

PPPA 6066: Environmental Policy
Section 10, Fall 2018

Class Meetings: Tuesdays, 6:10-8:00pm, Tompkins 309

Instructor: Peter Linquti, PhD (linquti@gwu.edu), MPA610

Office Hours: I no longer hold regularly scheduled office hours, having found that complicated lives and schedules often make it easier to schedule an appointment as needed. I am on campus at least four days a week; if you'd like to meet, please email me with some feasible times. For quick questions, feel free to send me an email; in general, I will respond within 24 hours.

WHY SHOULD YOU CARE ABOUT ENVIRONMENTAL POLICY?

Even before the 2016 election, it wasn't hard to find a heated debate about how to manage some part of the world's natural and environmental resources: climate change, the XL Pipeline, GMOs, deforestation, biodiversity, sea level rise, air toxics, fracking, dead zones and oil spills in the Gulf of Mexico, contaminated storm-water runoff in our rivers and lakes, and "green" everything – buildings, cars, products, companies, and lifestyles. The list appears endless and the stakes – the fate of our grandchildren, the economy's ability to create jobs, our duty as planetary stewards, the prospect of billions of people mired in poverty – seem sky high.

What's more, President Trump's inauguration marked the start of a tumultuous time for U.S. environmental policy. We've withdrawn from the global Paris climate accords, and regulatory rollbacks and cuts to environmental agencies' budgets seem to be a sign of things to come. While environmental groups characterize Trump's environmental policies in apocalyptic terms, business groups celebrate the prospect of freedom from the shackles of environmental regulators. The claims and counter-claims made by contestants in the environmental debates rarely clarify matters. At best, the path forward is obscured and at worst, we become too confused to do anything.

WHY MIGHT YOU WANT TO TAKE THIS CLASS?

My aim in this course is to give you the tools you need to dissect such debates and develop your own foundational knowledge about the environmental issues and policies that matter to you. In turn, you will be better prepared to contribute to the design and implementation of effective environmental policies that operate at the intersection of the world's human and natural systems. One thing you will **not** get is definitive answers to tough environmental questions. But you will get the tools to come up with your own answers. More specifically, this course – which focuses on U.S. environmental policy – will improve your ability to:

- *Deconstruct environmental policy debates by dissecting the elements of the discourse to identify hidden assumptions, essential but omitted considerations, unsupported conclusions, suppressed dissonance, unrealistically precise inferences, and other analytic shortcomings.*
- *Simultaneously apply multiple analytic lenses to an environmental challenge, and appreciate the insights afforded by each lens (and the likely tensions among them).*



- Characterize the pros and cons of various environmental process and policy tools: Process tools include Regulatory Impact Analysis and Environmental Impact Statements, while policy tools included command-and-control regulations, market-based instruments, and public-private partnerships. Understanding the strengths and weaknesses of these tools will enhance your ability to design and implement effective environmental policies in dynamic, complex, coupled human-natural systems.
- Understand illustrative environmental policies: We can't possibly cover every US environmental program – there are dozens – in any meaningful detail. We will, however, take a “deep dive” into five specific environmental policy regimes, so that you can develop a pragmatic understanding of how such programs operate in the “real world.” In addition, through your choice of topics for various course assignments, you will be able to focus on environmental issues that are of personal interest to you.
- Reconstruct environmental policy debates using an integrated analytic framework driven by evidence and logic to facilitate the careful design and successful implementation of environmental policy. During your career, you will almost certainly witness an endless procession of environmental issues. Accordingly, you need to learn how to identify, analyze, and address new and emerging environmental policy issue on an ongoing basis.

HOW DO THE PIECES OF THIS COURSE FIT TOGETHER?

- ✓ The first part of the course comprises five class sessions which provide the foundations for analyzing environmental policy. We will review the process of deconstructing environmental policy debates to clarify what's important (and what's not), take a quick look at some important concepts from environmental economics, wade into the debate about the meaning of environmental sustainability, and conclude with a review of systems thinking (an essential tool for understanding policies that operate at the intersection of the human and natural worlds).
- ✓ The second part of the course comprises four sessions which lay out aspects of environmental policymaking that are applicable across almost all environmental issues. In particular, we'll investigate shared responsibility across branches and levels of government, and touch on the disconnect between environmental science and politics. We will also explore a set of processes such as risk assessment, cost-benefit analysis, and environmental impact assessment that apply to virtually all U.S. environmental policies. Finally, we conclude Part II by looking at the pros and cons of a menu of specific policy tools.
- ✓ The third part of the course comprises five class sessions, each of which focuses on a single environmental policy domain. In Part III, we will study clean air policy, clean water policy, environmental justice, climate policy, and natural resource management policy. In each case, we'll look at some of the unresolved issues that are currently under debate.

HOW WILL YOU (AND I) ASSESS YOUR ATTAINMENT OF THESE OBJECTIVES?

You will work on three basic assignments over the course of the semester.

