

WOMEN, WATER, ENERGY

An Ecofeminist Approach

GRETA GAARD

Western Washington University, Fairhaven College

How can an ecofeminist perspective help us understand and respond to the problems of water pollution and energy production that we face today? Using contemporary examples ranging from the Arrowhead-Weston Project to Manitoba Hydro, Sumas Energy 2, and the Columbia River dams, this article exposes the corporate appropriations of water power from the people and from the land. Ecofeminism illuminates the way in which gendered, cultural assumptions about water, power, and human relations have led to creating a water-power infrastructure that perpetuates environmental sexism, environmental racism, and environmental classism. As an alternative, an ecofeminist approach to water justice advocates strategies for bringing about an ecological democracy, an ecological economics, and a partnership culture in which water and energy flow freely.

Throughout the industrialized world today, one of our most intimate contacts with water occurs over the toilet. Where did we get the idea that water was a place for waste? And how does that idea cohere with the fact that we need clean drinking water to survive?

Although the water-borne toilet has been found in civilizations as diverse as the Roman empire (27 B.C.E.-284 C.E.) and in western India's Harappa civilization (circa 2500 B.C.E.), it was not until 1596 that the flush toilet was invented by Sir John Harrington (Stauffer, 1999; Wright, 1960). Almost 200 years later, improvements were made that solved the odors of Harrington's toilet, and the water closet caught on in the early 19th century at about the same time the Industrial Revolution hastened the shift of population from sparsely populated rural areas to more densely concentrated urban areas. Most towns were not prepared for the influx of population, and excrement collected in courtyards, alleyways, and streets; diseases such as diarrhoea, gastroenteritis, dysentery, typhoid fever, and even cholera were easily spread. Sanitary campaigners across Europe argued for a shift away from cesspools and privy vaults (which were not designed to deal with such large volumes of waste and thus were in constant danger of overflowing) to a system of sanitary sewage.

By "sanitary sewage" they meant sewers built to carry the raw sewage away from the streets and into rivers and lakes, because engineers believed that "running water purified itself" (Stauffer, 1999, p. 7). Not surprisingly, this theory proved false, causing major outbreaks of typhoid fever in downstream cities, and highly polluted waterways. Finally, at the beginning of the 20th century, modern sewage treatment methods were developed.

And this is where we are today: On one hand, we know we need pure water for drinking, for human and for environmental health; on the other hand, we still use waterways as sewers. This dichotomous view of water—pure water/ wastewater—parallels other normative dualisms of thought: wilderness/civilization, nature/culture, virgin/whore, White/of color, reason/emotion. And these normative dualisms are at the root of Western culture's troubled relationship with nature. Examining the problems of water pollution and water power from an ecofeminist perspective, we can recognize the interconnections between women, water, and energy as well as between many other ecosocial problems we face today.

ECOFEMINISM AND THE MASTER MODEL

More than a theory about feminism and environmentalism, or women and nature, as the name might imply, ecofeminism approaches the problems of environmental degradation and social injustice from the premise that how we treat nature and how we treat each other are inseparably linked. To date, one of the most comprehensive ecofeminist philosophical critiques of the ecosocial problem has been developed by Val Plumwood in *Feminism and the Mastery of Nature* (1993). There, Plumwood describes the oppression of humans and nature as stemming not from a single system such as patriarchy, capitalism, or anthropocentrism—as suggested by the analyses of radical feminism, Marxism, and deep ecology, respectively—but from a system of interlocking, oppressive structures based on a series of hierarchical dualisms that lie at the heart of Western culture and can be traced back to their origins in Platonic philosophy. As Plumwood explained, “The western model of human/nature relations has the properties of a dualism and requires anti-dualist remedies. She defined dualism as resulting from “a certain kind of denied dependency on a subordinated other” (p. 41). Examining the various forms of oppression, particularly the intersections of race, gender, and colonialism, Plumwood showed how “by means of dualism, the colonized are appropriated, incorporated, into the selfhood and culture of the master, which forms their identity. The dominant conception of the human/nature relation in the west has features corresponding to this logical structure” (pp. 41-42). Exemplifying these dualisms are the following sets of contrasting pairs, whereby the privileged self of Western culture is constructed in opposition to the devalued other of nature:¹

self	/	other
culture	/	nature
reason	/	nature
male	/	female
mind	/	body (nature)
master	/	slave
reason	/	matter (physicality)
rationality	/	animality (nature)
freedom	/	necessity (nature)
universal	/	particular
human	/	nature (nonhuman)
civilized	/	primitive (nature)
production	/	reproduction (nature)
public	/	private
subject	/	object
White	/	non-White

financially empowered	/	financially impoverished
heterosexual	/	queer
reason	/	the erotic

As Plumwood (1993) has ably demonstrated, Western culture's oppression of nature can be traced back to the construction of the dominant human male as a self fundamentally defined by its property of reason and the construction of reason as definitionally opposed to nature and all that is associated with nature, including women, the body, emotions, and reproduction. Feminists have also argued that women's oppression in Western culture is characterized by their association with emotion, the body, and nature (Gray, 1979; Griffin, 1978; Spretnak, 1982; Steinem, 1992).

