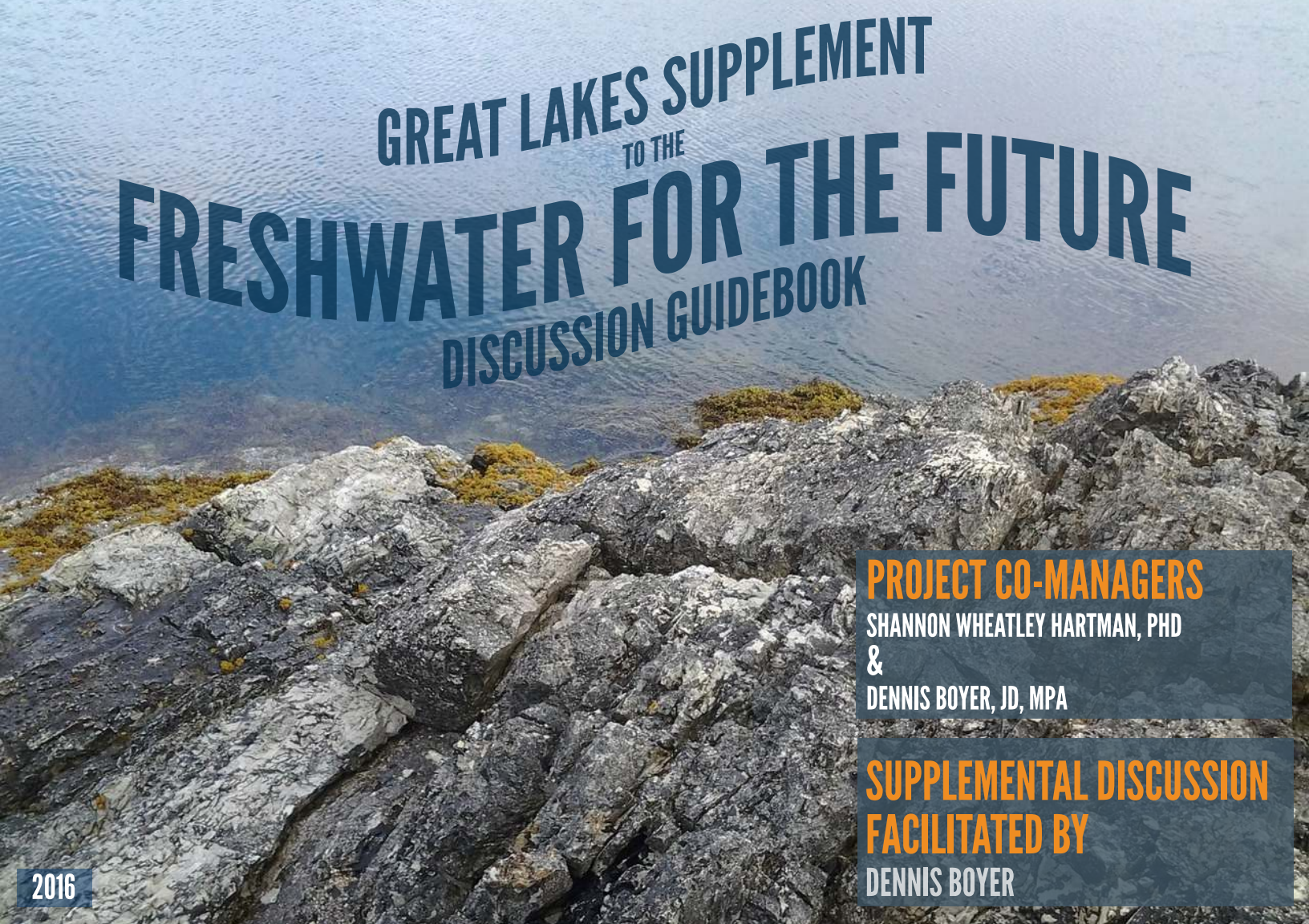
GREAT LAKES SUPPLEMENT TO THE FRESHWATER FOR THE FUTURE DISCUSSION GUIDEBOOK



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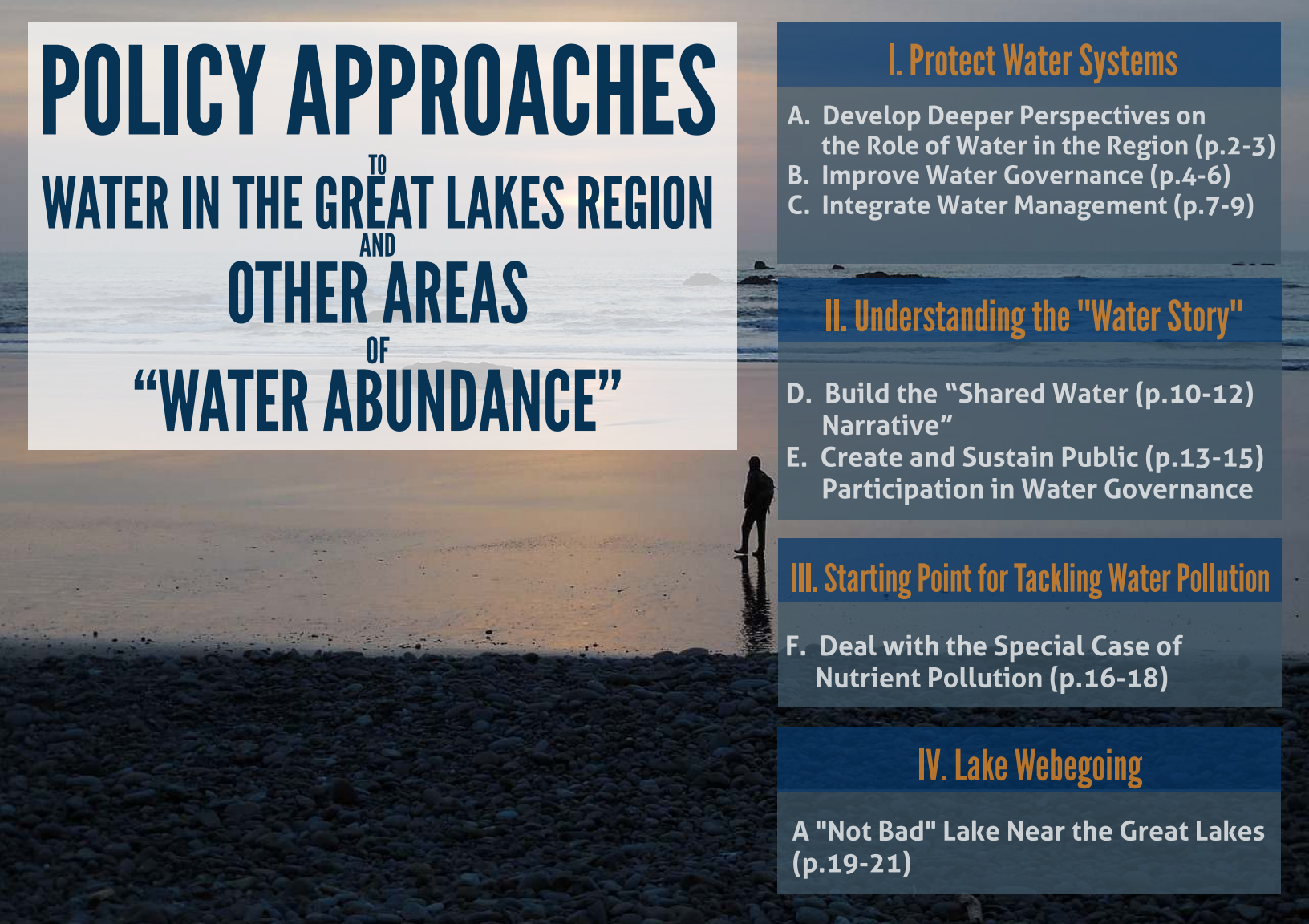
POLICY APPROACHES TO WATER IN THE GREAT LAKES REGION AND OTHER AREAS OF "WATER ABUNDANCE"



I. Protect Water Systems

II. Understanding the "Water Story"

III. Starting Point for Tackling Water Pollution

IV. Lake Webegoing

The materials in this discussion supplement were developed for use with the Interactivity Foundation's Freshwater for the Future guidebook. IF produces discussion guidebooks on a variety of policy concerns for use in citizen, classroom, and policy development discussions. The guidebooks are often framed at a very general level that may be used at a national or even international level. The framing is around "possibilities" that represent contrasting general policies to the questions arising out exploration of the topic in question.

While IF does not "takes sides" in these contrasting approaches, it does see inherent civic benefit in open, wide-ranging public conversation as a prelude to policy development and decision-making. This supplement is undertaken with the understanding that many citizens will have their appetites for public discussion whetted by consideration of general concepts. They may desire to pursue additional discussion of particular local concerns and attempt to explore what sorts of implementations might address those local concerns. This supplement is designed to provide helpful starting points in a water discussion in the Great Lakes region and may useful in any area with a general condition of water abundance, but where issues of water quality and governance still leave many unanswered questions.

A developmental discussion working group of ten professionals familiar with a wide range of Great Lake region water issues and general environmental science experience generated the framing for the approaches in this discussion supplement. They wish to acknowledge their frequent reference to the materials recently developed by the Wisconsin Academy of Sciences, Arts, and Letters (WASAL) in the Waters of Wisconsin initiative.

