

Appendix A

References by Chapter

Chapter 1 References – Decision Support for Agricultural Efficiency:

- 10 Birkett, Charon and Brad Doorn. 2004. "A New Remote Sensing Tool for Water Resources Management,
11 *Earth Observation Magazine*, October 13 (6).

12

13 Congressional Research Service, Science Policy Research Division. 1983. "United States Civilian Space
14 Programs, Volume II Applications Satellites," prepared for the Subcommittee on Space Science
15 and Applications of the Committee on Science and Technology, U.S. House of Representatives,
16 May.

17

18 Kanarek, Harold. 2005. "The FAS Crop Explorer: A Web Success Story," *FAS Worldwide*, June
19 (<http://www.fas.usda.gov/info/fasworldwide/2005/06-2005/Cropexplorer.htm>) (accessed April
20 2007).

21

22 Kaupp, Verne, Charles Hutchinson, Sam Drake, Tim Haithcoat, Willem van Leeuwen, Vlad Likholetov,
23 David Tralli, Rodney McKellip, and Brad Doorn. 2005. "Benchmarking the USDA Production
24 Estimates and Crop Assessment Division DSS Assimilation," v.3 (01.04.06), report prepared for
25 Production Estimates and Crop Assessment Division, Foreign Agricultural Service, US
26 Department of Agriculture, September.

27

28 National Aeronautics and Space Administration, 2001. Aeronautics and Space Report of the President,
29 NASA, Washington DC at <http://history.nasa.gov/presrep01/pages/usda.html> accessed April
30 2007.

31

32 National Aeronautics and Space Administration, John C. Stennis Space Center. 2004a. "Decision Support
33 Tools Evaluation Report for FAS/PECAD," Version 2.0, January.

34

35 National Aeronautics and Space Administration, John C. Stennis Space Center. 2004b. "PECAD's Global
36 Reservoir and Lake Monitor: A Systems Engineering Report," Version 1.0, December.

37

38 National Aeronautics and Space Administration. 2006a. "NASA Science Mission Directorate: Earth-Sun
39 System Applied Sciences Program Agricultural Efficiency Program Element FY2006-2010
40 Plan," 30 June at http://aiwg.gsfc.nasa.gov/esappdocs/Agricultural_Efficiency_FINAL_06.pdf
41 accessed April 2007.

42

43 National Aeronautics and Space Administration, 2006b. "NASA Science Mission Directorate – Applied
44 Sciences Program: Agricultural Efficiency – FY 2005 Annual Report at
45 <http://aiwg.gsfc.nasa.gov/esappdocs/annualreports/> accessed April 2007.

46

47 National Assessment Synthesis Team. 2004. *Climate Change Impacts on the United States: The Potential
48 Consequences of Climate Variability* (Boston, MA: Cambridge University Press).

49

50 National Research Council, Board on Earth Sciences and Resources. 2007. *Contributions of Land Remote
51 Sensing for Decisions about Food Security and Human Health: Workshop Report* (Washington,
52 DC: National Academies Press).

53

54 Reynolds, Curt A. 2001. "CADRE Soil Moisture and Crop Models," at
55 <http://www.pecad.fas.usda.gov/cropexplorer/datasources.cfm> accessed April 2007.

- 56
57 Rosenzweig, Cynthia. 2003. "Climate Change and Agriculture: Mitigation and Adaptation," Testimony
58 before the Senate Committee on Environment and Public Works, Subcommittee on Clean Air,
59 Climate Change, and Nuclear Safety, July 8 at
60 http://epw.senate.gov/108th/Rosenzweig_070803.htm accessed April 2007.
61
62 United Nations Food and Agriculture Organization. 2006. "Agricultural Monitoring Meeting Convened for
63 the Integrated Global Observations for Land (IGOL) Theme," Rome, Italy (8-11 March 2006), 28
64 June.
65
66 United Nations Food and Agriculture Organization. No date. "Agriculture and Climate Change: FAO's
67 Role" at <http://www.fao.org/News/1997/971201-e.htm> Accessed April 2007.
68

69

70 **Chapter 2 References – Decision Support for Air Quality:**

71

- 72 Al-Saadi, J., J. Szykman, R. B. Pierce, C. Kittaka, D. Neil, D. A. Chu, L. Remer, L. Gumley, E. Prins, L.
73 Weinstock, C. MacDonal, R. Wayland, F. Dimmick, and J. Fishman, 2005: Improving national air
74 quality forecast with satellite aerosol observations. *Bulletin of the American Meteorological
75 Society*, Volume 86, Issue 9, 1249-1261.
- 76
- 77 Bey, I., D. J. Jacob, R. M. Yantosca, J. A. Logan, B. D. Field, A. M. Fiore, Q. Li, H. Y. Liu, L. J. Mickley,
78 and M. G. Schultz (2001), Global modeling of tropospheric chemistry with assimilated
79 meteorology: Model description and evaluation, *J. Geophys. Res.*, 106, 23,073– 23,095.
- 80
- 81 Brasseur, G. P., J. T. Kiehl, J.-F. Mueller, T. Schneider, C. Granier, X. X. Tie, and D. Hauglustaine, 1998:
82 Past and future changes in global tropospheric ozone: Impact on radiative forcing, *Geophys. Res.
83 Lett.*, 25, 3807– 3810.
- 84
- 85 Brown, T.J., B.L. Hall, and A.L. Westerling, 2004: The impact of twenty-first century climate change on
86 wildland fire danger in the western United States: An applications perspective. *Climatic Change*,
87 62, 365–388.
- 88
- 89 Byun, D.W., 1999a: Dynamically consistent formulations in meteorological and air quality models for
90 multi-scale atmospheric applications: Part I. Governing equations in generalized coordinate
91 system. *Journal of Atmospheric Science*, Vol 56, 3789-3807.
- 92
- 93 Byun, D.W., 1999b: Dynamically consistent formulations in meteorological and air quality models for
94 multi-scale atmospheric applications: Part II. Mass conservation issues. *Journal of Atmospheric
95 Science*, Vol 56, 3808-3820.
- 96
- 97 Byun, D.W. and Ching, J.K.S. (eds.), 1999: Science algorithms of the EPA Models-3 Community
98 Multiscale Air Quality Model (CMAQ) modeling system. EPA/600/R-99/030, U. S.
99 Environmental Protection Agency, Office of Research and Development, Washington, DC 20460.
- 100
- 101 Byun, D.W., and K. L. Schere, 2006: Review of the Governing Equations, Computational Algorithms, and
102 Other Components of the Models-3 Community Multiscale Air Quality (CMAQ) Modeling
103 System . *Applied Mechanics Reviews*, Volume 59, Number 2 (March 2006), pp. 51-77.
- 104
- 105 Carmichael, G. R., L. K. Peters, and R. D. Saylor, 1991: The STEM-II regional scale acid deposition and
106 photochemical oxidant model—I. An overview of model development and applications, *Atmos.
107 Environ.*, 25(10), 2077– 2090
- 108
- 109 Civerolo, K., C. Hogrefe, B. Lynn, J. Rosenthal, J.-Y. Ku, W. Solecki, J. Cox, C. Small, C. Rosenzweig, R.
110 Goldberg, K. Knowlton, and P. Kinney, 2007: Estimating the effects of increased urbanization on
111 surface meteorology and ozone concentrations in the New York City metropolitan region. *Atmos.
112 Environ.*, 41, 1803-1818, doi:10.1016/j.atmosenv.2006.10.076.
- 113
- 114 Constantinescu, E.M., A. Sandu, T. Chai, and G.R. Carmichael, 2007a: Ensemble-based Chemical Data
115 Assimilation I: General Approach. *Quarterly Journal of the Royal Meteorological Society*, in print.
- 116
- 117 Constantinescu, E.M. , A. Sandu, T. Chai, and G.R. Carmichael, 2007b: Ensemble-based Chemical Data
118 Assimilation II: Covariance Localization. *Quarterly Journal of the Royal Meteorological Society*,
119 in print.
- 120

