

## **Exhibit C: Studies that Were Not Included in the NTT and COT Reports**

### **I. Tall Structures**

The NTT and COT Reports do not reflect the current understanding of the impacts of tall structures to GRSG. The studies cited below are those which either should have been considered or have changed the understanding of impacts to GRSG.

#### **A. Studies Ignored**

Messmer, T. A., R. Hasenyager, and J. Burruss. 2010. Contemporary Knowledge and Research Needs Regarding the Effects of Tall Structures on Sage-grouse (*Centrocercus urophasianus* and *C. minimus*). Utah Wildlife in Need Foundation. Salt Lake City, Utah.

Messmer, T.A. 2011. Protocols for Investigating the Effects of Tall Structure on Sage-grouse (*Centrocercus urophasianus*). Utah Wildlife in Need Foundation. Salt Lake City, Utah.

Utah Wildlife in Need (UWIN). 2010. Contemporary Knowledge and Research Needs Regarding the Potential Effects of Tall Structures on Sage-grouse (*Centrocercus urophasianus* and *C. minimus*). <http://www.utahcbcp.org/htm/tall-structure-info>

#### **B. Additional Studies that Must be Considered**

LeBeau, C.W. 2012. Evaluation of Greater Sage-Grouse Reproductive Habitat and Response to Wind Energy Development in south-Central Wyoming, MS Thesis, Department of Ecosystem Science and Management, University of Wyoming. August 2012.

Messmer, T., A., R. Hasenyager, J. Burruss, and S. Liguori. 2013. Stakeholder contemporary knowledge needs regarding the potential effects of tall structures on sage-grouse. *Human-Wildlife Interactions* 7(2):273-298.

Nonne, D., E. Blomberg, and J. Sedinger. 2013. Dynamics of Greater Sage-grouse (*Centrocercus urophasianus*) populations in response to transmission lines in central Nevada. Progress Report: Year 10. February 2013. Department of Natural Resources and Environmental Sciences, University of Nevada, Reno. 75pp.

Walters, K., K. Kosciuch, and J. Jones. 2014. Can the effect of tall structures on birds be isolated from other aspects of development? *Wildlife Society Bulletin* doi: 10.1002/wsb.394.

### **II. Habitat Components**

The NTT and COT Reports do not adequately address the variance of habitat components between seasons or across the range of the GRSG. The following studies are those that, if they had been used, would reflect a more accurate picture of the habitat conditions across the range of

the GRSG and the differences in GRSG occupancy and use of those habitats within populations, which would better inform management of the habitats and the species.

#### **A. Studies Ignored**

Baxter, R.J., J.T. Flinders, and D.L. Mitchell. 2008. Survival, movements, and reproduction of translocated Greater Sage-Grouse in Strawberry Valley, Utah. *Journal of Wildlife Management* 72(1):179-186.

Chambers J.C., B.A. Roundy, R. R. Blank, S.E. Meyer, and A. Whittaker. 2007. What makes great basin sagebrush ecosystems invisable by *Bromus tectorum*? *Ecological Monographs* 77:117–145. <http://dx.doi.org/10.1890/05-1991>.

Dzialak MR, C.V. Olson, S.M .Harju, S.L .Webb, J.P Mudd. 2011. Identifying and Prioritizing Greater Sage-Grouse Nesting and Brood-Rearing Habitat for Conservation in Human-Modified Landscapes. *PLoS ONE* 6(10): e26273. doi:10.1371/journal.pone.0026273.

Dahlgren D. K., R. Chi, and T. A Messmer. 2006. Greater Sage-Grouse Response to Sagebrush Management in Utah. *Wildlife Society Bulletin* 34:975–985. doi: 10.2193/0091-7648(2006)34[975:GSRTSM]2.0.CO;2.

Gregg, M. A. and J. A. Crawford. 2009. Survival of Greater Sage-Grouse Chicks and Broods in the Northern Great Basin. *The Journal of Wildlife Management* 73: 904–913. doi: 10.2193/2007-410.

