

LEADERSHIP STRATEGY FOR WATER RESOURCES CHALLENGES

Robert GRIST, MPA, CEM, and Azad MOHAMMADI, Ph.D., P.E

city of Portland. bureau of water works 1120 sw5th avenue portland, oregon 97204 usa.
rgrist@water.ci.portland.or.us azadm@water.ci.portland.or.us

1 INTRODUCTION

Public officials, both elected and appointed, have never had such a variety of topics that require their attention as they do today. Among some of the most demanding have been those concerning environmental issues. This paper delineates a leadership strategy that applies to all natural resources and in particular, discusses how to address the challenges the world faces regarding its dwindling water supply.

Elected officials and career public administrators are often caught somewhere in the middle of controversial environmental topics where each side attempts to influence the decision-making process. They quickly learn that issues surrounding “the greatest use for the greatest number of people” are very contentious. While they work toward a defensible position on natural resources, officials and administrators must balance each party’s different concerns regarding economics and lifestyle choices with national and international law. They must understand the aims, means, methods, and goals of those who support preservation, social capital needs, unrestricted use of private property, wise use of resources, bioregionalism, conservation, multiple use, and the corporate extraction of renewable and non-renewable resources. The public expects that elected officials and those appointed to serve them will take a leadership role in resolving these issues.

Many people feel that success in this role will require a different strategy than what has been used before. From the current level of disagreement regarding policy implementation, we can deduce that previous techniques have not been adequate. We have approached natural resources as though they were not only abundant (which they were) without a worry of depletion but also that the world was self-healing (which it isn’t). Our knowledge of the truly fragile nature of resources has been increasing as we have pushed at the boundaries of the frontier. Now that most boundaries have been reached, the wisdom to manage what resources remain must increase exponentially. To insure we have the capacity to reach toward new frontiers and advances in the arts and sciences, we must jealously protect the foundation on which we stand.

Humanity has left its mark. Ruts in the ground near Scotts Bluff, Nebraska, were caused by the wagon trains rolling across the prairie on the Oregon Trail, bringing settlers into the Pacific Northwest. The wheels destroyed the vegetation and the ecological microstructure of the soil in such a way that nothing will ever grow there again without massive reclamation efforts. This was learned over a hundred years ago and yet off-road vehicles and motorcycles continue to tear up acres of wilderness, woodland, and seashore today as a sport. The environmental system can no longer support such thoughtless activities. What is needed is a code of conduct similar to the ancient oath of doctors who, as the leading scientists of their day, pledged first, as it has been summarized, to “do no harm.” The goal, therefore, is to meet the environmental needs of civilization while leaving the smallest possible footprint. What is slightly visible now should be nearly invisible in the future.

To accomplish such a task, elected public officials and appointed public administrators must adopt a leadership strategy that focuses on a commitment to stewardship and a passionate desire for to being resourceful while cultivating a mutual respect of all parties, their needs, and their policies while working toward established goals.

2 STEWARDSHIP

Stewardship is the moral responsibility for the proper management and accountability of the resources of another. It does not imply ownership but rather a custodianship – a sacred trust – of these resources. Many symbols of stewardship use a key to represent the office of the steward, such as the wine steward’s key does today. In addition to having the sole authority to provide access to resources and knowing who is and who is not permitted beyond the lock, the steward also has personal, unattended access of his or her own. But, the steward knows a day of reckoning and accounting can occur at any time when the owner returns or requires an audit. To keep such an important office, the steward must not only maintain the accounts and books in proper order but also must insure that the owner is happy with the results produced by the steward. Additionally, losing the key is no more of an option than lending it out to another for personal gain. Even if the steward does not materially gain from the misuse of the property, the trust that had been extended to him has now been violated. Trust forms the foundation of the relationship between owner and steward. Trust either exists in the relationship or it does not: once it is violated, it is very difficult to reestablish. Also, it is often boundless, that is, it may enjoy unlimited growth while remaining within the prescribed limitations of the steward-owner relationship..

