



stances Control Act, the Occupational Safety and Health Act, the Resource Recovery Act, the Federal Environmental Pesticide Control Act, the Endangered Species Act, the Safe Drinking Water Act, and the Surface Mining Control and Reclamation Act. On January 1, 1970, the National Environmental Policy Act (NEPA) was signed into law. NEPA requires federal agencies to integrate environmental values into their decision-making processes. This federal requirement gave birth to the Environmental Impact Statement (EIS), a key document prepared by federal agencies including the impact on the environment of proposed actions and the listing of reasonable alternatives to those actions. The Environmental Protection Agency (EPA) was authorized under the NEPA. The mission of the EPA is straightforward: to protect human health and the environment. In place since 1970, the EPA works toward the development and maintenance of a clean and healthy environment for the American people. The EPA is headquartered in Washington, D.C., has 10 regional offices, and employs 18,000 people.

#### AHEAD OF HIS TIME

The founder of Earth Day and its most energetic supporter, Senator Gaylord Nelson is considered to have been far ahead of his time on the environmental front. As governor of Wisconsin in 1961, he created the Outdoor Recreation Acquisition Program. The aim of this program was the state acquisition of one million acres of wetlands, parklands, and open space for common use. While in the U.S. Senate, he authored legislation to protect the Appalachian Trail and the creation of the system of national hiking trails. In addition, he co-sponsored the Wilderness Act, the Alaska Lands Act, and worked on various aspects of consumer protection and protection of national parks. In 1990, Senator Nelson received the Ansel Adams Conservation Award, given to a federal official exhibiting commitment to the cause of conservation and to the American Land Ethic. He was also a recipient of the Only One World Award from the United Nations Environment Program. In 1995, Senator Nelson received the country's highest civilian award, the Presidential Medal of Freedom from President Clinton. The proclamation stated, in part: "As the father of Earth Day, he is the grandfa-

ther of all that grew out of that event: The Environmental Protection Agency, the Clean Air Act, and the Safe Drinking Water Act."

SEE ALSO: Environmental Protection Agency; Kennedy, John F. Administration; National Environmental Policy Act; Tennessee Valley Authority.

BIBLIOGRAPHY. G.C. Daily, *The New Economy of Nature: The Quest to Make Conservation Profitable* (Island Press, 2002); Robert Gottlieb, *Environmentalism Unbound: Exploring New Pathways for Change* (MIT Press, 1998); Mary Graham, *The Morning After Earth Day: Today's Practical Environmental Politics* (Brookings Institute Press, 1999); J.R. McNeill, *Something New Under the Sun: An Environmental History of the Twentieth-Century World* (W.W. Norton, 2001); Gaylord Nelson, *Beyond Earth Day: Fulfilling the Promise* (University of Wisconsin Press, 1999); J.G. Speth, *Red Sky at Morning: America and the Crisis of the Global Environment* (Yale University Press).

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## Earth First!

EARTH FIRST! IS an anarchical movement relying heavily on the tenets of deep ecology. Earth First!ers embrace a biocentric philosophy whereby the earth and its many natural components receive the highest and utmost protection and consideration in any decision. You cannot become a member of Earth First!, as there is no membership. You cannot pay dues, as Earth First! is neither a club nor a nonprofit organization (like the Sierra Club). To become an Earth First!er one need only to take action in defense of the earth.

The Earth First! movement is said to have been born in a VW microbus in the spring of 1980 and to have been inspired by Rachel Carson's *Silent Spring*, Aldo Leopold's *Land Ethic*, and, most of all, Edward Abbey's *The Monkey Wrench Gang*. Environmental activists Dave Foreman and Mike Roselle, along with Wyoming Wilderness Society representatives Bart Koehler and Howie Wolke and former



park ranger Ron Kezar, were upset by the actions of mainstream environmentalists and thus, according to the Earth First! history page at the Sierra Nevada Earth First! website, “envisioned a revolutionary movement to set aside multi-million acre ecological preserves all across the United States.”

Anyone is capable of forming his or her own Earth First! collective (group) to work on any environmental or social issue deemed important. The group’s self-description on its website notes that:

while there is broad diversity within Earth First! from animal rights vegans to wilderness hunting guides, from monkeywrenchers to careful followers of Gandhi, from whiskey-drinking backwoods riffraff to thoughtful philosophers, from misanthropes to humanists there is agreement on one thing, the need for action!

Historically, Earth First!ers have worked to bring attention to issues such as logging, mining, grazing, wilderness protection, animal rights, transportation, development, endangered species, and so on. The online *Earth First! Journal* is a migrating literary collective of Earth First! activists. There is also a gathering and celebration of Earth First!ers called the Round River Rendezvous, in which fellow activists camp in a different national forest every July to meet new activists, organize campaigns, and celebrate the movement.

Earth First! is a mentality ascribed to by dedicated individuals who have taken a hard-line stance against anything human-induced that causes environmental and social deterioration, including capitalism, patriarchy, consumerism, corporate-state control, and technology. Often referred to as fringe or far left, the Earth First! movement represents a section of society (globally) whose official slogan is “No compromise in the defense of mother Earth.”