Gregg M.A., J. K. Barnett, and J.A. Crawford . 2008. Temporal Variation in Diet and Nutrition of Pre-incubating Greater Sage-Grouse. *Rangeland Ecology & Management* 61(5):535-542.

Guttery M.R. 2010. Ecology and Management of a High Elevation Southern Range Greater Sage-Grouse Population: Vegetation Manipulation, Early Chick Survival, and Hunter Motivations. *All Graduate Theses and Dissertations*. Paper 842. <http://digitalcommons.usu.edu/etd/842>

Schultz, B. 2004: Analysis of studies used to develop herbaceous height and cover guidelines for sage grouse nesting habitat. - Cooperative Extension Special Publication SP-04-11, University of Nevada, Reno,USA, 25 pp.

#### **B. Additional Studies that Must be Considered**

Fedy B.C., K.E. Doherty, C.L. Aldridge, M. O'Donnell, J.L. Beck, B. Bedrosian, D. Gummer, M.J. Holloran, G.D. Johnson, N.W. Kaczor, C.P. Kirol, C.A. Mandich, D. Marshall, G. McKee, C. Olson, A.C. Pratt, C.C. Swanson, and B.L. Walker. 2014. Habitat prioritization across large landscapes, multiple seasons, and novel areas: An example using Greater Sage-Grouse in Wyoming. *Wildlife Monographs* 190(1): 1-39.

### III. Population Trends

The NTT and COT Report do not adequately address the variance in population trends or the cause of those population trends. The following studies are those that, if they had been used, would reflect a more accurate picture of the cause and effect mechanisms impacting populations.

#### A. Additional Studies that Must be Considered

Fedy B.C., K.E. Doherty, C.L. Aldridge, M. O'Donnell, J.L. Beck, B. Bedrosian, D. Gummer, M.J. Holloran, G.D. Johnson, N.W. Kaczor, C.P. Kirol, C.A. Mandich, D. Marshall, G. McKee, C. Olson, A.C. Pratt, C.C. Swanson, and B.L. Walker. 2014. Habitat prioritization across large landscapes, multiple seasons, and novel areas: An example using Greater Sage-Grouse in Wyoming. *Wildlife Monographs* 190(1): 1-39.

Blomberg E.A., J.S. Sedinger, M.T. Atamian, and D. V. Nonne. 2012. Characteristics of climate and landscape disturbance influence the dynamics of greater sage-grouse populations. *Ecosphere* 3:art55. <http://dx.doi.org/10.1890/ES11-00304.1>.<sup>1</sup>

Caudill D., M. R. Guttery, B. Bibles, T. A. Messmer, G. Caudill, E. Leone, D. K. Dahlgren, and, R. Chi. 2014. Effects of climatic variation and reproductive trade-offs vary by measure of reproductive effort in greater sage-grouse. *Ecosphere* 5:art154. <http://dx.doi.org/10.1890/ES14-00124.1>

Guttery M.R, D.K. Dahlgren, T.A. Messmer, J.W. Connelly, and K.P. Reese. 2013. Effects of Landscape-Scale Environmental Variation on Greater Sage-Grouse Chick Survival. *PLoS ONE* 8(6): e65582. doi:10.1371/journal.pone.0065582

Guttery, M. R., T. A. Messmer, E.T. Thacker, N. Gruber, and C. M. Culumber. 2013. Greater sage-grouse sex ratios in Utah: Implications for reporting population trends. *The Journal of Wildlife Management* 77:1593–1597. doi: 10.1002/jwmg.620

Zink R.M. 2014. Comparison of Patterns of Genetic Variation and Demographic History in the Greater Sage-Grouse (*Centrocercus urophasianus*): Relevance for Conservation. *The Open Ornithology Journal* 2014, 7, 00-00.

### IV. Restoration

The issue of restoration was only addressed in a cursory manner. Considerable research has been conducted regarding restoration which would inform the agencies in Emergency Stabilization and Burn Rehabilitation Programs, as well as inform GRSG habitat restoration policy.

