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Environmental Regulation: Law, Science & Policy, 8th Edition

### Transition Guide from Seventh Edition to Eighth Edition

The Eighth Edition of Environmental Regulation: Law, Science & Policy comprehensively revises and updates the Seventh Edition. Professors who previously used the Seventh Edition will be happy to know that there are no significant structural or organizational changes in the new edition. Several new cases and Problem Exercises have been added and existing material in the casebook has been thoroughly updated. The casebook is being released at a time of significant change in federal environmental policy. Significant deregulatory initiatives launched by the Trump administration during its first year in office are discussed in this edition.

Highlighted below are the most significant new additions to the Eighth Edition followed by a detailed chapter-by-chapter listing of the changes.

- An excerpt from Pope Francis's encyclical Laudato Si – On Care for Our Common Home has been added to the discussion of environmental values
- A new section on the Congressional Review Act and its use to veto regulations during the early days of the Trump administration
- An excerpt from the Supreme Court's decision in Michigan v. EPA striking down the mercury and air toxics rule because of EPA's initial failure to consider its costs has been added.
- Material has been added discussing how the provisions of the Frank R. Lautenberg Chemical Safety for the 21st Century Act comprehensively overhauls the Toxic Substances Control Act
- Coverage of the Safe Drinking Water Act is expanded, including discussion of the lead poisoning scandal in Flint, Michigan and its environmental justice implications. An excerpt is included from American Water Works v. EPA, the D.C. Circuit decision upholding EPA's refusal to set a maximum contaminant level of lead in drinking water.
- An excerpt from the D.C. Circuit's decision in General Electric v. Jackson rejecting a constitutional challenge to the lack of pre-enforcement judicial review of CERCLA unilateral administrative orders is added.
- The D.C. Circuit's decision upholding the Obama administration's first regulation of greenhouse gas emissions in Coalition for Responsible Regulation v. EPA has been replaced with the U.S. Supreme Court's decision in Utility Air Regulatory Group.
- A new section has been added on the Obama administration's efforts to use the Clean Power Plan to control emissions of greenhouse gases from powerplants and the Trump administration's efforts to repeal it.

- An excerpt has been included from the Supreme Court's decision in *EPA v. EME Homer City Generation, L.P.* reinstating EPA's cross-state air pollution rule.
- A new section has been added on the "Waters of the U.S." rule, which attempts to clarify the reach of federal jurisdiction under the Clean Water Act, and the Trump administration's efforts to repeal it.
- An excerpt has been added from the Third Circuit's decision in *American Farm Bureau Federation v. U.S. EPA*, which rejected legal challenges to the Chesapeake Bay TMDL.
- A new section on the relevant parcel issue in regulatory takings jurisprudence has been added, including an excerpt from the Supreme Court's decision in *Murr v. Wisconsin* followed by notes and questions.
- An excerpt has been added from the D.C. Circuit's August 2017 decision in *Sierra Club v. Federal Energy Regulatory Commission*, which reversed approval of a pipeline project because FERC had failed to quantify the impact of the project on greenhouse gas emissions.
- The Kigali agreement to use the Montreal protocol to phase out hydrofluorocarbons (HFCs), potent greenhouse gases, is discussed.
- A new section has been added on the Paris Agreement on climate change and President Trump's announcement that he intends to withdraw the U.S. from the agreement.
- A new section on regulation of greenhouse gas emissions from aviation is included that contains an excerpt from the European Court of Justice's decision upholding application of the EU's emissions trading scheme to aviation.
- An excerpt has been added from a review of new ideas for transforming environmental law into a rule of law for nature followed by a new section on the rise of private environmental governance.

The following is a detailed, chapter-by-chapter listing of the revisions and updates contained in the Eighth Edition and a description of how material that was in the Seventh Edition has changed.

#### Chapter 1 – Environmental Values and Policies

Data concerning global temperatures and global population has been updated.

Polling data showing a decline in public support for environmental protection is updated.

In the discussion of environmental values, an excerpt is included from Pope Francis's June 2015 encyclical *Laudato Si – On Care for Our Common Home*. The Pope describes climate change as an environmental justice issue, expresses his concern over global inequality, and maintains that the current generation has a moral responsibility to preserve the environment for future generations.