- Deconstruction Analysis (30% of grade): You will first select and then critique an “environmental policy claim,” by which I mean a declarative statement about the extent of some environmental problem and/or about the wisdom of a particular solution to that problem. Such claims can be found almost anywhere: editorials, think tank studies, advocacy group white papers, testimony Congressional hearings, politicians' speeches, party platforms, academic journals, YouTube videos, blog posts, government policy directives, documentaries, political advertising, and even in your social media newsfeeds. These claims can come from either side of an issue – a problem

can be described as dire, in need of a strong response, or may be dismissed as unimportant, not a justification for action. So too with solutions. Some claims are strident calls for a particular course of action; others paint a proposed solution as ill-advised or perhaps even a disaster waiting to happen. More detail will be provided, but basically you will choose any claim you'd like to analyze (subject to my ok) before the third class and then submit a 2,000-word critique of that claim which reflects the content of Part I of the course.

- *Policy Review (30% of grade)*: For this assignment, you will select an existing U.S. *Federal* environmental policy. The policy must be established in final form, rather than only proposed or not implemented, e.g., the Clean Power Plan. After succinctly describing the policy, you will then investigate and report on how the policy has been shaped by issues discussed in Part II of the course, such as environmental Federalism, the interplay of the branches of government, environmental politics, ex-ante reviews like cost-benefit analyses, environmental impact statements, or risk assessments, judicial review, and a new Presidential Administration. Finally, you should locate the specific policy instruments embedded in the policy within the menu of policy tools discussed in class. The final product should be no more than 2,000 words.
- *Final Policy Analysis (30% of grade)*: This assignment invites you to think prospectively about an existing environmental problem and to evaluate the merits of potential policy options to address the problem. Your paper should follow the standard policy analysis paradigm, starting with a well-defined policy problem substantiated by evidence and logic. Then, identify three to five policies to address the problem and a set of criteria that you will use systematically to assess the pros and cons of each option. Carefully consider the tradeoffs among the options and conclude with a recommendation for moving forward. Highlight uncertainties in your analysis and the potential risks/downsides to your recommended option. The paper should be no more than 3,500 words. You are encouraged, but not required, to consult with me about your choice of topic and proposed approach for this assignment.
- *Class Participation/Engagement/Reading Preparation (10% of grade)*: Policy analysis is a collective activity that benefits from discussion and debate. And, as more art than science, learning to do policy analysis depends on active student engagement. Students are expected to contribute to class discussions with critical thinking, creative suggestions, substantive questions, and a demonstrated command of the assigned readings. It's fine if you disagree with, or don't understand something in, the readings; just come to class prepared to talk about it. Students can expect to be called on by name if class discussion bogs down or only a narrow range of perspectives is being heard. You can also engage the course content by contributing to the Blackboard discussion board for the course; feel free to start a new thread on any environmental topic of interest to you. To give you a sense of how you're doing over the course of the semester, course engagement grades will be posted three times (after weeks 4, 9, and 14) with each instance worth 3.3% of the overall course grade.

WHAT PEDAGOGICAL APPROACH WILL BE USED IN THIS CLASS?

This course is premised on the belief – backed by much evidence – that learning is most effective when it is active. Therefore, traditional lectures will be limited, discussion and collaborative work will be serious endeavors, and I will act more as a “guide on the side” rather than a “sage on the stage.” You will be asked to view pre-recorded video lectures (20 to 30 minutes per week) and do the assigned readings prior to class. This will give you the opportunity to shape the course as it unfolds but you should in turn expect to take some responsibility for its success.

ARE YOU PREPARED FOR THIS COURSE?

Though not formal prerequisites, you will find it helpful to have taken a graduate level policy analysis class (such as PPPA6006 or PPPA6011) and a policy-oriented microeconomics class (such as PPPA6003, PPPA6014, PPPA6085, or PPPA6007). In addition, coursework in environmental studies will be helpful. Even if you don't have this background, you are still welcome to enroll – you will have to work harder to keep up and perhaps do some additional readings, but I will help you along the way.

WRITTEN WORK

Policy writing is different from academic writing. Getting good at it takes practice. Well-written policy analyses are concise, to-the-point, and written in Plain English. Plain English (or Plain Language) is communication that your audience understands the first time they read or hear it. Language that is plain to one set of readers may not be plain to others.

Written material is in plain language if your audience can find what they need, understand what they find, and use what they find to meet their needs.¹ Before submitting written work for this class, please consult the “Writing Resources” on Blackboard. In particular, make sure that your writing meets the 2011 Federal Plain Language Guidelines. The table of contents for the Guidelines provides a nice summary of the key points.

READINGS

There is one required book: Goodstein and Polasky, *Economics and the Environment*, 7th Edition, 2014, (G&P). For all G&P readings, you can skip the “Applications” at the end of each chapter, although I do recommend you review the “Key Ideas” section. All other readings will be available on Blackboard.

For most weeks, the reading load is about 50 to 70 pages (not including “recommended” readings). But in some weeks (3, 7, 8, and 13), the page count exceeds 100 pages. You'll want to plan accordingly.

