Course Syllabus

Ecological Policy — FW 620 (3 credits)
Oregon State University

Course Content:

Emphasis is on current and controversial North American and international ecological policy issues. Primary focus is exploring the role of scientists, technocrats, elected and appointed officials, the public, and interest/advocacy groups in ecological policy analysis and implementation. Specific topics and case studies considered are: (1) basic principles of policy analysis; (2) managing wildfire on public lands; (3) balancing competing demands for scarce water supplies; (4) managing large predatory wildlife, especially wolves, cougars, and grizzlies; (5) recovering and sustaining wild salmon runs; (6) determining appropriate use of genetically modified organisms; (7) resolving multiple use conflicts in managing public forests; (8) tackling human-caused climate change; (9) assessing the political clashes over whaling and other marine mammals; and (10) unscrambling conflict and controversy over marine protected areas and ecosystem management.

Professor:

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Dr. Bob Lackey is professor of fisheries science at Oregon State University. In 2008 he retired after 27 years with the Environmental Protection Agency’s national research laboratory in Corvallis where he served as Deputy Director, Associate Director for Science, among other senior science and management jobs. Since his very first fisheries job mucking out raceways in a California trout hatchery, he has worked on an assortment of natural resource issues from various positions in government and academia. His professional assignments involved diverse aspects of natural resource management, but mostly he has operated at the interface between science and policy. He has published over 100 articles in scientific journals. Dr. Lackey has long been an educator, having taught at five North American universities and currently teaches a graduate course in ecological policy at Oregon State University. Canadian by birth, he is a U.S.-Canadian dual-citizen living in Corvallis, Oregon.
Target Audience:

Graduate students in natural resources, environmental sciences, ecological sciences, natural resource and ecological economics, civil engineering, marine resource management, political science, environmental ethics, and other students with a background and interest in ecological policy, environmental protection, and natural resource management issues.

Prerequisites:

This is a graduate level class. Students are expected to have an academic background and current understanding of natural resources, environmental science, ecological sciences, natural resource economics, ecological economics, marine resource management, geosciences, political science, or similar disciplines, or have the consent of the professor.

Required Reading and Online Participation:

A number of specified policy/science articles and “policy backgrounders” are required reading. Copies of the articles and backgrounders will be available online through Canvas. It is expected that all students will actively and regularly participate in the weekly online Canvas Discussion Board about the topic covered that week. There is no text book for this course.

Grading:

Individual student performance will be assessed on an A-F basis and determined by grading the quality of a series of case study written critiques submitted by each student. In addition, each student is expected to substantively and regularly participate on the Canvas Discussion Board. There are no examinations in this course.

Desired Learner Outcomes:

- Know and understand the basic principles of contemporary ecological policy and ecological policy analysis (as measured by the quality of the weekly critiques of policy case studies and contributions to the Discussion Board).

- Know and understand how contemporary natural resource management and environmental protection issues are analyzed from a policy perspective (as measured by the quality of the weekly critiques of policy case studies and contributions to the Discussion Board).

- Know and understand a range of perspectives and viewpoints on how science interfaces with ecological policy analysis and decision-making (as measured by the quality of the weekly critiques of policy case studies and contributions to the Discussion Board).
Students with Disabilities:

Accommodations are collaborative efforts between students, faculty, and Disability Access Services (DAS). Students with accommodations approved through DAS are responsible for contacting the faculty member in charge of the course prior to or during the first week of the term to discuss accommodations. Students who believe they are eligible for accommodations, but who have not yet obtained approval through DAS, should contact DAS immediately at (541) 737-4098.

Expectations for Student Conduct:

Students are expected to maintain proper academic conduct in all aspects of FW 620. This includes treating peers with respect and meeting the conduct expectations of Oregon State University regarding cheating or other behaviors. To review these general expectations of the University, please visit the following web site:

http://studentlife.oregonstate.edu/studentconduct/offenses-0

Course Topics

Week 1 ----- Introduction to Ecological Policy Analysis

Nine axioms or general principles about ecological policy will be presented and described in detail during the first week. Understanding these axioms is essential to analyzing the case studies that will follow in Weeks 2 - 10. As students study the case studies presented in subsequent weeks, it will be essential to refer back to these nine axioms.

Week 2 ----- Wildfire Policy

One of the most challenging questions facing managers of public lands is developing a scientifically sound and publicly supported policy toward wildfire — one that meets society’s goals for those lands and is based the best available scientific information. The diversity of opinion (policy preferences) is wide, even extreme, on what characteristics the desired policy should encompass. The wide range of opinion is based, in part, on the fact that many individuals and organizations have strong and vested interests in the outcome of the policy debate.

