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HOW THE COURTS HELPED DEGRADE THE ILLINOIS RIVER

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The Illinois River is currently a navigation channel and an agricultural drain. Its floodplain serves as a massive farm. About 150 years ago, however, the river was a clear waterway and the floodplain was a vibrant commons. This drastic modification was made possible by economic and social forces and by advances in construction technology, such as large-scale dams and levees. The law, however, played a crucial role in this process.

Common law, federal constitutional law, and state legislation all helped to change the Illinois River valley landscape by both encouraging massive landscape modifications and allowing these modifications to occur with scant assessment of their adverse environmental impacts. For more than two centuries, land and water law have detached property rights from specific landscapes, thus contributing to landscape degradation. The legal role in this process must be understood because restoration ultimately will require some redefinition of both land and water rights to include a landscape conservation component.

As a result of the modern environmental

movement, we now understand better the environmental and social costs of the extensive landscape modification that occurred during the settlement of the country and the application of new technology and large-scale public works in the past century. Specifically, we have a much better understanding of the ecosystem services that are lost when floodplains are destroyed, especially the loss of flood protection capacity and biodiversity (Sparks et al., 1998). Today, the state of Illinois is supporting "Illinois Rivers 2020," a proposed \$2.5 billion, 20-year federal and state initiative to restore the waterway and to improve its water quality. The program may include wetlands and backwater lake restoration, sediment load reduction, and other environmental protection initiatives.

COMMON LAW V. MODERN LAW

The common law of riparian rights has three principles that reinforce the protection of the river's ecosystem services. First, the core idea of riparianism is that in situ uses are the norm and ex situ ones the exception. Second, the watershed rule limits uses to a stream's watershed or at least gives users in the watershed a preference over users outside the watershed. Third, the resource must be shared widely within the watershed. Common law riparian rights are correlative: each riparian's right must be exercised in relation to other similarly situated riparians. This sharing principle makes it easier to require

that riparian rights incorporate the idea that the ecological integrity of the watershed be conserved.

These principles were thought to be antithetical to economic development and they were extensively modified over the past two centuries. As a result, modern land and water law favor individual choice and restrict it only when there is demonstrable economic or health impacts to other humans or if the economic use of similarly-situated land and water is impaired. Current land and water rights are entitlements that both represent exclusive and semi-exclusive abstract relationships. They are not specific in time and place. As a result, the law turned both land and water into commodities to facilitate intensive development. Water law was largely changed from a conservation law for watersheds and river corridors, to law which transformed rivers into channels and drains and transformed the surrounding landscape into farms. Rights were assigned to individuals rather than geographical entities.

The history of intensive development of the Illinois illustrates how these modifications were made possible by both technological and legal developments. The result of these modifications has created the current view of the river as a navigation channel and a drain. The corollary to this is that the floodplain is viewed as a farm.

THE RIVER AS A NAVIGATION CHANNEL

Laws tend to adapt to the economic and social realities of the time, and the history of navigation and development on the Illinois is a good example of this. Although rivers have always been used for transport, it wasn't until the 19th and 20th centuries that technologies (e.g., slackwater dams, locks, and canals) were sufficiently developed to free us from dependence on seasonable flow cycles. These navigation enhancement projects re-

quired considerable financial capital, and, at first, the state supplied it. One of the great engineering feats of the 19th century was the connection of the Great Lakes to the Mississippi. The state of Illinois financed construction of the I&M Canal, the Chicago Sanitary and Ship Canal, and the Illinois Waterway which connected the Great Lakes to the Mississippi (Lanyon, 2000). In 1933, the federal government, through the U.S. Army Corps of Engineers, assumed control of the water as part of the general federalization of river management.

Federal constitutional law and state law contributed to this development process: Federal laws allowed federal government to assert control over the use of navigable waters. State laws allowed for state government to declare the Illinois a public waterway. Thus, both governments could dedicate it for navigation, improve the river to facilitate commercial and recreational navigation, and prevent inconsistent uses. It also means that any member of the public—from a commercial shipper to a weekend boat—has a public right to navigate the river.

Historically, navigability is both the basis of federal power over a waterway and the basis of the public's right of access. In English common law, however, the Illinois would not have been a "navigable" river. In England, only rivers affected by the ebb and flow of the tide were navigable. Riparian owners would own to the middle of the stream and could bar all boat traffic as a trespass, and the federal and state governments would be without power to regulate the use of these waters.