In the discussion of environmental justice a candid discussion in the *Environmental Law Reporter* of the state of environmental justice at the close of the Obama administration is referenced. New paragraphs are added to this section discussing the lead poisoning scandal in

Flint, Michigan, the September 2016 report of the U.S. Commission on Civil Rights on environmental justice, and the Trump administration's approach to environmental justice. The pathfinder on environmental justice has been updated.

In the discussion of cost-benefit analysis, a paragraph has been added that quotes Larry Summers' memo advocating that more pollution should be shipped to developing countries and George Will's statement that the concept that life is priceless is "useful nonsense."

The Problem Exercise on Arctic Oil Exploration, Pipelines, and Hydraulic Fracturing has been updated. Shell's withdrawal from efforts to drill for oil off the north coast of Alaska is noted. President Obama's veto of the Keystone XL pipeline and its reversal by President Trump is discussed, and material has been added on the controversy over the Dakota Access pipeline. EPA's December 2016 report on environmental problems associated with hydraulic fracturing is discussed.

## Chapter 2 – Environmental Law: A Structural Overview

The discussion of the history of environmental regulation has been updated to reflect the election of President Trump and the abrupt shift in regulatory policy occasioned by his administration.

A new note has been added after the Ouellette case to discuss the Sixth Circuit's decision in *Boler v. Early* holding that the Safe Drinking Water Act does not preempt a class action lawsuit against government officials over the lead poisoning in Flint, Michigan.

A new note has been added after the Ouellette case to discuss the Third Circuit's decision in *Bell v. Cheswick Generating Station* holding that the Clean Air Act does not preempt a state common law nuisance action against a coal-fired power plant.

A new note has been added after *Massachusetts v. EPA* discussing the *Juliana v. U.S.* litigation in federal district court in Oregon by children against the federal government for failure to protect future generations from the harms associated with climate change.

In the discussion of environmental federalism the Ninth Circuit's decision in *Rocky Mountain Farmers Union v. Corey* rejecting a dormant commerce clause challenge to California's Low Carbon Fuel Standard is described.

In the notes after *New York v. United States* a new note has been added discussing the implications of the U.S. Supreme Court's decision in *National Federation of Independent Business v. Sebelius* for Tenth Amendment anti-commandeering doctrine.

In the notes after *New York v. United States* an existing note on how to divide responsibilities between federal and state levels of government has been expanded to include Professor Thomas Merrill's argument that states are likely to do a better job of regulating hydraulic fracturing because of greater experience with oil and gas regulation.

In the discussion of the commerce clause as a source of constitutional authority to protect the environment, the Tenth Circuit's decision upholding congressional power to protect endangered

species in *People for Ethical Treatment of Property Owners v. U.S. Fish and Wildlife Service* has been added.

The discussion of regulation and its alternatives now discusses federal legislation signed into law in July 2016 to require labeling of products containing genetically modified organisms (GMOs).

Material on the Deepwater Horizon oil spill has been updated to include the September 2014 decision by Judge Barbier, the July 2015 nearly \$20 billion settlement agreement between BP and the federal government, and the settlement's approval in April 2016.

In the material on the regulatory process a new section has been added on the Congressional Review Act and its use to veto regulations during the early days of the Trump administration. After *Sierra Club v. Costle* a new note has been added discussing President Trump's Executive Order 13771 that requires agencies to repeal two existing regulations for each new regulation promulgated.

After *Chevron U.S.A. v. NRDC* an existing note has been expanded to note Justice Neil Gorsuch's criticism of the Chevron doctrine.

### Chapter 3 – Preventing Harm in the Face of Uncertainty

The existing excerpt from the Supreme Court's *Industrial Union Dept ("Benzene")* decision has been edited to eliminate three paragraphs from Justice Stevens' plurality opinion and one paragraph from Justice Marshall's dissent.

In the discussion of information about chemical risks the impact of the EU's REACH program for chemical testing on the enactment of the Frank Lautenberg Chemical Safety for the 21st Century Act and its new testing requirements are discussed.

Data on chemical releases reported on the Toxics Release Inventory are updated.

An excerpt from the Supreme Court's decision in *Michigan v. EPA* striking down the mercury and air toxics rule because of EPA's initial failure to consider its costs has been added followed by five notes and questions.

Material on the Toxic Substances Control Act has been revised to reflect the extensive amendments made to it by the Frank Lautenberg Chemical Safety for the 21st Century Act, which became law in June 2016.