Conceptually dividing the interconnected whole of life into atomistic, dualised pairs, this form of thinking then creates conceptual linkages between the properties of the self as well as within the devalued category, and the association of qualities from one oppressed group with another serves to reinforce their subordination: The conceptual linkages between women and animals, women and the body, women and people of color, women and nature, or women and water, for example, all serve to emphasize the inferiority of these categories. These linkages reveal broader connections between the treatment not just of women and water but indigenous people and water, impoverished people and water, water and emotions, and, of course, our human animal bodies as nature and water.

Hierarchical dualisms are manifested both politically through socioeconomic structures and psychologically through the identity of what Plumwood calls "the Master Model," a gendered reason/nature dualism that concentrates the intersection of privilege in terms of race/class/gender/species/sexuality (Gaard, 1997; Plumwood, 1993). Both psychologically and politically, the logical structure of dualism separating self and other is kept in place through a series of linking postulates that includes (a) backgrounding, or denied dependency on the other, that is, "I built this house," usually meaning the speaker hired an architect and paid laborers to build it for him or her, an example of classism; (b) radical exclusion, or hyperseparation between self and other, sometimes based only on a single characteristic such as race or sexuality, that is, "I'm not 'swishy' like those fags" (heterosexism); (c) incorporation, whereby the other is defined primarily in relation to the self, that is, "that's the wife" (sexism); (d) instrumentalism, or objectification, whereby the other has no intrinsic value, that is, "lodgepole pine" (anthropocentrism); and (e) homogenization, or stereotyping, that is, "all Blacks have rhythm" (racism).²

Plumwood's (1993) theory of the master model and the need for its transformation suggests two of the primary goals of ecofeminism: cultural, ecological, and economic democracy, a form of justice in social relations that honors the interdependence of diverse humans with each other, other animal species, and the earth; and a transformed psychology of human identity, a way of conceptualizing the self that eschews the atomism of liberal thinking for a more ecological, relational notion of the self as interdependent.

Building on the ecofeminist hypothesis that the position and treatment of women in Western culture is connected symbolically, psychologically, economically, and politically to the treatment of nature, this article explores ways that the treatment of women and water is integrally connected to the treatment of indigenous people and the land itself. These connections are most clearly seen by examining the institutionalized structures controlling the distribution of energy and power in North America, for the production and distribution of energy is one of the ways

that women, indigenous people, economically disadvantaged people, and water are used as resources in Western culture. As a tool of ecofeminism, Plumwood's master model helps to explain the intersections among three environmental justice phenomena: environmental sexism, environmental racism, and environmental classism.³

ENVIRONMENTAL SEXISM

In the beginning—creation myths from many civilizations speak of a splitting or opening in the dark, formless Oneness, a parting of the waters.⁴ The Hindu goddess Bindumati divided the Ganges; the goddess Isis divided the river Phaedrus. The Hindu triple goddess, Kali, is represented as the primal Deep, or menstrual Ocean of Blood at the beginning and end of the world. In ancient Sumer, the name for Mother of the Universe, Nammu, was represented by an ideogram meaning *sea*. The Sumero-Babylonian goddess Tiamat, from whose formless body the universe was born at creation, is mother of the four "female" elements: water, darkness, night, and eternity. In Assyrian and Babylonian myths, Tiamat alone produced the fluid of creation whose great reservoir was the Red Sea, comparable to Kali's Ocean of Blood. These myths associated women, water, and nature and held all three as sacred sources of creation.

Thousands of years later, the river Styx, principal river of the underworld in Greek myth, was compared to the menstrual blood of Mother Earth. Styx was also personified as a goddess, a daughter of Ocean. The mermaid, or literally "virgin of the sea," was a fish-tailed Aphrodite, the goddess of love, who in her death-goddess aspect received the souls of those who died at sea. Throughout northern Europe, in pre-Christian or pagan cultures, wells were seen as sacred outpourings and passageways into the Mother Earth, and many were famous for their healing properties. In all these associations of women and water, there is the corresponding association of birth and death, creation and destruction. There is the concept of life as renewable and circular, following a seasonal round of creation-preservation-destruction. But gradually, cultures that valued the circle of life were displaced by cultures that conceived of life as a linear trajectory, from birth to death to eternal heaven or hell, or annihilation.

Riane Eisler's *The Chalice and the Blade* (1987) describes the shift from earth-based, matrifocal cultures that viewed nature as alive and sacred and valued women and men equally; she calls these "partnership" cultures, in contrast to the "dominator" cultures that slowly superceded them and in the process changed their views of nature from animistic to mechanistic, their deities from earth-based goddesses to sky gods, and their social system from networks to hierarchies. Although the associations between women and water survived the transition from partnership to dominator cultures, their meaning was reversed; no longer revered as the source of life, neither women nor water were seen as sacred in patriarchal religions. In A.D. 413, the Catholic Church decided that every child was born tainted with the original sin of its conception. It was no longer the mother's birthwaters that would bring a child to life—though once considered sacred, they were now "unclean." Only the water blessed by a sexually abstinent male priest would bring the child eternal life through baptism (Walker, 1983, pp. 90-91). Thus, the associations between women and water continued, but in Western cultures their association signaled their shared subordination.