- 121 Delworth, T.L., A. J. Broccoli, A. Rosati, R. J. Stouffer, V. Balaji, J. A. Beesley, W. F. Cooke, and 37 co-
122 authors, 2006: GFDL's CM2 Global Coupled Climate Models. Part I: Formulation and Simulation
123 Characteristics, *Journal of Climate-Special Section*, Vol. 19, 643-674
- 124
- 125 Duncan, B.N., R.V. Martin, A.C. Staudt, R. Yevich, J.A. Logan, 2003: Interannual and Seasonal Variability
126 of Biomass Burning Emissions Constrained by Satellite Observations, *J. Geophys. Res.*, 108(D2),
127 4040, doi:10.1029/2002JD002378.
- 128
- 129 Eder, B., D. Kang, R. Mathur, S. Yu, K. Schere, 2006: An operational evaluation of the Eta-CMAQ air
130 quality forecast model, *Atmospheric Environment* 40, 4894-4905
- 131
- 132 Emmons, L. K., D. A. Hauglustaine, J.-F. Muller, M. A. Carroll, G. P. Brasseur, D. Brunner, J. Staehelin,
133 V. Thouret, and A. Marenco, 2000: Data composites of airborne observations of tropospheric
134 ozone and its precursors, *J. Geophys. Res.*, 105, 20,497– 20,538.
- 135
- 136 Friedl, R. (ed.), 1997: Atmospheric effects of subsonic aircraft: Interim assessment report of the advanced
137 subsonic technology program, NASA Ref. Publ. 1400, 143 pp., 1997.
- 138
- 139 Fu, T.-M., D. J. Jacob, P. I. Palmer, K. Chance, Y. X. Wang, B. Barletta, D. R. Blake, J. C. Stanton, and M.
140 J. Pilling, 2007: Space-based formaldehyde measurements as constraints on volatile organic
141 compound emissions in east and south Asia and implications for ozone, *J. Geophys. Res.*, 112,
142 D06312, doi:10.1029/2006JD007853.
- 143
- 144 Hakami, A., D.K. Henze, J.H. Seinfeld, K. Singh, A. Sandu, S. Kim, D. Byun, and Q. Li, 2007: The adjoint
145 of CMAQ, (submitted to *J. Geophys. Res.*)
- 146
- 147 Hansen, J., Mki. Sato, L. Nazarenko, R. Ruedy, A. Lacis, D. Koch, I. Tegen, T. Hall, and 20 co-authors,
148 2002: Climate forcings in Goddard Institute for Space Studies SI2000 simulations. *J. Geophys.*
149 Res. 107, no. D18, 4347, doi:10.1029/2001JD001143.
- 150
- 151 Hansen, J., Mki. Sato, R. Ruedy, L. Nazarenko, A. Lacis, G.A. Schmidt, G. Russell, and 38 co-authors,
152 2005: Efficacy of climate forcings. *J. Geophys. Res.* 110, D18104, doi:10.1029/2005JD005776.
- 153
- 154 Heald, Colette L., Daniel J. Jacob, Paul I. Palmer, Mathew J. Evans, Glen W. Sachse, Hanwant B. Singh
155 and Donald R. Blake, 2003: Biomass burning emission inventory with daily resolution:
156 application to aircraft observations of Asian outflow, *J. Geophys. Res.*, 108(D4), 8368,
157 doi:10.1029/2002JD002732.
- 158
- 159 Hoelzemann, J.J., M. G. Schultz, G. P. Brasseur, and C. Granier, 2004: Global Wildland Fire Emission
160 Model (GWEM): Evaluating the use of global area burnt satellite data, *J. Geophys. Res.*, 109,
161 D14S04, doi:10.1029/2003JD003666.
- 162
- 163 Hogrefe, C., B. Lynn, K. Civerolo, J.-Y. Ku, J. Rosenthal, C. Rosenzweig, R. Goldberg, S. Gaffin, K.
164 Knowlton, and P. L. Kinney, 2004: Simulating changes in regional air pollution over the eastern
165 United States due to changes in global and regional climate and emissions, *J. Geophys. Res.*, 109,
166 D22301, doi:10.1029/2004JD004690.
- 167
- 168 Hogrefe C, LR Leung, LJ Mickley, SW Hunt, and DA Winner, 2005: Considering Climate Change in U.S.
169 Air Quality Management. EM: Air & Waste Management Association's magazine for
170 environmental managers October 2005:19-23.
- 171
- 172 Holloway, T., H. Levy II, and G. Carmichael, 2002: Transfer of reactive nitrogen in Asia: development and
173 evaluation of a source–receptor model. *Atmospheric Environment*, 36(26), 4251-4264.
- 174

- 175 Horowitz, L. W., and Coauthors, 2003: A global simulation of tropospheric ozone and related tracers:
176 Description and evaluation of MOZART, version 2. *J. Geophys. Res.*, 108, 4784,
177 doi:10.1029/2002JD002853.
- 178
- 179 Hurrell, J.W., J.J. Hack, A.S. Phillips, J. Caron, and J. Yin, 2006: The Dynamical Simulation of the
180 Community Atmosphere Model Version 3 (CAM3) *Journal of Climate*: Vol. 19, pp 2162-2183.
181
- 182 In, H.-J., D. W. Byun, R. J. Park, N.-K. Moon, S. Kim, and S. Zhong, 2007: Impact of transboundary
183 transport of carbonaceous aerosols on the regional air quality in the United States: A case study of
184 the South American wildland fire of May 1998, *J. Geophys. Res.*, 112, D07201,
185 doi:10.1029/2006JD007544.
- 186
- 187 IPCC (Intergovernmental Panel on Climate Change), 2000: Emissions Scenarios, Cambridge University
188 Press, Cambridge, UK
189
- 190 IPCC (Intergovernmental Panel on Climate Change), 2001: The Scientific Basis. Cambridge University
191 Press, Cambridge, UK
192
- 193 Jacob, D.J., and A.B. Gilliland, 2005: Modeling the impact of air pollution on global climate change,
194 Environmental Manager, pp. 24-27, October 2005, Air & Waste Management Association.
195 Pittsburgh, PA.
196
- 197 Jacobson, M. Z., GATOR-GCMM, 2001a: A global through urban scale air pollution and weather forecast
198 model. 1. Model design and treatment of subgrid soil, vegetation, roads, rooftops, water, sea ice,
199 and snow. *J. Geophys. Res.*, 106, 5385-5402.
200
- 201 Jacobson, M. Z., 2001b: GATOR-GCMM: 2. A study of day- and nighttime ozone layers aloft, ozone in
202 national parks, and weather during the SARMAP Field Campaign, *J. Geophys. Res.*, 106, 5403-
203 5420, 2001
204
- 205 Kalkstein, L. S., and K. M. Valimont, 1987: Climate effects on human health. EPA Science and Advisory
206 Committee Monograph, no. 25389: 122-152. Washington D. C., U. S. EPA.
207
- 208 Kiehl, J.T., J. Hack, G. Bonan, B. Boville, B. Briegleb, D. Williamson, and P. Rasch, 1996: Description of
209 the NCAR Community Climate Model (CCM3). NCAR Technical Note. NCAR/TN-420+STR,
210 Ntl. Center for Atmos. Research, Boulder, CO, 152 pp. [Available Ntl. Cen. Atmos. Res., P.O.
211 Box 3000, Boulder, CO, 80305.]
212
- 213 Knowlton, K., Rosenthal, J.E., Hogrefe, C., Lynn, B., Gaffin, S., Goldberg, R., Rosenzweig, C., Civerolo,
214 K., Ku, J.-Y., Kinney, P.L., 2004. Assessing ozone-related health impacts under a changing
215
- 216 Kopacz, M., D. J. Jacob, D. Henze, C. L. Heald, D. G. Streets, Q. Zhang, 2007: Comparison of adjoint and
217 analytical Bayesian inversion methods for constraining Asian sources of carbon monoxide using
218 satellite (MOPITT) measurements of CO columns, Submitted to *Journal of Geophysical Research*
219 – Atmospheres.
220
- 221 Leung, L. R., and M. S. Wigmosta, 1999: Potential climate change impacts on mountain watersheds in the
222 Pacific Northwest. *J. Amer. Water Resour. Assoc.*, 35(6): 1463-1471.
223
- 224 Leung, L. R., S. J. Ghan, Z.-C. Zhao, Y. Luo, W.-C. Wang, and H. Wei, 1999: Intercomparison of regional
225 climate simulations of the 1991 summer monsoon in East Asia. *J. Geophys. Res.*, 104(D6): 6425-
226 6454.
227
- 228 Leung LR, Y Kuo, and J Tribbia. 2006: Research Needs and Directions of Regional Climate Modeling
229 "Using WRF and CCSM." *Bulletin of the American Meteorological Society* 87(12):1747-1751.
230