In the excerpt from the *Corrosion Proof Fittings* decision, three paragraphs have been deleted. In the notes following the decision an important question is asked concerning whether the case would have been decided differently had the current version of TSCA as amended by the Frank Lautenberg Chemical Safety for the 21st Century Act been in effect.

A new section on the Frank Lautenberg Chemical Safety for the 21st Century Act has been added and the Principal Provisions of the Toxic Substances Control Act have been thoroughly revised to reflect the new legislation.

In the discussion of the Safe Drinking Water Act an excerpt is included from *American Water Works v. EPA*, the D.C. Circuit decision upholding EPA's refusal to set a maximum contaminant level of lead in drinking water, followed by notes and questions.

An excerpt from the principal author's *The Poison Poor Children Drink: Six Lessons from the Flint Tragedy* is included followed by notes and questions.

In the discussion of the Emergency Planning and Community Right-to-Know Act (EPCRA), the website reporting data from the Toxics Release Inventory that EPA launched in 2015 is discussed as well as a report the agency issued on the 30th anniversary of EPCRA.

#### Chapter 4 – Waste Management and Pollution Prevention

In the discussion of waste management problems, EPA's regulation of coal ash disposal sites is mentioned.

A new section has been added on "Distinguishing Legitimate Recycling from 'Sham Recycling'" EPA's revised definition of "solid waste" is discussed as well as the D.C. Circuit's July 2017 decision striking down most of the Verified Recycler Exclusion in *American Petroleum Institute v. EPA*.

In the notes at the end of the section on Subtitle D and the Regulation of Nonhazardous Solid Waste a new note is added on EPA's regulation of coal ash waste.

A note is added at the end of the discussion of Subtitle D described a failed effort to extend RCRA to particulate emissions from trains in a railyard in *Center v. Community Action v. BNSF Railway Co.* Another note is added describing the Ninth Circuit's decision to allow an imminent and substantial endangerment lawsuit to go forward in *Center for Biological Diversity v. United States Forest Service*.

The Eleventh Circuit's *U.S. v. Olin Corp.* decision upholding the constitutionality of CERCLA is reduced from an excerpt to a note and replaced with *General Electric v. Jackson*, the D.C. Circuit decision upholding the constitutionality of unilateral administrative orders under CERCLA.

Two notes are added after the excerpt from the Supreme Court's *Burlington Northern* decision. These notes discuss a Fourth Circuit decision rejecting "arranger" liability for the sale of transformers containing PCBs (*Consolidation Coal Co. v. Georgia Power Co.*) and a Ninth Circuit decision rejecting such liability for emissions from a smelter in Canada that fall on the ground downwind in the U.S. (*Pakootas v. Teck Cominco Metals, Ltd.*).

In the section on apportionment of liability after the second excerpt from the *Burlington Northern* decision, a note is added on the Supreme Court's decision in *CTS v. Waldburger* holding that §309 of CERCLA tolls only statutes of limitation and not statutes of repose.

After the excerpt from the Supreme Court's *Atlantic Research* decision a note is added discussing two circuit court decisions holding that parties who resolve their liability in a settlement with EPA and thus have rights of contribution under § 113 cannot seek contribution

under § 107 (the Sixth Circuit in *Hobart Corp. v. Waste Management of Ohio, Inc.* and the Seventh Circuit in *NCR Corp. v. George A. Whiting Paper Co.*

Data on Superfund cleanups is updated and EPA's progress report on the 35th anniversary of CERCLA in 2015 is discussed.

In the section on state regulation of dumpsites and the dormant commerce clause, the excerpt from the Supreme Court's *United Haulers Association* decision is reduced to a note after the excerpt from the Court's *C & A Carbone* decision.

At the end of the chapter the Problem Exercise on the search for a high-level radioactive waste disposal site in the U.S. has been updated to include the D.C. Circuit's decision in *In re Aiken County* and the Nuclear Regulatory Commission's response to the decision.

## Chapter 5 – Air Pollution Control

A new epigram from the principal author's lecture *Against All Odds: How America's Century-Old Quest for Clean Air May Spur a New Era of Global Environmental Cooperation* opens the chapter. The quotation that had been the first part of the opening epigram in the 7th edition has been moved to the end of the section on mobile sources.

Figures 5.1 and 5.2 have been modified to include both the health and environmental effects of ozone and particulate matter.

