



w a t e r e t h i c s

Conference on Water Ethics Viterbo University, La Crosse, Wis. April 16–18, 2015

*“The health of our waters is the principal
measure of how we live on the land.”*

— Luna Leopold

The 2015 Conference on Water Ethics gathers scholars for a national conversation on the ethical responsibilities of individuals, communities, businesses and government agencies in regard to water. The conference will feature presentations examining and celebrating water’s unique status as a common resource, essential to economic, cultural, physiological, and emotional well-being.

**The evening events on April 16 and 17 are free and open to the public—
no registration required.**

Sponsored by the D.B. Reinhart Institute for Ethics in Leadership and
the Wisconsin Academy of Sciences, Arts, and Letters.

D.B. REINHART
INSTITUTE *for* **ETHICS IN**
LEADERSHIP *at* VITERBO
UNIVERSITY



w a t e r e t h i c s

“The health of our waters is the principal measure of how we live on the land.”

— Luna Leopold

The 2015 Conference on Water Ethics gathers scholars for a national conversation on the ethical responsibilities of individuals, communities, businesses and government agencies in regard to water. The conference will feature presentations examining and celebrating water’s unique status as a common resource, essential to economic, cultural, physiological, and emotional well-being.

The evening events on April 16 and 17 are free and open to the public—no registration required.



Thursday April 16, 7 p.m., Viterbo University Fine Arts Center Main Theatre
An American Water Ethic

Cynthia Barnett is a longtime journalist who has reported on freshwater from the Suwannee River to Singapore. She is the author of *Blue Revolution: Unmaking America’s Water Crisis*, named by *The Boston Globe* as one of the top 10 science books of 2011.



Friday April 17, 7 p.m., Viterbo University Fine Arts Center Lobby
Water Songs featuring Waubanewquay Dorene Day and Larry Long

Dorene Day, Waubanewquay, has dedicated over 30 years of her life to singing in the native spiritual ‘Life Ways’ ceremonies. Dorene carries the responsibility of song keeper for her lodge, and is foremost a singer of spiritual song.

Larry Long is an American singer-songwriter who has made his life work the celebration of everyday heroes. In 2014 Larry was inducted into the National Old Time Music Hall of Fame. Now a Smithsonian Folkways recording artist, Long has sung at major concerts and festivals throughout the U.S. and the world.

Registration is required only for the daytime conference sessions on April 17 and 18.
For a complete listing of conference events, go to www.viterbo.edu/ethics.

Sponsored by the D.B. Reinhart Institute for Ethics in Leadership and the Wisconsin Academy of Sciences, Arts, and Letters.

water ethics

**The D.B. Reinhart Institute for Ethics in Leadership
Viterbo University
La Crosse, Wisconsin
April 16–18, 2015**

Thursday, April 16

Fine Arts Center Main Theatre

7 p.m.

Cynthia Barnett—An American Water Ethic

8:30 p.m.

Reception and Book Signing

Friday, April 17

Reinhart Center

8 a.m.

Registration/Continental Breakfast

8:30 a.m.

Welcome Reinhart Center 107

Waters of Wisconsin

Jane Elder, Wisconsin Academy of Sciences, Arts, and Letters

9:20–10 a.m.

Session—1A Reinhart Center 107

#1 *Ethics and Public Conversations about Natural Resource Issues*
Dennis Boyer, Interactivity Foundation

Session—2B Reinhart Center 127

#2 *Ganawendan Ginibiminaan: TEK and western science approaches to water stewardship with the Bad River Ojibwe*
Jessie Conaway, University of Wisconsin

10:15–11:30 a.m.

Session—2A Reinhart Center 107

#3 *Reuniting Agent and Act: The Role of Virtue in Water Stewardship*
William R. Jarrett, University of North Carolina, Charlotte

#4 *Water Under the Bridges: Theory, Practice and Wisdom in Water Policy*
David E. Schmitt, Independent Scholar

Session—2B

Reinhart Center 127

#5 *The Spiritual Significance of Water in Tao-Te-Ching of Taosim*
Mary Lenzi, University of Wisconsin-Platteville

#6 *Dogen, Oceans, and Liberation*
Sam Cocks, University of Wisconsin-La Crosse

11:30 a.m.–12:30 p.m.