Today, as people have for centuries, we continue to treat water as an important resource. Pure water for drinking and food preparation has been a crucial advance-

ment in the treatment of disease. Many cultures use water for irrigation and for cleansing. Water is recognized as an environment for both recreation and transportation, a habitat for fish and other animal life. But in all of these uses, water is not usually seen as a sacred, animate source of life but rather as an essential, though inanimate, resource. Exemplifying the instrumentalism inherent in Plumwood's (1993) master model, Western culture views water primarily as a means to its own ends, a servant to the dominant (not subordinate) population; it is difficult, in this cultural context, to imagine that water would have purposes of its own.

Clean water is also treated as a resource that, like women and women's work, does not appear in our national accounting systems. On the international market, the United Nations System of National Accounts has no method of accounting for nature's own production or destruction until the products of nature enter the cash economy, nor does it account for the majority of the work women do. For example, Marilyn Waring (1988) has observed that in the colonial accounting systems of many developing countries, the water that rural women carry from the wells to their homes has no cash value, but the water carried through pipes has value. Moreover, a clean lake that offers women fresh-water supplies has no value in these accounting systems; once the lake is polluted, however, and companies must pay to clean it up, then the clean-up activity itself is performed by men and recorded as generating income. Only when the water is dammed, its force used to create energy that is sent over high-voltage power lines and sold to cities, does the water enter the accounting. In these ways, both water and women do not count in the international market economy.

This conceptual shift is articulated in metaphorical terms as well, because not all partnership cultures have been replaced by dominator cultures. Comparing the concept of Mother Earth found in many Native American cultures with the concept of Mother Nature found in Euro-American cultures offers a case in point (Gaard, 1993). Both Euro-American and Native American cultures see a connection between women and nature, but each values women and nature quite differently. For many Native Americans, Mother Earth is to be respected and her bounty is not to be abused. From the Columbia River Plateau in Washington State, anthropologists recorded the words of Wanapam spiritual leader Smohalla, who rejected White culture; of his people's relationship with the earth, he said, "We simply take the gifts that are freely offered. We no more harm the earth than would an infant's fingers harm its mother's breast" (Hunn, 1990, pp. 254-255). In contrast, the Euro-American Mother Nature is an enemy to be conquered, a force out of control unless "we" control her. At the same time, just as human mothers are expected to be self-sacrificing resources for both men and children, with no other desires or purposes of their own, the Mother Nature of Euro-American culture is expected to be all giving, to have endless supplies and resources for her children, to be always forgiving them, and to always clean up their excrement. No wonder, then, that Western culture's elites think nothing of dumping their wastes in water, expecting Mother Nature will clean up their messes. In Euro-American cultures, the association between women and nature and the devaluation of both together exemplify one manifestation of environmental sexism.

ENVIRONMENTAL RACISM

Structurally analogous to environmental sexism, environmental racism involves a conceptual association between people of color and nature that marks their dual subordination. Environmental racism is seen in

the deliberate targeting of communities of color for toxic waste disposal and the siting of polluting industries. It is racial discrimination in the official sanctioning of the life-threatening presence of poisons and pollutants in communities of color. And, it is racial discrimination in the history of excluding people of color from the mainstream environmental groups, decisionmaking boards, commissions, and regulatory bodies. (Ben Chavez, quoted in Bullard, 1993, p. 3)

Environmental racism is also exemplified in cases where the dominant culture perceives subordinated others as a "resource" with no goals and purposes of their own, in cases where the subordinated other is defined solely in terms of the dominant culture. As the following examples suggest, the association of people of color and water/nature has been seen as an opportunity to use both as resources, to take away their power, and to provide that power to the masters.

The Columbia River

In the Pacific Northwest, 54% of energy production comes from hydroelectric dams. The Northwest Power Planning Council (NPPC) claims it provides the cheapest power in the country (NPPC, 2000). To make this claim, of course, the NPPC doesn't count the cost of choked rivers; flooded landscapes; salmon without access to spawning grounds; indigenous people cut off from traditional burial grounds, hunting grounds, and homelands; or the health hazards of high-voltage power lines.⁵ Controlling the Columbia River through 11 dams on its U.S. course (17 dams in all), the Bonneville Power Authority (BPA) owns 15,012 circuit miles of high-voltage power lines, extracting the energy from the water and extending that energy in a 300,000-square-mile network that includes Oregon, Washington, Idaho, Montana, Wyoming, Nevada, Utah, and California (BPA, 2000). Meanwhile, the same river that supplies this energy and irrigates the farmlands of eastern Washington is also used as an industrial sewer. By the year 2000, the health of the Columbia River had become severely threatened by the load of dioxins and furans, heavy metals (including aluminum, iron, copper, lead, arsenic, mercury, barium, and cadmium), bacteria from fecal contamination, pesticides (including atrazine, aldrin, dieldrin, and dichlorodiphenyl trichloroethane [DDT]), polychlorinated biphenyls (PCBs), and, of course, radioactive waste from the Hanford nuclear site (Columbia Riverkeeper, 2000).