Not all readings in the syllabus are required; some are marked as “recommended” in case you want to take deeper dive into a particular topic. In addition, some readings are lengthy or quite technical. One of the skills you need to develop as a professional policy analyst is the ability to quickly extract key themes from dense text. You don't have to slog through every word in the text. Focus on the abstract, introduction, research questions, conclusions, and maybe, the literature review. Make sure you understand the broad themes of these readings rather than trying to master all the details.

Students should also scan Greenwire on a regular basis. Doing so will help you keep up to date on evolving U.S. environmental policy under a new President. This email newsletter is available free of charge to GW students (you must use your @gwu.edu address) and a great way to keep track of evolving environmental policy. To subscribe to Greenwire, visit http://www.eenews.net/email_alerts. Check the box that you are a current subscriber. Select “Greenwire” (and any other news service you want). Then, for the section on “Account Type”, you should check the box “I am not sure what type of account I have.” For “Organization,” enter GWU. Click Sign Up Now. Within 24 hours, you will receive login credentials.

For many environmental policy topics, there is no one definitive source of information. Important issues often don't make their way into textbooks, and if they do, it may take a couple years. Specialized media outlets (like E&E News), government documents, and court cases are often the best way to figure out an evolving issue. The problem is that you usually must read a series of different sources and then figure out how they fit together. You will observe this phenomenon in the assigned readings.

¹ <http://www.plainlanguage.gov/whatisPL/index.cfm>

WEEK-BY-WEEK PLAN

- ☞ This plan is subject to revision. Given the potential for significant changes in U.S. environmental policy in the late Summer and Fall of 2018, key topics and readings may be changed to ensure that our focus is as relevant as possible.

PART I: FOUNDATIONS

1. Framing the Discussion (Aug 28)

- ❖ Key Topics
 - ✓ Course Logistics, Syllabus, Introductions
 - ✓ Core Concepts: The “environment,” public policy, policy analysis, tradeoffs
 - ✓ Tragedy of the Commons
- ❖ Readings
 - ✓ G&P, Ch 1 (while climate change is used as an example in this chapter, think about how these concepts also apply to air pollution and water pollution). On Blackboard if you don't have the book yet.
 - ✓ EPA Alumni Association, “Protecting the Environment: A Half Century of Progress,” April 2017 (note the source – not entirely unbiased, but able to offer a first-hand account).
 - ✓ Allenby, Issues in Science & Technology, “Climate Redux: Welcome to the Anthropocene,” Spring 2015; Achenbach, Washington Post, “Spaceship Earth: A New View of Environmentalism,” 1/2/12; and earthfirstjournal.org, “About Earth First,” 8/31/15 (read these three pieces as a group, thinking about the purpose of environmental policy. Yes, the Achenbach piece is six years old, but it is still a great summary of the issue.)
 - ✓ Bagehot Column, The Economist, “The Parable of the Clyde,” 8/31/13; Poloczanska, Science, “Keeping Watch on the Ocean,” 2/23/18; and The Open Access Problem (read these three pieces as a group, trying to parse scientific issues from policy issues).
- ❖ Application: Fisheries

2. Deconstructing Environmental Policy Debates (Sep 4)

- ❖ Key Topics
 - ✓ Critical Thinking about Environmental Policy
 - ✓ Panoptic Analysis of Environmental Issues
 - ✓ Four Poles: Neo-Malthusians, Cornucopians, Eco-Modernists, Lukewarmers & Deniers
- ❖ Readings
 - ✓ Fiorino, Journal of Environmental Studies & Sciences, “Teaching Environmental Policy in an Era of Polarization and Misrepresentation,” April 2018 (I'm not sure I agree with all of Fiorino's claims, but his calls for critical thinking and integrity seem spot-on).
 - ✓ Menand, New Yorker, “Everybody's an Expert,” Review of Tetlock's Book, 12/5/05 (some humility about our conclusions can be a very good thing).
 - ✓ Linquti, Deconstructing Environmental Policy Claims in a Post-Truth World, Summer 2018 (a work in progress, comments welcome!).
 - ✓ Douthat, New York Times, “Neither Hot nor Cold on Climate,” 6/3/17 (an overview of lukewarmers' views).
 - ✓ Haberman, New York Times, “The Unrealized Horrors of Population Explosion,” 5/31/15 (an overview of Neo-Malthusian thinking).
 - ✓ Breakthrough Institute, “A Good Anthropocene: Competing Visions of Our Environmental Future,” 7/14/15 (a short summary of a panel discussion).
- ❖ Application: Deconstruction of Environmental Policy Claims (BPA, Bears Ears, Fracking)

3. Environmental Economics – A Brief Primer (Sep 11)

❖ Key Topics

- ✓ Externalities & Public Goods
- ✓ The Efficiency & Safety Standards
- ✓ Social Cost of Carbon