Lunch Reinhart Center Lobby

12:30–1:30 p.m.

Session—3 Reinhart Center 107

#7 *Water, Memory, and Ethics—Between Place and Planet*
Christiana Peppard, Fordham University

1:45–3 p.m.

Session—4A Reinhart Center 107

#8 *Aldo Leopold: Riverine Experience in Youth Sets a Pattern for Life*
Steve Brower, Leopold Landscape Alliance

#9 *Leopold and the Land Ethic in Coon Valley, Wis.*
Dylan Klein, Mississippi Valley Conservancy

Session—4B Reinhart Center 127

#10 *Feasibility of a Farmer-led Conservation Cooperative to Control Non-point Pollution on Wisconsin Agricultural Lands*
Juliee de la Terre, Terra Consultancy

#11 *Servant Leadership in Groundwater Sustainability*
Kimberly Smith, Independent Scholar

3:15–4:30 p.m.

Session—5 Reinhart Center 107

#12 *The Scientific Foundation of an Ethical Choice: The U.S. Geological Survey Approach to Quality and Integrity in Water Science*
Charles Dunning, USGS Wisconsin Water Science Center

#13 *Expanding the Integrated Water Resource Management Paradigm with Ethics*
Tom McAuley, Saint Paul University, Canada

6–7 p.m.

Banquet Reinhart Center room 107

7–8:30 p.m.

A Celebration of Water Fine Arts Center Lobby

Larry Long, Smithsonian/Folkways Recordings Artist
Dorene Day, Waubesaquay, Native Life Ways Singer/Practitioner

Saturday, April 18

Reinhart Center

7:30 a.m.

Continental Breakfast

8–9 a.m.

Session—6 Reinhart Center 107

#14 *Water Ceremony*
Josephine Mandamin, Biidaasige, Anishinabe Midewiwin
Grandmother

9:15–10:30 a.m.

Session—7 Reinhart Center 107

#15 *Water, the Bible, and Virtues: Learning (again) from Scripture*
Steven Bouma-Prediger, Hope College

#16 *Aristotle, the Telos of Water, the Telos of Man, and Water Ethics*
Mary Krizan, University of Wisconsin-La Crosse
Eric Kraemer, University of Wisconsin-La Crosse

10:45 a.m.–noon

Session—8 Reinhart Center 107

#17 *Is There a Right to Water?*
Michael Tiboris, San Diego State University

#18 *Globalization of Water Development in Africa: Impact of Global Water Initiatives on Policy and Water Service Access*
Daniel Sambu, University of Wisconsin-La Crosse

noon–1 p.m.

Lunch Break

1:15–2:15 p.m.

Session—9 Reinhart Center 107

#19 *Between Earth and World: The Narrative of Normal Water*
Jeremy Schmidt, Dalhousie University

2:30–3:45 p.m.

Session 10 Reinhart Center 107

#20 *Free Spirit Land—Decolonization, Hock Style*
Juliee de la Terre, Terra Consultancy
William Greendeer, Hock Tribal Member

#21 *Ethics Upstream: Love (and Justice) in a Time of Cholera*
Matthew Bersagel-Braley, Viterbo University

4–5 p.m.

Session—11 Reinhart Center 107

#22 *Water Ethics Emerging: A Confluence of Traditions and Values*
Curt Meine, Leopold Legacy Center and Center for Humans and Nature

Special Video Presentation

Bronwyn Preece, University of Huddersfield (Canada) and

Jess Allen, University of Manchester (U.K.)

Dropped in the Ocean (A Trans-Continental Collaboration)

Dropped in the Ocean is the filmic result of a message-in-a-bottle project: a two-month process of exchange—of drinking water, writing, and movement—between two ecological performance artists. Inspired by our curiosity of water as a substance, metaphor, and medium: a medium of vital ecological process; a medium of communication to raise ecological consciousness; a medium of connection across continents and between selves and site, the film asks “how do we communicate across distance?” That of time and space; that which exists between our awareness of global crisis and our local everyday behaviors; the split between our humanity and our ecology; the chasm between the scale of what we need to do and what we are not doing.

