

**ASSESSING THE ENVIRONMENTAL RISKS OF THE  
WATER BOTTLING INDUSTRY'S EXTRACTION OF  
GROUNDWATER**

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**HEARING**

BEFORE THE  
SUBCOMMITTEE ON DOMESTIC POLICY  
OF THE  
COMMITTEE ON OVERSIGHT  
AND GOVERNMENT REFORM  
HOUSE OF REPRESENTATIVES

ONE HUNDRED TENTH CONGRESS

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THE WATER BOTTLING INDUSTRY'S EX-  
TRACTION OF GROUNDWATER**

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**WEDNESDAY, DECEMBER 12, 2007**

HOUSE OF REPRESENTATIVES,  
SUBCOMMITTEE ON DOMESTIC POLICY,  
COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM,  
*Washington, DC.*

The subcommittee met, pursuant to notice, at 2:05 p.m., in room 2154, Rayburn House Office Building, Hon. Dennis J. Kucinich (chairman of the subcommittee) presiding.

Present: Representatives Kucinich, Shays, and Issa.

Also present: Representative Watson.

Staff present: Jaron R. Bourke, staff director; Charles Honig, counsel; Jean Gosa, clerk; Natalie Laber, press secretary, Office of Representative Dennis J. Kucinich; Leneal Scott, information systems manager; Chris Mertens, intern; Alex Cooper, minority professional staff member; Larry Brady, minority senior investigator and policy advisor; and Benjamin Chance, minority clerk.

Mr. KUCINICH. Good afternoon. I am Congressman Dennis Kucinich, chairman of the Domestic Policy Subcommittee of the Committee on Oversight and Government Reform. The committee will now come to order. With me here is the ranking member of the committee, the Honorable Darrell Issa of California. And he and I will be participating in this hearing, examining the environmental issues presented when water bottling plants extract groundwater and spring water from water sources in rural communities.

Now, without objection, the Chair and the ranking minority member will have 5 minutes to make opening statements, followed by opening statements not to exceed 3 minutes by any other Member who seeks recognition. And without objection, Members and witnesses may have 5 legislative days to submit a written statement or extraneous materials for the record.

I have long had an interest in issues relating to water and water supplies. As a matter of fact, in a Spring 2006 issue of *Waterkeeper Magazine*, I wrote a piece explaining my concerns about the annexation and overuse of waters in Lake Erie and the Great Lakes, which is the largest source of fresh water in this country. And without objection, I would like to submit that article for the record.

[The information referred to follows:]

## Protecting the Great Lakes FROM ANNEK AND OVERUSE



**T**he Great Lakes basin is home to some of the most diverse and productive ecosystems in the world. The lakes provide a natural barrier between the continent and the ocean, and they are a vital source of water for millions of people. However, the lakes are also under increasing pressure from human activities, including agriculture, industry, and urban development. This pressure is leading to a decline in water quality and a loss of biodiversity.

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The first part of the report discusses the current state of the world economy and the challenges it faces. It highlights the impact of the global financial crisis and the need for coordinated international action to address the economic downturn. The report also examines the role of the International Monetary Fund (IMF) in providing financial assistance and technical support to member countries.

The second part of the report focuses on the development of emerging markets and the role of the World Bank in supporting their growth. It discusses the challenges these countries face, such as infrastructure deficits and limited access to capital markets, and outlines the Bank's strategies to address these issues. The report also highlights the importance of strengthening institutions and improving governance in these countries.

The third part of the report discusses the impact of climate change and the need for global action to address this challenge. It highlights the role of the International Energy Agency (IEA) in providing energy data and analysis, and the need for a transition to a low-carbon economy. The report also discusses the impact of climate change on the world economy and the need for international cooperation to address this global challenge.

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A black and white photograph of a person wearing a traditional turban, looking towards the camera. The person is wearing a dark jacket and a white turban. The background is dark and out of focus.



