

Introduction to Water Ethics¹

David Groenfeldt
Water-Culture Institute

What do you call the principles, the values, that form the basis of water policies, or that motivate us to use or not use water in certain ways? How do we judge whether our use of water — whether for brushing our teeth or irrigating a farmer’s field — is wasteful or necessary? When we read about the proposed dam that the government of Laos wants to build on the Mekong river, what determines whether we feel that is a good idea or a terrible one? I use the term “water ethics” to denote these underlying principles that influence our own water behavior and our reaction to other people’s behaviors.

The kind of ethics I am talking about are rarely black and white. We usually need more information to form a judgment about the dam, or even about whether we are using too much water in brushing our teeth: What is the source of the water flowing out of the tap, and what will happen to it when it goes down the drain? What sort of dam is being proposed on the Mekong? What are the impacts on the river’s fish, and on the traditional communities and cultures that depend on fishing? What will the electricity from the dam be used for, and what are the alternative energy options? What will happen to the people who live in the proposed reservoir area?

The questions we ask in our inquiry about whether the dam is desirable or not, or whether we are using too much water in our own homes, reflect our values about what is important. What information is relevant to our support or opposition to the dam proposal? Does it matter if fish can navigate around the dam through fish ladders? Does it matter if local communities have to give up fishing and work in a factory powered by the dam’s electricity? Does it matter what is being produced in the factory that uses the electricity from the dam? What about the labor conditions? Where do water ethics end and other ethics begin?

The American conservationist Aldo Leopold believed that an extension of ethics beyond our immediately obvious self-interest to include the well-being of Nature was, in his words, “an evolutionary possibility and an ecological necessity.” Our civilization has already made good progress on our ethical path, and embracing Nature is the next step. In his most famous essay, “The Land Ethic,” Leopold illustrates how far we’ve come in our ethical evolution by relating the Greek myth of Odysseus returning after twenty years away from home (ten years fighting the Trojan War and another ten years finding his way back). His wife and son have been loyally awaiting his return, but what about his slaves, and particularly the female slaves? Had they been loyal too? Just to be sure, Leopold tells us, paraphrasing Homer, “he hanged all on one rope a dozen slave-girls of his household

¹ This essay is an expanded version of an article published in *The Leopold Outlook* (March 2016), which was based on the introductory chapter of my book, *Water Ethics: A Values Approach to Solving the Water Crisis*, published in 2013 by Routledge.

whom he suspected of misbehavior during his absence.” What would today be considered mass murder was then seen as justified house-cleaning. “The girls were property. The disposal of property was then, as now, a matter of expediency, not of right and wrong...”

Leopold’s story has been recounted many times not only because of the powerful imagery, but also because there are two deep truths in his example. The first truth is that we have made incredible progress over the past few millennia, and particularly in the past century, in extending our ethical boundaries. While we continue to give special attention to our immediate families and communities (“charity begins at home”), we have also embraced an ethical concern about people we do not know and will never meet. Through the United Nations, we have endorsed resolutions proclaiming the rights of people and cultures. In 2010, we (again through the UN) even recognized the right of every person to have safe water to drink. Clearly, we are making progress!

The second truth in Leopold’s account is that for all our recent progress in caring for the larger human community, we have not yet made room for Nature in our ethical sphere. The way we treat our rivers, lakes, aquifers, wetlands, and estuaries is largely, if not entirely, governed by expediency. The easiest place to discharge industrial waste is the river that is flowing by, and the easiest way to expand an urban water supply is to build a reservoir on that river upstream of the factory where the water quality is still good.

The environmental movement of the 1970s and the new paradigm of sustainable development, which emerged with the report of the Brundtland Commission in 1987 and the Rio Conference in 1992, seemed to demonstrate that the ethical evolution Leopold anticipated was now taking place. Yet twenty years later, at the time of the Rio+20 meetings, the path to an ecological ethic seemed neither imminent nor inevitable. There is no dearth of analytical tools and concepts (e.g., ecosystem services, green economy, etc.) but these very concepts, like “sustainability” are too easily twisted into the old concepts with new names.