Featured Speakers

Josephine Mandamin, Biidaasige, is an Anishinawbe woman from the Wikwemikong Unceded Indian Reserve on Manitoulin Island in Ontario. Biidaasige is a fourth degree Anishinawbe Midewiwin Grandmother of the Three Fires Midewiwin Society, Ojibwe Nation. Mandamin has walked around the five Great Lakes and the St. Lawrence River along with her supporters, culminating in this year’s walk, which brought the coastal waters from each shore from the four directions of Turtle Island. With the support and financial assistance of many kind supporters and organizations, they have accomplished the feat of raising awareness with those they come in contact with on critical water issues and emphasizing the significance of water and the vital role women play in water’s protection. In her great love for the water, Josephine speaks about that connection in collecting consciousness of caring for water. She shares how her vision came to be what it is today and what it will mean for the future.

Jane Elder is executive director of the Wisconsin Academy of Sciences, Arts, and Letters. She brings to the Wisconsin Academy a strong background in public policy leadership, nonprofit management, and involvement in Wisconsin arts. Her career has focused on environmental policy and communications.

Jeremy Schmidt is a Banting Fellow in the department of Sociology and Social Anthropology at Dalhousie University. From 2012–14 he was a SSHRC Post-doctoral Fellow in the department of Anthropology at Harvard University. He co-edited *Water Ethics: Foundational Readings for Students and Professionals* with Peter Brown. In addition to his research, Schmidt sits on the advisory board of the Water Ethics Network and recently joined the ethics and environment group at CREUM: the Centre de Recherche en Éthics de l’Université de Montréal.

Christiana Peppard is assistant professor of Theology, Science, and Ethics and affiliated faculty in American Studies and Environmental Policy at Fordham University. She is the author of numerous peer-reviewed articles and co-edited scholarly volumes on resource extraction, environmental ethics, and science and society. Her book, *Just Water: Theology, Ethics, and the Global Water Crisis*, explores the problem of fresh water scarcity in an era of climate change and economic globalization, and it charts a fresh water ethic from resources in environmental thought, moral anthropology, and Catholic social teaching (Orbis Books, 2014).

Curt Meine is a conservation biologist, historian, and writer who serves as senior fellow with the Aldo Leopold Foundation and with the Center for Humans and Nature, and as associate adjunct professor at the University of Wisconsin. His biography *Aldo Leopold: His Life and Work*, published by the *University of Wisconsin Press* in 1988, was the first full-length biography of Leopold, and was named Book of the Year by the Forest History Society.

Conference Sessions

#1 ***Ethics and Public Conversations about Natural Resource Issues***

Dennis Boyer, Interactivity Foundation

The emerging field of dialogue and deliberation is exploring the best practices and ethical considerations of the democratic governance conversations that precede formal policymaking. The Interactivity Foundation (IF) has been engaged in a 10-year effort to develop starting points and techniques for such conversations. IF Fellow Dennis Boyer, a Wisconsin resident, has managed discussion projects on regulation, energy, climate, and water. He will highlight some lessons learned from these experiences and explore the ethical dimensions of those lessons with session attendees.

#2 ***Ganawendan Ginibiminaan: TEK and western science approaches to water stewardship with the Bad River Ojibwe***

Jessie Conaway, University of Wisconsin

Community-based research with the Bad River Band of Lake Superior Ojibwe in northern Wisconsin illustrated that water stewardship is an organizing practice that can potentially bring together tribal and non-tribal people. The lead author collaborated over five years with tribal members, co-creating a learning community (Berkes, 2012) of university, natural resource agency, and indigenous experts. This article is itself a product of our collaboration. We worked in community water stewardship from concept to the dissemination of durable products of which the tribe took ownership. This article focuses on the methodology of collaborative research in Indian country, emphasizing challenges and successes, and culminating in a case study of Ganawendan Ginibiminaan, water stewardship that incorporates native and western science. A local Anishinaabemowin version of traditional ecological knowledge (TEK) is highlighted: Mino Bimaadiziwin, "Living in a good way." Interviews with adult Bad River tribal members and Talking Circles with tribal youth indicate that Ojibwe identity, value systems, and traditional practices are bound to water. Cultural underpinnings include an Ojibwe water ethic that necessitates ceremony, harvest, and participation as elements of stewardship. This sheds light on the spiritual dimensions of TEK. We demonstrate that the vulnerability and resilience of water and cultural traditions are intertwined.