- 231 Liang, X.-Z., J. Pan, J. Zhu, K.E. Kunkel, J.X.L. Wang, and A. Dai, 2006: Regional climate model
232 downscaling of the U.S. summer climate and future change. *J. Geophys. Res.*, 111, D10108.
233
- 234 Liao, K.-J., E. Tagaris, K. Manomaiphiboon, J.-H. Woo, S. He, P. Amar, and A.G. Russell, 2007:
235 Sensitivities of Ozone and Fine Particulate Matter Formation to Emissions under the Impact of
236 Potential Future Climate Change, (submitted to *Journal of Geophysical Research*)
237
- 238 Liao, K.-J., E. Tagaris, K. Manomaiphiboon, A.G. Russell, C. Wang, J.-H. Woo, P. Amar, and S. He, 2007:
239 Quantifying the Uncertainties in Forecasts of Regional Air Quality under Impact of Future
240 Climate Change, (submitted to *Journal of Geophysical Research*)
241
- 242 Logan, J.A., 1999: An analysis of ozonesonde data for the troposphere: Recommendations 601 for testing
243 3-D models and development of a gridded climatology for tropospheric ozone, *J. Geophys.*
244 *Res.*, 104, D13, 16,115-16,149.
245
- 246 Mearns, L.O., 2003: Issues in the impacts Climate variability and change on agriculture—Applications to
247 the southeastern United States. *Climate Change*, 60, 1–6.
248
- 249 Mickley, L.J., D.J. Jacob, B.D. Field, and D. Rind, 2004: Effects of future climate change on regional air
250 pollution episodes in the United States, *Geophys. Res. Lett.*, 30, L24103,
251 doi:10.1029/2004GL021216.
252
- 253 NARSTO, 2000: An assessment of tropospheric ozone pollution-a North American Perspective. NARSTO
254 Management Coordinator's Office (Envair). Pasco, Washington, <http://www.narsto.org/>
255
- 256 Novelli, P. C., K. A. Masarie, P. M. Lang, B. D. Hall, R. C. Myers, and J.W. Elkins, 2003: Reanalysis of
257 tropospheric CO trends: Effects of the 1997– 1998 wildfires, *J. Geophys. Res.*, 108(D15), 4464,
258 doi:10.1029/2002JD003031.
259
- 260 Pour-Bazar, A., R.T. McNider, S.J. Roselle, R. Suggs, G. Jedlovec, D.W. Byun, S.T. Kim, C.J. Lin, T.C.
261 Ho, S. Haines, B. Dornblaser, and R. Cameron, 2007: Correcting photolysis rates on the basis of
262 satellite observed clouds, *J. Geophys. Res.*, 112, D10302, doi:10.1029/2006JD007422.
263
- 264
- 265 Russell, A., and R. Dennis, 2000: NARSTO critical review of photochemical models and modeling. *Atmos.*
266 *Environ.*, 34, 2283-2324.
267
- 268 Sandu, A., D. Daescu, G.R. Carmichael, and T. Chai, 2005: Adjoint sensitivity analysis of regional air
269 quality models. *Journal of Computational Physics*, 204:222–252.
270
- 271 Schmidt, G.A., R. Ruedy, J.E. Hansen, I. Aleinov, N. Bell, M. Bauer, S. Bauer, B. Cairns, V. Canuto, Y.
272 Cheng, A. Del Genio, G. Faluvegi, A.D. Friend, T.M. Hall, Y. Hu, M. Kelley, N.Y. Kiang, D.
273 Koch, A.A. Lacis, J. Lerner, K.K. Lo, R.L. Miller, L. Nazarenko, V. Oinas, J. Perlitz, D. Rind,
274 A. Romanou, G.L. Russell, M. Sato, D.T. Shindell, P.H. Stone, S. Sun, N. Tausnev, D. Thresher,
275 and M.S. Yao, 2006: Present day Atmos. simulations using GISS Model E: Comparison to in-situ,
276 satellite and reanalysis data. *J. Clim.*, 19, 153–192, doi:10.1175/JCLI3612.1.
277
- 278 Song, C.-K., D.W. Byun, R.B. Pierce, J.A. Alsaadi, T.K. Schaack, and F. Vukovich, 2007: Downscale
279 linkage of global model output for regional chemical transport modeling: method and general
280 performance. (Submitted to *Journal of Geophysical Research*).
281
- 282 Spak, S.N., T. Holloway, B. Lynn, R. Goldberg, 2007: A Comparison of Statistical and Dynamical
283 Downscaling for Surface Temperature in North America, *J. Geophys. Res.*, 112, D08101,
284 doi:10.1029/2005JD006712.
285

- 286 Spracklen, D.V., J. A. Logan, L. J. Mickley, R. J. Park, R. Yevich, A.L. Westerling, and D. Jaffe, 2007:
287 Wildfires drive interannual variability of organic carbon aerosol in the western U.S. in summer:
288 implications for trends. Submitted to Journal of Geophysical Research.
- 289
- 290 Tang, Y., G. R. Carmichael, N. Thongboonchoo, T. Chai, L. W. Horowitz, R. B. Pierce, J. A., Al-Saadi, G.,
291 Pfister, J. N. Vukovich, M. A. Avery, G. W. Sachse, T. B. Ryerson, J. S. Holloway, E. L. Atlas, F.
292 M. Flocke, R. J. Weber, L. G. Huey, J. E. Dibb, D. G. Streets, W. H. Brune, 2007: Influence of
293 lateral and top boundary conditions on regional air quality prediction: A multiscale study coupling
294 regional and global chemical transport models, *J. Geophys. Res.*, 112, D10S18,
295 doi:10.1029/2006JD007515.
- 296
- 297 Tagaris, E., K. Manomaiphiboon, K.-J. Liao, L. R. Leung, J.-H. Woo, S. He, P. Amar, A. G. Russell, 2007:
298 Impacts of Global Climate Change and Emissions on Regional Ozone and Fine Particulate Matter
299 Concentrations over the United States, submitted to Journal of Geophysical Research.
- 300
- 301 Tarasick, D. W. M. D. Moran, A. M. Thompson, T. Carey-Smith, Y. Rochon, V. S. Bouchet, W. Gong, P.
302 A. Makar, C. Stroud, S. Ménard, L.-P. Crevier, S. Cousineau, J. A. Pudykiewicz, A. Kallaur, R.
303 Moffet, R. Ménard, A. Robichaud, O. R. Cooper, S. J. Oltmans, J. C. Witte, G. Forbes, B. J.
304 Johnson, J. Merrill, J. L. Moody, G. Morris, M. J. Newchurch, F. J. Schmidlin, E. Joseph, 2007:
305 Comparison of Canadian air quality forecast models with tropospheric ozone profile
306 measurements above midlatitude North America during the IONS/ICARTT campaign: Evidence
307 for stratospheric input, *J. Geophys. Res.*, doi:10.1029/2006JD007782, in press.
- 308
- 309 Tong, D.Q. and D.L. Mauzerall, 2006: Spatial Variability of Summertime Tropospheric Ozone over the
310 Continental United States: Implications of an evaluation of the CMAQ model , *Atmospheric*
311 *Environment*, 40, 3041-3056.
- 312
- 313 Yu, S.C., R. Mathur, D. Kang, K. Schere, J. Pleim, and T.L. Otte, 2007: A detailed evaluation of the Eta-
314 CMAQ forecast model performance for O₃, its related precursors, and meteorological parameters
315 during the 2004 ICARTT study, *J. Geophys. Res.*, 112, D12S14, doi:10.1029/2006JD007715.
- 316
- 317 Zhang, F., N. Bei, J. W. Nielsen-Gammon, G. Li, R. Zhang, A. Stuart, and A. Aksoy, 2007: Impacts of
318 meteorological uncertainties on ozone pollution predictability estimated through meteorological
319 and photochemical ensemble forecasts, *J. Geophys. Res.*, 112, D04304,
320 doi:10.1029/2006JD007429.
- 321
- 322 Zhang, Y., Liu, P., Pun, B., Seigneur, C., 2006: A comprehensive performance evaluation of MM5-CMAQ
323 for the summer 1999 southern oxidants study episode, Part I. Evaluation protocols, databases and
324 meteorological predictions. *Atmospheric Environment*, this issue, doi:10.1016/j.atmosenv.
325 2005.12.043.
- 326
- 327