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Mr. KUCINICH. Now, if we give any real thought when opening a bottle of spring water, maybe it is to congratulate ourselves on our healthy choice or to dream of a shrinking waistline. But it may come as a surprise that virtually every aspect of the bottling industry's extraction of groundwater, how much water to pump and from where to pump it, the effects of pumping on the surrounding environment and who should have the authority to make pumping decisions, all these things are often hotly contested. For a variety of reasons, bottled water is not like any other commodity. And the protection of our Nation's groundwater, often understood as held in public trust, involves many crucial issues of public interest.

Some of these issues will not be our main focus today, such as concerns about bottled water quality; the profit earned off water even as public water infrastructure is neglected; damage caused by the manufacture and disposal of the bottles; the propriety of transferring water resources out of a region or out of a country. Instead, we will focus on the environmental effects of bottling on local communities.

The domestic bottled water industry, which includes both distilled municipal water and spring water, has seen remarkable growth. Last year, Americans spent more than \$10 billion on bottled water, which translates to an average annual consumption of 27 gallons per person, double the amount consumed just 5 years ago. This growth has been a boon to the industry. The largest bottler is Nestle Waters North America, which through rapid industry consolidation now controls 32 percent of the domestic market through its 14 different brands.

Because of the growing market for bottled water, bottlers are constantly looking for untapped watersheds in relatively undeveloped rural communities which disproportionately bear the brunt of pumping's environmental impacts. As our groundwater hydrologists will explain, for every gallon of water pumped out of the groundwater, there is one gallon of water lost to streams in the watershed. If the pumped water is not recharged, there is a real danger of what could be called groundwater mining, which the U.S. Geological Service describes as "a prolonged and progressive decrease in the amount of water stored in a groundwater system." Moreover, high capacity bottled water extraction in headwater locations can cause large percentage reductions in the flow of streams and rivers and the depletion of watersheds.

Bottlers may seek out private land owners or directly contract with a municipality to obtain groundwater rights for years or decades. The issue is complicated by the fact that many rural communities have an interest in the economic activity that has been promised by the water bottlers. And indeed, some communities support the location of bottling plants. Obviously, aside from the pure economic incentives, certain interests of the water bottling industry are aligned with those of the local communities. Both have an interest in protecting the pristine water sources. In other respects, however, these interests of bottlers and communities may diverge, such as the downstream effects on surface waters or the long-term visions of development and conservation.

Today we will hear from representatives of citizens groups that have opposed the location of bottling plants in their communities,



on the slopes of Mount Shasta in California, in Michigan and in rural New Hampshire. They have often been frustrated by a complex patchwork of laws that they believe does not adequately protect the public interest.

Traditionally, the vast majority of groundwater consumption is used for agriculture, mining and nonbottled municipal water. And groundwater use has been mainly regulated by the States. Under common law, groundwater has largely been regarded as a resource that can be extracted by anyone who owns the land above an aquifer or spring. The common law was formulated before modern science understood the connections between groundwater and surface water, and before the advent of large-scale mechanized pumping. As a result, it provides little protection for conservation.

Given the toothless nature of the common law, it is not surprising that States have enacted more comprehensive regulatory systems covering groundwater extraction. These come in a variety of forms. Some States like New Hampshire have enacted comprehensive laws. And we will also hear about new legislation passed in Maine and Michigan. These laws at best address the connection between groundwater and surface waters, mandate participation among those affected by pumping and call for increasing levels of security for larger withdrawals. At worse, State laws are woefully inadequate.

Although groundwater management is mostly a State concern, many of the important decisions about locating a particular plant are local, the Federal Government does have a role. For years, scientists and policymakers have called on better funding for the U.S. Geological Service so they can map and monitor groundwater and its connection to surface water. The Federal Government could, but generally hasn't, taken other steps to prod the States to better groundwater management. There is also the issue of whether Federal agencies adequately enforce Federal protections such as the Clean Water Act, the Wild and Scenic Rivers Act and the Environmental Protection Act, that are triggered when surface waters are imperiled by groundwater extraction. Finally, there is a concern that the Food and Drug Administration's definition of spring water, which purports to ensure water quality, actually creates incentives for pumping at the most environmentally damaging sites. As far as I am aware, this is the first congressional hearing on many of these issues, and it is my hope that the hearing will help the reform process at all levels of government. So thank you.