Stewardship often works opposite of the natural human tendency to achieve wealth, fame, and prestige. For elected officials this may mean placing the needs of others ahead of the desire to be reelected. When this occurs, stewardship neutralizes the power and control mechanisms of bureaucracy. A steward is the person who should be seen with “clean hands”, just as a dealer in a casino will show his or her hands to the pit boss as a symbolic gesture that he or she leaves the table with no personal gain from this employment of trust. Those who make decisions should be objective and base their decisions on ecologically and environmentally sound practices and the highest ethical standards of conduct.

3 PASSION

As might be expected, a steward of natural resources must be an altruistic individual with great personal integrity. He or she must be willing to do the right thing without hesitation even when the decision is unpopular. This requires an informed and responsible choice that will produce a meaningful and long-lasting contribution to the community. One example of this is the Native American practice of looking beyond the needs of the present generation and not allowing for decisions that will harm anyone in the future, even to the seventh generation. This single-minded passion for sustainment of resources requires the foresight to plan for even your great-grandchildren’s great-grandchildren and their needs in the future. If the current generation is not concerned about the loss of resources in its own time, what does the future hold for its own children? This protective attitude acknowledges not only the legacies that past generations have left to us but also the duty to pass that legacy on to our successors – both familial and political (Trospier 1995). Doing so requires us to strike a balance between present and future needs.

One practice that should be avoided is “high grading”. This is the practice that takes the best and convenient products first, i.e., harvesting the oldest and most mature trees, which will require future generations to cut more trees to obtain the same yield. It also describes the practice we have witnessed throughout the developing world where the most valuable species of trees are cut and others are merely burned to allow access to them. This destroys an entire segment of the forest by eliminating a particular age group from the continuity of the ecosystem. In the mining industry, rich veins of ore are sought while the tailings are left until no other resources are available. Often these are left to the local population who will attempt to make a living by retrieving what they can. We have yet to measure what long-term damage such activity has wrought but we know it creates an unbalanced condition in the natural habitat. Consequently, consumption must have an upper limit. It, too, is part of the legacy that is passed on to future generations. Acknowledging this limit will preserve the health of the ecosystem:

To be healthy and sustainable, a system must maintain its metabolic activity level as well as its internal structure and organization (a diversity of processes effectively linked to one another) and must be resilient to outside stresses over a time and space frame relevant to that system. (Costanza 1992)

Passion must not be a substitute for intelligent decision-making. Rather, passion provides motivation for increasing knowledge, which is the foundation of sound decisions. Passion is not necessarily an impassioned pleading for either side's view but a drive to learn what must be done to avoid disastrous impacts on resources. In the best sense, passion does not engender violence but instead renews enthusiasm for learning more and teaching more. By so doing, passion can change the attitudes that have pushed many resources closer to depletion. Finally, passion does not contradict what it has learned or lay the burden of compliance on others while continuing to waste resources in the present.

4 MUTUAL RESPECT

How can elected public officials or public administrators effectively steward resources if they do not respect the individuals, groups, or communities they serve? Mutual respect would help nullify the corrupting influences of power. While the framework of political institutions is commonly thought to be pluralistic, political institutions limit the dispersal of power, protect class positions, and maintain structural power disparities. This often impacts environmental issues severely, including those surrounding water issues, because those to whom the issues are important often lack the political influence on par with those who have the power and the money to obtain it. Recognizing that power corrupts is only the first step in changing the way this system works.

5 AUTHORITY

While authority often wears a pluralist mask, using process to diffuse resistance, it also serves to maintain the entrenched power disparities within political institutions and American society. Many leaders of these political institutions come from similar class backgrounds:

Politicians are from the top ten to fifteen percent of the occupational and income ladders, especially those who hold the highest elective offices. Only a minority are from the upper class or corporate community, but in a majority of cases elected officials share in common a business and legal background with members of the upper class" (Domhoff 1998).

The behavior of politicians is perceived to be normal because it supports the dominant world-view. From this perspective, it makes sense that individuals and groups protect their power in similar ways that are institutionalized and legitimized within society through political ideology and social norms.

Authority is exercised through the creation and promotion of social and political values and practices that limit the focus of the political process to issues that do not disturb or threaten the distribution of power and its advantages. Defining alternatives, organizing the process of policy-making, and institutionalizing political norms and values enhance the authority of political sector.

