Foreword

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We are honored to introduce the *Ecology Law Quarterly*’s 2012-2013 Annual Review of Environmental and Natural Resource Law. Now in its ninth year, the Annual Review is a collaborative endeavor. The Annual Review’s foundation is University of California, Berkeley School of Law’s renowned environmental law program, which is home to many of the leading scholars in the field. Their research and teaching depends upon the resources, financial and otherwise, in Boalt Hall and the Center for Law, Energy and the Environment. More directly, the Annual Review is the product of the hard and selfless work of the ELQ editorial board and members. ELQ is the leading journal in the field because of their passion and commitment. Three students deserve special recognition. Soon to be members of the Bar, Somerset Perry, Nicholas Jimenez and Alexander Bandza devoted a large portion of their final year of law school assisting and advising the student authors. The Annual Review is infused with their talent and insights.

Finally, the Annual Review would not be possible without the extraordinary group of student authors. The articles that follow are a product of their aptitude and zeal for the law. We are grateful to have had the opportunity to direct this special group of future lawyers.

Law professors and students, practicing lawyers and judges, legal historians and countless other scholars seeking insights into the major developments in environmental, natural resource and land use law during 2011-2012 will benefit from this Annual Review.

The casenotes touch upon most of the major federal environmental statutes. Two focus on decisions of the Texas Supreme Court that may well be a harbinger of things to come in other states. In a break from the prior year, only two Ninth Circuit decisions are addressed. Not surprisingly, several of the decisions discussed in the following articles touch upon climate change.

**CLIMATE CHANGE**

Climate change is threatening our ecosystems in ways known and unknown. Because its long term effects are difficult to predict, climate change presents unique challenges to resource managers. Two articles address climate change impacts.
Since the developed world lacks the political will to curb carbon emissions, adaptive management has emerged as the dominant response to climate change. In “Adaptive Management in the Face of Climate Change and Endangered Species Protection,” Emily Gardner examines the challenges resource managers confront in applying adaptive management theory to species protected by the Endangered Species Act (ESA) against the backdrop of the Ninth Circuit Court of Appeals’ decision in Greater Yellowstone Coalition v. Servheen. The grizzly bear had been designated in the 1970s a threatened species under the ESA. In 2007, the U.S. Fish and Wildlife Service proposed to de-list the Yellowstone population of the bear amid evidence of a rebound in that segment. The Service devised an adaptive management plan to monitor the bear population following de-listing, but the Ninth Circuit rejected de-listing because the plan failed to adequately address the effects of climate change on one of the bear’s major food sources. Drawing upon the failures of the adaptive management plan in Greater Yellowstone Coalition, Ms. Gardner advocates support for the recently developed National Fish Wildlife and Plants Climate Adaptation Strategy. She concludes that the Strategy has the potential to benefit the growing number of U.S. species whose survival is threatened by climate change, and may ultimately provide a viable solution for resolving current management issues.

In Wyoming v. USDA, the Tenth Circuit Court of Appeals upheld the U.S. Forest Service’s so-called Roadless Area Conservation Rule. In “Wyoming v. USDA: A Look Down the Road at Management of Inventoried Roadless Areas for Climate Change Mitigation and Adaptation,” Elisabeth Long considers whether active management for climate change adaptation and mitigation is feasible, necessary, and defensible in the Inventoried Roadless Areas (IRAs) protected by the Roadless Rule. She notes that in a changing climate, the Rule is critical because it prevents development, minimizes habitat fragmentation and the spread of invasive species, and protects water quality and yield. But Ms. Long argues that more is needed to ameliorate the impacts of climate change on threatened species dependent on roadless areas. She concludes that management in IRAs must be based on a comprehensive set of criteria for prioritizing roadless areas for climate change mitigation and adaptation treatments.

PROPERTY RIGHTS

Three articles address concerns likely to become more important as climate change takes its toll. One deals with property rights in the face of severe storms transforming the landscape. The other two focus on water scarcity.

In Severance v. Patterson, the Texas Supreme Court held that Texas does not recognize “rolling easements”—easements that move with a shifting shoreline—where the change is the result of hurricanes and other “avulsive”
events. On the other hand, the court held that easements move when the shoreline changes as a result of less dramatic erosion. In "Severance v. Patterson: How Do Property Rights Move When the Dynamic Sea Meets the Static Shore?,” Gwynne Hunter argues that the Texas court could have upheld rolling easements without wading into the murky waters of the avulsion/erosion distinction. She also articulates strategies to balance the competing interests of states and private property owners caught in circumstances that might justify a rolling easement.

Mixing water science with uncertain legal regimes often built on outdated assumptions produces thorny issues for courts, legislatures, and water managers. Texas has long adhered to the common law rule of "capture," which allows landowners to consume as much groundwater as they can pump, without regard for neighbors' groundwater supplies. The Texas Supreme Court went a step further in Edwards Aquifer Authority v. Day, holding that landowners have vested rights in groundwater while it is in place prior to capture. The decision has been criticized for its implications on groundwater management. But Heather Welles argues in "Toward a Management Doctrine for Texas Groundwater" that the decision carves a path toward more aggressive regulation. Ms. Welles concludes that modern management goals demand more comprehensive, flexible, and expert management than an adjudicatory strategy can provide.