#3 ***Reuniting Agent and Act: The Role of Virtue in Water Stewardship***

William R. Jarrett, University of North Carolina, Charlotte

In laying the foundation for his treatise on virtue, Alasdair MacIntyre posits the "disquieting suggestion" that the Enlightenment project has wreaked havoc on moral discourse such that "There seems to be no rational way of securing moral agreement in our culture." Tracing the cause of this condition to the Enlightenment project, MacIntyre advances the strong claim that the Enlightenment project has failed, indeed, had to fail, and the most prominent moral theories of the Enlightenment, deontology and utilitarianism are limited in promoting moral behavior. MacIntyre then posits that virtue in the tradition of Augustine and Aquinas holds promise that Enlightenment theories do not.

I propose MacIntyre's theory holds promise because of the way in which he reunites agent and act in moral discussion. MacIntyre's emphases of narrative and traditions can provide motivation needed to change people's behavior. Another critical aspect that MacIntyre brings into discussion is the role of practical reasoning in making choices. Conceiving of life as a narrative in which agents choose from various actions reunites agents and acts, thereby liking increasing the motivation of agents to act in ways directed towards good ends. Thus MacIntyrean virtue theory holds promise for providing motivation to be good stewards of the environment. To support my claim, I argue first that MacIntyre's virtue theory overcomes modernity's bifurcation of agent and act. Secondly, I argue that environmental setting is a crucial component of narratives, thus extending MacIntyre's thesis. Finally, I examine how the MacIntyrean emphasis on narrative and practical reasoning would play a role in virtuous stewardship of water.

#4 *Water Under the Bridges: Theory, Practice and Wisdom in Water Policy*
David E. Schmitt, Independent Scholar

Few disciplines have attracted so many and so wide-ranging conjugations signaled by the prefixes “Eco-” and “Enviro-.” These span from narrow technical studies such as environmental chemistry to more adventurous areas such as ecotheology. The existence of these many intellectual bridges is itself encouraging, regardless of the individual fruitfulness of particular projects. One other area, neuroscience, also comes to mind in its not lacking disciplinary suitors. Naturally, some have identified interests falling under the banner of “neuroecology.”

These proliferations of disciplines speak to the vitality and relevance of these broad endeavors as well as the search for an organizing principle. Both environmental science and neuroscience represent poles of our experience that have the power to attract all of the fragments of every other activity, especially when the “neural world” is considered to include philosophy and theology. These poles, the internal and the external, roughly correspond to the sensory-motor loop that characterizes the life of all multicellular animals. The sensori-motor loop highlights the connecting action of the animal’s physiology uniting the external environment and the internal physiology. Further, water ecology presents some features of material communication and connectedness that are unique while of course being situated within larger and general issues of environmental quality and protection.

I plan to use the Alasdair MacIntyre’s work, *Dependent Rational Animals* as a foundational work upon which to structure my comments. In this work, MacIntyre argues for traditions supporting human flourishing that do not ignore human biological nature. By way of an alternative example not saddled with negative cues, he uses the case of dolphins. Much of our political conflict that is not without relevance in environmental matters arises from rival views of what is, or what should be considered, contingent versus independent—between our genetics and biology versus our mental lives.

#5 *The Spiritual Significance of Water in Tao-Te-Ching of Taosim*
Mary Lenzi, University of Wisconsin-Platteville

The Tao, like water, is a flowing, formless source of all life and being. Water appears boundless and abiding in the exchange of opposites cycling from dryness of earth and land, and rainwater, clouds, fog, and steam. Yet too much, or too little water disrupts this balance and is devastating to life itself. The Tao, as represented in Tao-Te-Ching (TTC) is a naturally dynamic divine process of all reality. As such, the Tao contrasts with any religious spiritual system that identifies the divine being or even any actual earthly element like water with a static form of substantiality. Taoist sayings in TTC advise us not to alter or re-make nature, the world, or the Tao into our own human image and projected selves. More pertinent to the ethics of water, we are turning to TTC for guidance concerning what humans and their governments are to do to counteract those natural harms caused by people, practices, and political government. For, not acting to acquire and to implement knowledge and methods to find ways to prevent or correct human-made harms committed against nature seems contrary to nature itself when following both the Tao and te. As this paper contends, the TTC poses this paradox and dilemma as background for examining water ethics.