The source of federal power over waters today is the Commerce Clause of the U.S. Constitution (Article I, Section 8). The U.S. Supreme Court early equated the federal government's power under this clause with the protection and improvement of navigation. In the 19th century, proponents of national development argued that the com-

mon law definition of navigability was too narrow and unsuited to the need for federal assistance in promoting the settlement of the West. In 1851, the U.S. Supreme Court held that admiralty jurisdiction extended to non-tidal navigable waters (*Propeller Genesee Chief v. Fitzhugh*, 53 U.S. 443 (1851)). Nineteen years later, the court defined navigable waters as those that are navigable-in-fact “when they form in their ordinary condition by themselves or uniting with other waters, a continued highway” in the chain of interstate commerce. (The *Daniel Ball*, 77 U.S. 557 (1870)). Later courts held that navigable rivers also included those that could be made navigable by improvements. The navigable-in-fact definition brought the Illinois River within the reach of the federal Commerce Clause.

Navigability also determines the ownership of the beds of navigable streams. In 16th century America, the Crown of England asserted ownership of the beds of tidal navigable waters and the foreshore of its coast, and this ownership passed to the states after the American Revolution. Ironically, the common law legacy lives on in Illinois. In 1842, the Illinois Supreme Court held that the state followed the English common law test of navigability, although there are no tidal waters in the heartland of America (*Middleton v. Pritchard*, 4 Ill. (3 Scam.) 510 (1842)). The ruling was absurd, but the state Supreme Court has continued to adhere to this doctrine in the face of persistent arguments that it is irrational and unscientific. The court has applied this doctrine to the Mississippi and every lesser navigable-in-fact river in the state (*Butternuth v. St. Louis Bridge Co.*, 17 N.E. 439 (Ill. 1888)). Thus, “there are no navigable streams in or abut-

ting Illinois for the purpose of state ownership of the bed” (Beck, 1985, p. 333).

The logic of the fiction that only tidal rivers in Illinois are navigable would seem to deprive the state of jurisdiction over all inland streams. However, such a role would block economic development and courts seldom actively retard such development.

The logic of the tidal test of navigability was not applied to state power over the state’s large rivers and, thus, impact of the bed ownership rule has not been great. The state Supreme Court recognized that private bed ownership is subject to the common law right of public navigation for all waters that are navigable-in-fact under the federal test.

The idea that common resources such as rivers are best used when there is open rather than controlled access can be traced to Roman law. The public right of navigation is said to impose a trust duty on the state to protect it from interference and empowers the state either to finance navigation improvements directly or to license private navigation improvements (*People v. City of Saint Louis*, 10 Ill. (5 Gilm.) 351 (1848)). Thus, even though the state does not own the bed of the Illinois, it can regulate the riparian use of the stream to prevent navigation obstructions.

THE RIVER AS A DRAIN

The Illinois is an agricultural drain because of the ineffectiveness of the common law, the decision of the state of Illinois to encourage agriculture in the floodplain, and the decision of Congress to leave the common law in place as an exception to the Clean Water Act of 1972.

The U.S. Supreme Court in 1906 con-



THE LAW TURNED BOTH LAND AND WATER INTO COMMODITIES TO FACILITATE INTENSIVE DEVELOPMENT.

firmed the Illinois' status as a drain by making it virtually impossible for any other state to object to Illinois' use of the river. Missouri sued to protect the health of residents of St. Louis and other riparian cities from the sewage sent by the reversed Chicago River into the Mississippi. Missouri alleged that the increased sewage load contributed to outbreaks of typhoid fever and invoked the common law rule that a riparian had a right to the flow of a stream unimpaired in quality and quantity.

Missouri faced two problems that remain typical of pollution suits, especially on large rivers. First, it too discharged untreated sewage into the Mississippi. The state literally did not have clean hands. Second, it is difficult to link a distant discharge with a downstream health impact. On the facts, the court held that Missouri had not met its burden of proof (*Missouri v. Illinois* (200 U.S. 496 (1906))).

Missouri v. Illinois was not surprising, given the widespread use of rivers as drains before World War II. Since then, we have stopped using rivers as drains, and municipal sewage now is treated before it is discharged, as is industrial wastewater streams. Agricultural runoff, pesticides, fertilizers and sediment, however, are not subject to similar treatment. The reason lies in the Clean Water Act of 1972 (CWA).

The CWA divided pollution sources into two basic categories: point and nonpoint sources. Point sources, such as factories and other industrial dischargers, are subject to a nationwide technology-forcing permit system which imposed progressively higher treatment levels. In the mid-1970s, the federal Environmental Protection Agency exempted as point sources agricultural drains and return irrigation flows. This administrative decision, however, was invalidated by a federal appeals court (*Natural Resources Defense Council v. Train*, 568 F.2d 1369 (D.C. Cir. 1977)). In 1977, the agricultural lobby was able to use its considerable politi-

cal power to persuade Congress to exempt agricultural return flows from the CWA, rather than subject them to a permit program. Congress did impose a federal-state planning program, but it has proved to be largely ineffective. All recent assessments of the CWA conclude that, in many cases, gains from point source cleanups have been offset by increased pollution from unregulated nonpoint sources (Adler, Landman and Cameron, 1993).