6 CONFLICT MANAGEMENT

Conflict management is a powerful instrument of politics. How political institutions use conflict depends upon the organizational strategies and particular circumstances that present opportunities to optimize institutional power. Political institutions routinely use resolution, exploitation, and suppression of conflict to achieve strategic ends.

Management of conflict and the distributive dynamics of power contribute to the enhancement and protection of power disparities in society. They tend to be related to economic and social class. In a recursive process, the political system's distribution of power supports class location while class location affords the opportunity to access political power.

There are many that feel the remedy for such positions is an attack on the structure that supports it. This was evident in the street violence in Seattle, Washington, and similar places throughout the world where the focus has been on how to secure even more power. While many feel that those on the streets in Seattle that the time for accountability is at hand, the methods they utilized have caused those in power to become even more deeply entrenched. Others feel that what is needed is an appeal that would require the multi-national corporations to respect the environment, the people, the culture, and the future of the areas they intend to explore rather than simply exploiting it. Those in public office that permit such exploitation need to hear that the true cost of doing business is more than monetary expenditures. In addition to the protection of the environment by passing the legacy for its maintenance on into the seventh generation, Native American culture focuses on three additional and important considerations for respectful negotiations: community, connectedness, and humility (Trosper 1995). Integrating these attributes into the business world would make a considerable difference because it would bring business into a cooperative rather than a competitive relationship with other interested parties.

Community acknowledges the structure of society and while it assigns roles to each party, it also imposes obligations on them. It requires everyone to accept responsibilities when they insist on rights and privileges. Key to such a lifestyle is harmony. The education of business leaders will focus on profits, accounting, power management, and legal implications of doing business but often lacks the knowledge obtained from such disciplines as anthropology, sociology, political science, and philosophy. Their focus is much too narrow for responsible leadership in today's world. The lessons they need to learn are never taught in the business world and are absent in the MBA curriculum of future leaders.

Connectedness is slightly different. It is a holistic approach to business interactions. Commodity acquisition often seeks one thing, such as softwood trees or iron ore, at the expense of all other resources available in the forest or natural world. Hardwood trees, like oak and madrone, are seen as "weeds" in a pine or fir forest and are heaped onto slash fires after clear cutting. Often no attempt is made to harvest them for other uses. The principle of connectedness maintains that such behavior affects the natural world in ways that are not yet understood. The danger here remains unidentified. No single element, entity, or resource can be treated in isolation from all others while expecting that the system will remain balanced.

Humility will be the lesson hardest to teach because it is so contrary to not only the "best" business practices but also basic human nature. Rather than trying to work in harmony with nature, mankind has tried to subdue it without acknowledging the tremendous power that exists in the natural world. It is witnessed in natural disasters often enough but most people fail to understand the implications of massive human interventions until it is too late. For example, industrial manufacturing and auto exhaust have been blamed for global warming, the melting of the polar ice caps, and depletion of the ozone layer. At the same time, an increase in the occurrences of the "El Nino" and "La Nina" climate patterns might signal nature's own attempt at self-regulation of global temperatures. The rising ocean levels will create massive coastal flooding, destruction of valuable farmlands as salt water infiltrates coastal aquifers, and further depletion of beaches and coastal wetlands. No one seems to possess a healthy respect for the awesome power of nature. As ecologist Aldo Leopold states in his land ethic: "Quit thinking about land-use as solely an economic problem . . . A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community" (Leopold 1970). These elements are often forgotten in developing both harvest and reforestation programs.

Humility must also acknowledge equality among peoples and their cultures. This does not mean adopting different customs nor does it mean homogenizing cultures. Mutual respect for culture allows coexistence, not contamination. It means keeping the avenues of communications open to resolve differences as well. Most people would admit that a lack of communication is the single-most destructive attribute of modern life. It is the basis for trust, understanding, and cooperation. Humility in the acknowledgement of equality would also neutralize the abuse of power because it would insist that whatever power there is must be shared. Mankind is only more powerful than nature in its responsibility to preserve it. Human civilization will only be preserved by nature when it decides to preserve nature first.