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<sup>1</sup> This study is relevant to the NTT Report but not the COT Report.

## A. Studies Ignored

Herriman K. R. 2009. Wyoming big sagebrush: Efforts towards development of target plants for restoration. Moscow, ID: University of Idaho. 63 p. Thesis.

## B. Additional Studies that Must be Considered

Chambers J. C., D.A. Pyke, J.D.Maestas, M. Pellant, C.S. Boyd, S. B.Campbell, S. Espinosa, D.W. Havlina, K.E. Mayer, A. Wuenschel. 2014. Using resistance and resilience concepts to reduce impacts of invasive annual grasses and altered fire regimes on the sagebrush ecosystem and greater sage-grouse: A strategic multi-scale approach. Gen. Tech. Rep. RMRS-GTR-326. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 73 p.

Davies G. M., J. D. Bakker, E. Dettweiler-Robinson, P. W. Dunwiddie, S. A. Hall, J. Downs, and J. Evans. 2012. Trajectories of change in sagebrush steppe vegetation communities in relation to multiple wildfires. *Ecological Applications* 22:1562–1577.

Davies K. W., C. S. Boyd, and A.M. Nafus. 2013. Restoring the sagebrush component in crested wheatgrass-dominated communities. *Rangeland Ecology & Management* 66:472–478.

Dettweiler-Robinson E., J.D. Bakker, J.R. Evans, H. Newsome, G.M. Davies, T.A. Wirth, D.A. Pyke, R. T. Easterly, D. Salstrom, and P.W. Dunwiddie. 2013. Outplanting Wyoming big sagebrush following wildfire: stock performance and economics. *Rangeland Ecology & Management* 66(6):657-666.

Fedy B.C., K.E. Doherty, C.L. Aldridge, M. O'Donnell, J.L. Beck, B. Bedrosian, D. Gummer, M.J. Holloran, G.D. Johnson, N.W. Kaczor, C.P. Kirol, C.A. Mandich, D. Marshall, G. McKee, C. Olson, A.C. Pratt, C.C. Swanson, and B.L. Walker. 2014. Habitat prioritization across large landscapes, multiple seasons, and novel areas: An example using Greater Sage-Grouse in Wyoming. *Wildlife Monographs* 190(1): 1-39.

McAdoo J. K., C. S. Boyd, and R. L. Shelley. 2013. Site, competition, and plant stock influence transplant success of Wyoming big sagebrush. *Rangeland Ecology & Management* 66:305–312.

Miller R.F., J. Ratchford, B.A. Roundy, R. J. Tausch, A. Hulet, and J.C. Chambers. 2014. Response of Conifer-Encroached Shrublands in the Great Basin to Prescribed Fire and Mechanical Treatments. *Rangeland Ecology & Management* 67(5):468-481.<sup>2</sup>

Miller R.F., J. Ratchford, B.A. Roundy, R. J. Tausch, A. Hulet, and J. C. Chambers. 2014. Response of Conifer-Encroached Shrublands in the Great Basin to Prescribed Fire and Mechanical Treatments. *Rangeland Ecology & Management* 67(5):468-481.

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<sup>2</sup> This study is relevant to the NTT Report but not to the COT Report.

Pyke D.A., S.E. Shaff, A.I. Lindgren, E.W. Schupp, P. S. Doescher, J. C. Chambers, J.S. Burnham, and M.M. Huso. 2014. Region-wide ecological responses of arid Wyoming big sagebrush communities to fuel treatments. *Rangeland Ecology & Management* 67(5): 455-467.

Rau B.M., J. C. Chambers, D.A. Pyke, B.A. Roundy, E.W. Schupp, P. Doescher, and T. G. Caldwell. 2014. Soil Resources Influence Vegetation and Response to Fire and Fire-Surrogate Treatments in Sagebrush-Steppe Ecosystems. *Rangeland Ecology & Management* 67(5):506-521.