Estimates by epidemiological experts that 1.6 million Chinese die prematurely each year due to exposure to air pollution are mentioned.

Figure 5.4 showing how far levels of criteria air pollutants have declined has been updated with data from 1990 to 2016.

The air pollution control pathfinder of reference sources has been updated.

Minor revisions have been made in the description of the events that led to *Massachusetts v. EPA* reaching the U.S. Supreme Court.

The D.C. Circuit's decision upholding the Obama administration's first regulation of greenhouse gas emissions in *Coalition for Responsible Regulation v. EPA* has been replaced with the U.S. Supreme Court's decision in *Utility Air Regulatory Group*.

A new section has been added on the Obama administration's efforts to use the Clean Power Plan to control emissions of greenhouse gases from powerplants and the Trump administration's efforts to repeal it.

Figure 5.5 comparing changes in levels of emissions with changes in population, vehicle miles traveled and economic growth has been updated with data through 2016.

In the fuel content section a discussion of litigation over the MTBE fuel additive has been updated.

In the section on California's special role in regulating greenhouse gases from mobile sources it is noted that California officials announced that they would redouble their commitment to control

GHG emissions in response to President Trump's June 2017 announcement that he intends to withdraw the U.S. from the Paris climate agreement.

Figure 5.7 reporting the levels of the current national ambient air quality standards (NAAQSs) has been updated.

Two paragraphs have been added to the excerpt from the D.C. Circuit's decision in *Lead Industries Association v. EPA* to better reflect the case's holding that economic factors cannot be considered by EPA when establishing NAAQSs. In the notes following the case an update on EPA's October 2016 decision not to revise the lead NAAQS has been added.

Figure 5.8's map of ozone non-attainment areas has been updated.

A new note has been added after the excerpt from the Supreme Court's decision in *Environmental Defense Fund v. Duke Energy, Inc.* discussing a dispute over whether the 1970 Clean Air Act actually grandfathered in old coal-fired power plants. Congressional staff involved in drafting the legislation claim it never was intended to grandfather existing power plants.

In the section on acid deposition a note has been added concerning the dispute between Pope Francis and an economist over the value of emission trading programs.

In the section on multi-state air quality problems the excerpts from the D.C. Circuit's decisions in *Michigan v. EPA* and *EME Homer City Generation, L.P. v. EPA* have been reduced to text and an excerpt from the Supreme Court's decision in *EPA v. EME Homer City Generation, L.P.* reinstating EPA's cross-state air pollution rule has been added.

## Chapter 6 – Water Pollution Control

Figure 6.1 summarizing assessments of the quality of the nation's waters has been updated.

Figures 6.3 & 6.4's descriptions of the leading causes and sources of impairment of U.S. waters have been updated.

After the excerpt from the Supreme Court's decision in *Rapanos v. U.S.* a note and Figure describing the December 2008 EPA and Corps of Engineers interpretation of the meaning of the "waters of the U.S." after *Rapanos* has been deleted. It has been replaced by a new section on the "Waters of the U.S." rule, which attempts to clarify the reach of federal jurisdiction under the Clean Water Act, and the Trump administration's efforts to repeal it.

After the excerpt from the Supreme Court's decision in *South Florida Water Management District v. Miccosukee Tribe of Indians* new notes have been added updating litigation over EPA's water transfer rule including the Second Circuit's split decision upholding the rule in *Catskill Mountain Chapter of Trout Unlimited, Inc. v. EPA*.

After the excerpt from the Supreme Court's decision in *Los Angeles County Flood Control District v. NRDC* a new note has been added describing what happened to the case on remand to the Ninth Circuit.

After the excerpt from the D.C. Circuit's decision in *NRDC v. Costle* a note describing the 1987 stormwater discharge amendments to the Clean Water Act and EPA's implementation of them has been streamlined.

An excerpt from the Third Circuit's decision upholding the Chesapeake Bay TMDL in *American Farm Bureau Federation v. U.S. EPA* has been added.

A note has been added after the excerpt from the Supreme Court's *Coeur Alaska* decision updating the opening of the Kensington Mine and how its dumping of tailings are "killing all aquatic life" in Lower Slate Lake.

In the section on wetlands identification and delineation the U.S. Supreme Court's decision in *U.S. Army Corps of Engineers v. Hawkes*, holding that wetlands jurisdictional determinations are judicially reviewable prior to any enforcement action, is described.