#6 *Dogen, Oceans, and Liberation*
Sam Cocks, University of Wisconsin-La Crosse

The following analysis will take into consideration the cultural and ethical relevance of the 13th century Japanese Zen philosopher Dogen’s views on water through an analysis of his notion of “ocean seal samadhi.”

This paper will unfold in four stages. First, I will discuss the early Chinese and Japanese cosmological significance of water. Water is an example of qi or material energy. All things are made of qi, the latter taking on qualitatively different forms (i.e., the elements of earth, fire, and so forth). The ocean in particular is considered the center of “heaven and earth,” produces the rains that sustain all living things, and serves as the gathering and purifying source for all waters. Thus the ocean is a special sort of qi.

Second, the essay will address the link of the prior cultural view of water to the Zen Buddhist notion of “ocean seal samadhi.” The latter term designates something like self-less “concentration” or “focused awareness” and is identified with mental calmness and acute sensitivity to one’s immediate environment.

Third, I note that Dogen, is not a mere idealist—but in many ways a realist. The purifying possibility of human qi—the way that our qi can engage the qi of different people and situations—is essentially a microcosmic manifestation of nature’s overall purifying function found in such phenomena as oceans.

Fourth, as a component of this analysis, I will step back and ask whether the above is simply a galvanizing myth of sorts, or whether there is evidence supporting such intense claims. I will end by claiming that even if there is only partially supporting evidence for the above point of view, there is sufficient evidence to warrant the practical applicability and productivity of such a perspective. Tied in with this is the notion that water not only counts as common good at the level of basic sustenance—but also a common good at the level of possible symbolic inspiration.

**#7 *Water, Memory, and Ethics—Between Place and Planet*
Christiana Peppard, Fordham University**

Water is universal but not uniform; its textures and meanings differ among geographical places as well as human cultures and religious traditions. This talk explores how water and memory might intersect as ethical forces, by focusing on ways that cultural, artistic, and religious renderings of water lay claim to particular bodies of water amidst planetary hydrological shifts.

**#8 *Aldo Leopold: Riverine Experience in Youth Sets a Pattern for Life*
Steve Brower, Leopold Landscape Alliance**

Part 1: It is supposed by most readers of *A Sand County Almanac* that all the imaginative action in the Almanac section takes place along the Wisconsin River, its sandy shores and prairies. What is hidden in Leopold’s essays is a lifetime of experiences following the rivers and sands of all the places that he loved, starting with his first river—the Mississippi. Aldo’s earliest adventures and theories came from the wild bottomland woods, sand ridges and backwater marshes around his hometown. It was in these spacious open lands that Leopold discovered a personal sense of freedom that stoked his imagination. Then during his school years in the East, he wrote home about surprises in nature that lead to a magical renewal of spirit, and he anticipated new outings for his return trips back to Iowa. Throughout Leopold’s career he drew strength from memories of these discoveries and continued searching for connections to nature as he dealt with life’s dilemmas along the way.

Part 2: The “human response to nature” is the way I think of the perception process Leopold continually presses readers to strive toward. Moving through the landscape with an expanding sense of the smallest details and the largest relationships in nature brings the deepest satisfaction. Leopold challenges that we must have an ‘expanding growth of perception’ to match the bigger, faster modern world.

Part 3: Using Leopold’s life to find solutions for problems in our urbane lives leads to an answer: provide more wild lands close to home and school where children can have frequent repeated experiences of discovery in nature, and finding solace.

In Burlington we have been experimenting by trying to improve the quality of life for children and parents through development of a two-acre demonstration prairie classroom in front of the Aldo Leopold Middle School. On the surface it serves the curriculum, more importantly it offers wild surprise on a daily basis. Though more challenging, perhaps the next step would be to try reconstructing a backwater swamp in town.