7 IMPLICATIONS

The adoption of these three considerations – stewardship, passion, and mutual respect – places many common practices under a new scrutiny. The concept of private property – that an individual is free to do whatever he or she wants on his or her own property – is inconsistent with them. This concept fails to recognize the responsibilities associated with ownership. Private owners expect government to enforce their rights to sue for trespass or damage as well as record the transfer, sale, or disposition of resources but not to enforce restrictive laws requiring stewardship of the land or that which is found on or in it. Tracts of land are parceled in ways that defy the natural occurrence of streams and other physical features, often placing property lines through the middle of trees. Accordingly, those property owners who do not understand their connection to the natural world are incapable of stewarding its resources. Corporations are no better in their practices. They spend many thousands of dollars each year avoiding their responsibilities in an attempt to maximize profits at the expense of the environment. Such behavior is a tradition of selfishness, not stewardship. They pervert the single-mindedness of passion for sustainment of natural resources into the pursuit of the instant gratification of profit.

As presented, the three considerations would also resolve the “tragedy of the commons” (Hardin 1968). When a property owner, whether private, corporate, or in common, understands the interconnection with all other elements, the survival of all others is as significant as personal survival. It shows the full dimension of respect and sustainability. Each development issue is then addressed in term of its total impact – beneficial or otherwise – on the infrastructure, society, and future generations.

Advances in technology should address how to minimize the impact on the natural world, not exploit it faster. Logging by helicopter has permitted the extraction of individual trees without the creation of logging roads. It has also permitted a thinning of forestlands to prevent the overcrowding of trees. Diseased or damaged trees can be easily removed. The drawbacks, of course, are the cost of the equipment and maintenance, time, training, and yield.

One last implication is not as easy to see. By adopting a less aggressive posture toward nature, human beings might actually learn more about how their actions affect the world around them before they are able to destroy it. They have seen how the land can provide for them in abundance but have not yet explored all the consequences of such activity. Even when businesses take a conservative stance when exploring unknown areas, they often jump headlong into natural resources because, as previously seen, they either feel that ownership by possession or contract gives them the right to do so and that the resources – within their current fiscal year – are unlimited. Society must assume the greater responsibility to remind them (and itself) that such rights impose challenging responsibilities. Restricting access to critical resources is a legitimate responsibility of society and its governments.

8 WATER CHALLENGES

Next to air, water is the earth's most essential resource. Environmentally, it is the lifeblood of the entire planet – without it all life, including human, would end. But like clean air, clean water is becoming scarce. While estimates of how much clean, fresh water there is vary substantially, experts believe that the earth is quickly running out

. The human body is more than 70% water but it only takes a 2% decrease in body water to trigger fuzzy short-term memory, trouble with basic math, and difficulty focusing on a computer screen or on a printed page. One estimate says that 75% of Americans and likely half the world's population are chronically dehydrated. If you feel thirsty, you are actually dehydrated! For as many as 37% of Americans the thirst mechanism is so weak that it is often mistaken for hunger. Unfortunately, in much of the rest of the world it is difficult to tell which of these problems is greater. Although nearly three-fifths of the earth surface is water, comprising the oceans, seas, and rivers, only a small portion is currently available to meet our life sustaining needs. Only .77% of all water is fresh water and only one-hundredth of one percent (.01%) is available for consumption (Donahue and Johnson 1998).

Comments from concerned individuals in several publications are reported in *Tapped Out: The Coming World Crisis in Water and What We Can Do About It* by former U.S. senator Paul Simon (1998) who is, himself, quite concerned about the water shortage:

Senator Paul Simon: “There are no substitutes for water . . . At least 300 million people live in regions of severe water shortages. By the year 2025, it will be three billion.”