This supplement was developed with the assistance of the Wisconsin panelists of the original IF Freshwater discussion project and staff from IF and University of Wisconsin Extension.

Thinking Behind the Approach

It has often been observed that the type of thinking that gets us into difficulties is seldom the type of thinking that will get us out of difficulties. Those in the Great Lakes region and other areas of water abundance sometimes make assumptions about water that may not hold up over time. Abundance may not continue in the face of climate changes. The barriers to removal of water from the Great Lakes basin may not endure. Population and economic growth may accelerate beyond current projections.

Water abundance also has a way of blinding citizens and decision-makers to other water concerns. The comfort of generous quantities may lead to failure to protect quality. A general condition of abundance may mask localized shortages of significant impact. And a condition of abundance does not in itself guarantee that ethical questions about distribution will be raised much less answered.

This approach calls for a wider conversation on water concerns that explores and develops deeper perspectives on the role water plays in the regions of water abundance. In the case of the Great Lakes region there is a significant legacy of conservation thinking, open governance, and achievements like the Great Lakes Compact. At the same time, pressures from industry and agriculture call past approaches to regulation into question and conservation thinking does not enjoy the same level of non-partisan consensus that it once did. A wider conversation with deeper perspectives needs to place all water concerns on the table and address their ethical, scientific, and good governance dimensions.

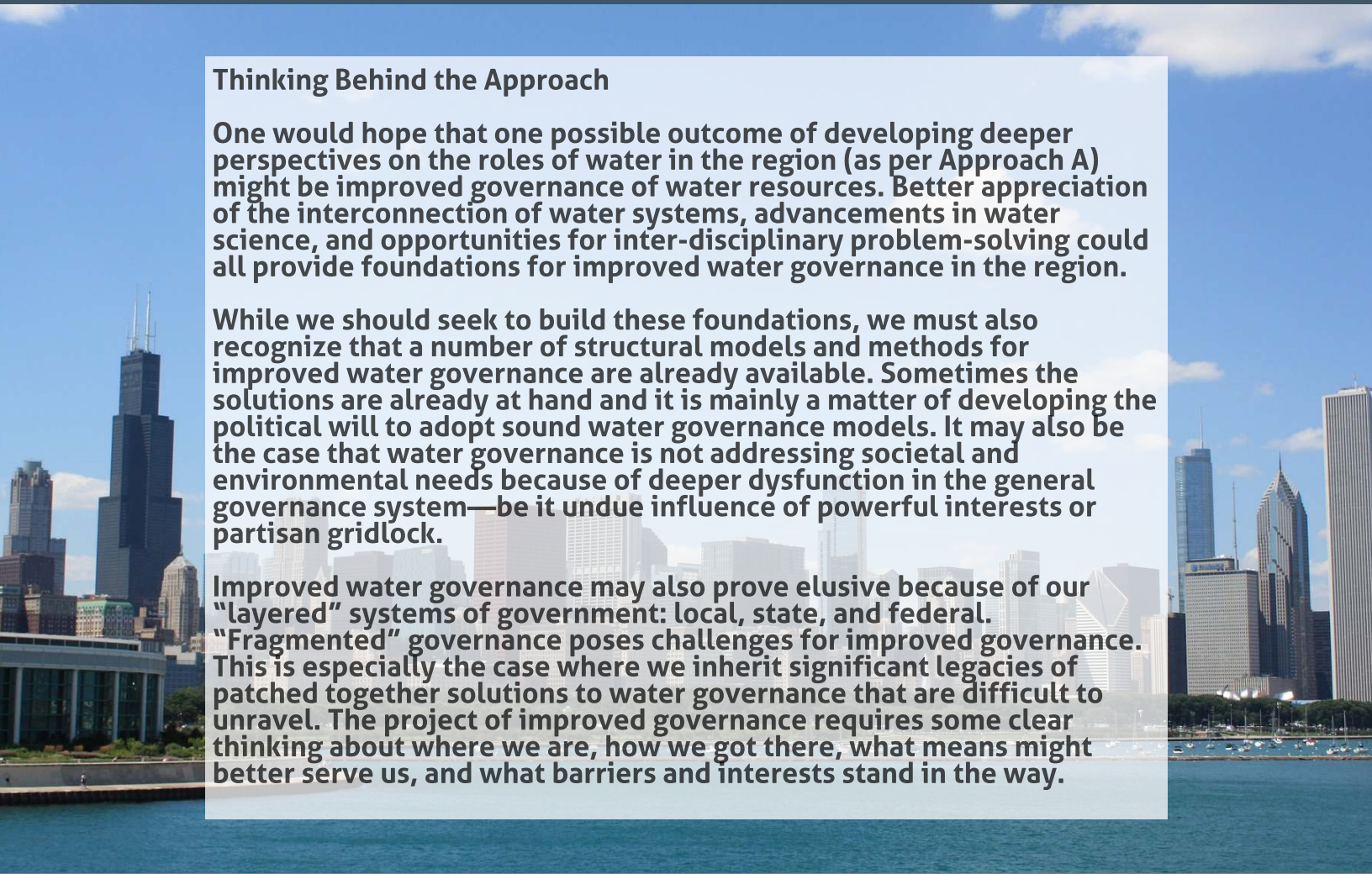
Possible Concerns to Consider in Discussion of this Approach