## Chapter 7 – Land Use Regulation and Regulatory Takings

In the initial section on land use and the environment, information on George Perkins Marsh's global influence has been added.

The pathfinder on public lands and natural resources law has been updated.

In the section on federal management of public lands the Ninth Circuit's en banc decision in *Organized Village of Kake v. U.S. Dept. of Agriculture*, vacating the Tongass Exemption from the roadless area rule is discussed.

A new paragraph is added to the section on federal management of public describing the Bureau of Land Management's Planning 2.0 regulations and their repeal by Congress using the Congressional Review Act in the early days of the Trump administration.

In the section on public use and the *Kelo* decision Professor Robert Ellickson's defense of *Kelo* on federalism grounds is mentioned.

A new section on the relevant parcel issue in regulatory takings jurisprudence has been added, including an excerpt from the Supreme Court's decision in *Murr v. Wisconsin* followed by new notes and questions.

## Chapter 8 – Environmental Assessment

The pathfinder on implementing NEPA has been updated.

In the notes after the excerpt from the Supreme Court's decision in *Kleppe v. Sierra Club* a new note has been added discussing President Trump's January 2017 Executive Order 13,766, entitled "Expediting Environmental Reviews and Approvals for High Priority Infrastructure Projects" and Executive Order 13,807 entitled "Establishing Discipline and Accountability in the Environmental Review and Permitting Process for Infrastructure," issued in August 2017.

After the excerpt from the Supreme Court's decision in *Department of Transportation v. Public Citizen* the note on the environmental impact statement for the Keystone XL project has been edited to eliminate outdated material.

An excerpt from the D.C. Circuit's August 2017 decision in *Sierra Club v. Federal Energy Regulatory Commission* requiring FERC to quantify in the environmental impact assessment of a pipeline project the impact of the natural gas transported by the pipeline on climate change has been added.

The Problem Exercise on the extent to which a project's impact on greenhouse gas emissions and climate change should be considered in conducting environmental impact reviews has been updated to include a discussion of the Council on Environmental Quality's August 2016 guidance and its revocation by President Trump's March 2017 Executive Order 13,783 on "Promoting Energy Independence and Economic Growth."

Two new notes have been added after the excerpt from Dreher's "NEPA Under Siege" to discuss ELI's "NEPA Success Stories" and post-mortems on why environmental reviews failed to present the Deepwater Horizon oil spill in the Gulf of Mexico.

## Chapter 9 – Preservation of Biodiversity

Data on the rate of species extinction has been updated.

In the notes after the excerpt from *TVA v. Hill*, a new note has been added referencing Zyg Plater's book on the snail darter case.

A note has been added after the excerpt from the Fourth Circuit's decision in *Gibbs v. Babbitt*, upholding the constitutionality of the Endangered Species Act, describing the Tenth Circuit's decision in *People for the Ethical Treatment of Property Owners v. U.S. Fish and Wildlife Service*, which reached the same result.

Three paragraphs have been added to the section on the listing process to describe efforts to avoid listings by the adoption of measures such as Candidate Conservation Agreements with Assurances.

A new paragraph has been added discussing congressional action that essentially delisted the gray wolf. Material on the policy on interpretation of the phrase "Significant Portion of its Range" also has been added.

Data on the number of species on the endangered species list have been updated.

Several paragraphs have been added discussing the designation of critical habitat for listed species. Changes to the habitat designation regulations adopted by the Fish & Wildlife Service and the National Marine Fisheries Service in 2016 are described. The Fifth Circuit's split decision in *Markle Interests, LLC* involving the designation of critical habitat for the dusky gopher frog in Louisiana is discussed. The U.S. Supreme Court subsequently agreed to review the legality of this designation in the *Weyerhaeuser* case that will be argued in fall 2018.

In the section on climate-threatened species, a description of the Ninth Circuit's decision in *Alaska Oil & Gas Association v. Pritzker*, which upheld the listing of the Pacific bearded seal, has been added.

In the section on delisting decisions the case excerpt from *Friends of Blackwater v. Salazar*, the D.C. Circuit's decision upholding a delisting despite failure to meet criteria in the species' Recovery Plan, has been reduced to a paragraph.

The pathfinder on protection of biodiversity has been updated.

In the notes following the excerpt from the *Thomas v. Peterson* decision a new note has been added on *Environmental Law Center v. U.S. Forest Service*, a Ninth Circuit decision finding that there is no presumption of irreparable injury for an ESA violation.

