017. Utah Statewide Transportation Improvement Plan 2017–2022. Available at: <https://app.udot.utah.gov/apex/epm/f?p=312:1:0> as of May 26, 2017.
- Utah Department of Workforce Services (UDWS). 2008. *Garfield County Quick Facts*. Available at: <http://jobs.utah.gov/opencms/wi/regions/western/garfield/garfieldfs.pdf> as of May 21, 2008.
- . 2010. *Kane County Quick Facts*. Department of Workforce Services. Available at: <http://jobs.utah.gov/opencms/wi/regions/western/kane/kanefs.pdf> as of September 14, 2010.
- . 2012. *Permanent Community Impact Fund Board Legislative Report FY 2012*. Available at: <http://jobs.utah.gov/housing/cib/documents/Thecomplete2012CIBLegislativeReport.pdf> as of June 26, 2013.
- . 2016. *Legislative Report of the Permanent Community Impact Fund*. Available at: <https://jobs.utah.gov/housing/cib/documents/ciblegreport.pdf> as of September 14, 2017.
- . 2016a. Local Insights—Annual Profiles. Available at: <https://jobs.utah.gov/wi/pubs/eprofile/index.html> as of May 12, 2017.
- . 2016b. Annual Income by County, Total Personal Income. Available at: <https://jobs.utah.gov/wi/data/wagesincome/income.html> as of May 12, 2017.
- . 2016c. Utah Economics Data Viewer, Employment and Wages. Available at: <https://jobs.utah.gov/jsp/utalmis/#/industry/list> as of May 12, 2017.

- Utah Division of Air Quality (UDAQ). 2008. Personal communication between D. Prey, UDAQ Air Quality Modeler, and L. Marquez, MESI. June 30, 2008. Regarding representative meteorological data and background air quality data for Kane County.
- . 2009. *Title V Operating Permit 1500101001 for the Hunter Power Plant, Revised May 16, 2008; Title V Operating Permit 700002002 for the Carbon Power Plant, Revised July 3, 2008; Title V Operating Permit 1501001002 for the Huntington Power Plant, Revised May 9, 2008; Title V Operating Permit 2700010003 for the Intermountain Generation Station, Revised September 1, 2009*. Salt Lake City: Utah Division of Air Quality.
- . 2010. *2008 Summary of Emissions by Source for Kane County and Statewide*. Salt Lake City: Utah Division of Air Quality.
- . 2012. Personal communication between J. Black, Utah Division of Air Quality, and G. Semerad, SWCA Environmental Consultants. December 4, 2012. Email.
- . 2013a. *Utah Nonattainment Areas*. Available at: http://www.airquality.utah.gov/images/Maps/NONATTAINMENT_MAP.pdf as of July 9, 2013.
- . 2013b. Title V Operating Permit, Permit Number: 2700010004. Available at: http://168.178.3.241:8080/DAQ_NOI/DocViewer?IntDocID=69712&contentType=application/pdf. Accessed January 25, 2018.
- . 2014. Approval Order: Administrative Change to Delist Two Emission Units. Approval Order Number DAQE-AN103270026-14.
- . 2017a. *Annual Monitoring Network Plan 2017*. Available at: <https://documents.deq.utah.gov/air-quality/planning/air-monitoring/DAQ-2017-007729.pdf> as of June 22, 2017.
- . 2017b. *2014 State Summary of Emissions by Source*. Available at: <https://deq.utah.gov/ProgramsServices/programs/air/emissionsinventories/inventories/docs/state-summary-of-emissions-by-source.pdf> as of May 12, 2017.
- Utah Division of Environmental Quality (UDEQ). 2013. Alton Coal. Air Monitoring. Available at: <http://www.deq.utah.gov/businesses/altoncoal/index.htm#agkps> as of June 4, 2013.
- Utah Division of Oil, Gas, and Mining (DOGM). 2008. *Coal Mine Permitting: Permit Application Requirements*. Rule Nos. R645-301-525.540, 541, and 542, issued by the State of Utah.
- . 2009. *Alton/Sink Valley Cumulative Hydrologic Impact Assessment (CHIA) for Proposed Coal Hollow Mine C/25/0005 in Kane County, Utah*. Salt Lake City: Utah Department of Natural Resources, Division of Oil, Gas, and Mining.
- . 2013a. Alton Coal Development, LLC, Permit Files. Available at: <http://linux1.ogm.utah.gov/WebStuff/wwwroot/coal/files.html> as of January 21, 2014.
- . 2013b. Utah Coal Mining Water Quality Database. Available at <http://linux1.ogm.utah.gov/WebStuff/wwwroot/wqdb.html> as of January 22, 2014.
- . 2014. Utah Coal Mining Water Quality Database. Available at: <http://linux1.ogm.utah.gov/WebStuff/wwwroot/wqdb.html> as of January 23, 2014.