❖ Readings

- ✓ G&P, Ch 3 – 7 (skip Sections 5.4, 5.5, and 5.6, and Appendix 5A).
- ✓ Polasky & Binder, Issues in Science & Technology, “Valuing the Environment for Decisionmaking,” Summer 2012.
- ✓ Boardman et al., Cost-Benefit Analysis Concepts and Practices, 2011, pp 421-431 (demonstrates how economists think about putting a price tag on environmental amenities).
- ✓ McKinsey & Company, “Pathways to a Low-Carbon Economy,” 2009 (pp 5-12, and especially Exhibit 1, are the key parts of this reading).
- ✓ EPA, “Fact Sheet – Social Cost of Carbon,” December 2015 (rescinded by EO 13783, but a useful summary of how the SCC was calculated).
- ✓ Trump, Executive Order 13783, “Promoting Energy Independence and Economic Growth,” Section 5, 3/28/17. (We’ll look at other sections of this EO in our class on climate policy.)
- ✓ Readings on Social Cost of Carbon: Sunstein, Bloomberg, “EPA Owes Us a Reason for Killing Clean Power Plan,” 10/12/17; Harvey, Climatewire, “Trump Team’s Wonky CO2 Calculation is a Big Deal,” 10/25/17; Mintz, EENewsPM, “EPA Advises FERC on Measuring Greenhouse Gases,” 6/22/18; Gilmer & Mintz, Greenwire, “EPA Walks Back Climate Recommendations for FERC,” 7/26/18 (it’s inside baseball, but the last two readings in this set give a good sense of what happens when a career public servant gets out ahead of his political bosses).

❖ Application: What is the optimal level of GHG emissions?

- ❖ Due: Email electronic copy, or link to, the environmental policy claim you propose to deconstruct for the first assignment.

4. Sustainability (Sep 18)

❖ Key Topics

- ✓ Sustainability as Ideology, Economics, Executive Orders, and/or Science
- ✓ Stocks (Natural, Manufactured, Human, Social); Flows (including Ecosystem Services)

❖ Readings

- ✓ G&P, Ch 8, 9, Sections 10.4, 10.5, and 10.6 (skip Sections 8.4, 8.5, and 9.7).
- ✓ Pettibone, Open Citizenship, “Sustainability Needs Citizens, but do Citizens Need Sustainability?” 2014 (focus on the discussion of sustainability, rather than neoliberalism).
- ✓ Guerry et al., PNAS, “Natural Capital and Ecosystem Services Informing Decisions,” 6/16/15.
- ✓ Elliot, The Guardian, “Britain has Squandered Golden Opportunity North Sea Oil Promised,” 3/29/12 and The Economist, “Norway’s Global Fund: How Not to Spend It,” 9/24/16 (real world examples of the concepts we’re looking at).
- ✓ Serageldin and Steer, Making Development Sustainable, “Epilogue: Expanding the Capital Stock,” World Bank, 1994 (recommended; a bit dated, but still a nice summary).
- ✓ Obama, Executive Order 13693, “Planning for Federal Sustainability in the Next Decade,” pp 1-6, 3/19/15, (requirements for Federal agencies; you don’t need to master the minutiae of this now-revoked EO, but you can infer a definition of sustainability from Sections 1 to 3).
- ✓ Hulac, E&E News, “Trump Torpedoes one of Obama’s Last Climate Orders,” 5/18/18.

- ✓ ArcadisGlobal, “Sustainable Cities Index,” 2016 (read Sections 3.1 and 6.1; scan the rest) and Yale Center for Environmental Law & Policy, “Global Metrics for the Environment,” 2018 (focus on the 2018 EPI Framework on the bottom of page 3). (Maybe sustainability is simply the aggregation of a list of indicators.)
- ✓ Simpson, Issues in Science & Technology, “Putting a Price on Ecosystem Services, Summer 2016 (recommended; a cautionary tale about monetizing nature’s services).
- ❖ Application: Accounting Frameworks

5. Environmental Policy in Complex Systems (Sep 25)

- ❖ Key Topics
 - ✓ Systems-Oriented Thinking
 - ✓ Human Systems, Environmental Systems
 - ✓ Coupled Human and Environmental Systems
- ❖ Readings
 - ✓ Sterman, “Sustaining Sustainability: Creating a Systems Science in a Fragmented Academy and Polarized World, 2012 (a broad overview of systems thinking and the practical realities of trying to implement it).
 - ✓ UK Office of Science, Land Use Futures: Making the Most of Land in the 21st Century, 2010 (a collection of system maps intended to offer insight into the interaction of the factors that affect land use in the UK.)
 - ✓ Knudson, Sacramento Bee, “Shifting the Pain: World’s Resources Feed California’s Growing Appetite,” 2003 and Warrick, Washington Post, “How Europe’s Climate Policies Have Led to More Trees Being Cut Down in the U.S.,” 6/1/15 (where you set the boundary of your system can have a big impact on your conclusions).
 - ✓ Dietz et al., Science, “The Struggle to Govern the Commons,” 12/12/03, (Ostrom – not an economist – won a Nobel Prize in Economics for work related to this reading).
 - ✓ Ostrom, Science, “A General Framework for Analyzing Sustainability of Social-Ecological Systems,” 7/24/09.
 - ✓ Ostrom, PNAS, “A Diagnostic Approach for Going Beyond Panaceas,” 9/25/07 (recommended; uses an earlier version of the framework in the 2009 article; note her penetrating critique of Garrett Hardin’s Tragedy of the Commons).
- ❖ Application: Liu et al., Science, “Complexity of Coupled Human and Natural Systems,” 9/14/07. You will work in small groups to build a simple system map of the Wolong Panda reserve described in this article. It would be a good idea to come to class with a rough draft of your map (not to turn it, but to use in the group exercise).