**#9 *Leopold and the Land Ethic in Coon Valley, Wis.*
Dylan Klein, Mississippi Valley Conservancy**

This project will examine the poor conservation techniques practiced by Central Wisconsin farmers that triggered an erosion crisis in 1930s Coon Valley. It will then transition into a biographical analysis of Aldo Leopold and his concept of a land ethic. The purpose of this paper is to determine the influences of Leopold’s theories of conservation on the work conducted by the Soil Erosion Service in Coon Valley.

In Wisconsin, decades of poor farming caused extensive erosion and the disappearance of much of the state's top soil. Aldo Leopold recognized that the tendency of contemporary conservationists to focus on economics promoted ecological degradation.

Leopold acted in concert with the Soil Erosion Service in determining effective agricultural practices that could be adopted by Coon Valley farmers in order to maintain the area's watershed. He supported a voluntary practice of conservation wherein the landholder recognized his moral obligation to maintain the land. Solutions included contour plowing, strip fields (these alternated buffer strips with other crops), and woodlots, all of which controlled soil erosion. The aforementioned solutions launched by the Coon Valley Erosion Project are still observable in our region of the Midwest.

#10 *Feasibility of a Farmer-led Conservation Cooperative to Control Non-point Pollution on Wisconsin Agricultural Lands*

Juliee de la Terre, Terra Consultancy

Non-point phosphorus pollution continues to be a challenge across Wisconsin agricultural landscapes. Traditional top-down nutrient management approaches have not been able to adequately control phosphorus runoff. Many farmers have little faith in their conservation districts due to distrust of modeling and research and often decline assembling and enacting standard best management practices (BMPs) for their operations. A new approach is needed in order for farmers to engage in long-term nutrient control measures. The idea of group action vs. individual actors to manage surface water runoff within the context of a cooperative, which markets theoretical conservation credits to municipal water treatment facilities, was introduced. Six dairy farmers of varying operation size in the Yahara Watershed in Wisconsin were interviewed regarding willingness to design, assemble and manage a conservation cooperative. Various agency staff and scientists were presented with the same concept. Though familiar with the concept of cooperatives both groups had varying opinions regarding farmer adoption and levels of expertise for executing a watershed wide conservation project. The idea of a cooperative is explored through inductive analysis of these informal conversations. Several simple questions were introduced to facilitate open-ended discussion.

#11 *Servant Leadership in Groundwater Sustainability*

Kimberly Smith, Independent Scholar

This case study will evaluate servant leadership characteristics in organizations that are promoting sustainable groundwater practices. Groundwater sustainability is an area of concern worldwide and specifically in Wisconsin, which is home to historically water-rich aquifers. Research indicates that the demand on groundwater is increasing due to high capacity wells used for municipalities, farming, and mining. These demands have depleted the aquifers beyond their ability to regenerate adequate water levels. There are many barriers to sustainable use: increasing population, antiquated laws, political pressure by business, and lack of public awareness. This case study will examine if and how organizations directly affected by the sustainability of groundwater are implementing the servant leadership concepts of seeing things whole, serving the common good and building community. The results of this evaluation will help individuals and communities model behaviors to encourage the sustainability of groundwater resources. Because groundwater sustainability as an area of study is broad and complex, it is difficult to select specific information for unbiased discussion. This study is limited to current issues affecting selected research participants.

#12 *The Scientific Foundation of an Ethical Choice: The U.S. Geological Survey Approach to Quality and Integrity in Water Science*

Charles Dunning, USGS Wisconsin Water Science Center

The U.S. Geological Survey (USGS) of the Department of Interior (DOI) is the Nation's largest water, earth, and biological science and civilian mapping agency. The Water Mission Area is one of seven organizational units that integrate science across the USGS to address societal earth science needs. Within the USGS, the Office of Science Quality and Integrity (OSQI) monitors and enhances the integrity, quality, and health of our science activities.

The OSQI interprets and implements the DOI Code of Scientific and Scholarly Conduct (CSSC) which requires (in part) that:

- Decisions are based on credible science and scholarship
- Science is conducted with integrity and excellence
- The culture of scientific and scholarly integrity is enduring

Central to the USGS approach to quality and integrity are the Fundamental Science Practices (FSP) developed under the OSQI. The FSP are a set of consistent practices, philosophical premises, and operational principles which serve as the foundation for research and monitoring activities essential to USGS science.