A new note has been added after the excerpt from the Supreme Court's decision in *National Association of Home Builders v. Defenders of Wildlife* discussing two Ninth Circuit decisions applying it - *Alaska Wilderness League v. Jewell* and *Cottonwood Environmental Law Center v. U.S. Forest Service*.

In the section on Private Actions, Incidental Takings, and Habitat Conservation Plans two new paragraphs have been added describing the procedures for obtaining an incidental take permit and the D.C. Circuit's decision in *Union Neighbors United, Inc. v. Jewell* upholding the issuance of such a permit for a wind farm.

The first note after the excerpt from the U.S. Supreme Court's decision in *Sweet Home* has been revised to include a description of the Fifth Circuit's decision in *Aransas Project v. Shaw* finding that the proximate cause requirement of *Sweet Home* was not satisfied when a district court required the Texas Commission on Environmental Quality (TCEQ) to obtain an incidental take permit before issuing new permits to withdraw water from rivers feeding an estuary where endangered whooping cranes live.

A new note has been added after the excerpt from *Sweet Home* discussing two district court decisions, one enjoining a project in order to protect the marbled murrelet (*Cascadia Wildlands v. Scott Timber Co.*) and another rejecting a claim that a dam had caused a take of a listed species (*Center for Environmental Science Accuracy & Reliability v. National Park Service*). Another note added after the *Sweet Home* excerpt discusses the split in the circuits over how to interpret a similar "take" prohibition in the Migratory Bird Treaty Act (MBTA). The Second and Tenth Circuits hold that the MBTA imposes strict liability for incidental takes of migratory birds, while the Fifth Eighth and Ninth Circuits hold that a "take" under the MBTA must include deliberate acts done intentionally to migratory birds

The material on the Northwest Forest Plan has been updated to discuss the results of a twenty-year assessment of the plan.

The final section on reauthorizing the Endangered Species Act includes two new paragraphs updating biologist Edward O. Wilson's estimate concerning the state of biodiversity and his urgent call for the creation of more protected habitat.

## Chapter 10 – Environmental Enforcement

The Volkswagen diesel emissions defeat device scandal is now included in the chapter's introductory paragraph.

In the section on monitoring and detecting violations a paragraph has been added describing how Volkswagen was caught due to independent emissions testing conducted by a non-profit group.

Data on the handling of whistleblower complaints has been updated through 2016.

The number of states with some form of audit privilege and/or immunity laws has been updated. Following the excerpt from EPA's policy on Incentives for Self-Policing a question has been added about the Volkswagen case and data on the number of times the policy has been used has been included.

The launch of EPA's eDisclosure portal in December 2015 is discussed.

In the section on penalty policies enforcement statistics have been updated.

A paragraph has been added reporting on the sharp drop in environmental enforcement actions during the Trump administration.

A paragraph has been added discussing Attorney General Jeff Sessions' decision to prohibit payments for supplemental environmental projects in settlements of environmental violations. After the excerpt from the Cedar Point Oil decision a note has been added on the Fifth Circuit's decision in *Environmental Texas Citizen Lobby, Inc. v. ExxonMobil Corporation* where the court reversed a decision by a district judge to impose no penalty on Exxon for numerous violations of the Clean Air Act.

The impact of the Civil Monetary Penalties Inflation Adjustment Rule is updated so that the \$25,000 fine specified in the Clean Water Act has become \$52,414 beginning in 2017.

In the section on criminal enforcement, data on the number of criminal prosecutions has been updated.

A new paragraph has been added discussing two books highly critical of criminal enforcement policies toward corporations – Brandon Garrett's *Too Big to Jail: How Prosecutors Compromise with Corporations* and Rena Steinzor's *Why Not Jail?* Reference is also made to a Justice Department forum on environmental enforcement published in the *Environmental Law Reporter* in 2017.

## Chapter 11 – Protection of the Global Environment

The chapter begins with two new epigrams – one from President Obama hailing the Paris climate agreement and the other from President Trump decrying it as he announces that he intends to withdraw the U.S. from it.

Data on global population and access to safe drinking water and sanitation has been updated.

The pathfinder on international environmental law has been updated.