All landowners along the bank, as well as those non-riparians who discharge into the river, owe others along the river a duty not to pollute it. Although sediment discharge is a form of pollution, it is very difficult to hold a person liable for such incremental discharges. Each of these discharges is potentially a common law nuisance as well as a violation of federal and state pollution law, but there is almost no enforcement. The net result is that there is a de facto right of agricultural pollution discharge.

THE FLOODPLAIN AS A FARM

The Illinois' floodplain is used primarily for agriculture. The state has facilitated this use indirectly by following the common law of property rights and directly by creating new Illinois drainage laws.

United States land law has always promoted the settlement and intensive development of land (Bosselman, 1994). In addition, the law frustrates the integration of land and water use by allocating land and water by two different property rights regimes. One, water, is premised on shared, naturally-related property rights, and the other, land, is premised on exclusive property rights. The fundamental, but artificial dichotomy between land and water makes it difficult to integrate land and water management through existing land use and environmental regulatory regimes. For example, land use planning and regulatory regimes

often exclude the watershed and riparian impacts of the use of rivers.

The lack of integration is illustrated by an 1899 challenge to a municipal drain that deposited silt, sand, and soil into the Illinois River. The plaintiff (canal commissioners) argued that the discharge impeded the navigability of the Illinois River, but the court held that the commissioners lacked jurisdiction over the particular stretch of the river and was not impressed with the plaintiff's case on navigation interference (*Canal Commissioners v. Village of East Peoria*, 53 N.E. 633 (Ill. 1899)).

American land law has been premised on the idea that rapid development should be encouraged, and Illinois' drainage law is an illustration of such encouragement. At common law, land owners had limited and uncertain rights to drain because the common law imposed potential liability for drainage that injured other property owners. There are several rules for liability for drainage, and Illinois adopted the so-called "civil law" rule. This forced lower landowners to accept natural drainage for the benefit of upper landowners.

However, at the end of the 19th century, Illinois law was quite uncertain, and many open questions, especially involving large rivers, remained (Mann, 1964, pp. 139–142). Under Illinois common law, an upper landowner had the right to pass the natural drainage on to a lower landowner. This right was subject to possible liability if the drainage patterns were altered "beyond what may be required for good husbandry" (*Templeton v. Hess*, 311 N.E.2d 141 (Ill. 1974)). In addition, the Illinois Supreme Court suggested that there was no right to drainage into a large lake, if the drainage destroyed the use of the lower land (*Peck v. Harrington*, 109 Ill. 611 (1884)).

The uncertainties of the common law created substantial risks to landowners who drained their land. The state legislature in-

tervened to remove this liability and to create incentives to drain land (*Turley v. Arnold*, 51 N.E.2d 176 (Ill. 1943)). Today, an upper landowner who uses open drains generally is not liable for any damage to lower landowners (70 ILCS 605/2-1). The more important consequence of the drainage law is that it allowed a minority of local landowners to form a drainage district by judicial decision to force dissenting landowners to join—so long as their lands were benefited by the district—and to levy taxes for construction of levees and drains.

The net result has been the construction of many levees and drains along the Illinois, to the detriment of the backwater lakes and the river. To make matters worse, Illinois drainage law has created what the economists call a "moral hazard." People use the floodplains on the assumption that when a flood strikes they will be either protected or compensated. Floods still occur—because the navigation dams on the river are not flood control structures—and the dollar amount of the damage continues to rise. The drainage law has been amended to require that drainage and levee districts protect the environment, including wildlife habitat, but this duty only requires "all practicable means and methods" and is applicable only to the drainage courses in the district, not the entire area (70 ILCS 605/4-15).

FEDERAL TAKINGS LAW

The single, largest legal barrier to the protection and restoration of river corridors is the possibility that the necessary, intensive regulation will be found to be an unconstitutional "taking" of private property without due process of law. The Fifth Amendment prevents state regulation that constitutes a taking of property. Therefore, river corridor protection—an important component of biodiversity protection—is difficult to accomplish because it requires intrusive land use controls.

All land use regulation, especially the protection of sensitive lands, disturbs political and legal expectations of easy and rapid land conversion. Land is a form of exclusive private property, and the U.S. Supreme Court recently pronounced that land is the highest form of private property (*Lucas v. South Carolina Coastal Council*, 112 S.Ct. 2886 (1992)). In *Lucas*, the court held that a state beachfront setback line imposed to protect property from erosion was an unconstitutional taking of the owner's property because it virtually destroyed the development value of the lot.