Since the inception of the USGS in 1879, the agency has maintained comprehensive internal and external policies and procedures to ensure the quality and integrity of its science. These policies and procedures have been strengthened and modernized in the current FSP. Because of the USGS legacy of science excellence and objectivity and continued commitment to these ideals, we are trusted by diverse stakeholders as they make increasingly difficult choices in managing water-resources.

#13 *Expanding the Integrated Water Resource Management Paradigm with Ethics*
Tom McAuley, Saint Paul University, Canada

Implementation of the leading paradigm in water resources management is not without its challenges. One of the foremost is the explicit recognition of ethics in water governance and management in all stages and levels between pre-development to ongoing participatory management of freshwater resources and ecosystems. This presentation, which includes lessons from the Lake Ontario—St. Lawrence River and Columbia River basins and the Republic of El Salvador, looks at some of the major challenges for IWRM with a view towards how it can adequately and ethically function in today's complex changing world.

#14 *Water Ceremony*
Josephine Mandamin, Biidaasige, Anishinabe Midewiwin Grandmother

#15 *Water, the Bible, and Virtues: Learning (again) from Scripture*
Steven Bouma-Prediger, Hope College

We live on what some call "The Water Planet." About 70 percent of the surface of the earth is covered with water—a fact evident in photos from space that make clear the vastness of the world's oceans. And some of us get our drinking water from aquifers—large caches of water underground. Water is everywhere in the air we breathe—apparent in the humidity we feel and the clouds we see. And about 70 percent of our bodies are composed of water. Water around us, and water under us, and water above us, and water in us. Water is literally everywhere. Water is everywhere in the Bible, too. At first it may not seem so, but a more attentive look reveals the presence of water in many texts—like a long thin river threading its way from Genesis to Revelation. From the waters of creation to the water of baptism to the waters of the river of life cascading through the heaven-on-earth New Jerusalem, water is an important theme in the Bible. In this paper I will look at a number of biblical texts, and reflect on the meaning of water for how we should live in this world. I will also explore how certain virtues might shape our stewardship of the water under our care. How would a turn from discussion of duties and rights and consequences (deontology and teleology) to conversation on virtues (areteology) reframe water ethics? When it comes to using, protecting, and restoring water, what habitual dispositions to act well are most important? What vices are most harmful? How do we cultivate the needed virtues and diminish the dangerous vices? The Bible begins and ends with rivers (and trees). What might this suggest about the kind of people we need to be on this, The Water Planet?

#16 ***Aristotle, the Telos of Water, the Telos of Man, and Water Ethics***

Mary Krizan, University of Wisconsin-La Crosse

Eric Kraemer, University of Wisconsin-La Crosse

Just what Aristotle's view is of the telos of water is difficult to determine as he seems to be saying different things in different places. In *Physics* II.8, Aristotle affirms his commitment to the claim that water indeed possesses a natural telos. Nonetheless, a passage in the *Politics* suggests that water, like other natural things, is for the sake of human beings (*Politics* I.8, 1256b10-22), the biological works suggest that water has as its telos the continued flourishing of living things (*Parts of Animals* II.1, 646b5-10), and *Metaphysics* XII suggests that water, like all beings in the universe, has as its telos the functioning of the universe as a whole (*Metaphysics* XII.10, 1975a11-25). We will refer to these as the anthropocentric, bio-centric, and cosmo-centric accounts, respectively.

While some may regard only the first, the anthropocentric account, as the Aristotelian view most in line with Aristotle's ethics, we argue that each of the views that he does seem to hold has some intrinsic plausibility and thus worthy of serious consideration. Further, in addition to discussing the telos of water, as is well-known, Aristotle also considered at length the telos of human beings [man], and it is important to ask how Aristotle's account of the telos of man coheres with he says about the telos of water, and what this relation entails for proper human conduct.