328 **Chapter 3 References – Decision Support for Assessing Hybrid Renewable Energy**
329 **Systems:**

- 330
331
332 Elliott, D. L., C. G. Holladay, W. R. Barchet, H. P. Foote, and W. R. Sandusky, 1987. Wind Energy
333 Resource Atlas of the United States. Pacific Northwest National Laboratory, Richland,
334 Washington. DOE/CH 10093-4, March, 1987.
- 335
336 Gueymard, C., SWERA Position Paper, 2003: Methodological Issues Related to Aerosol Data. Personal
337 communication to the National Renewable Energy Laboratory.
- 338
339 Hansen, M.C., R. S. DeFries, J. R. G. Townshend, M. Carroll, C. Dimiceli, and R. A. Sohlberg, 2003.
340 Global Percent Tree Cover at a Spatial Resolution of 500 Meters: First Results of the MODIS
341 Vegetation Continuous Fields Algorithm. *Earth Interactions* 7(10):1-15.
- 342
343 Jennings, Michael and J. Michael Scott, 1997: Official Description of the GAP Analysis Program.
344 http://gapanalysis.nbii.gov/portal/server.pt/gateway/PTARGS_0_2_1021_200_458_43/http%3B/gapcontent%3B7087/publishedcontent/publish/public_sections/gap_home_sections/descriptionofficial/highlights_content.html.
- 347
348 Koepke, P., M. Hess, I. Schult, and E. P. Shettle, 1997. Global Aerosol Data Set. Report No. 243, Max-
349 Planck-Institut fur Meteorologie, Hamburg, ISSN 0937-1060.
- 350
351 Perez, R., P. Ineichen, K. Moore, M. Kmiecik, C. Chain, R. George, and F. Vignola, 2002: A New
352 Operational Satellite-to-Irradiance Model. *Solar Energy* 73(5), pp. 307-317.
- 353
354 Renné, David S., Richard Perez, Antoine Zelenka, Charles Whitlock, and Roberta DiPasquale, 1999: Use
355 of Weather and Climate Research Satellites for Estimating Solar Resources. Chapter 5 in
356 Advances in Solar Energy, Volume 13, Edited by D. Yogi Goswami and Karl W. Boer. The
357 American Solar Energy Society, 2400 Central Ave. Suite G1, Boulder, Colorado 80301. Pp. 171-
358 240.
- 359
360 Schwartz, M., R. George, and D. Elliott, 1999. The Use of Reanalysis Data for Wind Resource Assessment
361 at the National Renewable Energy Laboratory. Proceedings, European Wind Energy Conference,
362 Nice, France, March 1-5, 1999.

Chapter 4 References – Decision Support for Public Health:

- 363
364
365 Beck, L.R. M.H Rodriguez, S.W. Dister, A.D. Rodríguez, R.K. Washino, D.R. Roberts and M.A. Spanner
366 1997: Assessment of a remote sensing-based model for predicting malaria transmission risk in
367 villages of Chiapas, Mexico. *American Journal of Tropical Medicine and Hygiene* 56: 99-107.
368
369 Brownstein, J.S., T.R. Holford and D. Fish. 2003: A climate-based model predicts the spatial distribution of
370 Lyme disease vector *Ixodes scapularis* in the United States. *Environmental Health Perspectives*
371 111: 1152- 1157.
372
373 Brownstein, J.S., T.R. Holford and D. Fish 2005a: Effect of climate change on Lyme disease risk in North
374 America. *EcoHealth* 2:38-46.
375
376 Brownstein, J.S., D. K Skelly, T.R. Holford and D. Fish. 2005b: Forest fragmentation predicts local scale
377 heterogeneity of Lyme disease risk. *Oecologia* 146: 469-475
378
379 Fox,D. 2007: Back to the no-analog future? *Science* 316:823-825
380
381 Glass, G.E. 2007: Rainy with a chance of plague: forecasting disease outbreaks from satellites. *Future
382 Virology* 2:225-229
383
384 Gubler, D.J. 2004: The changing epidemiology of yellow fever and dengue 1900 to 2003: full circle?
385 *Comparative Immunology Microbiology and Infectious Diseases* 27:319-330.
386
387 Gubler, D.J., P. Reiter, K.L. Ebi, W. Yap, R. Nasci and J.A. Patz 2001: Climate variability and change in
388 the United States: potential impacts on vector- and rodent-borne diseases. *Environmental Health
389 Perspectives* 109:223.
390
391 Huntingford, C., D. Hemming, J.H.C. Gash, N Gedney, and P.A. Nuttall (2007) Impact of climate change
392 on health: what is required of climate modellers? *Trans. Royal Soc. Trop. Med. Hyg.*, 101, 97-103.
393
394 Linthicum, K.J., C.L. Bailey, F.G. Davies, and C.J. Tucker 1987: Detection of Rift Valley fever viral
395 activity in Kenya by satellite remote sensing imagery. *Science* 235:1656-1659.
396
397 Malouin, R, P Winch, E Leontsini, G Glass, D Simon, EB Hayes & BS Schwartz. 2003. Longitudinal
398 evaluation of an educational intervention to prevent tick bites in an area of endemic Lyme disease
399 in Baltimore County, Maryland. *Am J Epidemiol* 157:1039-1051.
400
401 Piesman, J. and L. Gern 2004: Lyme borreliosis in Europe and North America. *Parasitology* 129:191-220.
402
403 Selvin, S. 1991: Statistical Analysis of Epidemiologic Data. Oxford University Press. New York375

404 Chapter 5 References – Water Management

- 405
406 Andreadis, K. and D. Lettenmaier, 2006: Trends in 20th century drought over the continental United States.
407 *Geophysical Research Letters* 33, L10403.
- 408
409 Angel, J.R. and F.A. Huff, 1995: Seasonal distribution of heavy rainfall events in the Midwest. *Journal of*
410 *Water Resources Planning and Management* 121, 110-115.
- 411
412 Baldwin, C. and U. Lall, 1999: Seasonality of streamflow: the upper Mississippi River, *Water Resources*
413 *Research* 35(4), 1143.
- 414
- 415 Barnett, T., R. Malone, W. Pennell, D. Astammer, B. Demter, and W. Washington, 2004: The effects of
416 climate change on water resources in the West: introduction and overview. *Climatic Change* 62, 1-
417 11.
- 418
- 419 Beard, D., 1993: *Blueprint for Reform: The Commissioner's Plan for Reinventing Reclamation*. Bureau of
420 Reclamation, Washington, D.C.
- 421
- 422 Benestad, R.E., 2004: Empirical-statistical downscaling in climate modeling. *EOS, Transactions, American*
423 *Geophysical Union* 85, 417-422.
- 424
- 425 Boroughs, C.B. and E.A. Zagona. 2002: Daily flow routing with the Muskingum-Cunge method in the
426 Pecos River RiverWare Model, *Proceedings of the Second Federal Interagency Hydrologic*
427 *Modeling Conference*, Las Vegas, NV.
- 428
- 429 Bradley, A., S. Schwartz, and T. Hashino, 2004: Distributions-oriented verification of ensemble streamflow
430 predictions, *Journal of Hydrometeorology* 5(3), 532-545.
- 431
- 432 Bureau of Reclamation, 1992: *A Long Term Framework for Water Resource Management, Development,*
433 *and Protection*. U.S. Department of Interior, Washington, DC.
- 434
- 435 Carroll, T., 1985: Snow surveying, in *Yearbook of Science and Technology*, pp. 386-388, McGraw-Hill,
436 New York, N.Y.
- 437
- 438 Carroll, T., 1999: personal communication, National Operational Hydrologic Remote Sensing Center,
439 National Weather Service.
- 440
- 441 Carron, J., E. Zagona, and T. Fulp, 2006: Modeling uncertainty in an object-oriented reservoir operations
442 model. *J. Irrig. and Drain. Engrg.*, 132(2), 104-111.
- 443
- 444 Changnon, S.A. (1990) The dilemma of climatic and hydrologic forecasting for the Great Lakes. In:
445 *Proceedings of The Great Lakes Water Level Forecast and Statistics Symposium*, H.C. Hartmann
446 and M.J. Donahue (Eds.), Great Lakes Commission, Ann Arbor, MI, pp. 13-25.
- 447
- 448 Changnon, D., 2000: Who used and benefited from the El Nino forecasts? In: *El Nino 1997-1998: The*
449 *Climate Event of the Century*, S.A. Changnon (Ed.), Oxford University Press, New York, NY, pp.
450 109-135.
- 451
- 452 Christensen, N. and D.P. Lettenmaier, 2006: A multimodel ensemble approach to assessment of climate
453 change impacts on the hydrology and water resources of the Colorado River basin, *Hydrology and*
454 *Earth System Sciences*, 3, 1-44.
- 455