There are two major issues in takings law: (1) what percentage of the value of the property can a regulation diminish? and (2) can a total diminution in market value ever be excused? The most far-reaching aspect of *Lucas* is that a regulation with a substantial economic impact may only be justified if the limitation inheres "in the title itself, in the restrictions that the background principles of the state's law of property and nuisance already place on land ownership...." *Lucas*, however, did recognize that a property owner cannot claim that a government regulation constitutes a taking if the regulation codifies "background principles of nuisance and property law." It is clear that Justice Scalia (writing for the majority) did not intend it as a widely available justification for severe regulations. His view, however, may be an overly cramped reading of the common law. For example, the doctrine has in fact long been part of the common law (Halper, 1998). The Supreme Court has consistently held that Mill Dam Acts (enacted to promote mill power by colonial and early state legislatures) allow downstream riparians to flood upper riparians upon the payment of damages because the long standing practice "enters as an incident into the nature of property..." (*Otis Co. v. Ludlow Manufacturing Co.*, 201 U.S. 140 (1906)).

The court's takings jurisprudence is open to many criticisms. The most powerful is that it is ahistorical. The original meaning of a taking was to expropriate a title, not to regulate it. Colonial and early state legislatures regulated the use of property extensively. Bosselman (1996) has traced the common law roots of wetlands regulation and found extensive control of wetland use in common law England. Thus, common law-based background limitations reflect the idea that property is a legal construct which has historically reflected both public and private interests (Hart, 1996). The Constitution permits the state to define the scope of the use by providing property owners with adequate notice of the nonrecognition of a claim. These background limitations can support more intensive regulation of resources, such as wetlands, that have long been subject to judicial and administrative control.

Critics of *Lucas* also argue that a federalism reading of the *Lucas* qualification would afford substantial deference to state law to define the background conditions (Michelman, 1993) and would support a less unidimensional conception of property than is currently reflected in Supreme Court jurisprudence. A federalism approach to the definition of property rights would permit states to integrate an ecosystem approach into takings law. This analysis is a direct application of Aldo Leopold's land ethic articulated in *A Sand County Almanac* (Sax, 1993). The argument is that property is ultimately a usufruct (i.e., the right to use or enjoy without altering the property) rather than an exclusive right to maximize exploitation (Freyfogle, 1995). Courts have held that there is no common law water right to drain a wetland and that regulations which prevent the draining and filling of wetlands are unconstitutional acts only if they deprive the property owner of a substantial portion of the economic value of the owner's adjoining tracts of land.

River restoration advocates must under-

stand that, despite *Lucas*, two contradictory trends are taking place in United States takings law. The first seeks to codify the restrictive tests of *Lucas* and impose extra-constitutional compensation burdens on states. The countertrend seeks to protect biologically-sensitive lands either by preventing development or by allowing development, but requiring the developer to mitigate the adverse effects of the project.

The first trend in effect requires states to pay to protect the environment. Several states have passed property rights legislation that either requires some form of property rights impact assessment, modeled on environmental impact assessments, or contains a substantive standard—beyond that required by federal and state constitutions—to determine when a landowner is entitled to compensation. For example, the Florida Property Rights Act entitles an owner to compensation if a regulation inordinately burdens his land or he “bears permanently a disproportionate share of a burden imposed for the good of the public, which in fairness should be borne by the public at large” (Fla.Stat. § 70.001(3)(e) (1995)). Illinois has not yet passed such legislation, but extensive environmental restoration may ignite efforts to secure legislative property rights protection beyond the generous protection offered by state and federal courts. (Illinois is nationally known for its judicial bias favoring intensive land development over less intensive options.)

The countertrend seeks to protect biologically-sensitive lands such as wetlands and endangered species habitats. States can do this either by preventing development or by allowing development but exacting mitigation (either in the form of dedicated land for natural use or payment of fees). State courts have shown considerable support for these efforts, both by holding that the right to create an environmental hazard is not constitutionally protected and by supporting mitigation schemes. [See *Colorado Department of Health*

v. The Mill, L.P. 887 P.2d 993 (Colo. 1994) and the Massachusetts case of *Hunizker v. State*, 519 N.W.2d 367 (1994), cert. denied, 115 S.Ct. 1313 (1995).]

In short, the constitutional law of takings has a chilling impact on river restoration proposals. A close analysis of the cases and the history of the takings clause suggests, however, that governments retain considerable power to redefine water and water-related property rights to include an environmental protection component.

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