Very little is said about the impact of these dams on the Native Americans who, prior to the dams, were living a nomadic life in the areas surrounding the Columbia River: the Okanogan, Nespelem, San Poil, Wenatchee, Entiat, Chelan, Methow, Palouse, and Nez Perce. In 1872, these disparate bands were lumped together and the Colville Reservation was formed, named after Andrew Wedderburn Colville, a London entrepreneur in the rum and molasses business, who never set foot in America. Now called the Colville Confederated Tribes, these 12 diverse bands live around Nespelem, in the area north of the Grand Coulee Dam. Curiously, although the Native people are now known by names the White people conferred on them, the dams have taken the names of those they displace. Lake Entiat is the reservoir created by the Rocky Reach Dam; Chief Joseph, the dam built in 1955, is named after the Nez Perce leader who led his people in an unsuccessful flight from U.S. Army forces, attempting to find refuge in Canada.

Clues still remain. At the Rocky Reach Dam in Wenatchee, a series of Nez Perce portraits is contained in the dam's Museum of the Columbia. Before 1877, the Nez Perce nation was the richest and most powerful of the Columbia Plateau tribes

(Chelan County, 2000). They netted salmon from the Columbia, Clearwater, Snake, Imnaha, and Salmon Rivers; they gathered camas bulbs and kaus roots; they hunted buffalo. And they called themselves the Numipoo, "We People." Early French fur traders named them the Nez Perce even though nose piercing was not practiced among the tribe; the guide book speculates "the name may have come from their tribal sign of passing the forefinger of the right hand beneath the nose from right to left," because all tribes had special hand identification signals at the time. Today, the Nez Perce are a conquered people.

The museum also displays rocks with petroglyphs, taken from the area below Rocky Reach that was flooded by the next dam down the Columbia, Rock Island. More than 250 figures were discovered near the river, though archaeologists were given very little time to catalog and record the site before the dam flooded it. Some Yakima trace their roots to the junction of the Snake and Columbia rivers, where in 1805 Lewis and Clark found a bustling community; today the site is called Sacajawea State Park, and no residential dwellings are permitted. Farther down the Columbia, the John Day Dam inundated local fisheries. The Dalles and John Day Dams drowned ancestral graves. In 1957, the Dalles Dam also covered Celilo Falls, which had been a focal gathering point for dip netting salmon from platforms built on the rocks above the falls.

The dams' impact on salmon was brought to national attention through the 1999 debates between Al Gore and Bill Bradley for the Democratic presidential nominations (Power, 1999), but Native people have known about this impact for more than a century. In the 1855 treaties with the United States, many Columbia Basin tribes⁶ reserved fishing rights to the seven species of salmon in the Pacific Northwest: the pink, sockeye, chum, chinook, and coho as well as the steelhead and cutthroat trout. Then and now, their reasons for defending the salmon are both spiritual and material:

- Salmon are part of the tribes' spiritual and cultural identity.
- Over a dozen longhouses and churches on the reservations and in ceded areas rely on salmon for their religious services.
- The annual salmon return and its celebration by Native peoples assure the renewal and continuation of human and all other life.
- Historically, these tribes were wealthy peoples because of a flourishing trade economy based on salmon.
- For many tribal members, fishing is still the preferred livelihood.
- Salmon and the rivers they use are part of a sense of place. Native people believe the Creator put their tribes where the salmon return. They feel obliged to remain and to protect this place.
- Salmon are indicator species: As water becomes degraded and fish populations decline, so too will the elk, deer, roots, berries, and medicines that sustain Native people.
- As the primary food source of Native people for thousands of years, salmon continue to be an essential aspect of their nutritional health.
- Because tribal populations are growing (returning to pre-1855 levels), the needs for salmon are more important than ever.
- The annual return of the salmon allows the transfer of traditional values from generation to generation.

- Without salmon returning to the rivers and streams, Native people feel they will cease to be Indian people. (Columbia River Anadromous Fish Plan of the Nez Perce, Umatilla, Warm Springs, and Yakima Tribes, 2000)

But when the dams disrupted the water flow in the Columbia River, they also disrupted the interconnected ways of life for both Native people and salmon. Historically, between 10 million and 16 million salmon and steelhead returned to spawning grounds each year in the Pacific Northwest (Power, 1999, p. A2). By the 1960s, that number had dropped to about 5 million, and today, less than 1 million fish make the return journey, most of them hatchery fish. The combination of heavy commercial fishing, hatcheries (which introduced inbreeding and may have contributed to disease in wild fish populations), damage to traditional habitat through development, contaminated oceans, and dams have all taken their toll on the salmon. In turn, the Native people have suffered a loss of food source and a loss of identity.