PART II: U.S. ENVIRONMENTAL POLICYMAKING

6. Overview of Environmental Policymaking in the United States – Part 1 (Oct 2)

- ❖ Key Topics
 - ✓ Drivers of Modern U.S. Environmental Policy
 - ✓ Federal Policy: Statute → Regulation ⇔ Legal Review ⇔ Implementation
 - ✓ Cost-Benefit Analysis (including EPA’s proposal to “increase consistency & transparency”)
- ❖ Readings
 - ✓ Environmental Law Institute, Environmental Law 101, “Governance,” downloaded 7/30/16.
 - ✓ Congressional Research Service (CRS), “Federal Regulations & the Rulemaking Process,” 11/26/14 (a 2-page review that hits the highlights).
 - ✓ O’Leary, “Environmental Policy in the Courts,” in Vig & Kraft, Environmental Policy, 2016.
 - ✓ White House, Circular A-4, “Regulatory Impact Analysis: A Primer,” undated.

- ✓ EPA, Federal Register, “Increasing Consistency & Transparency in Considering Costs & Benefits in the Rulemaking Process,” 6/13/18 and InsideEPA, “Several States Seek EPA Cost-Benefit Guidance in Lieu of Criticized Rule,” 8/13/18.
- ✓ Dudley et al., Journal of Benefit-Cost Analysis, “Consumer’s Guide to Regulatory Impact Analysis: Ten Tips for Being an Informed Policymaker,” Summer 2017.
- ❖ Application: Tracing a Drinking Water Standard from the halls of Congress to your kitchen tap
- ❖ Due: Deconstruction Analysis.

October 9: Fall Break – No Class

7. Overview of Environmental Policymaking in the United States – Part 2 (Oct 16)

- ❖ Key Topics
 - ✓ Risk Assessment (including EPA’s “Secret Science” proposal)
 - ✓ Environmental Impact Assessment (including CEQ’s “NEPA Overhaul” proposal)
 - ✓ State & Local Environmental Policy
- ❖ Readings
 - ✓ G&P, Ch 12.
 - ✓ Human Health Risk Assessment, extracted from EPA website.
 - ✓ EPA, Federal Register, “Strengthening Transparency in Regulatory Science,” 4/30/18 and InsideEPA, “Citing Legal Flaws, States Urge EPA to Withdraw or Clarify Science Rule,” 8/13/18.
 - ✓ CRS, “NEPA: Background & Implementation,” 1/10/11 (be sure to read pp 26-32 carefully).
 - ✓ Environmental Law Institute, “NEPA Success Stories,” August 2010, pp 1-8 only, and Katz, Heritage Foundation, “Time to Repeal the Obsolete NEPA, 3/14/18. (Note the stark contrast between these two readings.)
 - ✓ GAO, “Little Information Exists on NEPA Analyses,” April 2014 (if the two readings above seem a bit ad hoc, this one-pager from GAO explains why).
 - ✓ CEQ, Federal Register, “Initial List of Actions To Enhance and Modernize the Federal Environmental Review and Authorization Process,” 9/14/17 and “Update to Regulations for Implementing NEPA,” 6/20/18 (CEQ has begun the process of revising NEPA).
 - ✓ Sobczyk, E&E News, “Uncertain Path for NEPA Overhaul,” 8/20/18.
 - ✓ Scheberle, Environmental Federalism and the Role of State & Local Governments, 2013.
- ❖ Application: Risk Assessment Exercise

8. Environmental Policy Tools – Part 1 (Oct 23)

- ❖ Key Topics
 - ✓ Command & Control Instruments
 - ✓ Market-Based Instruments
- ❖ Readings
 - ✓ G&P, Ch 14 (especially 14.3 & 14.4), 15 (skip appendices), 16.
 - ✓ US EPA, Guidelines for Preparing Economic Analyses, “Ch 4 – Regulatory and Non-Regulatory Approaches to Pollution Control,” December 2010.
 - ✓ Fiorino, “Regulating for the Future: A New Approach to Environmental Governance,” in Toward Sustainable Communities, 2nd edition, 2009.
 - ✓ C2ES, “Market Mechanisms: Understanding the Options,” April 2015.
 - ✓ CRS, “Attaching a Price to Greenhouse Gas Emissions with a Carbon Tax or Emission Fee,” 7/17/18.
- ❖ Application: Role playing polluters & regulator under different policy regimes
- ❖ Due: Short (2-3 paragraph) description of proposed topic for Policy Review (in hard copy).