- Preliminary conversations concerning this approach uncovered dozens of concerns that citizens might consider in pursuit of the civic task of deepening the perspectives that inform our water policies. These are the primary groupings of concerns:
- Water intensive industries and activities seem to be increasing, along with the potential for economic development to be drawn to water abundant regions.
- Regulatory and enforcement resources at most levels of government seem inadequate to the emerging challenges.
- Science, as a tool for informing both public conversation and policy-making, is increasingly under attack.
- Our understandings of the interconnectivity of social, economic, and environmental thinking have yet to inform any general policy relating to sustainability.

Possible Steps to Deepen Perspectives

Our conversations focused on the need to develop strategies to protect water out of an ethical obligation to future generations and other forms of life. Healthy aquatic ecosystems must be recognized as essential to life in the region and on Earth. Some of the possible steps in this direction might include:

- Improved communication and cooperation across the range of institutions and disciplines engaged in the study and protection of water.
- Improved governance of water at scales that respect watersheds and aquifers more than boundaries between political jurisdictions (including upholding the Great Lakes Compact and developing similar arrangements in other watersheds).
- Organized regional Water Congresses that provide forums for discussion of these deeper perspectives and allow for recommendations on translating deeper perspectives to policy.



Thinking Behind the Approach

One would hope that one possible outcome of developing deeper perspectives on the roles of water in the region (as per Approach A) might be improved governance of water resources. Better appreciation of the interconnection of water systems, advancements in water science, and opportunities for inter-disciplinary problem-solving could all provide foundations for improved water governance in the region.

While we should seek to build these foundations, we must also recognize that a number of structural models and methods for improved water governance are already available. Sometimes the solutions are already at hand and it is mainly a matter of developing the political will to adopt sound water governance models. It may also be the case that water governance is not addressing societal and environmental needs because of deeper dysfunction in the general governance system—be it undue influence of powerful interests or partisan gridlock.

Improved water governance may also prove elusive because of our "layered" systems of government: local, state, and federal. "Fragmented" governance poses challenges for improved governance. This is especially the case where we inherit significant legacies of patched together solutions to water governance that are difficult to unravel. The project of improved governance requires some clear thinking about where we are, how we got there, what means might better serve us, and what barriers and interests stand in the way.

Possible Concerns to Consider in Discussion of this Approach

It is certainly the case that some matters relating to water governance have seen some progress and that a number of water quality issues have shown improvement. Water science has experienced advances and the ability to monitor water quality has expanded in many areas.

At the same time, water governance has not been immune to the anti-regulatory currents and economic development pressures that have sometimes placed general environmental concerns as secondary to business interests. Weaker protection of water and other environmental protections can be seen as tool in attracting and retaining business and have, at times, led to a bidding war between localities and between states to see who can lighten regulation the most. While there is plenty of evidence that abundant clean water is an economic development asset, those who would prefer less regulation of water are not hesitant to play the "jobs card" and threaten to move or close business facilities.

It is also the case that good water governance is not helped by more general trends in government staffing and funding. Public sector workforces have in many cases shrunk and the wages for expert technical staff are often stagnant and not competitive with other science-related employment. It is also often difficult in the current political environment to establish appropriate fee structures for water governance, much less use general tax revenue for water protection.

Discussants looking at these governance matters explored the following concerns:

- **In many cases local units of government lack sufficient authority to pursue regional or cross-jurisdiction water governance possibilities or face many difficulties in doing so.**
- **Water science is often viewed as separate from the policy-making realm and is sometimes attacked as biased.**
- **The breakthroughs that led to the Great Lakes Compact may be hard to replicate for the foreseeable future.**

Possible Steps to Improve Governance of Water

Discussants felt strongly that a general conversation about the importance of water might be a key factor in breaking the logjam that currently prevents improved governance in so many policy areas. Their instincts convinced them that the common ground of water as central to human activity and survival might transcend special interest politics. It was also thought that citizens are not generally well-informed about barriers to good governance and what policies might help the situation. Some of the possible steps might include:

- **Create public awareness about the benefits or governance at the watershed and aquifer levels and build political pressure to create governmental units at these levels.**
- **Move toward regulatory processes that incorporate generally agreed upon technical standards and scientific findings to be incorporated into rules without undue political influence.**
- **Allow local governments to enter compacts with Tribal governments and local governments in other states and provinces that share water resources.**

Thinking Behind the Approach

Water issues are by their very nature interconnected and difficult to deal with in isolation of one another. Yet in the Great Lakes region and many other water abundant areas the processes of protection, regulation, and policy-making have often evolved one issue and one piece of a system at a time. In part this is because of the fragmented governance pointed out in Approach B, but it also stems from the slowness in developing the deeper perspectives anticipated by Approach A.

Understanding the many roles of water in this region may help us appreciate what sorts of activities need better integration of water management. The region has strong demands for drinking water, but agriculture, forestry, commercial uses (manufacturing, energy, and transportation among them), recreation, and natural habitats supportive of biodiversity all lay claims to water in the region. The very identity of the region is bound up with its waters.

Water management strategies have often seemed like the "silos" that divide many specialties and disciplines. Issues of water quality may predominate in areas of water abundance, but deterioration of quality can create issues of water quantity as flexibility to deal with localized shortages is reduced. Failure to appreciate the water cycle, with precipitation patterns and the natural system "services" provided by wetlands, forests, and grasslands can lead to shortsighted decisions. The "invisibility" of groundwater and less obvious bodies of surface water may also lead to gaps in policy and protections.

Possible Concerns to Consider in Discussion of this Approach

In addition to the complexity and inefficiency of water management because of the governance issues explored in Approach B, discussants in the development process of this guidebook felt that the regional problems concerning water may result from framing or thinking issues that fail to utilize appropriate science and best practices. There are concerns generally in the difficulty of getting to holistic thinking about ecosystem issues, but is especially the case with water where much of the water cycle and systems are "invisible".

Isolated interventions in one part of the water cycle or in a portion of a water system may ignore crucial interrelationships and fail to achieve goals or even cause other problems. "Systems thinking" in water management means more than understanding the natural systems and human-built infrastructure that handle water. It also means understanding the key dimensions of integrated water management: science, ethics, economics, and collaboration.

Discussants in this development process focused on the following concerns:

- Usable and accessible data on many water issues is sometimes lacking and there is rarely one place to find water information.
- Coordination and collaboration among institutions, water management units, and stakeholders is not always functional and we often lack the means to compel or incentives integrated in management.
- Inability to properly and fully account for current and future costs of misuse of water shifts costs from those engaging in questionable practices to future generations.

Possible Steps to Integrate Water Management

Discussants felt strongly that much more could be done to bring together and coordinate the various management systems that deal with water infrastructure and water sources. Regulatory staff, scientific researchers, and conservationists may be the initial source of this integration as they develop models that recognize the interconnections between water sources and offer plans incorporating these understandings. In the case of the Great Lakes region, it also seems important to recognize the relationship with adjacent important watersheds (mainly the Mississippi-Ohio river system). Ultimately the ability to integrate water management may be somewhat dependent on the success of the improved governance of Approach B, but must be put forth by water professionals and citizen conservationists where government leadership is lacking. Some possible steps might include:

- Integrate surface water and groundwater management in professional standards and training.
- Support improved water data collection systems, best practices in monitoring, and adaptive management techniques.
- Identify challenges of future projected water uses and withdrawals and develop options for meeting those challenges.
- Move toward co-management as step in integration, with all levels of government and American Indian tribes having a voice in management deliberations.

Thinking Behind the Approach

A number of groups and water scientists in our region have considered the matter of how to communicate about water concerns. As mentioned previously, there are sometimes difficulties associated with engaging the public concerning resources that seem abundant, problems that are not clearly "visible", and governance processes that are not well understood. Materials addressing these communication issues are beginning to become available and the work of providing the informational tools to citizens, officials, and stakeholders is underway.

What is less certain is whether we have (or are in a position to generate) a perspective or "story" that crosses the many interests and perspectives in our society. A generation or two ago we had Aldo Leopold's land ethic that provided a basis for a long period of bipartisan/nonpartisan framing of many key conservation concerns. It was not a state of total consensus—how much to spend, how fast to implement, and who administered and enforced regulation often provided frequent and vehement occasion for conflict. But the underlying values of stewardship and enlightened self-interest of protecting common resources served as moderating influences on short-term thinking.