The problem, it seems to me, lies more in “how” we are thinking than “what” we are thinking; how we are using the analytical tools. There is nothing wrong with the tools themselves. Ecosystem services is a powerful concept with far-reaching implications. But then, cost-benefit analysis is also a powerful and valuable tool which has been around for many decades, but has not really helped us along the Leopoldian path of evolution. What’s missing? In a word, *ethics*. We have ethics, personally, and there are normative ethics in every society (which is what we anthropologists like to study); we have them, but we are not using those values when it comes to water.

Somehow we have gotten used to the idea that water management is a technical subject better left to the experts. That’s partly right; water management is technical, but there are lots of value assumptions embedded in the technical choices. Moreover, the *governance* of water, the laws, policies, and institutions which set the context for technical water management, is anything but technical. Water governance is all about values, and if we don’t take the trouble to offer our own values to the water discourse, we

are going to be living with the values of the people who do take (and often make!) trouble.

Imposing our personal ethics onto water discussions in our home communities is not necessarily going to get us very far along Leopold's path either. What I believe Leopold had in mind (and he was rather vague about the details) was that through reflecting on both the moral and practical implications of alternative courses of action (for example, whether to build the dam to provide more water or, alternatively, to start a water conservation campaign to create water savings), we would learn to discern the better choice. Eventually we would also realize that interfering with natural processes, like flowing rivers, has limits, and if those are exceeded (e.g., taking too much water out of the river) we will undermine the natural productivity that our self-interest relies on. Bringing Nature into our ethical sphere is not necessarily an act of altruism, though it can be. It is also, I believe, in the long-term self-interest of our civilization, and our very survival as a species.

Ethics and Values

In our everyday speech, the words "values" and "ethics" are used interchangeably, but it is sometimes helpful to make a distinction. Values refer to the ideas, attitudes, beliefs, and behaviors that we consider to be important. Ethics refers to a coherent system of applying those values in practice. For example, an environmental ethic is built upon a set of values about how we ought to relate to Nature in small, practical ways (e.g., Don't step on ants) as well as big conceptual ways (e.g., awe and respect).

But the word "ethics" also refers to what is good and bad with moral duty and obligation. My intent is to promote the application of ethics as a discipline to the process of making decisions about water. Rather than living with the fiction that decisions about water are made through objective logic unencumbered by subjective values, I am suggesting that we start with the opposite assumption: Every decision about water reflects values and sets of values (ethics) about the relative importance of different water uses, impacts, and outcomes. Making an effort to understand what tacit values we are bringing to our water decisions (e.g., whether to build the dam) will help us make better decisions because we will understand our own motivations more clearly.

Ethics about What?

Ethics can be applied to just about anything, but they do need to be applied in order to work. One cannot be simply "ethical" without putting those ethics into action. To me, this is what makes ethics, as a subject, so fascinating; they are designed for action and application. We can have beliefs about water: that it is sacred, or healing, or beautiful, or even dangerous, but those qualities are not ethics; rather, they are the basis for values which become organized into ethics. Ethics is what we do or how we respond to our concept of water as dangerous (we put a fence around the swimming pool) or beautiful (we frame a photograph and put it on our living room wall).

If we conceive of Nature as important to preserve in as “natural” a state as possible, we will try to protect the natural state of a river. If we view the river’s flooding as dangerous, we might decide to build a levee along the river to protect people and property. If we consider flooding as dangerous but also value the natural river, we will look for a solution to the flooding that does not compromise the river’s ecological functions. For example, we might opt for low levees set far away from the river channel to protect against major floods, but allow the river freedom to “be a river” within that zone. The decisions we make about the best way to manage the river depend on how we value different outcomes, and flood management strategies are a rich topic for exploring competing values and ethics.