9. Environmental Policy Tools – Part 2 (Oct 30)

- ❖ Key Topics
 - ✓ Payments for Environmental Services
 - ✓ Public Private Partnerships
 - ✓ “Next-Generation” Environmental Policy
- ❖ Readings
 - ✓ United Nations Development Program, Payments for Ecosystem Services, undated, (apologies for the tiny font – that’s how UNDP published it!)
 - ✓ Coglianese & Nash, “Are Voluntary Environmental Programs the Answer,” 4/28/14.
 - ✓ Morgenstern & Pizer, Resources, “How Well Do Voluntary Environmental Programs Really Work,” Winter 2007.
 - ✓ Paddock, Environmental Law Reporter, “Beyond Deterrence: Compliance & Enforcement in the Context of Sustainable Development,” July 2012.
 - ✓ Allen, J of Environ Management, “Adaptive Management for a Turbulent Future,” 2011.
- ❖ Application: What policy tools make sense to address the potential environmental consequences of fracking for oil and gas?

PART III: KEY ELEMENTS OF U.S. ENVIRONMENTAL POLICY

10. Clean Air Policy (Nov 6)

- ❖ Key Topics
 - ✓ National Ambient Air Quality Standards
 - ✓ National Emissions Standards for Hazardous Air Pollutants
 - ✓ Mobile Source Emission Control
- ❖ Readings
 - ✓ G&P, pp 274-280.
 - ✓ CRS, “Clean Air Act: A Summary of the Act and its Major Requirements,” 4/24/17.
 - ✓ CRS, “Clean Air Act Issues in the 115th Congress,” 5/1/18.
 - ✓ CRS, “White House Directs EPA to Review Air Quality Standards and Permitting Process,” 4/26/18.
 - ✓ Joselow, EENews, “States Decry Trump’s ‘Brazen Attack,’ Plan Legal Fight,” 8/2/18,
 - ✓ Krupnick et al., Resources, “Clearing the Air: How Market-Based Policies Help Meet Tighter U.S. Ozone Limit,” Winter 2016.
 - ✓ Dudley & Peacock, GW Regulatory Studies Center, “Improving Regulatory Science: A Case Study of the NAAQS,” 6/30/17 (recommended, describes some contradictions in the CAA).
 - ✓ CRS, “Key Historical Court Decisions Shaping EPA’s Program under the Clean Air Act,” 2/16/17 (recommended, read only if you’re looking for more legal background).
 - ✓ Dominici et al., Science, “Particulate Matter Matters,” 4/18/14 (recommended; demonstrates that the tension between science and policy isn’t limited to ozone).
- ❖ Applications: 2015 Ozone Standard and Pending Changes to Mobile Sources program

11. Clean Water Policy (Nov 13)

- ❖ Key Topics
 - ✓ Point Sources: National Pollutant Discharge Elimination System (NPDES)
 - ✓ Nonpoint Sources: Urban Areas & Agriculture
- ❖ Readings
 - ✓ G&P, 280-282.
 - ✓ CRS, “Clean Water Act: A Summary of the Law,” 10/18/16.
 - ✓ CRS, “EPA & the Army Corps’ Rule to Define Waters of the United States, pp 1-14, 1/5/17.

- ✓ News clips about EPA's efforts to roll back WOTUS regulation.
- ✓ Boyle et al., Science, "Deciphering Dueling Analyses of Clean Water Regulations," 10/6/17 (the economics of the WOTUS rule appear radically different to the Obama and Trump administrations).
- ✓ CRS, "Clean Water Act and Pollutant Total Maximum Daily Loads (TMDLs)," 1/17/14.
- ✓ Schwartz & Chung, The Environmental Forum, "The Nutrient Wars," Sep/Oct 2014 (it's one thing to figure out what levels of pollution the Bay can tolerate; it's another to allocate the necessary pollution reductions among sectors and regions. Recall the fish game!).
- ✓ EPA, Collection of information about the Chesapeake Bay TMDL.
- ✓ DC Water & Sewer Authority, Clean River Project News, April 2016-April 2018 (skim to get a sense of what DC is doing to achieve its TMDL obligations).
- ❖ Applications: Repeal of the WOTUS Regulation, Chesapeake Bay restoration
- ❖ Due: Policy Review

