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How the Endangered Species Act Helped Texans Overcome Intractable Economic and Environmental Conflicts

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In 1973, President Nixon signed the Endangered Species Act into law. The act was intended to prevent extinction by using regulations to protect vulnerable species and their habitats. Under the law, the U.S. Fish and Wildlife Service is required to develop site-specific plans to promote recovery in the population of an "endangered" species. That classification is applied to a species depending on its likelihood of extinction according to available environmental and population studies.

Since its passage, the Endangered Species Act has been controversial. Some environmentalists believe it does not go far enough to protect endangered species. Of the more than 2,000 species listed as endangered, only 28 have recovered, indicating only a one percent success rate for this legal approach. Other environmentalists herald notable victories, point out that the act has helped preserve the bald eagle, the peregrine falcon, the grizzly bear, the grey whale, and multiple species of wolf. However, opponents who have long criticized the Endangered Species Act for its economic costs and infringement on private property rights. Most memorably, the act was at the heart of a battle between the local timber industry and environmentalists in the Pacific Northwest, who invoked the presence of the endangered Northern Spotted Owl to prevent logging in the last old-growth forest.

Because conventional wisdom suggests that environmental protections hamper economic growth, many believe the Endangered Species Act provokes inevitable conflict between environmentalists and property owners. However, experiences in the region around San Antonio, Texas, serves as a counterpoint to this narrative. In Texas, the Endangered Species Act helped save several local economies and ended decades of political gridlock over the use of the Edwards Aquifer, a shared water supply.

Legal Solutions that Fall Short

Many natural resources are finite, and human demand often greatly exceeds their limited supply. While most commodities follow a market logic and rely on price increases to control production, distribution, and levels of use, the market often fails to regulate natural resources effectively. History is rife with "market failures" that brought about extinctions, excessive pollution, and resource exhaustion.

Legal solutions are often insufficient for sustaining natural resources. Over decades, Arizona legislation regulating groundwater has been repeatedly weakened in response to political pressures. Similarly, the Trump administration quickly unraveled the Clean Power Plan, which the previous administration developed to ratchet down greenhouse gas emissions.

Given the limitations of previous approaches, how might natural resources achieve sustainability? In San Antonio, various factions with a stake in the Edwards Aquifer had been feuding for over half a century over its limited water supply. After decades of dispute, the interested parties finally came to an agreement that successfully manages their scarce resource – and it took the Endangered Species Act to push the parties toward compromise.

How San Antonio Succeeded

For over a century, the city of San Antonio had the legal right to pump all the water from the Edwards Aquifer, because Texas holds to the "rule of capture" – meaning the first person to capture a resource, owns the resource. However, if the Edwards Aquifer drops beyond a certain threshold, it would dry up the springs that feed the Guadalupe River and all the towns that rely upon it for their water supply. Vicious political battles proved too vicious for the Texas State Legislature to resolve.

Finally, the Sierra Club brought forward a lawsuit claiming that seven species would go extinct should the springs erupting from the Edwards Aquifer go dry. Federal Judge Lucius Bunton sided with the Sierra Club. He set a strict deadline for establishing a habitat recovery plan. His ruling stated that if the local community could not come together to preserve the species, then the federal government would seize control of the aquifer. Aiming to maintain local control, the stakeholders began a process that created an approved habitat recovery plan. The river communities were given guarantees about their water supplies; permit holders were assured their supply; and all parties were assigned responsibilities for dealing with periods of drought. The San Antonio Water System now boasts one of the strongest water conservation programs in the country. The Endangered Species Act ended decades of water conflict and produced economic benefits for all parties involved.

Why the Endangered Species Act Worked

By binding various stakeholders' economic interests to the survival of the endangered fish species, the courts helped ensure the sustainability of the springs. There had to be a minimum flow through the springs to ensure the species' survival. No party could stake a claim that would deplete the aquifer beyond this threshold of sustainability. If at any point the aquifer levels fall below that threshold, the federal government could still seize and regulate the aquifer to prevent the extinction of the species. The threat of federal regulation remains in place indefinitely, so local stakeholders have no interest in walking back their commitments over time.

While the Endangered Species Act may not be applicable in all cases, the underlying principles that brought the Edwards stakeholders together can guide other future policies for environmental protection. To begin, environmentalists, local community stakeholders, and policymakers should work together to determine scientific benchmarks that ensure their ecosystems' survival. The perpetual threat of command-and-control regulation is then needed to ensure that benchmark is met in a sustainable way. Building on the example of the Edwards Aquifer solution, local communities across the country can ensure economic and environmental sustainability – even when political gridlock and misaligned incentives make that ideal seem unreachable.

Read more in Kate Pride Brown, "Multilevel Governance and Minimum Flow: The Varying Conservation Outcomes of Water Conflict Resolution," in *Environment, Politics, and Society*, (2018): 25-44.