Rivers, lakes, wetlands, estuaries, springs and underground aquifers are the main variants of freshwater ecosystems. For thousands and even hundreds of thousands of years, humans have made use of these ecosystems for drinking and washing, for food and raw materials provided by riparian vegetation, and for eating fish and riparian wildlife. Altering those ecosystems to make them more useful is also a very ancient practice. Impounding streams may have been a skill developed by human ingenuity, or perhaps we learned from watching beavers! But what is certainly unique to humans is diverting water for irrigating crops or for generating energy (first to power water mills, and more recently to power electrical turbines).

When humans started tampering with natural water ecosystems in significant ways, and reflecting upon what we were doing, we encountered two kinds of ethical dilemmas: (1) the ethics of tampering with water ecosystems, and the question of whether rivers have inherent rights to exist as natural ecosystems (rights of nature), and (2) the ethics of how best to use the water, or the energy, that we take out of nature.

The first dilemma, about how we treat rivers, falls within the purview of “environmental ethics”: What is our ethical relationship with nature? The second dilemma is more about our ethical relationship to other people: Who benefits from the water we remove, temporarily, from nature? This question implies a social ethic, but there are a host of related ethical issues as well: What are we producing with the water we remove from nature and how ethical are those products? And a question that brings us back to environmental ethics: How clean should the water be when it returns to nature, and where should we return it?

Both these ethical dilemmas together, the environmental and the social (plus other issues) constitute the topic of “water ethics” and they also constitute the topic of “water management.” Indeed, the seemingly technical domain of “water resources management” which is professional field of study in most major universities, is predicated on a complicated set of ethical issues. As one might expect, however, most of the ethical issues and values inherent in water resources management remain blissfully in the background of actual water management decisions. This mix of explicit and tacit value assumptions masks a confusion of motives that provide a wobbly foundation for water management decisions.

Untangling the mess of contradictory values starts with sorting out the values into categories that we can call “ethics categories.” What categories should we use? The most obvious value/ethics category is economic. How can water management help the economy? What are the economic benefits of a particular water project? Economic values are well studied, and economics is almost always invoked in water decisions. The persistent confusion about the economic implications of water decisions stems from choosing which economic values/costs to count and how to weigh different kinds of economic values. For example, the economic costs of environmental impacts like water pollution are often ignored or downplayed, particularly when big infrastructure projects are at stake.

The reason that only some economic costs are considered and others are ignored has to do with the influence of conflicting values in other ethics categories. I recognize four additional categories of values/ethics: (1) values about the environment, (2) values about people and society, (3) values about cultural diversity and meaning, and (4) values about how, and by whom, water should be governed. These five categories (including economic ethics) have no clear lines separating their boundaries; they spill into each other, even within a single thought. For example, “We need to protect the economic services of wetlands” simultaneously invokes environmental and economic values. Indeed, it is the interactions that are often most interesting, and where there is most potential for bridging water conflicts and finding creative solutions.

	<i>Environmental values/ethics</i>	<i>Economic values/ethics</i>	<i>Social values/ethics</i>	<i>Cultural values/ethics</i>	<i>Governance values/ethics</i>
<i>Management of Natural Water Ecosystems</i>					
<i>Management of the Water Taken from Ecosystems</i>					

Figure 1. Domains of water management (left) and domains of values/ethics (top).

These categories of values and ethics also translate into categories of potential benefits. If we value the health of a river, our ethical response is to protect the river’s health, and then we experience the benefit of a healthy river that we can enjoy. Thanks to our environmental ethic, we receive pleasure (and thus, “benefit”) from the very existence of the healthy river. If we did not hold a strong environmental ethic, we would not experience that pleasure; in fact, we might experience sadness and frustration that the river has not been dammed to produce electricity! It is not only beauty that is in the eye of the beholder, but also other experiential benefits.