12. Environmental Justice (Nov 20)

- ❖ Key Topics
 - ✓ Conceptual Frameworks
 - ✓ Clinton Executive Order
 - ✓ Three Cases: Flint, DAPL, I-710 (~1/3 of class to study each)
- ❖ Readings
 - ✓ National People of Color Environmental Leadership Summit, "The Principles of Environmental Justice," October 1991.
 - ✓ Clinton, "Executive Order 12898 – Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," 2/11/94 (key passages are highlighted).
 - ✓ Hill, The Environmental Forum, "A Tale of Two Sections," Sep/Oct 2012.
 - ✓ Huang, Natural Resources Defense Council, "20th Anniversary of President Clinton's Executive Order on Environmental Justice," 2/10/14.
 - ✓ Goldman Environmental Foundation, "Environmental Racism in America," 6/24/15.
 - ✓ InsideEPA.com, "EPA Guide Outlines Steps for Incorporating Equity into Regulatory Analysis," 6/7/16 (this news clip describes the release of the EPA document below).
 - ✓ EPA, "Technical Guidance on Assessing Environmental Justice in Regulatory Analysis," June 2016 (recommended not required).
 - ✓ Bogardus, E&E News, "Pruitt Makes his Mark on Environmental Justice, 2/27/18.
 - ✓ I-710: CA Department of Transportation & LA County Metropolitan Transportation Authority, I-710 Corridor Draft Environmental Impact Statement, June 2012 (read pp 1-6; scan the rest).
 - ✓ DAPL: CRS, "Dakota Access Pipeline Siting Controversy," 6/15/17; Gilmer, E&E News "Court Orders New Safety Measures During Pipeline Review, 12/5/17; Gilmer, E&E News, "Court Declines to Force Closer Consultation on Review," 4/17/18; and Mandel, E&E News, "Energy Transfer May Boost Dakota Access Capacity," 8/10/18.
 - ✓ Sobczak, E&E News, "How Railroads Shouldered a Risky Oil Rush," 8/6/18 (a concrete demonstration of the interconnected nature of the fossil fuel system).
 - ✓ Flint: Associated Press, "A Timeline of the Water Crisis in Flint, Michigan," 6/14/17; Yale Environment360, "Five Questions for Robert Bullard," 2/3/16; and Wittenberg & Bogardus, "IG Urges Stronger Oversight after Flint Crisis, 7/19/18.
- ❖ Applications: EJ Screen

13. Climate Policy (Nov 27)

- ❖ Key Topics
 - ✓ U.S. Climate Policy
 - ✓ The U.S. and the Paris Climate Agreement
 - ✓ Political Economy of Climate Policy
- ❖ Readings
 - ✓ G&P, Ch 17, 18.
 - ✓ CRS, “Evolving Assessments of Human and Natural Contributions to Climate Change,” 2/1/18.
 - ✓ EPA, National Greenhouse Gas Inventory, April 2018.
 - ✓ UN Environmental Program, “Emissions Gap Report 2017: Executive Summary,” 10/31/17.
 - ✓ CRS, “U.S. Climate Change Regulation & Litigation: Selected Legal Issues,” 4/13/17 (skim to get a holistic overview of how policy has evolved over time).
 - ✓ Linquiti & Cogswell, J of Environmental Studies & Economics, “The Carbon Ask,” May 2016 & Summer 2018 update
 - ✓ CRS, “EPA’s Proposal to Repeal the Clean Power Plan: Benefits & Costs,” 2/28/18.
 - ✓ C2ES, “Outcome of the U.N. Climate Change Conference in Bonn,” November 2017.
 - ✓ Convery & Wagner, Review of Environmental Economics & Policy, “Managing Uncertain Climates,” Summer 2015. (recommended)
 - ✓ Other readings may be added as COP24 will be underway toward the end of the semester and the Trump administration rolled its new climate regulation at the start of the semester.
- ❖ Application: C-ROADS Simulation (please review prior to class at climateinteractive.org).

14. Natural Resource Management Policy (Dec 4)

- ❖ Key Topics
 - ✓ Federal Lands
 - ✓ Agriculture Programs
- ❖ Readings
 - ✓ G&P, Section 13.5
 - ✓ Environmental Law Institute, “Natural Resources,” downloaded 7/29/16 (a good overview of many different policies relevant to natural resources).
 - ✓ CRS, “Federal Lands & Resources: Overview and Issues for the 115th Congress,” 4/13/18.
 - ✓ CRS, “Executive Order for Review of National Monuments,” 10/18/17.
 - ✓ Yachnin, E&E News, “Lawsuits Begin after Trump Pares Two Sites,” 12/4/17.
 - ✓ Yachnin, E&E News, “Can Presidents Cut Sites? It’s a Legal Twilight Zone,” 3/16/18.
 - ✓ CRS, “National Monuments and the Antiquities Act,” 1/30/17 (recommended; scan if you’d like a deeper dive into the law behind the designations controversy).
 - ✓ CRS, “Agricultural Conservation: A Guide to Programs,” 4/17/18 (you do not need to master the details of all the USDA programs; read for a sense of the kinds of programs in use).
 - ✓ Government Accountability Office, “Agricultural Conservation: USDA’s Environmental Quality Incentive Program Could Be Improved to Optimize Benefits,” April 2017, pp 1-45 (EQIP is only one of USDA’s natural resource conservation programs, but it is one of the biggest. Pages 1-19 are the most important part of this reading.)
- ❖ Application: Land Management Issues in the Trump Administration
- ❖ Due: Final Paper due by 5pm, Friday, December 14, uploaded to Blackboard