Roundy B.A., R.F. Miller, R. J. Tausch, K. Young, A. Hulet, B. Rau, B. Jessop, J.C. Chambers, and D. Eggett. 2014. Understory Cover Responses to Piñon–Juniper Treatments Across Tree Dominance Gradients in the Great Basin. *Rangeland Ecology & Management* 67(5):482-494.

Roundy B.A., K. Young, N. Cline, A. Hulet, R.F. Miller, R. J. Tausch, J. C. Chambers, and B. Rau. 2014. Piñon–Juniper Reduction Increases Soil Water Availability of the Resource Growth Pool. *Rangeland Ecology & Management* 67(5):495-505.

## **V. Other Studies**

The studies listed below are studies that change the understanding of impacts to GRSG from energy development.

### **A. Studies Ignored**

Ramey, R.R., L.M. Brown, and F. Blackgoat. 2011. Oil and gas development and greater sage grouse (*Centrocercus urophasianus*): a review of threats and mitigation measures. *The Journal of Energy and Development* 35(1):49-78.

Taylor, R.C., B. Russell, B.P. Taylor. 2010. Greater sage-grouse populations and energy development in Wyoming.

### **B. Additional Studies that Must be Considered**

Applegate D., N. Owens. 2014. Oil and gas impacts on Wyoming's sage-grouse: summarizing the past and predicting the foreseeable future. *Human-Wildlife Interactions* 8(2):284-290.

Kirol C.P., A.L. Sutphin, L. Bond, M.R. Fuller, T.L. Maechtle. 2014. Mitigation effectiveness for improving productivity of greater sage-grouse nesting in natural gas development areas. *Wildlife Biology*. <http://www.wildlifebiology.org/accepted-article/mitigation-effectiveness-improving-nesting-success-greater-sage-grouse-influenced>

Kirol C.P., J.L. Beck, S.V. Huzurbazar, M.J. Holloran, S.N. Miller. in press. Identifying greater sage-grouse source and sink habitats for conservation planning in an energy development landscape. *Ecological Applications*.

Ramey, R.R. and L. Ivey. 2014. Spatial and Temporal Analysis of Oil and Gas Development,

Mitigation, and Sage Grouse Lek Attendance in the Pinedale Planning Area, Wyoming: 1990-2012. Unpublished report. Wildlife Science International.

Ramey, R.R., J. Thorley and L. Ivey. 2014. Hierarchical Bayesian Analyses of Greater Sage Grouse Population Dynamics in the Pinedale Planning Area and Wyoming Working Groups: 1997-2012. Wildlife Science International.

## **VI. Raven predation**

The NTT and COT Reports largely ignore the tremendous impacts to GRSG from predation.

### **A. Studies Ignored**

Bedrosian, B and D. Craighead 2010. Anthropogenic influences on Common Ravens in the Greater Yellowstone Ecosystem. Unpublished poster presentation. Available at: <http://beringiasouth.org/ecology-of-the-common-raven>. Accessed 10 August 2013.

Boarman, W. I. 1993. When a native predator becomes a pest: a case study. Pages 191–206 in S. K. Majumdar, E. W. Miller, D. E. Miller, E. K. Brown, J. R. Pratt, and R. F. Schmalz, editors. Conservation and resource management. Pennsylvania Academy of Science, Philadelphia, USA.

Boarman, W. I. 2003. Managing a subsidized predator population: reducing common raven predation on desert tortoises. *Environmental Management* 32:205–217.

Boarman, W.I., R. J. Camp, M. Hagan, W. Deal. 1995. Raven abundance at anthropogenic resources in the western Mojave Desert, California. Report to Edwards Air Force Base, CA. National Biological Service, Riverside, CA.

Boarman, W. I., and B. Heinrich. 1999. Common raven (*Corvus corax*). Account 476 in A. Poole and F. Gill, editors. The birds of North America. The Academy of Natural Sciences, Philadelphia and The American Ornithologists' Union, Washington, D.C., USA. Account 476 in A. Poole and F. Gill, editors. The birds of North America. The Academy of Natural Sciences, Philadelphia and The American Ornithologists' Union, Washington, D.C., USA.