Ownership of land beneath rivers and streams might seem like a technical point rarely relevant in the real world, but ownership matters very much for the angler legally fishing from a canoe who is cited for trespass when his fishing lure grazes a shallow river bed, as well as the riparian landowner whose privacy is violated by recreational motorists legally traversing a dry riverbed that was once a flowing waterway. In PPL Montana v. Montana, the U.S. Supreme Court clarified its approach to determining navigability for purposes of ascertaining riverbed title. Its ruling highlights the importance of the menagerie of western states' public stream access laws. In "PPL Montana v. Montana: From Settlers to Settled Expectations," Nathan Damweber argues that western states should carefully balance the competing interests of public recreationists and private riparian landowners, and liberalize stream access laws regardless of title to the land. He makes the case for continued protection of our natural resources and landowners' property rights through such mechanisms as direct regulation and licensing schemes.

ENFORCEMENT AND GOVERNMENT LIABILITY

Protecting the environment often boils down to determining who can sue whom, how the action arises, and the appropriate remedy. Four articles address these questions.

New Orleans residents sued the U.S. Army Corps of Engineers under the Federal Tort Claims Act for negligently constructing and maintaining a
shipping channel which, in the midst of Hurricane Katrina, allegedly caused flooding that destroyed their homes. The Corps asserted immunity under both the Flood Control Act, which shields government flood-control projects from liability, and the Federal Tort Claims Act, which bars actions where the damage stems from government’s exercise of a discretionary function. In In re Katrina Canal Breaches, the Fifth Circuit Court of Appeals unanimously held that sovereign immunity did not apply. But several months later, in a remarkable turn of events, the same Fifth Circuit reversed course and held that the Corps’ was immune from liability because its management of the channel involved discretionary policy considerations. In “Reining in Sovereign Immunity to Compensate Hurricane Katrina Victims,” Katie Schaefer argues that a broad interpretation of laws immunizing the government from lawsuits is inappropriate the context of disasters like Hurricane Katrina. She asserts that holding government agencies accountable for negligence would encourage federal agencies to internalize the environmental externalities of its development activities, and reframe disaster policy to strengthen infrastructure before the next hurricane hits.

Although hailed by commentators as a “model of cooperative federalism,” states and EPA are often at loggerheads in enforcing the Clean Air Act (CAA). EPA lacks the resources to closely monitor states, so states often shirk their obligations under pressure from the regulated community. Environmental groups have long used the citizen suit provision to challenge states thought to be failing to fully implement the CAA. But in Sierra Club v. Korleski, the Sixth Circuit Court of Appeals determined that the citizen suit provision does not authorize suits against state agencies in their capacities as regulators, finding that such suits would “disrupt the balance” between states and the federal government under the CAA. In “Why Citizen Suits Against States Would Preserve the Legitimacy of Cooperative Federalism Under the Clean Air Act,” Anuradha Sivaram challenges the Sixth Circuit’s rationale. She argues that citizen suits seeking to prevent states from flouting voluntary CAA obligations offends neither the Tenth nor Eleventh Amendments of the U.S. Constitution, and promotes the legitimacy of the cooperative federalism scheme.

For nearly forty years, EPA and the Army Corps have relied heavily on administrative compliance orders to enforce the Clean Water Act. But in Sackett v. Environmental Protection Agency, the U.S. Supreme Court decided that such orders are subject to judicial review on the underlying question of jurisdiction before EPA brings an enforcement action. In “Sackett’s Limit,” Nathaniel Johnson explores the consequences of and possible limits on this momentous decision. He argues that Sackett should be narrowly construed to avoid the unfortunate ecological consequences of the Supreme Court’s hostility to water quality regulation.

Monetizing damage to a natural resource—like putting a number on pain and suffering—is inherently uncertain. In United States v. CB & I Constructors, Inc., the Ninth Circuit Court of Appeals upheld a jury’s determination of the
damage caused by a wildfire in a national forest. Juries are given wide latitude in fixing damages in cases involving pain and suffering and dignitary harms. But in actions involving harm to natural resources, courts usually require some actual evidence of damages. A common method is known as contingent valuation, which is premised on polling non-witnesses. In “The Verdict on Environmental Harm: Leave it to the Jury,” Mary Loum compares the manner in which damages are proven in cases involving natural resources and pain and suffering. She argues that given the similar rationale for awarding damages at all in both types, jury determinations of natural resource damages in the absence of actual evidence are no less appropriate. Ms. Loum also describes the California legislation enacted in response to CB&I, which limits awards for destruction caused by fires. She suggests that to the extent the new law forces litigants to employ valuation methods like contingent valuation, it is a step in the wrong direction.

**NATIONAL ENVIRONMENTAL POLICY ACT**

Our National Forests are home to not only abundant ecological resources, but also important underground oil and natural gas reserves. The rights to many of these reserves are privately owned, thus giving rise to a “split estate” arrangement demanding cooperation between the U.S. Forest Service and private mineral rights holders. The difficulties in achieving the necessary cooperation were illustrated in *Minard Run Oil Co. v. U.S. Forest Service*. The Third Circuit Court of Appeals evaluated the Forest Service’s authority to subject private drilling activities to environmental review under the National Environmental Policy Act (NEPA). The court rejected the Forest Service’s assertion of authority under the Weeks Act, which governs the acquisition of forest land in the eastern United States. Jessica Diaz critiques the Third Circuit’s interpretation of the Weeks Act and NEPA in “A Forest Divided: *Minard Run Oil Co. v. U.S. Forest Service* and the Battle over Private Oil and Gas Rights on Public Lands.” She also examines the decision’s implications for the regulation of hydraulic fracturing, or “fracking.” Ms. Diaz concludes that given the inability of other federal environmental laws to curb the impacts of fracking, NEPA review of private drilling activities on public lands is appropriate.

Congratulations to the ELQ board and members and, of course, to the authors.