London Writer Brownen Maddox: “Water, like energy in the 1970s, will probably become the most critical natural resources facing most parts of the world by the start of the next century.” -- *Financial Times* (March 17, 1993)

Editor William Graves: “The problem is simply people – our increasing numbers and our flagrant abuse of one of our most precious, and limited resources.” -- *National Geographic* (Special Edition, 1993)

9 DETERMINATION OF APPROPRIATE USES

Human beings have not used their water wisely. The education of most people regarding the subject of water use and conservation has often been, unfortunately, the byproduct of hysteria and exaggeration. This is often pursued to the point that few are willing to accept even the most scientific of reports. Often the scientific community offers conflicting information and must deal internally with colleagues who work for opposing interests or competing market shares. The most casual survey of the typical citizen on the street in the United States will reveal that they consider source of their water is their tap. In this regard, public administrators might be accused of having succeeded in providing such valuable public service in the sovereign tradition of Adam Smith, by attending to the “duty of erecting and maintaining certain public works . . . which it can never be for the interest of any individual, or small number of individuals” (Smith 1996) without informing the public about the complexity of the infrastructure. When resources are threatened, many will blame the administrators for failure to provide adequate supplies and not consider their own wasteful utilization. This criticism is as misguided as those who have bitterly complained about the rise of municipal water rates by 10 to 20 cents per hundred cubic feet of water – roughly 754 gallons – while they readily drink down their bottles of water purchased at the supermarket for \$1.50 per liter. Equally to blame are those citizens who simply pay their bills on time, never giving a single thought to the process of delivering safe, clean water to them, the consumer. They are equally misinformed of the true costs of providing water to the entire population. As Rachel Carson wrote in *Silent Spring*, “In an age when man

has forgotten his origins and is blind even to his most essential needs for survival, water along with other resources has become the victim of his indifference” (Carson 1987).

In being good stewards of water resources, public administrators should be setting priorities and restrictions on the overuse or pollution of the water resource that meets a sustainability target in accordance with “good science” and “good citizenship.” One emerging obstacle in this endeavor in the international marketplace is the North American Free Trade Agreement (NAFTA). Its consequences on environmental concerns have led to lawsuits totaling in the millions of dollars. Control over domestic water supplies is being challenged under its provisions. This agreement has given transnational corporations the right to the water of signatory countries. A glaring example of the exploitation of water rights under the provisions of international treaties is discussed in Maude Barlow’s book, Blue Gold:

Sun Belt, a California company, is suing the government of Canada under NAFTA because British Columbia (B.C.) banned water exports several years ago. The company claims that B.C.’s law violates several NAFTA-based investor rights and therefore is claiming US\$220 million in compensation for lost profits. (Barlow 1999)

Since the greatest need for water exists in the private sector, political leadership must devise a way to insure that the private sector contributes to the process of finding a workable solution to water scarcity. So far, this tremendous need has not been met. There has been a severe slowdown in water resource development and funds for research have diminished as well. Most would agree that greater incentives and meaningful dialogue must begin to reverse this trend. As with any project of this magnitude, special leadership is required. Public administrators need to encourage water conservation and must require industry to lead the way. Institutions that teach public administration should emphasize resource management in their curriculum just as much as budgeting and human resources. Newer and better ways of irrigating crops need to be devised that are less dependent on large quantities of water and high concentrations of pesticides. Schools need to begin the process of training leaders who will find solutions to these problems and find ways of implementing them. Currently, the best that can be said is that the industry is experiencing a fragmentation of water management:

At the global level, water management is divided among several United Nations organizations, a multitude of international professional and scientific societies and numerous non-governmental organizations. At national levels the situation is further divided among hundreds or thousands of jurisdictions, municipalities, and the private sector; or worse, left unattended. (World Water Council)

Chaos has led to competition among users, conflicts, duplication of efforts, and contradictory policies, plans, and actions. Consequently, the world seems to lack leaders who will put effective policies in place that prevent the wasting of water resources while growing competition hinders most attempts at coordination.

Along with conservation, public administrators will need to further encourage recycling, purifying, and reusing wastewater to augment the limited supply of natural fresh water as well as promote ways of utilizing advances in technology to improve existing water supplies. This will help establish the technological, economic, and environmental limits to these solution strategies. Today’s solutions, like the current infrastructure, are mostly inadequate and fail to address future problems. Development should be underway to provide access to clean drinking water and adequate sanitation facilities around the world. However, at the current rate of population growth and low investment in water infrastructure, the solution appears very distant. The vulnerable segments of the populations – the poor, women, children, and the elderly – suffer the most when affordability, adequacy, and accessibility to clean water is limited. Society must allow the collective knowledge to lead to collective action on a global scale.