- 456 Christensen, N.S., A.W. Wood, N. Voisin, D.P. Lettenmaier, and R.N. Palmer, 2004: Effects of climate
457 change on the hydrology and water resources of the Colorado River Basin. *Climatic Change* 62,
458 337-363.
- 459 Clark, M.P., L.E. Hay, G.J. McCabe, G.H. Leavesley, and R.L. Wilby, 1999: Towards the use of
460 atmospheric forecasts in hydrologic models, I, Forecast drift and scale dependencies. *EOS*
461 *Transactions AGU* 80 Fall Meeting Supplement, Abstract H32G-10, F406-407.
- 462
- 463 Congressional Budget Office, 1997: *Water Use Conflicts in the West: Implications of Reforming the*
464 *Bureau of Reclamation's Water Supply Policies*, Congressional Budget Office, Washington, DC.
- 465
- 466 Croley, T.E., 1990: Laurentian Great Lakes double-CO₂ climate change hydrological impacts. *Climatic*
467 *Change* 17, 27-48.
- 468 Croley, T., F. Quinn, K. Kunkel, and S. Changnon, 1998: Great Lakes hydrology under a transposed
469 climate. *Climatic Change* 38, 405-433.
- 470
- 471 Davis, R. E. and T. Pangburn, 1999: Development of new snow products for operational water control and
472 management in the Kings River Basin, California. *EOS Transactions AGU*, 81, Spring Meeting
473 Supplement, Abstract H22D-07, S110.
- 474
- 475 Douglas, E.M., R.M. Vogel, and C.N. Kroll, 2000: Trends in flood and low flows across the U.S. *Journal*
476 *of Hydrology* 240, 90-105.
- 477
- 478 Duan, Q., H. V. Gupta, S. Sorooshian, A. N. Rousseau, and R. Turcotte, (eds.) 2002: *Calibration of*
479 *Watershed Models*, American Geophysical Union, Washington, D. C.
- 480
- 481 Endreny, T., B. Felzer, J.W. Shuttleworth, and M. Bonell, 2003: Policy to coordinate watershed
482 hydrological, social, and ecological needs: the HELP Initiative. In: *Water: Science, Policy, and*
483 *Management*, R. Lawford, D. Fort, H. Hartmann, and S. Eden (Eds.), American Geophysical
484 Union, Washington, DC, pp. 395-411.
- 485
- 486 Environmental Protection Agency, 1989: *The Potential Effects of Global Climate Change on the United*
487 *States. Report to Congress*. J.B. Smith and D. Tirpak, (Eds), EPA Office of Policy, Planning and
488 Evaluation, Washington, D.C.
- 489
- 490 Eschenbach, E.A., T. Magee, E. Zagona, M. Goranflo, and R. Shane, 2001: Goal Programming Decision
491 Support System for Multiobjective Operation of Reservoir Systems. *Journal of Water Resources*
492 *Planning and Management*, 127, 71-141.
- 493
- 494 Ezurkwal, B., 2005: The role and importance of paleohydrology in the study of climate change and
495 variability. In: *Encyclopedia of Hydrological Sciences*, M.G. Anderson (Ed.), John Wiley and
496 Sons, Ltd., West Sussex, UK.
- 497
- 498 Franz, K., H.C. Hartmann, S. Sorooshian, and R. Bales, 2003: An evaluation of National Weather Service
499 ensemble streamflow predictions for water supply forecasting in the Colorado River Basin.
500 *Journal of Hydrometeorology* 4, 1105-1118.
- 501
- 502 Frederick, K., D. Major, and E. Stakhiv, (Eds.) 1997: *Climate Change and Water Resources Planning*
503 *Criteria*. Kluwer Academic Publishers, Dordrecht, Netherlands.
- 504
- 505 Frevert, D.K., M.S. Cowan, and W.L. Lane, 1989: Use of stochastic hydrology in reservoir operation.
506 *Journal of Irrigation and Drainage Engineering* 115, 334-343.
- 507

- 508 Frevert, D., T. Fulp, E. Zagona, G. Leavesley, and H. Lins, 2006: Watershed and River Systems
509 Management Program: Overview of Capabilities. *J. Irrig. and Drain. Engrg.* 132(2), 92-97.
510
- 511 Gamble, J.L., J. Furlow, A.K. Snover, A.F. Hamlet, B.J. Morehouse, H. Hartmann, and T. Pagano, 2003:
512 Assessing the impact of climate variability and change on regional water resources: the
513 implications for stakeholders. In: *Water: Science, Policy, and Management*, R. Lawford, D. Fort,
514 H. Hartmann, and S. Eden (Eds.), American Geophysical Union, Washington, DC, pp. 341-368.
515
- 516 Garen, D.C., 1992: Improved techniques in regression-based streamflow volume forecasting, *J. Water
517 Resour. Planning and Manag.*, 118, 654-670.
518
- 519 Georgakako, A., 2006: Decision support systems for integrated water resources management with an
520 application to the Nile Basin. In: *Topics on System Analysis and Integrated Water Resources
521 Management*, A. Castelletti and R. Soncini-Sessa (Eds.), Elsevier, New York, NY.
522
- 523 Georgakakos, A., H. Yao, M. Mullusky, and K. Georgakakos, 1998: Impacts of climate variability on the
524 operational forecast and management of the Upper Des Moines River Basin, *Water Resour. Res.*,
525 34, 799-821.
526
- 527 Georgakakos, K., E. Shamir, S. Taylor, T. Carpenter, and N. Graham, 2004: *Integrated Forecast and
528 Reservoir Management INFORM - A Demonstration for Northern California Phase 1 Progress
529 Report*. HRC Limited Distribution Rept. No. 17, Hydrologic Research Center, San Diego, CA.
530
- 531 Georgakakos, K., N. Graham, T. Carpenter, A. Georgakakos, and H. Yao, 2005: Integrating climate-
532 hydrology forecasts and multi-objective reservoir management for northern California. *EOS
533 Transactions* 86, 122, 127.
534
- 535 Gilmore, A., T. Magee, T. Fulp, and K. Strezepek, 2000: Multiobjective optimization of the Colorado
536 River. Proceedings of the ASCE 2000 Joint Conference on Water Resources Engineering and
537 Water Rousources Planning and Management, Minneapolis, MN.
538
- 539 Glantz, M.H., 1982: Consequences and responsibilities in drought forecasting- the case of Yakima, 1977,
540 *Water Resour. Res.*, 18, 3-13.
541
- 542 Gleick, P.H. and D.B. Adams, 2000: *Water: The Potential Consequences of Climate Variability and
543 Change for Water Resources of the United States*. Pacific Institute, Oakland, CA.
544
- 545 Grantz, K., B. Rajagopalan, E. Zagona, and M. Clark, 2007: Water management applications of climate-
546 based hydrologic forecasts: case study of the Truckee-Carson River basin, Nevada. *Journal of
547 Water Resources Planning and Management*.
548
- 549 Grayson, R., and G. Bloschl, 2000: *Spatial Patterns in Catchment Hydrology: Observations and Modelling*,
550 Cambridge University Press, Cambridge, U. K.
551
- 552 Hamlet, A. F., and D. P. Lettenmaier, 1999: Columbia River streamflow forecasting based on ENSO and
553 PDO climate signals, *J. Water Resour. Planning and Manag.*, 125, 333-341.
554
- 555 Hansen, J., M. Sato, R. Ruedy, A. Lacis, K. Asamoah, K. Beckford, S. Borenstein, E. Brown, B. Cairns, B.
556 Carlson, B. Curran, S. de Castro, L. Druryan, P. Etwarrow, T. Ferede, M. Fox, D. Gaffen, J.
557 Glascoe, H. Gordon, S. Hollandsworth, X. Jiang, C. Johnson, N. Lawrence, J. Lean, J. Lerner, K.
558 Lo, J. Logan, A. Luckett, M. P. McCormick, R. McPeters, R. Miller, P. Minnis, I. Ramberran, G.
559 Russell, P. Russell, P. Stone, I. Tegen, S. Thomas, L. Thomason, A. Thompson, J. Wilder, R.
560 Willson, and J. Zawodny, 1997: Forcings and chaos in interannual to decadal climate change, *J.
561 Geophy. Res.*, 102, 25679-25720.
562