- . 2017. Utah Coal Mining Water Quality Database. Flow by Date, Coal Hollow SW-9 Stream. Available at: <https://www.ogm.utah.gov/cgi-bin/appx-ogm-get.cgi?RUNWHAT=EDI+ANALYSIS+WHAT&MINE=041&SITE=036&NEWPARAM=011> as of September 1, 2017.

- Utah Division of Water Quality (UDWQ). 2016. *Utah's Final 2016 Integrated Report*. Available at: https://deq.utah.gov/ProgramsServices/programs/water/monitoring-reporting/assessment/docs/2016/0_cover_and_titlepg_final2016ir_v2-1.pdf as of August 15, 2017.
- Utah Division of Water Rights. 2014. Searching Water Right Records. Available at: <http://www.waterrights.utah.gov/wrinfo/query.asp> as of January 14, 2014.
- Utah Division of Wildlife Resources (UDWR). 2002. *Strategic Management Plan for Sage-Grouse 2002*. Publication Number 02-20. Salt Lake City: Utah Department of Natural Resources, Division of Wildlife Resources.
- . 2005. *Utah Comprehensive Wildlife Conservation Strategy (CWCS)*. Publication Number 05-19, edited by J. V. Gorrell, M. E. Andersen, K. D. Bunnell, M. F. Canning, A. G. Clark, D. E. Dolsen, and F. P. Howe. Salt Lake City: Utah Department of Natural Resources, Division of Wildlife Resources.
- . 2006. *Deer Herd Management Plan: Deer Herd Unit No. 27 (Paunsaugunt)*. Salt Lake City: Utah Department of Natural Resources, Division of Wildlife Resources.
- . 2008. Utah Conservation Data Center. Available at: <http://dwrcdc.nr.utah.gov/ucdc> as of May 29, 2008.
- . 2011. Data Files Concerning Sage-Grouse Brooding, Occupied, and Winter Habitats. Available at: <http://dwrcdc.nr.utah.gov/ucdc/DownloadGIS/disclaim.htm> as of February 2, 2014.
- . 2012. *Elk Unit Management Plan: Paunsaugunt WMU No. 27*. May 2012. Salt Lake City: Utah Department of Natural Resources, Division of Wildlife Resources.
- . 2013. *Conservation Plan for Greater Sage-Grouse in Utah*. Available at: http://wildlife.utah.gov/uplandgame/sage-grouse/pdf/greater_sage_grouse_plan.pdf as of December 17, 2013.
- . 2014. UDWR Mule Deer Habitat GIS Data. Available at: <https://dwrcdc.nr.utah.gov/ucdc/DownloadGIS/disclaim.htm> as of June 23, 2017.
- . 2015a. *Utah Wildlife Action Plan 2015–2025*. Available at: https://wildlife.utah.gov/wap/Utah_WAP.pdf as of August 25, 2017.
- . 2015b. *Utah Mule Deer Statewide Management Plan*. Available at: https://wildlife.utah.gov/hunting/biggame/pdf/mule_deer_plan.pdf as of August 25, 2017.
- . 2015c. *Utah Sensitive Species List*. Available at: https://dwrcdc.nr.utah.gov/ucdc/ViewReports/SSL_Appendices.pdf as of September 14, 2017.
- Utah Geological Survey. 2017a. *Utah Energy and Mineral Statistics, Table 2.10 Coal Production in Utah by County, 1960–2016*. Available at: <https://geology.utah.gov/docs/statistics/coal2.0/pdf/T2.10%20&%20F2.2.pdf> as of June 6, 2017.
- . 2017b. *Utah Energy and Mineral Statistics, Table 2.4 Utah Coal Resources by County, 2016*. Available at: <https://geology.utah.gov/docs/statistics/coal2.0/pdf/T2.4.pdf> as of June 23, 2017.
- . 2017c. *Utah Energy and Mineral Statistics, Table 2.19 Coal Supply and Distribution in Utah, 1970–2015*. Available at: <https://geology.utah.gov/docs/statistics/coal2.0/pdf/T2.19.pdf> as of July 6, 2017.
- . 2017d. *Utah Energy and Mineral Statistics, Table 2.22 Average F.O.B. Price and Value of Utah Coal, 1960–2016*. Available at: <https://geology.utah.gov/docs/statistics/coal2.0/pdf/T2.22%20&%20F2.10.pdf> as of June 6, 2017.

- Utah Governor's Office of Planning and Budget (UGOPB). 2003. *Iron County: Local Planning Summary. Prepared by Utah Governor's Office of Planning and Budget for the Dixie, Fishlake, and Manti-La Sal National Forests, Forest Plan Revision, Social and Economic Assessment*. Available at: <http://www.governor.state.ut.us/planning/usfs/4B%20County%20Profiles/4BIronPlanning.pdf> as of September 12, 2008.