Boarman, W. I., M. A. Patten, R. J. Camp, and S. J. Collis. 2006. Ecology of a population of subsidized predators: common ravens in the central Mojave Desert, California. *Journal of Arid Environments* 67:248–261.

Bui, T.D. 2009. The effects of nest and brood predation by common ravens (*Corvus corax*) on greater sage-grouse (*Centrocercus urophasianus*) in relation to land use in western Wyoming. M.S. Thesis, University of Washington. 48 pp.

Coates, P.S. 2007. Greater sage-grouse (*Centrocercus urophasianus*) nest predation and incubation behavior. Ph.D. Thesis, Idaho State University, Boise, ID. 191 pp.

Coates, P.S. and D.J. Delehanty. 2004. The effect of raven removal on sage grouse nest success.

Proc. 21st Vertebrate Pest Conference (R.M. Timm and W.P. Gorenzel, Eds.) Published by the University of California, Davis. pp12-20.

Coates, P.S., J.W. Connelly, and D.J. Delehanty. 2008. Predators of greater sage-grouse nests identified by video monitoring. *Journal of Field Ornithology* 79:421-428.

Coates, P.S. and D.J. Delehanty. 2010. Nest predation of greater sage-grouse in relation to microhabitat factors and predators. *Journal of Wildlife Management* 74(2):240-48.

Conover, M.R., J.S. Borgo, R.E. Dritz, J. B. Dinkins and D. K. Dahlgren. 2010. Greater sage-grouse select nest sites to avoid visual predators but not olfactory predators. *The Condor* 112(2):331-336.

Cote, I.M. and W.J. Sutherland. 1997. The effectiveness of removing predators to protect bird populations. *Conservation Biology* 11:395-405.

DeLong, A.K., J.A. Crawford, and D. C. DeLong. 1995. Relationship between vegetational structure and predation of artificial sage grouse nests. *Journal of Wildlife Management* 59:88–92.<sup>3</sup>

Heinrich, B., D. Kaye, T. Knight and K. Schaumburg 1994. Dispersal and Association among Common Raven. *The Condor* 96(2):545-551.

Lockyer, Z. B., P. S. Coates, M. L. Casazza, S. Espinosa, and D. J. Delehanty. 2013. Greater Sage-Grouse nest predators in the Virginia Mountains of northwestern Nevada. *Journal of Fish and Wildlife Management* 4(2):242-254.

Moynahan, B. J., M. S. Lindberg, J. J. Rotella, and J. W. Thomas. 2007. Factors affecting nest survival of greater sage-grouse in northcentral Montana. *Journal of Wildlife Management* 71:1773–1783.

Preston, M.L. 2005. Factors Affecting Winter Roost Dispersal and Daily Behaviour of Common Ravens (*Corvus corax*) in Southwestern Alberta. *Northwestern Naturalist*, Vol. 86, No. 3 (Winter, 2005), pp. 123-130.

Snyder, N.F.R., R.R. Ramey, and F.C. Sibley. 1986. Nest-site biology of the California condor. *Condor* 88:228–241.

Watters, M.E., T.L. McLash, C.L. Aldridge, and R.M. Brigham. 2002. The effect of vegetation structure on predation of artificial greater sage grouse nests. *Ecoscience* 9:314–319.

Webb, W.C., W.I. Boarman, and J.T. Rotenberry. 2009. Movements of juvenile common ravens in an arid landscape. *Journal of Wildlife Management* 73(1):72-81.

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<sup>3</sup> This study is relevant to the NTT Report but not the COT Report.

## **B. Additional Studies that Must be Considered**

USDA/APHIS/Wildlife Services. 2013. Letter from R.J. Merrell, District Supervisor, SW District Wyoming, USDA/APHIS/WS to Whom it may concern. 2pp.