- 563 Harding, B.J., T.B. Sangoyomi, and E.A. Payton, 1995: Impacts of severe sustained drought on Colorado
564 River water resources. *Water Resources Bulletin* 31, 815-824.
- 565
- 566 Hartmann, H.C., 1990: Impacts on Laurentian Great Lakes levels. *Climatic Change* 17, 49-68.
- 567
- 568 Hartmann, H.C., T.C. Pagano, S. Sorooshian, and R. Bales, (2002a): Confidence builders: evaluating
569 seasonal climate forecasts from user perspectives. *Bulletin of the American Meteorological Society*
570 83(5), 683-698.
- 571
- 572 Hartmann, H.C., R. Bales, and S. Sorooshian, (2002b): Weather, climate, and hydrologic forecasting for the
573 U.S. Southwest: a survey. *Climate Research* 21, 239-258.
- 574
- 575 Hartmann, H., A. Bradley, and A. Hamlet, (2003): Advanced hydrologic prediction for improving water
576 management. In: Lawford, R., Fort, D., Hartmann, H., and S. Eden (Editors), *Water: Science,
577 Policy, and Management*. Water Resources Monograph 16, American Geophysical Union,
578 Washington, DC, pp.285-307.
- 579
- 580 Hartmann, H.C., 2005: Use of climate information in water resources management. In: *Encyclopedia of
581 Hydrological Sciences*, M.G. Anderson (Ed.), John Wiley and Sons Ltd., West Sussex, UK,
582 Chapter 202.
- 583
- 584 Hoerling, M. and J. Eischeid, 2007: Past peak water in the Southwest, *Southwest Hydrology* 6(10),18-19,
585 35.
- 586
- 587 Hydrological Sciences Branch, 2007: Evaluation Report for AWARDS ET Toolbox and RiverWare
588 Decision Support Tools. NASA Goddard Space Flight Center, Greenbelt, MD, 28 pp. (URL:
589 http://wmp.gsfc.nasa.gov/projects/project_RiverWare.php)
- 590
- 591 IPCC, 1990: *Scientific Assessment of Climate Change: Report of Working Group I to the First Assessment
592 Report of the IPCC*. Cambridge University Press, Cambridge.
- 593
- 594 IPCC, 1995a: *Climate Change 1995: IPCC Second Assessment*. Cambridge University Press, Cambridge.
- 595
- 596 IPCC, 1995b: *Impacts, Adaptations and Mitigations: Contributions of Working Group II to the Second
597 Assessment Report of the IPCC*. Cambridge University Press, Cambridge.
- 598
- 599 IPCC, 2001a: *Climate Change 2001: Synthesis Report*. Third Assessment Report of the IPCC. Cambridge
600 University Press, Cambridge.
- 601
- 602 IPCC, 2001b: *Impacts, Adaptations, and Vulnerability: Contribution of Working Group II to the Third
603 Assessment Report of the IPCC*. Cambridge University Press, Cambridge.
- 604
- 605 IPCC, 2007: Climate Change 2007: *Climate Change Impacts, Adaptation and Vulnerability*. Working
606 Group II Contribution to the IPCC Fourth Assessment Report
607 (<http://www.ipcc.ch/SPM6avr07.pdf>).
- 608
- 609 Jacobs, K., 2002: *Connecting Science, Policy, and Decision-Making: A Handbook for Researchers and
610 Science Agencies*. Office of Global Programs, National Oceanic and Atmospheric Administration,
611 Silver Spring, MD.
- 612

- 613 Jacobs, K. and R. Pulwarty, 2003: Water resource management: science, planning and decision-making. In: 614 *Water: Science, Policy, and Management*, R. Lawford, D. Fort, H. Hartmann, and S. Eden (Eds.), 615 American Geophysical Union, Washington, DC, pp. 177-204.
- 616
- 617 Jerla, C., 2005: *An Analysis of Coordinated Operation of Lakes Powell and Mead under Low Reservoir 618 Conditions*. M.S. Thesis, University of Colorado-Boulder, Boulder, CO, 187 pp.
- 619
- 620 Kenney, D., 1995: Institutional options for the Colorado River. *Water Resources Bulletin* 31(5), 837-850.
- 621
- 622 Kruger, A., S. Khandelwal, and A. Bradley, 2007: AHPSVER: A web-based system for hydrologic forecast 623 verification. *Computers and Geosciences* 33(6), 739-748.
- 624
- 625 Lawford, R., R. Try, and S. Eden, 2005: International research programs in global hydroclimatology. In: 626 *Encyclopedia of Hydrological Sciences*, M.G. Anderson (Ed.), John Wiley and Sons, Ltd., West 627 Sussex, UK.
- 628
- 629 Lee, D.H., Quinn, F.H., D. Sparks, and J.C. Rassam, 1994: Modification of Great Lakes regulation plans 630 for simulation of maximum Lake Ontario outflows. *Journal of Great Lakes Research* 20, 569-582
- 631
- 632 Lee, D.H., T.E. Croley, II, and F.H. Quinn, 1997: Lake Ontario regulation under transposed climates. 633 *Journal of the American Water Resources Association* 33, 55-69
- 634
- 635 Lee, D.H., 1999: Institutional and technical barriers to implementing risk-based water resources 636 management: a case study. *Journal of Water Resources Planning and Management* 125, 186-193.
- 637 Lettenmaier, D.P., 2003: The role of climate in water resources planning and management. In: *Water: 638 Science, Policy, and Management*, R. Lawford, D. Fort, H. Hartmann, and S. Eden (Eds.), 639 American Geophysical Union, Washington, DC, pp. 247-266.
- 640
- 641 Lettenmaier, D.P., E.F. Wood, and J.R. Wallis, 1994: Hydro-climatological trends in the continental United 642 States, 1948-88. *Journal of Climate* 7, 586-607.
- 643
- 644 Lettenmaier, D., A. Wood, R. Palmer, E. Wood, and E. Stakhiv, 1999: Water resources implications of 645 global warming: a U.S. regional perspective. *Climatic Change* 43, 537-579.
- 646
- 647 Lins, H.F. and J.R. Slack, 1999: Streamflow trends in the United States. *Geophysical Research Letters* 26, 648 227-230
- 649
- 650 Lins, H.F. and E.Z. Stakhiv, 1998: Managing the nation's water in a changing climate. *Journal of the 651 American Water Resources Association* 34, 1255-1264.
- 652
- 653 Lofgren, B.M., F.H. Quinn, A.H. Clites, R.A. Assel, A.J. Eberhardt, and C.L. Luukkonen, 2002: Evaluation 654 of potential impacts on Great Lakes water Resources based on climate scenarios of two GCMs. 655 *Journal of Great Lakes Research*. 28, 537-554.
- 656
- 657 Loomis, J., J. Koteen, and B. Hurd, 2003: Economic and institutional strategies for adapting to water- 658 resource effects of climate change. In: *Water and Climate in the Western United States*. W. Lewis 659 (Ed.), University Press of Colorado, Boulder, CO, pp. 235-249.
- 660
- 661 Mantua, N., S. Hare, Y. Zhang, J. M. Wallace, and R. Francis, 1997: A Pacific interdecadal climate 662 oscillation with impacts on salmon production, *Bull. Amer. Meteor. Soc.*, 78, 1069-1079.
- 663
- 664 Matalas, N.C., 1997: Stochastic hydrology in the context of climate change. *Climatic Change* 37, 89-101.
- 665
- 666 Maurer, E., 2007: Uncertainty in hydrologic impacts of climate change in the Sierra Nevada, California, 667 under two emissions scenarios. *Climatic Change* 82, 309-325.