ADDITIONAL POLICIES AND INFORMATION

- ❖ Civility: Higher education works best when it becomes a vigorous and lively marketplace of ideas in which all points of view are heard. Free expression in the classroom is an integral part of this process. At the same time, higher education demands that all of us approach the enterprise with empathy and respect for others, irrespective of their ideology, political views, or identity. Listen to understand others, not to judge them.
- ❖ Attendance: I won't take attendance, but try to be in class each week. Policy analysis is a skill that is learned by doing and we will be practicing these skills in class. If you need to miss a class, please let me know in advance, get notes from a classmate, download assigned materials from Blackboard, and complete any pre-class work (even if it's not graded). If you repeatedly miss class, you can expect a decrease in your class participation/engagement grade. It's fine to miss a class to observe a religious holiday, but you should let me know about such cases at the start of the semester.
- ❖ Class Decorum: Texting, side conversations, or using your laptop for anything other than taking notes is an inappropriate use of class time. Those who do these things may think their actions are unobtrusive, but they are actually quite conspicuous. It's distracting both to me and to your classmates, and will result in a significant decrease in your class participation/engagement grade.
- ❖ Syllabus: This syllabus is a guide to the course. Sound educational practice requires flexibility and the instructor may revise content and requirements during the semester.
- ❖ Blackboard: Blackboard will be used to communicate with students. Please make sure that you can access the course and that you regularly check whatever email account Blackboard uses for you. If you have problems with Blackboard, contact the Helpdesk at 202-994-5530 or helpdesk.gwu.edu.
- ❖ Turning Things In: Assignments should be uploaded to Blackboard before the start of class on the due date.
- ❖ English for Academic Purposes Writing Support Program: If English is not your first language, you may wish to take advantage of GW's Writing Support Program which offers free, one on one service. Visit <http://www.gwu.edu/~gwriter> for details.
- ❖ Late Work: Unless you've made arrangements with me in advance, late work will be penalized with a one grade step reduction (e.g. from an A- to a B+) per day.
- ❖ Academic Honesty: All examinations, papers, and other graded work products and assignments are to be completed in conformance with the George Washington University Code of Academic Integrity. (See <http://www.gwu.edu/~ntegrity/code.html>). All assignments uploaded to Blackboard will be automatically scanned for plagiarism.
- ❖ Incompletes: A student must consult with the instructor to obtain an "incomplete" before the last day of class. The student and instructor will sign the CCAS contract for incompletes and submit it to the School Director. Consult the TSPPPA Student Handbook for the relevant CCAS policy.
- ❖ Grades: No grade changes can be made after the conclusion of semester, except for clerical error.
- ❖ Students with Disabilities: If you need accommodation due to a disability, let the instructor know in first week of the class. You should also contact the Disability Support Services office at 202-994-8250 in the Rome Hall, Suite 102, to establish eligibility and to coordinate reasonable accommodations. For additional information see: disabilitysupport.gwu.edu.

- ❖ **Support:** GW Mental Health Services (202-994-5300) offers 24/7 assistance to address students' personal, social, career, and study skills problems, including crisis and emergency mental health consultations, confidential assessment, counseling services, & referrals to other providers. See counselingcenter.gwu.edu for more information.
- ❖ **Grading:** Grades for assignments and for the course as a whole reflect the following philosophy:
 - **A Excellent:** Exceptional work for a graduate student. Work is unusually thorough, well-reasoned, creative, methodologically sophisticated, and well written. Work is of exceptional, professional quality.
 - **A- Very Good:** Very strong work for a graduate student. Shows signs of creativity and a strong understanding of appropriate analytical approaches, is thorough and well-reasoned, and meets professional standards.
 - **B+ Good:** Sound work for a graduate student; well-reasoned and thorough, without serious analytical shortcomings. Indicates the student has fully accomplished the basic objectives of this graduate course.
 - **B Adequate:** Competent work for a graduate student with some evident weaknesses. Demonstrates competency in the key course objectives but the understanding or application of some important issues is less than complete.
 - **B- Borderline:** Weak work for a graduate student but meets minimal expectations. Understanding of key issues is incomplete. (A "B-" average in all courses is not sufficient to sustain 'good standing'.)
 - **C+ / C / C- Deficient:** Inadequate work for a graduate student; rarely meets minimal expectations. Work is poorly developed or flawed by numerous errors and misunderstandings of important issues.
 - **F Unacceptable:** Work fails to meet minimal expectations or course credit for a graduate student. Performance has consistently failed to meet minimum course requirements. Weaknesses and limitations are pervasive.
- ❖ **Course Effort:** Federal regulations and the Middle States Commission on Higher Education requires 112.5 hours of work for a 3-credit course. We will meet 14 times for 2 two hours (28 hours). You should expect to spend at least 4 hours per week preparing for class (56 hours) and at least 28.5 hours outside of class on graded assignments.