#17 ***Is There a Right to Water?***

Michael Tiboris, San Diego State University

In this paper I argue against the idea of a human right to water as the basis for addressing severe global water scarcity and water poverty. The idea of a human right to water is both attractive and widely appealed to in both the popular and philosophical literature on resource ethics. There are multiple national and international declarations which claim people (the global poor in particular) have a right to water on these grounds. But little work has been done on whether this grounding for the right is defensible or whether, if the goal is to ensure adequate access, rights arguments are effective tools for policy. I begin by examining the notion of a "right to natural resources" and then consider whether this sort of argument is more compelling than alternative justifications for national and international policies aimed at increasing water access for humans.

I argue that the goal of ensuring fair access to water resources may not be best handled by appeal to human rights. Alternative, non-rights-based claims to equal access present a more compelling burden on us both as individuals and to the global institutions which have the best shot at actually improving access. Non-mysterious theories of the basis for human rights are typically based on views about the existence of political institutions which produce mutual responsibilities and duties. In the absence of such institutional connections rights claims become problematic. Instead, I argue, we should base our policy on other grounds—either natural duties of care or, more likely, views about when natural distributive inequality is impermissible. I conclude by identifying some ways that alternative distributional principles make for more effective policy at the international level.

#18 ***Globalization of Water Development in Africa: Impact of Global Water Initiatives on Policy and Water Service Access***

Daniel Sambu, University of Wisconsin-La Crosse

In a quest to achieve sustainable supply of drinking water for its citizens, countries in Sub-Saharan Africa (SSA) have adopted water supply models designed to meet access targets set by Global Water Initiatives (GWI). This paper present a review of achievements, challenges, and the impact of two GWI on water development approaches between 1980–2010. Despite considerable success in extending water access, the International Drinking Water Supply and Sanitation Decade (IDWSSD-1981–90) initiative did not deliver the mandate of "water for all" mainly because of widespread pump failures. Similarly, privatization adopted during the International Decade for Action, Water for Life (IDAWL-2005–15) has not attracted private capital as anticipated, and therefore unable to meet the Millennium Development Goals (MDGs).

#19 *Between Earth and World: The Narrative of Normal Water*
Jeremy Schmidt, Dalhousie University

The more we know about water the further it seems to retreat from complete understanding. Water is weird that way. So weird, in fact, that many experts claim we cannot have a philosophy of water management. But what if we already have one? This talk identifies the cultural basis for, and ethical implications of, the philosophy of management that fit water to a single, planetary story.

#20 *Free Spirit Land—Decolonization, Hocak Style*
Juliee de la Terre, Terra Consultancy
William Greendeer, Hocak Tribal Member

The Free Spirit project will provide an opportunity for immersion into the various aspects of a natural environment without emphasis on land value or production for market. Pre-colonial knowledge will be the guide to knowing the landscape. To continue to heal the land from negative human activities; stream health, riparian integrity, species richness, invasive species and beaver habitat will be assessed and monitored. Existing native food and medicine plants will be mapped. Trails will be established to minimize disturbance. Use of Hocak language, spiritual beliefs and customs will enable participants to enhance self-reflection and enable openness to the language of the natural world. Lessons learned from the project will be used to enable and encourage de-colonization projects.

#21 *Ethics Upstream: Love (and Justice) in a Time of Cholera*
Matthew Bersagel-Braley, Viterbo University

Two centuries after the Broad Street water pump handle was removed in London, ending one of the city's worst cholera outbreaks and ushering in a new paradigm for public health, cholera continues to disrupt and dislocate already vulnerable communities around the world. Yet, tragic outbreaks of this preventable disease rarely cause moral dis-ease among persons in the U.S. This paper uses cholera as a lens for examining the implications of an ethic of solidarity for persons whose hydro-social location allows them to live comfortably upstream.

#22 *Water Ethics Emerging: A Confluence of Traditions and Values*
Curt Meine, Leopold Legacy Center and Center for Humans and Nature

The discussion of water ethics has expanded and deepened rapidly in just the last few years. Increasingly we see the need for connections across cultures, disciplines, and landscapes that honor the full value of water, recognize how water works in the world, and sustain healthy waters for our common future. Where have we been and where are we going in realizing a shared water ethic? Our own conversations in La Crosse will help us to answer that question.