This approach seeks to raise the issue of generating a complementary water ethic that may frame a new form of bipartisan/nonpartisan thinking about our water resources. Many of the assumptions that underlie the possible benefits of the development of deeper perspectives on water under Approach A would be served by this approach. Indeed, it is also likely that the improved governance and integrated management of Approaches B and C would flow from any common ground that a more widely shared water narrative might create.

Possible Concerns to Consider in Discussion of this Approach

Discussants found that countering myths and misinformation are a large part of the mission of creating a shared water narrative. Just as the general conditions of abundance and quality may not tell the whole story over a wide area with many watersheds, the lack information about particular pressures or emerging problems may skew the views of the public and decision-makers away from vigilance and pro-active response. A shared narrative rooted in a water ethic needs to account for demographic and development patterns, species and habitat sensitivities, and adaptability to new conditions.

Discussants focused on the following concerns:

- **Growing numbers of citizens feel that their water stories are overshadowed by an economic development narrative that places little value on public safety and health or ethical considerations.**
- **Regulatory "fast-tracking" and "streamlining" often work against inclusive and deliberative processes that would build a widely understood and accepted water narrative.**
- **Narrow special interests are often able to dominate and shape the narrative through influence in the media and political campaigns.**
- **Opportunities to share and expand water stories have not kept pace with the complexity or urgency of water challenges.**

Possible Steps to Build the Shared Water Narrative

Discussants spent considerable time on the matter of how to develop a shared water narrative of the Great Lakes region or other regions of relative water abundance that face emerging complex issues of quality and distribution. There was a widely held view that development of such a shared narrative would need to account for ethical and sense of place dimensions.

The ethical dimensions start with the centrality of the admission that water is life and that impingements on water quality and availability threaten or degrade life. This discussion also includes elements relating to democratic governance of water, accountability for decisions made about water usage and regulation, matters of equity, spiritual values, and responsibility to future generations and other living things/systems.

The sense of place dimensions begin with very personal attachments to water bodies. Such attachments form a basis for shared story themes that help us understand our relationships, identity, and values.

Possible steps in building this shared narrative might include:

- Develop presentations on the historic and cultural meanings of water in the region and better utilize public education and media to communicate with citizens.
- Initiate a "Water Story Project" that provides an oral history base of individual and community water stories that may serve as both a current shared conversation and as an archive for future reference.
- Provide opportunities for indigenous peoples to share their water stories and the traditions and wisdom that underlie those stories.Enlist the talents and resources of water stakeholders to develop and broaden a water ethic, with wider application of the "keeper" concept (as in "river keeper" and "water keeper") as voices for particular bodies of water.

Thinking Behind the Approach

Approach A looks to deepen perspectives on water, Approach B hopes to improve water governance, Approach C aspires to integrate water management, and Approach D seeks to build a shared water narrative. Discussants in this working group asked themselves: "how do we in the Great Lakes region and other areas of relative water abundance establish a context in which these approaches may be considered and decided upon by the broader public?".

The answer(s) to that question were suggested in the concerns behind all these approaches. Concerns about domination of water deliberations by narrow interests, complicated jurisdictional lines of governance, disjointed management structures, lack of clear and useful information, and the absence of a widely shared water ethic and water story pointed toward conditions where democratic governance of water is difficult if not impossible.

Social development and policy change seldom spring from a single action or chart a straight course. While it was thought that there are opportunities for advancement of various possible implementations of the above Approaches, it was also believed that a serious reimagining of how we engage the public on water issues is called for.
Discussants felt that the lessons of the broad movements for public participation, governance conversation, and dialogue and deliberation were ripe for application to the difficult water issues facing us now and in the future and would provide the context in which the above Approaches could be considered and advanced.

Possible Concerns to Consider in Discussion of this Approach

Discussants found that "distance", both physical and symbolic, is a large obstacle to public participation. Decisions about one's local water are often made in the meeting room of a state agency in the state or provincial capital or in the regional office of a federal regulatory body. Even where individual citizens find the information alerting them to a governmental deliberation on water, they may feel like bystanders to arguments between "experts" with various agendas or witnesses to baffling technical presentations.

Discussants focused on the following concerns:

- Many citizens feel that "opportunities for public comment" are hollow rituals with little opportunity for engagement.
- Domination of regulatory bodies by regulated interests and a "revolving door" between executives of regulated industry and officials of regulatory bodies create a crisis of public confidence.
- Lack of "user-friendly" data-bases and accessible and understandable technical information make it difficult for members of the public to engage in a meaningful way.
- "Reform" may solve some public participation deficiencies, but in some cases it may be necessary to create new participatory structures.

Possible Steps to Create and Sustain Public Participation in Water Governance

Developmental discussion on this Approach ranged widely through a number of general "good government" issues, including open meetings and records, civic education, initiative and referenda, participatory budgeting, political campaign finance reform, and many public engagement methods. While many of these avenues were seen as helpful to the cause of public participation in water governance, discussants arrived at a place of focus on implementations they felt might be of particular use in the Great Lakes region and other areas of relative water abundance.