Perhaps nowhere are the differences in the Indian and non-Indian ways of relating to nature more evident than in the treatment of water. The Columbia River tribes have always regarded water as a medicine because it nourishes all of life. Water flushes poisons out of humans, other living creatures, and the land. Traditional culture teaches that to be productive, water must be kept pure. When water is kept pure and cold, it takes care of the salmon and humans alike. Water that cannot take care of salmon cannot take care of humans. According to the Columbia River tribes, non-Indians have used the water without fully understanding that it must be treated with respect to remain powerful. By causing the water to warm, by restricting its flow, and by putting pollutants in it, non-Indians have made the water so sick that it can no longer be used as a cleansing agent, so inhospitable that at times it can no longer take care of the salmon (Columbia River Anadromous Fish Plan, 2000).

Hydro-Quebec, Manitoba Hydro, and the First Nations People

In Canada, the conquest of Native people, water, and the land is exemplified in the story of dams. The homeland of the indigenous Innu, Nitassinan is a land of mountains, thundering rivers, vast boreal forests, sweeping tundra, and Atlantic seashore, but today this Innu homeland is divided between the Canadian provinces of Quebec and Labrador, and the majority of Innu people live in 11 villages along the north shore of the St. Lawrence River (LaDuke, 1999, p. 49). The Innu and the land have been repeatedly used as resources for the dominant culture, as Winona LaDuke explained in *All Our Relations: Native Struggles for Land and Life* (1999).

Before the dams were built, there was a great waterfall in Nitassinan, larger than Niagara Falls, called Patshetshunau, or "steam rising." In 1895, a geologist wrote that the noise of the falls "can be heard for more than ten miles away as a deep booming sound," and the cloud of mist was visible for a distance of 20 miles (LaDuke, 1999, p. 60). But in the 1960s, the Newfoundland premier convinced a group of investors to build a hydroelectric power plant at the renamed Churchill Falls and then signed over the right to sell most of the power to Hydro-Quebec at a price of less than three tenths of 1 cent per kilowatt hour for 40 years. Hydro-Quebec now has the right to renew the contract until 2044. The company has been able to sell the power at 9 times its purchasing price, making approximately \$750 million from the dams in 1976 but paying Newfoundland a mere \$70 to \$80 million (LaDuke, 1999, p. 60). The Native Innu receive none of the profits but pay the costs nonetheless. Damming the 300-foot falls at Patshetshunau created the Smallwood

Reservoir and flooded 5,698 square miles of Nitassinan, drowning the black spruce forest, pulling heavy metals such as mercury out of the soil, and flooding the Innu hunting, harvesting, and burial grounds. By 1977, a decade after the dam was built, 37% of Innu surveyed had elevated mercury levels in their bodies from eating contaminated fish (LaDuke, 1999, p. 61). Hydro-Quebec then turned to James Bay, in the Cree homeland.

The LaGrande Complex, or James Bay I, put 11,500 square kilometers of land underwater to produce 12,000 megawatts of electricity (LaDuke, 1999, p. 61). Damming the Eastmain and Rupert Rivers caused massive flooding, which once again leached methyl mercury from the soil, causing mercury contamination in the reservoirs with levels 6 or more times greater than what was considered safe. With the dam increasing or decreasing the rivers' flow based on the electrical demand at the end of the power line, many fish and beaver drowned. In 1984, a deadly release of dam water occurring during the annual migration of the George's River caribou herd drowned more than 10,000 caribou. Hydro-Quebec refused to accept responsibility, calling the deaths "mainly an act of God" (LaDuke, 1999, p. 62).

The Cree and Innu were not informed of Hydro-Quebec's plans in enough time to stop the first two dams, but they were ready when James Bay II was proposed in the late 1980s. This new project would destroy four major river systems—the Great Whale, Lower Broadback, Nottaway, and Rupert—and would involve the total deforestation of about 922,040 square kilometers of land (LaDuke, 1999, p. 62). The project was intended to generate energy for sale to Vermont, New Hampshire, Maine, and New York, but environmentalists, students, and many Native and human rights groups organized and put a stop to this project in November 1994.

Another example of environmental racism can be found in the binational Arrowhead-Weston project, a 345-kilovolt, 250-mile, high-voltage transmission line proposed to stretch from Duluth-Superior to Wausau, Wisconsin, where it will connect with the existing power grid. But this power is not intended for Minnesota and Wisconsin: This high-voltage power line will carry electricity from a dam in Manitoba, Canada, through Minnesota and Wisconsin, delivering its power to the lucrative Chicago, Illinois market (Anderson, 2000). The owners and operators of the dam, Manitoba Hydro, sell about \$300 million worth of power annually in the United States—a sum that is only 30% of Manitoba Hydro's revenue (Mittelstaedt, 2000). Meanwhile, the Cross Lake Cree and the Nelson River suffer.