- 668
669 Miles, E. L., A.K. Snover, A.F. Hamlet, B. Callahan, and D. Fluharty, 2000: Pacific northwest regional
670 assessment: the impacts of climate variability and change on the water resources of the Columbia
671 river basin. *Journal of the American Water Resources Association* 36, 399-420.
672
673 Milly, P., K. Dunne, and A. Vecchia, 2005: Global patterns of trends in streamflow and water availability
674 in a changing climate, *Nature* 438, 347-350.
675
676 NRC, 1995) *Flood Risk Management and the American River Basin: An Evaluation*. National Academy
677 Press, Washington, DC.
678
679 NRC, 1998a: *GCIP: A Review of Progress and Opportunities*. National Academy Press, Washington, DC.
680
681 NRC, 1998b: *Hydrologic Sciences: Taking Stock and Looking Ahead*. National Academy Press,
682 Washington, DC.
683
684 NRC, 1999a: *Making Climate Forecasts Matter*. National Academy Press, Washington, DC.
685
686 NRC, 1999b: *A Vision for the National Weather Service: Road Map for the Future*. National Academy
687 Press, Washington, DC.
688
689 NRC, 1999c: *Hydrologic Science Priorities for the U.S. Global Change Research Program: An Initial
690 Assessment*, National Academy Press, Washington, DC.
691
692 NRC, 2004: *Analytical Methods and Approaches for Water Resources Project Planning*, National
693 Academies Press, Washington, DC, 151 pp.
694 NASA, 2005a: *Earth-Sun System Applied Sciences Program Water Management Program Element
695 FY2005-2009 Plan*, Washington, DC.
696
697 NASA, 2005b: *Water Management Annual Report*, Goddard Space Flight Center, December.
698
699 NASA, 2006: Applied sciences program, *The Subcommittee on Hydrology Newsletter* 1, 12-14.
700
701 NASA, 2007: *Water Management Progress Report Jan-Mar 2007*, Goddard Space Flight Center, 27 April.
702
703 National Assessment Synthesis Team (2000) *Climate Change Impacts on the United States: The Potential
704 Consequences of Climate Variability and Change*. U.S. Global Change Research Program,
705 Washington, DC.
706
707 National Hydrologic Warning Council (2002) *Use and Benefits of the National Weather Service River and
708 Flood Forecasts*. National Weather Service Office of Hydrologic Development, Silver Spring,
709 Md.
710
711 Neumann, D., E. Zagona, and B. Rajagopalan, 2006: A decision support system to manage summer stream
712 temperatures. *Journal of the American Water Resources Association* 42, 1275-1284.
713
714 Olsen, J.R., J.H. Lambert, and Y.Y. Haimes, 1998: Risk of extreme events under nonstationary conditions.
715 *Risk Analysis* 18, 497-510.
716
717 Olsen, J.R., J.R. Stedinger, N.C. Matalas, and E.Z. Stakhiv, 1999: Climate variability and flood frequency
718 estimation for the upper Mississippi and lower Missouri rivers. *Journal of the American Water
719 Resources Association* 35, 1509-1523.
720
721 Office of Global Programs, 2004: *Regional Integrated Sciences and Assessments*. National Oceanic and
722 Atmospheric Administration, <http://www.risa.ogp.noaa.gov>, 17 March 2004.
723

- 724 Oudin, L., C. Perrin, T. Mathevet, V. Andreassian, and C. Michel, 2006: Impact of biased and randomly
725 corrupted inputs on the efficiency and the parameters of watershed models. *Journal of Hydrology*
726 pp. 1-2, 62-83.
- 727
- 728 Pagano, T.C., H.C. Hartmann, and S. Sorooshian, 2001: Using climate forecasts for water management:
729 Arizona and the 1997-98 El Niño, *Journal of the American Water Resources Association* 37,
730 1139-1153.
- 731
- 732 Pagano, T.C., H.C. Hartmann, and S. Sorooshian, 2002: Use of climate forecasts for water management in
733 Arizona: a case study of the 1997-98 El Niño. *Climate Research* 21, 59-269.
- 734
- 735 Pagano, T., D. Garen, and S. Sorooshian, 2004: Evaluation of official Western U.S. seasonal water supply
736 outlooks, 1922-2002. *Journal of Hydrometeorology* 5(5), 896-909.
- 737
- 738 Payne, J.T., A.W. Wood, A.F. Hamlet, R.N. Palmer, and D.P. Lettenmaier, 2004: Mitigating the effects of
739 climate change on the water resources of the Columbia River Basin. *Climatic Change* 62, 233-
740 256.
- 741
- 742 Piechota, T.C., and J.A. Dracup, 1999: Long range streamflow forecasting using El Niño-Southern
743 Oscillation indicators, *J. Hydrol. Engineer.*, 4, 144-151.
- 744
- 745 Piechota, T.C., F.H.S. Chiew, J.A. Dracup, and T.A. McMahon, 2001: Development of an exceedance
746 probability streamflow forecast using the El Niño-Southern Oscillation, *J. Hydrol. Engineer.*, 4,
747 20-28.
- 748
- 749 Pielke, R.A., Jr., 1995: Usable information for policy: an appraisal of the U.S. global change research
750 program. *Policy Sciences* 38, 39-77.
- 751
- 752 Pielke, R.A., Jr., 2001: *The Development of the U.S. Global Change Research Program: 1987 to 1994.*
753 Policy Case Study, National Center for Atmospheric Research, Boulder, CO.
- 754
- 755 Prairie, J.R., 2006: *Stochastic nonparametric framework for basin wide streamflow and salinity modeling:*
756 *application for the Colorado River basin.* Civil Environmental and Architectural Engineering
757 Ph.D. Dissertation, University of Colorado, Boulder, Colorado.
- 758
- 759 Pulwarty, R.S., 2002: *Regional Integrated Sciences and Assessment Program.* Office of Global Programs,
760 National Oceanic and Atmospheric Administration, Silver Spring, MD.
- 761
- Pulwarty, R.S. and K.T. Redmond, 1997: Climate and salmon restoration in the Columbia River basin: the
762 role and usability of seasonal forecasts. *Bulletin of the American Meteorological Society* 78, 381-
763 397.
- 764
- 765 Quinn, F.H., 1981: Secular changes in annual and seasonal Great Lakes precipitation, 1854-1979, and their
766 implications for Great Lakes water resources studies. *Water Resources Research* 17, 1619-1624.
- 767
- 768 Quinn, F.H., 2002: Secular changes in Great Lakes water level changes. *Journal of Great Lakes Research*
769 28, 451-465.
- 770
- 771 Rayner, S., D. Lach, and H. Ingram, 2005: Weather forecasts are for wimps: why water resource managers
772 do not use climate forecasts. *Climatic Change* 69, 197-227.
- 773
- 774 Reitsma, R.F., 1996: Structure and support of water resources management and decision making, *Journal*
775 *of Hydrology*, 177(1), 253-268.