Possible steps in creating and sustaining public participation might include:

- Develop and distribute public education materials on the variety of public participatory models that are used to govern water interests or may be adapted to that purpose.
- Require (and possibly elect) citizen representatives on water regulatory boards and authorities.
- Initiate "water deliberation days" where the public at-large may engage on particular aspects of water policy and may act as "town halls" to recommend courses of action.
- Develop large-scale watershed/basin "congresses" are made up of representatives of smaller watershed committees from the various tributary rivers, flowages, lakes and wetlands.
- Look to these "water deliberation days" and "congresses" for direction on deeper perspectives on water, suggestions on improved water governance, opportunities for integration of water management, and development of a shared water narrative.

Thinking Behind the Approach

It was not surprising that a great deal of the working group discussion about water issues in the Great Lakes Region focused on threats to water quality. This seems to be typical in areas of relative water abundance, where perceptions of unlimited quantities may lead to overuse and abuse of water resources.

Water quality may be degraded by a number of causes and particular bodies of water often face very different water quality challenges. In our region the challenges are as varied as residential and commercial development pressure, invasive species, climate changes, large-scale "industrial" agriculture, loss of wetlands, expansion of mining, energy generation and transportation, and a variety of other pressures from human activity.

Discussants felt it might be helpful to explore some narrower aspects of water quality issues as a way of thinking through some of the applications of Approaches A through E. They also felt it might be helpful for future citizen discussion to start with some aspects of water quality that are not difficult to understand and that have solutions that are not overly complex. Their consensus was to explore the matter nutrient pollution of our waters.

Possible Concerns to Consider in Discussion of this Approach

Nutrient pollution takes a number of forms and comes from a number of sources. The chief ones considered here are the elements nitrogen and phosphorous. Nutrients accumulate in water bodies through natural processes, but human activity can accelerate that accumulation at a pace faster than our waters can handle them.

One of the most noticeable effects of the over-accumulation of nutrients is eutrophication of water bodies, encouraging proliferation of algae, and unbalancing the oxygen content of the water. The results are "pea soup" waters that stink, that some species can no longer thrive in, and that hardly anyone will swim in. Nutrients in drinking waters are also of public health concern.

Nitrogen and phosphorous in our waters can originate as point source pollution or non-point sources pollution. Phosphorous can also result from disturbance of natural organic sediment. Point source pollution is traceable to a single source or origin (sometimes a single pipe or tank). Non-point source pollution usually accumulates from wider sources and often originates as run-off from land into bodies of water. Nitrogen and phosphorous share some common origins (fertilizers, animal confinement, landfills, industrial waste, etc) and discussants here identified a number of concerns about the roles of those sources:

- Apportioning contributions and responsibilities of various sources of nutrients is not clear in the public mind and is not easy from a regulatory standpoint
- "Ownership" rights issues involving septic systems and farms often overshadow environmental stewardship issues
- Trends in agriculture toward "mega-farms" create an intersection between manure issues and economic development
- Failure to upgrade urban infrastructure allows faulty storm drain systems to discharge nutrients into lakes and rivers"Lifestyle" expectations about green lawns, parks, and golf courses (sources of nutrients and other contaminants) are not easy to change

Possible Steps to Deal with Nutrient Pollution

Developmental discussion about nutrient pollution covered the aspects of all the above Approaches. Because of how difficult it has proved for water managers of single watersheds or systems deal with multiple pollution sources, Approach C (Integrate Water Management) became the primary lens through which discussants here viewed the overall issue.

Possible steps to deal with nutrient pollution might include:

- **Educate nutrient-producing parties in the range of nutrient reduction practices**
- **Develop watershed-specific data and plans that reduce uncertainty about nutrient sources and their contributions and responsibilities**
- **Fund infrastructure improvements that deal with storm water run-off and wastewater system failures**
- **Limit the numbers of large-scale animal production facilities and institute more rigorous oversight of manure storage, treatment, and distribution practices**
- **Limit or prohibit nutrient applications on lawns, parks, and other public green spaces**

Lake Webegoing (LW) is a 127 square mile lake in the northern third of the State of Superior and is part of the six-lake Chain O'Lakes flowage (with Big Chain, Little Chain, Rusty Chain, Dog Chain, and Chain of Fools lakes upstream from LW). LW empties into the River of No Returns (RNR), which turn enters Lake Gitchigummi (LG) at the port city of Dunlap.