In the 1970s, Manitoba Hydro constructed three dams on the Nelson River and caused widespread flooding, displaced entire communities, and irreparably damaged traditional hunting and fishing grounds. Because these dams generate about 80% of Manitoba Hydro's power, the industry agreed to sign the Northern Flood Agreement (NFA) with the Canadian government, Manitoba's provincial government, and five Native communities, promising economic compensation to present and future generations and assistance in ending unemployment and poverty. But the NFA signers did not live up to the terms of the agreement, and to voice their objections, the Cross Lake Cree have refused to accept the lump-sum payouts. According to statements from the grassroots coalition of farmers, environmentalists, and indigenous rights activists in Wisconsin,

three million acres of [traditional Cree homeland] have been flooded or in other ways made inaccessible. The Cree have lost much of their economic subsistence, including hunting, fishing, and trapping, along with sacred burial sites. Their waters are polluted by soil erosion resulting from frequent water releases; their

traditional diet of fish is contaminated with methyl mercury. (Save Our Unique Lands, 2000)

Today, most of the band's 4,000 residents cannot find work; alcohol, drug abuse, and suicide are rampant on the reservation (Robertson, 2000). The Cree say that 1.2 million hectares have been affected by the dams, and although Manitoba Hydro reaps the profits, the Cree are left to deal with flooded land, slumping shorelines, dead and rotting trees, ice that is unsafe because of changing water levels, and fish that are contaminated with methyl mercury (Mittelstaedt, 2000). The flooded and eroded landscape, the drowned trees and animals, the socioeconomic and psychological devastation of the people—these are the damages Manitoba Hydro wants to compensate with money. The refusal of the Cross Lake Cree to accept anything less than full remediation of damaged lands, fulfillment of the promised economic development and employment, and an end to all future hydro megaprojects—this position is “part of a broad strategy to try to embarrass the utility,” says Glenn Schneider, Manitoba Hydro's company spokesman (Robertson, 2000). “Nature has a way of recovering,” says Schneider (Robertson, 2000). Here, when corporate spokesmen talk about “nature,” it is clear they refer to the Cree people as well.

Fortunately, in Wisconsin and Minnesota, farmers, environmentalists, and indigenous rights activists are forming coalitions to resist this environmental racism. In Minnesota, resistance is taking shape around the marketing of this energy, because Minnesota accounts for 90% of Manitoba Hydro's foreign sales, and Northern States Power (NSP) purchases much of Manitoba Hydro's electricity. But NSP's contract with Manitoba Hydro expires in 2005, and groups around the state such as the Sierra Club and Clean Water Action are forming alliances with the Cross Lake Cree in the hopes of forcing NSP to end relations with Manitoba Hydro in 2005. In Wisconsin, resistance is being articulated through a group called Save Our Unique Lands (SOUL), a coalition of farmers and land and home owners who argue that the power line is neither necessary nor desirable. Eight out of the 11 counties affected by the power line have already passed resolutions opposing it, yet the utilities plan to go ahead nonetheless (Zaleski, 1999). One official from the Wisconsin Public Service Corporation (PSC) told citizens at a public meeting in Marathon County that it did not matter how widespread the opposition was; the utilities were going to press ahead anyway (Zaleski, 1999). This corporate disregard for democracy notwithstanding, local activists continue the struggle for environmental justice and ecological democracy.

ENVIRONMENTAL CLASSISM

In the preceding examples with Hydro-Quebec and Manitoba Hydro, there is a pattern of power companies locating their plants in rural communities, using up the water, polluting the land and the health of the people, and transferring the energy to the wealthier urban residents. In situations involving Euro-Americans, Western culture's domination of water and economically disadvantaged communities can be described as environmental classism. In the summer and fall of 2000, one battle against environmental classism took place on the international border of Whatcom County, the most northwestern county in Washington State, in the town of Sumas.

With a population of 700, Sumas is a rural community teetering on the edge of economic sufficiency. It relies largely on dairy farming and the patronage of tourists crossing the Canadian-American border between Sumas and Abbotsford. Already the Sumas-Abbotsford aquifer is contaminated with nitrates and pesticides, trace-

able to a high volume of dairy wastes and the overapplication of synthetic fertilizers (Ayers, 1998a). The Environmental Protection Agency has repeatedly tested the groundwater and found ethylene-dibromide (EDB), a known carcinogen left over from berry farming; some estimate it will take 20 more years for the pesticides still locked in the soil to reach the aquifer (Ayers, 1998b). Along with EDB, 50% of the wells in the city are contaminated with nitrates, a consequence of runoff from the many dairy farms, and 20% of these are above safe drinking levels (Pizzillo, 1999). The situation is so dire that water is trucked in to area residents; meanwhile, migrant farmworkers (largely Hispanics) drink untreated water. It is in this context of water scarcity that a new power plant is being proposed.