Week 3 ----- Water Policy

The "water wars" have long been a fact of life in many areas of the western United States and are likely to be so for the foreseeable future. Recent court cases in the California Central Valley and the Oregon/California Klamath Basin are front and center on the policy and political scene. Dam removal (and construction) are hot topics in many States. Overall, many western regions continue to suffer from severe and long-term water shortages, especially for high quality water. The seemingly insatiable demand for freshwater shows little sign of letting up, nor do most analysts expect much change anytime soon. Many ecological policy issues are driven by competition for scarce water resources.
Week 4 ----- Wolf, Cougar, and Grizzly Policy

Developing a politically acceptable policy about large predatory mammals (e.g., wolves, cougars, grizzlies) is challenging. As is true in many places, much of the Oregon public supports their presence (cougars) or their reintroduction (wolves). Conversely, many residents (especially those in rural regions) are vehemently opposed in large part because of concerns about predation on livestock, pets, and wildlife (especially deer and other important game species). The wolf/cougar policy issue is a good case study of the urban/rural divide on many natural resource issues.

Week 5 ----- Wild Salmon Policy

The case study this week will be salmon policy, particularly current issues in California, Oregon, Idaho, Washington, and southern British Columbia. Efforts to restore runs of salmon have been undertaken in this region since the mid to late 1800s. Billions of dollars have been spent, but without much long-term success. As many recent newspaper articles have highlighted, the plight of commercial and recreational salmon fishermen along the west coast appears grim. The ESA-listing of many populations of salmon, coupled with treaty obligations with Canada and various tribes, further complicate an already difficult policy issue.

Week 6 ----- GMO Policy

The debate over developing a rational public policy concerning the use of genetic engineering (also called genetic modification) is mired in vitriolic arguments involving an amorphous mix of values, preferences, and scientific information. Many proponents of using the technology argue that it has been demonstrated to be low risk and is essential to providing sufficient high quality food to meet human needs, especially in developing countries. Others, however, argue that resorting to genetic engineering is unnecessary (along with being dangerous) because people should not be forced to eat food produced by unproven technology.

Week 7 ----- Owl and Logging Policy

Public forests (owned by Federal or State governments) were created to attain public benefits, but exactly what are those benefits and who should receive them? To some segments of society, the public forests ought to be managed to achieve the goals and aspirations of local (usually rural) residents which typically means that consumptive, economic uses (especially timber harvest and mining) ought to be encouraged or at least be part of a multiple use approach. To other segments of society, the forests ought to preserve the biotic heritage of the nation and be managed more like wilderness areas or national parks with little or no commercial enterprise and strictly limited recreational activity.

Week 8 ----- Climate Change Policy

Most of the public debate over climate change policy revolves around “facts” and “science” rather than the trade-offs that drive the various policy positions. The implied assumption appears to be that if we all agreed on the facts of the case (i.e., the science about climate change), the appropriate policy choice would be clear and compelling. However, the distribution of costs and benefits is arguably the most important factor in settling on a specific policy choice, coupled with a wide range of tolerance for risk. As with all ecological policy issues, the most important factor is the perception of who receives the benefits vs. who will bear the costs.
Week 9 ----- Whaling and Marine Mammal Policy

Developing publicly supported, biologically sound policies regarding marine mammals (generally) and whales (specifically) are among the most challenging facets of natural resource management. Conducting credible, realistic, and useful policy analysis is also exceptionally difficult. Many people view mammals very differently from fish and shellfish and therefore there are often drastically different and mutually exclusive competing policy goals. Policy analysis is complicated further because for marine mammals, society and individuals receive intangible benefits from preserving species, especially those in danger of extinction or those charismatic qualities.

Week 10 ----- Marine Protected Area and Ecosystem Based Management Policy

Advocates for use of marine protected areas (MPAs) and ecosystem management in ecological policy have become pervasive during the past decade. The concepts remain, however, contentious and confused. For MPAs, most definitions describe an area of the ocean environment that has been reserved through law, policy, or regulation by a governmental organization to provide enhanced protection to part or all of the natural or cultural resources of the specified area. Common examples of marine protected areas are marine national parks and marine wildlife refuges. For ecosystem management (EM) and ecosystem-based management (EBM), there are a wide range of definitions used to describe what remains an ambiguous notion. Both MPAs and EM arose in response to the widespread realization that human pressures on ocean resources are challenging their sustainability.