LW straddles a county line, with the northern shore in Hardluck County and the southern shore in Prosperity County. The Lac du Webegoing Ojibwe (LDW) Reservation includes tribal lands in both counties, two islands in mid-lake, and an abandoned US Army Corps of Engineers facility where LW flows into the RNR (tribal title to the property has not been settled, with tribal activists occupying it since 1983, the State of Superior litigating the property's status since 1984, and the Bureau of Indian Affairs extended "temporary" tribal trust land status in 1985. The area underwent the resource exploitation cycle common to region: clear-cutting of the pinery, copper mining, iron mining, and current pulp wood plantations.

Despite this history, LW is in "pretty good shape" according to State natural resources managers and their LDW counterparts. Nearby lands have recovered from most of the past abuses and current best conservation practices are generally followed by all parties. Like many largely rural areas, improved water quality may have as much to do with lack of economic development in the region (up until now) as it does with conservation practices.

The community of Northshore, Hardluck County stands on the, well, north shore. It has older housing, boarded-up main street businesses, a baker's dozen of taverns, three large mobile home parks, some 1940s vintage tourist cabins, and an outskirt fringe of hunting camps that utilize the massive acreage of the surrounding Superior Public Forest. The community's lake frontage is primarily marshland fed by a number of south-flowing springs and shallow creeks. Recreational use is somewhat limited because of these features.

The community of Webegoing Estates (previously the village of Mugwump) on the south shore has transitioned from a cluster of weekend cottages into a gradually enlarging expanse of impressive lakefront homes. The community has a thriving marina, three well-regarded supper clubs, two large motels, and a number of artsy-craftsy businesses that attract tourists. Two condominiums have been approved for construction and an investment group is looking at the community as a possible site for a resort and golf course. The community's shoreline is somewhat rocky, but slopes quickly to deep water that provides decent navigation, a thriving sports fishery, and recreational usages like jet skiing, water skiing, and wind surfing.

Some Looming Issues

LW area residents and officials faces some additional challenges that may complicate water management:

- The investment group that hopes to build the resort and golf course has a terrible environmental record in its past projects.
- Big Butt Oil Corporation hopes to bring a tar sands oil pipeline through an area upstream at Rusty Chain Lake (the same company experienced a significant pipeline leak that contaminated a river in Ontario).
- Rickety Railroad is increasing rail shipments of crude oil along its LW north shore line (such oil trains have "blown-up" several towns they pass through).
- Porker Packers, a large agri-business concern is looking to possibly site a 500,000 hog confinement facility near North Shore because of available low-cost labor force and lack of regulation on such facilities.
- A homeowners association in Webegoing Estates is gradually buying up boat landing and fishing pier easements that have long provided public access on the south shore.
- The LDW tribe expects to increase its fish harvest under treaties with the federal government (they are allotted 10,000 fish off LW under a court settlement, but have never taken more than 5000)—water quality degradation from a closed paper mill has caused the catch in other area treaty-covered lakes to decline.

Governance Context

- Governmental units: 4 unincorporated townships (3 essentially unpopulated and made up mostly public forest lands and 1 the "suburbs" of Webegoing Estates), 2 municipalities, 2 counties, 1 public forest authority, 1 tribe, State of Superior, and the US government.
- Main actors: Webegoing Chamber of Commerce, Webegoing Homeowners Association, Farmer's Union of Hardluck County, Prosperity County Builders Association, North Shore Outdoors Association and Militia, South Shore Teabaggers and Ayn Rand Reading Group, and United Ojibwe Warrior's Society.
- State statutes provide authority (thus far unexercised) for the local governments around LW to create a unified watershed commission, apply for funding, use state technical and scientific resources, and develop a consensus plan.
- Natural resources agencies have 50 years of data on water, fish, and other life in the lake and LW is on the "radar" of many outdoors sporting groups and environmental protection advocates.

Questions to Consider

- What responses would you expect from which main actors as the LW region tries to move toward improved protections of the lake? What types of expected and unexpected alliances might develop around individual lake protection issues?
- You are on an interim citizen's committee to develop a proposal for a LW Commission, which three matters do you feel the proposal needs to address first?
- The interim citizen's committee is deadlocked over issues relating to the hog confinement facility and the resort and golf course (jobs, environmental safeguards, aesthetic considerations, and conflicting visions of the LW future), what sorts of compromises and trade-offs might be on the table?

Resources

General discussion guidebook on freshwater policy (pending)

http://www.interactivityfoundation.org/resources-downloads/discussion-reports/

Nutrient pollution

http://www.pca.state.mn.us/index.php/view-document.html?gid=7939

http://www.epa.gov/nutrientpollution/sources-and-solutions

Systems perspective on water—Wisconsin case study

http://www.wisconsinacademy.org/initiatives/wow

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