In terms of methodology, the worldwide Earth First! stance takes a “decidedly different tack toward environmental issues. We believe in using all the tools in the toolbox, ranging from grassroots organizing and involvement in the legal process to civil disobedience and monkeywrenching.”

Criticisms of Earth First! include the claim that the movement is “ecoterrorist.” Proponents insist that they support no violent acts, however, and most typical actions include unfurling banners, chaining protesters to logging equipment, sitting in trees, and



An Earth First! march in Yellowstone in 1989 reflects their hard-line stance toward environmental and social issues.

blocking logging roads, all of which are nonviolent, though often illegal, acts.

Other critics suggest that the ecological and philosophical pillars of the movement may be flawed, including the fundamental concept of bioregionalism, which has been scrutinized for its romantic localism and anti-urbanism, which may actually be environmentally unsustainable. Nevertheless, the critical ecocentric philosophy of Earth First! still makes it a galvanizing movement for a wide range of concerned activists.

**SEE ALSO:** Abbey, Edward; Animal Rights; Biocentrism; Carson, Rachel; Deep Ecology; Ecotage; Leopold, Aldo; Mining; Timber Industry.

**BIBLIOGRAPHY.** “About Earth First!” Earth First! Worldwide, [www.earthfirst.org](http://www.earthfirst.org) (cited March 2006); *Earth First! Journal*, [www.earthfirstjournal.org](http://www.earthfirstjournal.org) (cited May 2006); Julia Butterfly Hill, *The Legacy of Luna: The Story of a Tree, a Woman and the Struggle to Save the Redwoods* (HarperSanFrancisco, 2001); “History of

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Earth First!" Sierra Nevada Earth First! [www.sierranevadaearthfirst.org](http://www.sierranevadaearthfirst.org) (cited March 2006).

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## Earthquake

AN EARTHQUAKE IS usually caused by the rupture of a geologic fault, or the seam between two large blocks of land that suddenly move in different directions. The two predominant types of faults are thrust faults and strike-slip faults. A strike slip fault is the most common in the United States; it is where two geologic plates move in opposite directions relative to each other, such as the San Andreas in California. A thrust earthquake occurs when one plate moves under another. In 2004, a great earthquake off the Indonesian island of Sumatra was caused by a thrust fault; the rupture along the fault was greater than 93 miles (150 kilometers). The earthquake and the massive tsunami that was generated by the tsunami killed about 200,000 people

in the Indian Ocean basin. In the United States and Canada, the Cascadia fault off shore of British Columbia, Washington, Oregon, and California, could potentially generate an earthquake of magnitude 9.0, and could generate a significant tsunami that could endanger people throughout the Pacific Basin. Nations subject to earthquake hazards include, but are not limited to, Indonesia, Iran, India and Pakistan, Turkey, Greece, Italy, China, Japan, Taiwan, Canada, Mexico, and the United States.

Its moment magnitude number, often mistakenly called the *Richter scale* that is now considered obsolete, reports the *magnitude* (M) of earthquakes. The moment magnitude scale is logarithmic, which means that a magnitude 5.0 earthquake (M 5.0) is about 31 times weaker than an M 6.0 quake, and is 1,000 times weaker than an M 7.0 temblor. The primary danger to people posed by earthquakes is from the structural failure of buildings due to ground shaking. A building can collapse partially or totally when the building loses structural integrity. This is more likely to happen when buildings are built on *unconsolidated soils*, such as sand or clay, which tends to amplify the ground motion. People are killed or injured when buildings or other structures

### The San Juan Earthquake

**A** large earthquake struck Argentina on January 16, 1944, and shook some buildings in Buenos Aires, the capital, but caused little damage. In the far west of the country, the city of San Juan, the capital of a province of the same name, along the border with Chile, was devastated. Initially there were no communications with the area, but when news reached Buenos Aires of the damage, and the death of about 6,000 people, the population of one of South America's wealthiest cities decided to raise funds to help the victims and families of the dead.

With Argentina having become incredibly wealthy through its neutrality in World War II—it did enter the war on the Allied side in 1945—the *portenos* (urban residents) of Buenos Aires responded generously and established the San Juan Fund. It was coordinated by Colonel Juan Domingo Perón, the

Secretary of Labor in the military government, and an ambitious and aspiring politician.

One of the events that Perón organized was an artistic festival, where actors and actresses, along with the military, would raise money, the highlight of which would be a massive gala performance. Perón took center stage himself in a starched white tunic and peaked cap. It was at this event, on January 22, that Perón was smitten by an actress who was performing that evening, and was wearing a black dress, long gloves and a white feathery hat. Eva Duarte was the illegitimate daughter of a businessman from a country town, and had become an accomplished radio actress. Two years later, by which time Perón was president of Argentina, they were married and his wife became better known as Evita Peron. She died in 1952 from cancer, aged 33, and Perón was ousted as president in 1955, although he was president again from 1973 until his death in the following year.