In March 1999, National Energy Systems Company (NESCO) began the process of applying for a permit to build a new 660-megawatt power-generating facility within Sumas city limits and 500 yards from the town's elementary school. The proposed project would be the largest natural gas-fired generating facility in the state of Washington. If approved, on each day of operation, Sumas Energy 2 (SE2) will emit more than 3 tons of hazardous pollutants, including ammonia, lead, mercury, benzene, and toluene; it will consume up to 1.2 million gallons of water (a third of which is drinking water), 3 times the amount of water that is reserved for the next 20 years of growth and industry; it will create noise pollution in residential areas 3 times as loud as the level known to interfere with sleep; and it will require an additional 48 miles of high-voltage power lines to be extended through the county (Bumford, 2000; Hanners, 2000). These costs to human and environmental health will not be offset with substantial benefits. Whatcom County does not need the extra power, in fact, the 660-megawatt capacity of SE2 is equal to the total electrical consumption of the entire county, including the county's industries (Bumford, 2000). Sumas residents and other local activists believe that the power generated by SE2 is intended for sale in Southern California (Gaard, 2000; Hanners, 1999). For compensation, the town of Sumas will receive \$900,000 per year in property taxes, offset by the inevitable decrease in property values caused by the plant's environmental pollution (Bumford, 2000). The plant will create only 24 full-time jobs, yet its owners are applying for a \$24 million tax break (Hanners, 2000). Meanwhile, the health of the local residents, the animals, the water, air, and land will suffer.

WATER, POWER, AND HUMAN RELATIONS

These examples of environmental sexism, environmental racism, and environmental classism reveal something about Western culture's attitude toward nature. They reveal how as inhabitants of Western culture we are conditioned to think about water and how we are conditioned to think about power. And our conception of power and energy, as well as our relationship to water, is based on a linear model that is now showing itself to be not only inaccurate, but life threatening. This linear model is based on the assumption that energy can be continuously extracted from nature—from water, from poor people, from people of color, from women—without giving back anything of sustenance. In the linear model of power production, energy is extracted, distributed, consumed, and in the process, wastes are produced: noise, electromagnetic radiation, flooding, pollution. In nature's energy model, production and consumption form a continuous flow; there is no waste (Mies & Shiva, 1993).

A fundamental insight of feminism has been its understanding of power and power relationships. From a feminist perspective, power in itself is a neutral entity that can be used in different ways. Domination of others—whether in the form of

rape, slavery, animal experimentation, colonialism, clear-cutting, or damming—has been called “power over” and is part of the violent and oppressive framework that feminists reject. In contrast, teaching or supporting others in using their own inner strength, deriving strength from their relationships, or working in coalition with other groups for the good of life on this earth has been called empowerment, or “power with.” It is this peaceful use of power that feminists advocate; its implications for social justice, for environmental justice, and for sustainable energy production can be denied only at the risk of human and ecological health.

Many scientists, environmentalists, and politicians alike are now predicting that the wars of the 21st century will be over water. By the year 2025, it is predicted, one out of three people will live in countries that are short of water (Postel, 1997). Worldwide, about 80% of water use goes for agriculture, and demand is increasing (“Study: Water Crisis Looms,” 1998). In view of these facts, it is clear that we must make changes in our lifestyles and consumption habits. Although we rarely think about water when we see an automobile, we need to realize that producing a typical U.S. car requires more than 50 times its weight in water; a kilogram of hamburger or steak produced by a typical California beef cattle operation uses about 20,500 liters of water (Postel, 1997, p. 190). As long as the purchase price of material goods fails to account for the social and environmental costs, shifting our purchases away from such water-intensive products will be an important strategy for achieving water sustainability. But the purchasing choices of individual consumers (green consumerism) pale in comparison to the institutional choices made by industry and government. We need to change the socioeconomic infrastructure that mediates Western culture’s relationship with water, and to do this we need three types of change to occur simultaneously—c changes in the practice of democracy and in the areas of economic accounting and cultural beliefs.

As the experiences of citizens from Cross Lake, Manitoba, to Wausau, Wisconsin, and Sumas, Washington, make clear, government is being heavily influenced by corporations and is not responding to citizen input. Voting more regularly or lobbying our elected officials does not seem to be influencing the political system when this system is too closely tied to corporate economics. To restore the genuine practice of democracy, corporations need to be brought under the control of the government, and the government must be brought back to serving the people for whom it stands. Shifting our cultural views from anthropocentrism to an interconnected worldview that includes “all our relations” (LaDuke, 1999), we need a political system that recognizes the citizenship of mountains and lakes as well as the citizenship of humans of all races; we need an ecological democracy (Gaard, 1998; Plumwood, 1995; Sandilands, 1995).