Wyoming Game and Fish. 2012b. Letter from S. Talbott, Wyoming Game and Fish Director to R. Kruschke, Wyoming State Director, USDA/APHIS Wildlife Services. Dated 3 April 2012. 3pp.

## **VII. Dispersal Ability, Habitat Fragmentation, and Population Persistence**

While dispersal ability and population persistence is virtually unrecognized, habitat fragmentation is overstated as a threat.

### **A. Studies Ignored**

Bush, K. 2009. Genetic diversity and paternity analysis of endangered Canadian Greater Sage-Grouse (*Centrocercus urophasianus*). Ph.D. dissertation, University of Alberta, Edmonton, Alberta, Canada.

Bush, K.L., C.L. Aldridge, and J.E. Carpenter, et al. 2010. Birds of a feather do not always lek together: genetic diversity and kinship structure of greater sage-grouse (*Centrocercus urophasianus*) in Alberta. *The Auk* 127(2):343–353.

Bush, K.L., C.K. Dyte, B.J. Moynahan, C.L. Aldridge, H.S. Sauls, A.M. Battazzo, B.L. Walker, K.E. Doherty, J. Tack, J. Carlson, D. Eslinger, J. Nicholson, M.S. Boyce, D.E. Naugle, C.A. Paszkowski, and D.W. Coltman. 2011. Population structure and genetic diversity of greater sage-grouse (*Centrocercus urophasianus*) in fragmented landscapes at the northern edge of their range. *Conservation Genetics* 12:527–542.

WAFWA. 2008. “Greater Sage-Grouse Population Trends: An Analysis of Lek Count Databases 1965-2007”. Unpublished report by the Sage- and Columbian Sharp-tailed Grouse Technical Committee. Cheyenne, Wyoming: Western Association of Fish and Wildlife Agencies.

### **B. Additional Studies that Must be Considered**

Thompson, T.R. 2012. Dispersal ecology of greater sage-grouse in northwestern Colorado: evidence from demographic and genetic methods. Doctoral dissertation, University of Idaho.

Wyoming Game and Fish. 2012a. Wyoming Sage-Grouse Population Trends 1995-2012. Unpublished presentation of analyses by Tom Christiansen, Wyoming Game and Fish, Sage-Grouse Program Coordinator, Cheyene, Wyoming. 14pp.

Zink, R. M. 2014. Comparison of patterns of genetic variation and demographic history in the Greater Sage-Grouse (*Centrocercus urophasianus*): Relevance for conservation. *The Open*



*Ornithology Journal*. 7:19-29.

### **VIII. State, Local and Private Land Conservation**

The NTT and COT Reports give scant attention to state, local and private land conservation efforts.

#### **A. Studies Ignored**

Adler, J.H. 2008. Money or nothing: the adverse environmental consequences of uncompensated land use controls. *Boston College Law Review* 49:301-366.

Adler, J.H. 2011. The Leaky Ark. *The American*. October 5, 2011. Available at <http://www.american.com/archive/2011/october/the-leaky-ark/>

Baur, D.C., M.J. Bean, and W. R Irvin. 2009. A Recovery Plan for the Endangered Species Act. *Environmental Law Reporter* 39:10006-10011

Bean, M.J. 2002. *Overcoming Unintended Consequences of Endangered Species Regulation*. *Idaho L. Rev.* 38:409-414.

Bean, M.J. 1999. Testimony before the House Resources Committee on Implementation of the Endangered Species Act. May 26, 1999.

Bean, M.J. *The Endangered Species Act and Private Land: Four Lessons Learned From the Past Quarter Century*, 28 *Envtl. L. Rep.* (Envtl. Law Inst.) 10,701, 10,706 (1998)

Keystone Center. 2006. The Keystone Working Group on Endangered Species Act Habitat Issues, Final Report. Available at [http://www.keystone.org/spp/documents/ESA\\_Report\\_FINAL\\_4\\_25\\_06\\_\(2\).pdf](http://www.keystone.org/spp/documents/ESA_Report_FINAL_4_25_06_(2).pdf).