There is concern even here. Will Rogers, the cowboy-philosopher, once remarked, “In the old days, ranchers shot each other over water. Today it’s a lot tougher: bureaucrats are in charge” (Simon 1998). The new breed of public administrators must overcome this belief. This is not a temporary condition that will simply go away. The challenges are real and the needs are great. Likewise, it is not a new problem although most people are only now beginning to be inconvenienced by it enough to take notice. Forty years ago, President John Kennedy remarked:

We have made some exceptional scientific advances in the last decade, and some of them – they are not as spectacular as the man-in-space . . . but they are important . . . If we could ever competitively, at a cheap rate, get freshwater from saltwater, that would be in the long-range interests of humanity [and] would dwarf any other scientific accomplishments. I am hopeful that we will intensify our efforts in that area.

I can think of no cause and no work which is more important, not only to the people of this country, but to people all around the globe . . . I am hopeful that the United States will continue to exert great leadership in this field, and I want to assure the people of the world that we will make all the information that we have available to all people. We want to join . . . the scientists and engineers of other countries in their efforts to achieve one of the great scientific breakthroughs in history . . . Before this decade is out we will see more and more evidence of man’s ability at an economic rate to secure freshwater from saltwater, and when that day comes, then we will literally see the deserts bloom. This is a work . . . more important than any other scientific enterprise in which this country is now engaged . . . It can do more to raise men and women from lives of poverty than any other scientific advance. (Simon 1998)

10 IMPACT IN PORTLAND, OREGON, AND THE PACIFIC NORTHWEST OF THE UNITED STATES

The Portland metropolitan region is comprised of many jurisdictions and even includes an elected regional government, something quite different in the United States. Despite this characteristic, the competition for a unique identity among the cities, towns, and villages that comprise the region runs as rampant in this area as any other part of the United States. With the fragmentation of jurisdictions, cooperation and compromise must be part of the on-going bargaining process. Leadership in advancing water conservation and utilization will depend on the level of concern public administrators have for the increased demand on the systems and infrastructure. Water takes its place among the many priorities of government but because the solutions to projected problems will take many years to implement, most public administrators, both elected and appointed, are concerned with projects that won’t be completed until after they have retired or moved on to other offices. It is a powerful legacy and one that will pay dividends to the community if properly managed with stewardship and foresight. They have benefited substantially by the foresight of their predecessors and must not only continue this tradition but also look ahead to problems that have yet to develop. Since local governments will open their city limits to advancements and investments that provide economic benefit, it should be an easy step to invest in an infrastructure that will provide long-term stability to their jurisdiction in water resource management. Many feel it is inconceivable to think that the various jurisdictions would invest heavily into independent, high tech facilities on an individual basis and not consider what a joint or regional project, properly managed and technologically up-to-date, could mean to each of them individually and to the group collectively.

Stewardship in this regard also must consider the duplication of effort necessary to construct parallel systems; disruption of services, costs related to the need for additional infrastructure, emergency needs, regulation, monitoring, and public opinion. Joint ventures can be shown to

minimize costs, eliminate miles of red tape, lessen environmental impact, and increase accountability.

Balanced against the benefits of a joint system are the disadvantages such a system would bring. The rate structure required, given the complexity of service delivery, might actually charge some customers more than what the cost of that delivery would be to insure a regionally-equalized price per household. Projected water treatment issues may preclude a centralized treatment facility, necessitating the duplication of facilities disbursed throughout the region, but still fewer than what will be required by individual efforts on the part of cities. These and other issues – as complex as they sound – are still simple compared to those that will be raised by the management issues. Principal among these is whether it should be controlled by the jurisdictions involved or be placed under a regional governing body. In the case of the latter, others will add that it should be an elected governing body. Regardless, the management of the water resources in the Pacific Northwest and in particular, the Portland metropolitan area, will be studied, debated, second-guessed, criticized, praised, and further evaluated for many years. Those who have the responsibility to provide safe drinking water for the region as it continues to grow will undoubtedly face the challenge with the best and most updated technology. What will be needed, however, are the characteristics described here as the spirit of stewardship. It, too, will remain as their strongest legacy.

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