Second, the life-sustaining value of pure water needs to be reflected through a form of economic accounting, that is, accounting that counts both the environmental costs of overconsumption and pollution as well as the value of free-flowing rivers and pure, widely available drinking water. As the indigenous people of North America have advised, we need to account for both the material as well as the spiritual and psychological value of environmental health for all residents of the land. To safeguard against situations that allow corporations to place undue pressure on poor communities, urging them to accept polluting industries and toxic wastes, we need an economic system that pays a living wage to every worker, one that does not require workers to risk their health for their jobs, one that values the work that women do, and one that respects the value of indigenous peoples and indigenous homelands. We need an ecological economics (Gaard, 1998; Mellor, 1997; Plumwood, 1995; Waring, 1988).

At the same time that we reclaim our democracy and adjust our economic accounting, we need to transform our inherited cultural beliefs, for a democracy is capable only of representing the beliefs of the people who participate in it. Democracies are not inherently ecological, feminist, or antiracist unless the people within them make them so. Currently, the democracies of North America do not give full citizenship to people of nondominant races and genders, and this exclusion is antidemocratic; moreover, they rely on a separation between the public citizen and the private individual, thereby separating the functions of production and consumption. To remedy these errors, we need to "close the loop," in effect, to restore the connections between public and private, between culture and nature, between reason and the erotic, between energy and emotion, between the mind and the body; we need to recognize and nourish the interdependence of White and non-White citizens and people of all genders. We need a partnership culture, one that acknowledges our human identities as fundamentally interdependent with human and non-human others.

Ecological spirituality is part of this cultural shift and is needed as well. One spiritual path known for its ecological commitments, Buddhism suggests that the impediments to our spiritual unfolding are the same as our problems with social and environmental injustice and can be traced to three root forces—greed, hatred, and delusion (Payutto, 2000). These forces are also at the root of Western culture's troubled relationship with water. Greed is at the root of this culture's failure to account for the environmental costs of water pollution; rather, we profit by polluting. Hatred contaminates our relationship with nature, with racialized others, with our bodies as nature. Delusion, or wrong view, comes into play when we think we can treat water any way we want and get away with it, that this earth is not a closed system, and that the consequences of our polluting behaviors will not come back to us. Today, we can no longer flush and forget. An ecological spirituality recognizes the immanence of the sacred here and now, in the interdependence of all life, and in each glass of water.

Power can be shared in ways that honor our various relations with each other and with the land. The choice is up to us.

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NOTES

1. The list of hierarchical dualisms has been described by many feminists and ecofeminists alike. The specific form used here was initially developed by Plumwood (1993) and augmented with the final four dualisms (racism, classism, heterosexism, erotophobia) by Gaard (1997); the dualisms describing the separations involved in racism and classism are particularly important to the argument here.

2. The "linking postulates" are from Plumwood, 1993, pp. 48-55, but the examples are my own interpretation.

3. My work on environmental heterosexism is still in progress and could not be included here, an unfortunate delay because its inclusion would help to clarify the range of analyses and linkages that are visible from an ecofeminist perspective. The article's current analysis

of sexism/racism/classism led one anonymous reviewer to ask how this approach differs from environmental justice work that is not ecofeminist, observing that "few if any Native people identify with ecofeminism themselves." It is true that ecofeminists have been largely (though not entirely) first world Euro-Americans and that Native Americans and African Americans have not, by and large, identified as ecofeminists. Yet, why be amazed that activists of different identities and different perspectives are able to recognize the connections among various forms of oppression? The fact that we are arriving at similar insights, via our different identities and different ideological or experiential paths, may become a source of strength that enriches our solidarity because it does not require the erasure of difference. Ecofeminists continue to emphasize plurality and difference as foundational characteristics of an ecofeminist ethic and challenge the idea that activists need to share identities in order to share insights or political commitments. Case studies and ecofeminist analyses of environmental heterosexism will provide a more inclusive basis for solidarity because many environmental and social justice activists are struggling against heterosexism as well as racism, sexism, classism, and anthropocentrism.

4. The mythical associations between women and water in this paragraph are taken from Barbara G. Walker, *The Woman's Encyclopedia of Myths and Secrets* (San Francisco: Harper & Row, 1983). See entries for Creation, Kali, Mermaid, Nammu, Styx, Tiamat, Water, and Wells.

5. On the health hazards of high-voltage power lines, see Becker, 1990; Becker and Selden, 1985; Lawrence, 1996. This controversial topic has been hotly contested by the scientific establishment (see Campion, 1997; Leary, 1996) because the connection between electromagnetic fields and cancer has not been proven in controlled laboratory tests. Meanwhile, environmental and public health activists continue to note the real-world correlations and have called for an exercise in judgment using the precautionary principle, which suggests that a technology, food, or other product must be proven safe before it is implemented or distributed (rather than being implemented until it can be proven harmful). Although conclusive evidence has yet to be provided, this so-called debate between corporate-funded scientists and the "unscientific" public is being played out in the political arena, where it becomes, effectively, a failure of democracy.

6. The Nez Perce Tribe, Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes of the Warm Springs Reservation of Oregon, and the Confederated Tribes and Bands of the Yakama Indian Nation are the only tribes in the Columbia Basin to have reserved rights to anadromous fish.

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