- 776
777 Reitsma, R., I. Zigris, C. Lewis, V. Wilson, and A. Sloane, 1996: Experiment with simulation models in
778 water resources negotiations, *Journal of Water Resources Management and Planning*, ASCE 122,
779 64-70.
- 780
781 Salas, J.D., 1993: Analysis and modeling of hydrologic time series. In: *Handbook of Hydrology*, D.R.
782 Maidment (Ed.), McGraw-Hill, Inc., New York, NY, Chapter 19.
- 783
784 Saunders, J.F., III and W.M. Lewis, Jr., 2003: Implications of climatic variability for regulatory low flows
785 in the South Platte River Basin, Colorado. *Journal of the American Water Resources Association*
786 39, 33-45.
- 787
788 Seager, R., M. Ting, I. Held, Y. Kushnir, J. Lu, G. Vecchi, H.P. Huang, N. Harnik, A. Leetma, N.C. Lau,
789 C. Li, J. Velez, and N. Naik, 2007: Model projections of an imminent transition to a more arid
790 climate in Southwestern North America, *Science* 316(5828), 1181-1184.
- 791
792 Schaake, J., T. Hamill, R. Buizza, and M. Clark, 2007: HEPEX, the Hydrological Ensemble Prediction
793 Experiment. *Bulletin of the American Meteorological Society*, in press.
- 794
795 Smith, J. B., K.C. Hallet, J. Henderson, and K.M. Strzepek, 2007: Expanding the tool kit for water
796 management in an uncertain climate. *Southwest Hydrology*, 6, 24-35, 36.
- 797
798 Snover, A.K., A.F. Hamlet, and D.P. Lettenmaier, 2003: Climate change scenarios for water planning
799 studies: pilot applications in the Pacific Northwest. *Bulletin of the American Meteorological
800 Society* 84, 1513-1518.
- 801
802 Sousounis, P., G. Albercook, D. Allen, J. Andresen, A. Brooks, D. Brown, H.H. Cheng, M. Davis, J.
803 Lehman, J. Lindeberg, J. Root, K. Kunkel, B. Lofgren, F. Quinn, J. Price, T.D. Stead, J. Winkler,
804 and M. Wilson, 2000: *Preparing for a Changing Climate: The Potential Consequences of Climate
805 Variability and Change for the Great Lakes*. U.S. Global Change Research Program, Washington,
806 DC.
- 807
808 Stakhiv, E., 2003: What can water managers do about climate variability and change? In: *Water and
809 Climate in the Western United States*. W. Lewis (Ed.), University Press of Colorado, Boulder, CO,
810 pp. 131-142.
- 811
812 Tarboton, D., 1995: Hydrologic scenarios for severe sustained drought in the Southwestern United States.
813 *Water Resources Bulletin* 31(5), 803-813.
- 814
815 Urbanas, B.R. and L.A. Roesner, 1993: Hydrologic design for urban drainage and flood control. In:
816 *Handbook of Hydrology*, D.R. Maidment (Ed.), McGraw-Hill, Inc., New York, NY, Chapter 28.
- 817 U.S. Army Corps of Engineers, 1992: *Guidelines for Risk and Uncertainty Analysis in Water Resources
818 Planning, Volumes I and II*. IWR Report 92-R-1, 92-R-2. Institute for Water Resources, Fort
819 Belvoir, VA.
- 820
821 U.S. Department of Interior, 2007: *Colorado River Interim Guidelines for Lower Basin Shortages and
822 Coordinated Operations for Lake Powell and Lake Mead, Draft Environmental Impact Statement,
823 Volume 1*, Bureau of Reclamation, Boulder City, NV (URL: <http://www.usbr.gov/lc/region/programs/strategies/draftEIS/index.html>)
- 825
826 VanRheenen, N., A.W. Wood, R.N. Palmer, and D.P. Lettenmaier, 2004: Potential implications of PCM
827 climate change scenarios for Sacramento-San Joaquin River basin hydrology and water resources.
828 *Climatic Change* 62, 257-281.

- 829
830 Vicuna, S., E. Maurer, B. Joyce, J. Dracup, and D. Purkey, 2007: The sensitivity of California water
831 resources to climate change scenarios. *Journal of the American Water Resources Association* 43,
832 482-498.
- 833
834 Vorosmarty, C., D. Lettenmaier, C. Leveque, M. Meybeck, C. Pahl-Wostl, J. Alcamo, W. Cosgrove, H.
835 Grassl, H. Hoff, P. Kabat, F. Lansigan, R. Lawford, R. Naiman, 2004: Humans transforming the
836 global water system. *EOS, Transactions, American Geophysical Union* 85, 509-514.
- 837
838 Walker, A. E., and B. E. Goodison, 1993: Discrimination of wet snow cover using passive microwaver
839 satellite data, *Annals of Glaciology*, 17, 307-311.
- 840
841 Ward, R.C., R. Pielke Sr., and J. Salas, (Eds.) 2003: Special Issue: Is Global Climate Change Research
842 Relevant to Day-to-day Water Resources Managers? *Water Resources Update* 124.
- 843
844 Welles, E., S. Sorooshian, G. Carter, and B. Olsen, 2007: Hydrologic verification: a call for action and
845 collaboration. *Bulletin of the American Meteorological Society* 88(4), 503-511.
- 846
847 Westrick, K. J. and C. F. Mass, 2001: An evaluation of a high resolution hydrometeorological modeling
848 system for prediction of a cool-season flood event in a coastal mountainous watershed. *Journal of*
849 *Hydrometeorology* 2, 161-180.
- 850
851 Westrick, K. J., P. Storck, and C. F. Mass, 2002: Description and evaluation of a hydrometeorological
852 forecast system for mountainous watersheds, *Wea. and Forecasting*, 17, 250-262.
- 853
854 Wheeler, K., T. Magee, T. Fulp, and E. Zaguna, 2002: Alternative policies on the Colorado River.
855 *Proceedings of Natural Resources Law Center Allocating and Managing Water for a Sustainable*
856 *Future: Lessons From Around the World*, Natural Resources Law Center, University of Colorado,
857 Boulder, CO.
- 858
859 Wood, E., E.P. Maurer, A. Kumar, and D.P. Lettenmaier, 2002: Long-range experimental hydrologic
860 forecasting for the eastern United States. *Journal of Geophysical Research, Atmospheres* 107,
861 4423-4429.
- 862
863 Wood, A.W., A. Hamlet, D.P. Lettenmaier, and A. Kumar, 2001: Experimental real-time seasonal hydro-
864 logic forecasting for the Columbia River Basin, *Proc., 26th Annual Climate Diagnostics and*
865 *Prediction Workshop*, National Weather Service, PB92-167378, National Technical Information
866 Service, Springfield, VA.
- 867
868 Woodhouse, C., and J.J. Lukas, 2006: Multi-Century Tree-Ring Reconstruction of Colorado Streamflow
869 for water resource planning. *Climatic Change*, (78), 293-315.
- 870
871 Young, R.A., (Ed.) 1995: Special Issue: Managing the Colorado River in a severe sustained drought. *Water*
872 *Resources Bulletin* 35, 779-944.
- 873
874 Zaguna, E.A., T.J. Fulp, H. Goranflo, and R. Shane, 1998: RiverWare: a general river and reservoir
875 modeling environment. *Proceedings of the First Federal Interagency Hydrologic Modeling*
876 *Conference*, Las Vegas, NV, 19-23 April, 5,113-120.
- 877
878 Zaguna, E., T.J. Fulp, R. Shane, T. Magee, and H. Morgan Goranflo, 2001: RiverWare: a generalized tool
879 for complex reservoir systems modeling. *Journal of the American Water Resources Association*
880 37, 913-929.
- 881
882 Zaguna, E., T. Magee, D. Frevert, T. Fulp, M. Goranflo, and J. Cotter, 2005: RiverWare. In: *Watershed*
883 *Models*, V. Singh & D. Frevert (Eds.), Taylor & Francis/CRC Press: Boca Raton, FL.
- 884