- . 2013. Utah Governor's Office of Planning and Budget, Subcounty Population Projections. Available at: <http://governor.utah.gov/dea/projections.html> as of July 19, 2013.
- Utah International, Inc. (UII). 1987. Permit Application Package to Conduct Surface Coal Mining Operations for Alton Mine. PRO/025/003. Utah International Inc. Submitted to Utah Division of Oil, Gas, and Mining.
- Utah Office of Tourism. 2012. County Tourism Profiles. On file at SWCA Environmental Consultants, Salt Lake City, Utah.
- . 2013a. County Data. Available at: http://travel.utah.gov/research_and_planning/county_prelim.html as of June 18, 2013.
- . 2013b. *Various County Tourism Tax Revenues. 2008–2012 TRT, Restaurant, and Resort Community*. Available at: http://travel.utah.gov/research_and_planning/documents/Various_TourismTaxRevenues_000.pdf as of June 24, 2013.
- Utah Prairie Dog Implementation Team. 1997. *Utah Prairie Dog Interim Conservation Strategy*. National Park Service, U.S. Bureau of Land Management, U.S. Department of Agriculture, APHIS Wildlife Services, U.S. Forest Service, U.S. Fish and Wildlife Service, Utah Division of Wildlife Resources, and Utah State University.
- Utah Shakespeare Festival. 2017. About Us. Available at: <https://www.bard.org/about/> as of June 21, 2017.
- Utah State Institutional and Trust Lands Administration (SITLA). 2013. *Trust Lands Administration: Fiscal Year 2013 Annual Report, July 1, 2012–June 30, 2013*. Available at: http://trustlands.utah.gov/news/documents/SITLA_FY2013_annual_report.pdf as of January 23, 2014.
- Utah State Tax Commission. 2011. *Utah State Tax Commission Annual Report 2010 Fiscal Year*. Available at: <http://tax.utah.gov/commission/reports/fy10report.pdf> as of May 16, 2017.
- . 2013. *Utah State Tax Commission Annual Report 2012 Fiscal Year*. Available at: <http://tax.utah.gov/commission/reports/fy12report.pdf> as of May 16, 2017.
- . 2015. *Utah State Tax Commission Annual Report 2013–2014 Fiscal Year*. Available at: <http://tax.utah.gov/commission/reports/fy14report.pdf> as of September 1, 2017.
- . 2016. *Utah Property Tax 2015 Annual Statistical Report for Locally Assessed Real Property Locally Assessed Personal Property Centrally Assessed Property Motor Vehicle*. Available at: <http://propertytax.utah.gov/information/reports-and-statistics/annual-statistical-report/2015-annual-statistical-report> as of May 30, 2017.
- . 2017. *Utah State Tax Commission Annual Report Fiscal Year 2015–2016*. Available at: <http://tax.utah.gov/commission/reports/fy16report.pdf> as of September 1, 2017.
- Vanden Berg, M. D. 2016. *Utah's Energy Landscape*. Circular 121. Available at: <http://ugspub.nr.utah.gov/publications/circular/c-121.pdf> as of June 16, 2017.

- Vanden Berg, M. D., T. Boden, K. Krahulec, D. Tabet, and M. Gwynn. 2012. *Utah's Extractive Resource Industries*. Circular 115. Salt Lake City, Utah: Utah Department of Natural Resources, Utah Geological Survey.
- Venturoni, Linda, Patrick Long, and Richard Perdue. 2005. *The Economic and Social Impacts of Second Homes in Four Mountain Resort Counties of Colorado*. Paper presented at the 2005 annual meeting of the Association of American Geographers, Denver, Colorado.
- Walker, B. L., D. E. Naugle, and K. E. Doherty. 2007. Greater Sage-Grouse Population Response to Energy Development and Habitat Loss. *Journal of Wildlife Management* 71(8):2644–2654.
- Walters, R. E., and E. Sorensen. 1983. *Utah Bird Distribution: Latilong Study*. Publication No. 83-10. Salt Lake City, Utah: Utah Department of Natural Resources, Division of Wildlife Resources.
- Wang, W., Y. Liu, D. Li, C. Hu, and B. Rao. 2009. Feasibility of Cyanobacterial Inoculation for Biological Soil Crusts Formation in Desert Area. *Soil Biology & Biochemistry* 41(2009)926–929. Available at: <http://ir.ihb.ac.cn/bitstream/152342/7710/1/Feasibility%20of%20cyanobacterial%20inoculation%20for%20biological%20soil%20crusts%20formation%20in%20desert%20area.pdf> as of June 19, 2013.