After the excerpt from the International Court of Justice's Gabcikovo-Nagymaros decision four new notes have been added. The first describes how the ICJ operates. The others describe the ICJ decision in the dispute between Argentina and Uruguay over construction of a paper mill, the ICJ decision against Japan in the Antarctica whaling dispute, and the growth of specialized environmental courts around the world.

In the section on ozone depletion more background history has been added and a paragraph discussing the swift and unanimous ratification of the Montreal Protocol by the U.S. Senate is added.

The Kigali agreement to use the Montreal Protocol to phase out hydrofluorocarbons (HFCs), potent greenhouse gases, is discussed as well as the D.C. Circuit's split decision in Mexichem Flour, Inc. v. EPA, which makes it difficult to use Title VI of the Clean Air Act to do so.

The excerpt from the 2007 Synthesis Report of the Intergovernmental Panel on Climate Change has been replaced with an excerpt from the panel's 2014 report.

In the notes after the excerpt from the IPCC's Synthesis Report, Al Gore's "An Inconvenient Sequel," the sequel to "An Inconvenient Truth," is mentioned and a question is asked concerning whether a decision by EPA to repeal the endangerment finding for greenhouse gases would be upheld in court. Global temperature data is updated and the devastation wrought by Hurricane Harvey in Houston and Hurricane Maria in Puerto Rico is mentioned.

In the discussion of the UN Framework Convention on Climate Change a mention is added of the swift ratification of it by the U.S. Senate on October 7, 1992.

New material has been added to the discussion of the Copenhagen Accord to highlight China's resistance to capping the rise of its greenhouse gas emissions.

Following the Bodansky excerpt on the Durban Platform two new notes have been added discussing what the Kyoto Protocol accomplished.

A new section on the Paris climate agreement is added that includes an excerpt from the agreement followed by eight new notes.

In the section on international trade and the environment, data on trade volumes are updated and President Trump's withdrawal of the U.S. from the Trans-Pacific Partnership and his efforts to renegotiate NAFTA are discussed.

In the notes after the Fredriksson excerpt a new note is added reviewing an empirical study of the impact of trade liberalization on the environment.

A new section on regulation of greenhouse gas emissions from aviation is included that contains an excerpt from the European Court of Justice's decision upholding application of the EU's emissions trading scheme to aviation.

In the material on NAFTA new data is included on submissions to the North American Commission on Environmental Cooperation. A new paragraph has been included describing the Sierra Club's assessment of the first 20 years' experience with NAFTA.

In the section on international trade in hazardous substances, the treatment of tobacco companies by the Doggett Amendment and in the Trans-Pacific Partnership is discussed.

A new section has been added on “The Chevron/Ecuador Litigation, Kiobel and the Alien Tort Statute.” This includes considerable detail on the long-running litigation against Texaco (later Chevron) for pollution in Ecuador that initially was filed in federal court in New York. After the litigation was transferred to Ecuador at Chevron’s behest, a court in Ecuador rendered a \$8.6 billion judgement against Chevron, which then successfully sued the plaintiffs and their lawyers for fraud in federal court in New York.

In the section on international development policy and the environment, references have been added to Bruce Rich’s books *Mortgaging the Earth: The World Bank, Environmental Impoverishment*, and *The Crisis of Development and Foreclosing the Future: The World Bank and the Politics of Environmental*.

The discussion of voluntary corporate actions to improve the environment has been moved to Chapter 12’s new section on the rise of private environmental governance.

## Chapter 12 – Environmental Progress and Prospects

A new excerpt has been added from a review by the principal author of this casebook of *Rule of Law for Nature: New Dimensions and Ideas in Environmental Law*, edited by Christina Voigt of the University of Oslo. The excerpt summarizes ideas for the future of environmental law articulated by scholars from around the world, evaluating the prospects for transforming the legal system into a rule of law for nature.

A new section has been added on the rise of private environmental governance including some of the ISO material that formerly was in Chapter 11, product labeling and product certification programs, SEC disclosure requirements, the Carbon Disclosure Project, CERES, and the Equator Principles.

## Index

A search of the electronic version of the new edition reveals that the Trump administration is mentioned 30 times, but for reasons unknown to the authors, the indexing program used by the publisher did not include the word “Trump” in the new index. Don’t tell the White House.

## Appendix A - Glossary

New entries have been made to the Glossary, including “anthropocene” and “co-benefits”.

## Appendix B – Acronym List

New acronyms have been added, including “WOTUS” and “CARB”.