In this example, our environmental values are being “fed” by the healthy river, and we are happy. Our friend, the economist, is not happy because he holds different values about the importance of economic benefits. Let’s imagine that a clever engineer

constructs an eco-friendly sub-surface electrical turbine across the river, producing power without interfering with the mobility of migrating fish, and with only minimal visual impacts to the riverscape. Now the economist is also happy, and the environmentalist remains almost as happy (and perhaps he is even more happy now because he also appreciates economic benefits as a secondary value).

We can move down the list of water ethics categories and imagine similar scenarios of realizing additional benefits without diminishing the environmental and economic benefits already described. A champion of social values could realize her ethical priorities through a riverside park, taking advantage of the access road required for building and maintaining the submerged electrical turbine. An advocate for cultural values could organize a river festival at the park, and invite local Indigenous elders to lead a ceremony. A political activist might organize a “river park association” to monitor water quality and interface with the local economic development council to ensure wise development along the river front.

So far we have been dealing only with the natural river, but where is that river flowing, and what water has already been diverted upstream, and for what purposes? Here we enter the complications of many kinds of water extraction as well as inflows (e.g., from the sewerage treatment plants, urban run-off, and industrial waste) both upstream and downstream. And the biggest issue in many areas is “non-point” seepage into the river from agriculture. What agro-chemicals are being used? How much manure is coming into the river? And what kinds of agricultural products are society getting from those farming systems?

By posing ethical questions we can systematically identify how water is being used now, and how that water might provide additional benefits to many more people, and at the same time, to the river itself. Ethics offers a basis for inventorying or accounting for how water is currently being used. But ethical questions can also inform a more creative process of identifying new water challenges and designing solutions that meet as many values of as many people as possible.

Rather than being mired down in negotiations about “trade-offs” between the health of the river and economic priorities for carbon-free power generation, we can use an ethics perspective to find win-win solutions. Maybe the submerged power turbine is too weak to meet the power demands. Let’s not worry about that just yet. Let’s first figure out the values that the river, and the water from that river, can help to realize.

Ethics analysis can suggest the categories of the values; the people concerned need to identify what their actual values are and the relative priorities of different and seemingly conflicting values. Ethics then provides a way of sorting through those values and identifying preferred (ethical) courses of action that everyone can agree to. Some behaviors are non-negotiable. Leopold suggested that we learn to view the health of nature as a non-negotiable, ethical priority. The Ten Commandments, for example, is quite clear about stealing. I might want a car like my neighbor’s, but I’m not allowed to steal it. I need to discover another solution to my desire of possessing that car. I can buy

one just like it; I can buy a different car; I can recast the problem as not about a car, but about transportation, and look for a different type of solution (e.g., renting a car for weekend trips and using my bicycle for my daily commute).

Many of the water challenges that look like trade-offs (between a healthy river or a healthy economy) can be recast to a different kind of challenge, but we need to be clear about our values first. If we take Leopold's advice and hold the health of the river as sacrosanct, then we can focus our attention on economic development that doesn't threaten the river, and might even capitalize on the healthy river. The Los Angeles River, once a victim of myopic utilitarian values, is now sparking an economic revival. The river has been recast as a desirable urban amenity and is being gradually restored, at great cost, but with great enthusiasm as well.

Including rivers and their water as part of our ethical concern is, to paraphrase Leopold, both possible and necessary. Without ethics to guide us, it is so easy to keep "chipping away" at the ecological functions of our rivers and lakes. One more dam, or a little more nitrate-laden seepage from the CAFO (Concentrated Animal Feeding Operation) upstream, can be justified if we don't look at the larger picture.

Ethics about water can guide us not only in what NOT to do, but more positively and creatively, can guide us towards new ways of imagining a better life for our communities. Whether the Los Angeles River or Milwaukee's lakefront, nature really can be a friend to environmentalists and economists alike. The take-away message of water ethics is (1) Identify the values about water that are most important to us, (2) Clarify the core ethics that should not be tampered with (e.g., Nature comes first), and (3) Unleash your creativity to find ways of realizing many different values at once. Ethics, combined with creativity, can be fun!