- Welsh, S. L., D. Atwood, S. Goodrich, and L.C. Higgins. 2003. *A Utah Flora*. Provo, Utah: Brigham Young University Print Services.
- West, N. E., and J. A. Young. 2000. Intermountain Valleys and Lower Mountain Slopes. In *North American Terrestrial Vegetation*. Cambridge, U.K.: Cambridge University Press.
- Western Regional Air Partnership (WRAP). 1996. Sources in and near Class I Areas Forum: Near Emissions. 1996 Data. Available at: <https://www.wrapair.org/forums/dejf/fdh/> as of January 7, 2014.
- Western Regional Climate Center (WRCC). 2006. Period of Record Climate Summary. Station 420086, Alton Utah. Available at: <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ut0086> as of January 15, 2009.
- . 2013. Alton, Utah. Period of Record Monthly Climate Summary, 5/1/1915 to 2/28/2013. Station 420086. Available at: <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ut0086> as of October 8, 2013.
- . 2016a. Alton, Utah (420086) Period of Record Monthly Climate Summary Period of Record: 05/01/1915 to 05/31/2016. Available at: <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ut0086> as of June 15, 2017.
- . 2016b. Bryce Canyon National Park Headquarters, Utah (421008) Period of Record Monthly Climate Summary Period of Record: 06/01/1959 to 05/08/2016. Available at: <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ut1008> as of June 22, 2017.
- . 2016c. Cedar City Muni AP, Utah (421267) Period of Record Monthly Climate Summary Period of Record: 07/01/1948 to 06/09/2016. Available at: <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ut1267> as of June 22, 2017.
- White, P. J., and K. Ralls. 1993. Reproduction and Spacing Patterns of Kit Foxes Relative to Changing Prey Availability. *Journal of Wildlife Management* 57(4):861–867.

- The White House. 2017. Presidential Executive Order on Promoting Energy Independence and Economic Growth. Available at: <https://www.whitehouse.gov/the-press-office/2017/03/28/presidential-executive-order-promoting-energy-independence-and-economi-1> as of June 5, 2017.
- Whitson, T. D. (ed.). 1996. *Weeds of the West*. Laramie, Wyoming: Western Society of Weed Science in cooperation with Cooperative Extension Services, University of Wyoming.
- Wilbert, M., J. Thomson, and N. W. Culver. 2008. *Analysis of Habitat Fragmentation from Oil and Gas Development and Its Impact on Wildlife: A Framework for Public Land Management Planning*. Washington, D.C.: The Wilderness Society, Ecology and Economics Research Department.
- Williams, A. 2011. The Impact of Surface Coal Mining on Residential Property Values: A Hedonic Price Analysis. University of Tennessee–Knoxville Department of Economics. May 2011. Available at: <http://trace.tennessee.edu/cgi/viewcontent.cgi?article=1096&context=pursuit> as of June 25, 2013.
- Willson, C. J., P. S. Manos, and R. B. Jackson. 2008. Hydraulic Traits Are Influenced by Phylogenetic History in the Drought-Resistant, Invasive Genus *Juniperus* (*Cupressaceae*). *American Journal of Botany* 95(3):299–314.
- Wiss, J. F., and H. R. Nichols. 1974. *A Study of Damage to a Residential Structure from Blast Vibrations*. New York: American Society of Civil Engineers.
- Woods, A. J., D. A. Lammers, S. A. Bryce, J. M. Omernik, R. L. Denton, M. Domeier, and J. A. Comstock. 2001a. Ecoregions of Utah (Color Poster with Map, Descriptive Text, Summary Tables, and Photographs). Reston, Virginia: U.S. Geological Survey.
- Woods, A. J., D. A. Lammers, S. A. Bryce, J. M. Omernik, R. L. Denton, M. Domeier, and J. A. Comstock. 2001b. *Ecoregions of Utah*. Color Poster with Map, Descriptive Text, Summary Tables, and Photographs (Map Scale 1:1,175,000). Reston, Virginia: U.S. Geological Survey.
- Ziegenhagen, L. L. 2003. *Shrub Reestablishment Following Fire in the Mountain Big Sagebrush (Artemisia Tridentata Nutt. Ssp. Vaseyana (Rydb.) Beetle) Alliance*. Available at: http://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/9729/Ziegenhagen_Lori_L_2003.pdf?sequence=1 as of September 15, 2017.
- Zweifel, M. 2007. *Alton Coal Additions 2007*. U-07-BI-0960b. Washington, D.C.: U.S. Department of the Interior, Bureau of Land Management, Kanab, Utah, Field Office.
- . 2008. Personal communication between M. Zweifel, U.S. Department of the Interior, Bureau of Land Management, Kanab Field Office, and M. Cannon, SWCA Environmental Consultants. June 4, 2008.

This page intentionally blank