Paulich, N. 2010. Increasing private conservation through incentive mechanisms. *Stanford Journal of Animal Law & Policy* 3:106-158.

#### **B. Additional Studies that Must be Considered**

Ruhl, J.B. 2012. The Endangered Species act's fall from grace in the Supreme Court. *Harvard Environmental Law Review*. 36:487-532.

### **IX. Noise**

The NTT and COT Reports rely upon questionable authority and overstates impacts of noise from human activities.

## **A. Studies Ignored**

Attenborough, K. 2007. Sound Propagation in the Atmosphere. *In* Springer Handbook of Acoustics, ed. T.D. Rossing (New York: Springer), pp. 113–48.

Barber, J., K. Crooks, and K. Fristrup. 2010. The costs of chronic noise exposure for terrestrial organisms. *Trends in Ecology and Evolution* 25:180–189.

Bies, D.A. and C.H. Hansen. 2009. Engineering Noise Control: Theory and Practice, Fourth Edition. Spon Press (Taylor and Francis, NY, NY).

Fristrup, K., D. Joyce, and E. Lynch. 2010. Measuring and monitoring soundscapes in the national parks. *Park Science*, 26(3):1-8. Winter 2009-2010. Available at <http://www.nature.nps.gov/ParkScience/index.cfm?ArticleID=344&Page=1>. Accessed August 5, 2013.

Harvey Inc., K.C. 2009. Pinedale Anticline Project Area sage grouse monitoring, noise monitoring report. Prepared by K.C. Harvey, Inc., 376 Gallatin Park Drive, Bozeman, MT 59715. August 14, 2009.

Lynch, E., D. Joyce, and K. Fristrup. 2011. An assessment of noise audibility and sound levels in U.S. National Parks. *Landscape Ecology* 26:1297–1309.

Reijnen, R., R. Foppen, C. Ter Braak, and J. Thissen. 1995. The effects of car traffic on breeding bird populations in woodland. II. Reduction of density in relation to the proximity of main roads. *Journal of Applied Ecology* 32:187-202.

Wyle. 2008. Noise basics and the effect of aviation noise on the environment. Unpublished report. El Segundo, CA, 48pp. Available from <http://www.wyle.com/ServicesSolutions/science/EMMA/AcousticandVibrationConsulting/Resources/DocumentLibrary/NoiseGuidance/Pages/default.aspx> Accessed August 6, 2013.

## **X. Scientific Inference**

The NTT and COT Reports are lacking in scientific inference in hypothesis testing.

### **A. Studies Ignored**

MacCoun, R.J. 1998. Biases in the interpretation and use of research results. *Annual Review of Psychology* 49:259-287.

Moore, D. A., L. Tanlu, and M. H. Bazerman. 2010. Conflict of interest and the intrusion of bias. *Judgment and Decision Making* 5(1):37–53.

Nickerson, R. S. 1998. Confirmation Bias: A Ubiquitous Phenomenon in Many Guises. *Review of General Psychology* 2(2):175-220.

Pielke, Roger A. Jr. 2004. When scientists politicize science: making sense of controversy over

The Skeptical Environmentalist. *Environmental Science & Policy* 7:405–417.

Platt, J.R., 1964. Strong inference: Certain systematic methods of scientific thinking may produce much more rapid progress than others. *Science* 146:347-353.

Popper, R. 1962. Science: Conjectures and Refutations, ” in Conjectures and Refutations: The Growth of Scientific Knowledge New York: Basic Books.

Ramey, R.R., L.M. Brown, and F. Blackgoat. 2011. Oil and gas development and greater sage grouse (*Centrocercus urophasianus*): a review of threats and mitigation measures. *The Journal of Energy and Development* 35(1):49-78.

Rehme, S.E., L.A. Powell, and C.R. Allen. 2011. Multimodel inference and adaptive management. *Journal of Environmental Management* 92:1360-1364.