And at this time I would like to recognize Congressman Issa, the ranking member. Thank you, sir.

[The prepared statement of Hon. Dennis J. Kucinich follows:]

Opening statement  
Rep. Dennis J. Kucinich, Chairman  
Economic Policy Subcommittee  
Oversight and Government Reform Committee

"Assessing the Environmental Risks of the  
Water Bottling Industry's Extraction of Groundwater"

Wednesday, December 12, 2007  
2154 Rayburn HOB – 2:00 P.M.

If we give any real thought when opening a bottle of spring water, maybe it is to congratulate ourselves on our healthy choice or to dream of a drinking paradise. But it may come as a surprise that virtually every aspect of the bottling industry's extraction of groundwater—how much water to pump and from where to pump it, the effects of pumping on the surrounding environment, and who should have the authority to make pumping decisions—is often hotly contested.

For a variety of reasons, bottled water is not like any other commodity and the protection of our nation's groundwater, often understood as held in public trust, involves many crucial issues of public interest. Some of these issues will not be our main focus today—such as concerns about bottled water quality, the profits raked off water even as the public water infrastructure is neglected, damage caused by the manufacture and disposal of the bottles, and the propriety of transferring water resources

out of a region or out of the country. Instead, we will focus on the environmental effects of bottling on local communities.

The domestic bottled water industry—which includes both distilled municipal water and spring water—has seen remarkable growth. Last year, Americans spent more than \$10 billion on bottled water, which translates to an average annual consumption of 17 gallons per person—double the amount consumed just five years ago. This growth has been a boon to the industry. The largest bottle is Nestlé Waters of North America, which, through rapid industry consolidation, now controls 10% of the domestic market through its franchise different brands.

Because of the growing market for bottled water, bottlers are voraciously looking for untapped watersheds in relatively undeveloped rural communities, which disproportionately bear the brunt of pumping's environmental impacts. As our groundwater hydrologist will explain, for every gallon of water pumped out of groundwater, there is one gallon of water lost to streams in the watershed. If the pumped water is not recharged, there is a real danger of "groundwater mining," which the U.S. Geological Service describes as "a prolonged and progressive decrease in the amount of water stored in a ground water system." Moreover, high capacity bottled water extraction in headwater locations

can cause large percentage reductions in the flow of streams and rivers and depletion of waterbodies.

Landowners may seek out private landowners or directly contact with a municipality to obtain groundwater rights for years or decades. The issue is complicated by the fact that many rural communities have an interest in the economic activity that has been provided by the water bottlers, and indeed some communities support the location of bottling plants. Obviously, aside from pure economic incentives, certain interests of the water bottling industry are aligned with those of the local communities. Both have an interest in protecting the pristine water sources. In other respects, however, these interests of bottlers and communities may diverge, such as the downstream effects on surface waters, or the long-term visions of development and conservation. Today, we will hear from representatives of citizens groups that have opposed the location of bottling plants in their communities: on the slopes of Mount Shasta in California, in Michigan, and in rural New Hampshire. They have often been frustrated by a complex patchwork of laws that they believe does not adequately protect the public interest.

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common law, groundwater has largely been regarded as a resource that can be extracted by anyone who owns the land above an aquifer or a spring. The common law was formulated before modern science understood the connections between groundwater and surface water and before the advent of large-scale mechanized pumping. As a result, it provides little protection for conservation. Given the timeless nature of the common law, it is not surprising that states have enacted more comprehensive regulatory systems governing groundwater extraction. These come in a variety of forms. Some states like New Hampshire have enacted comprehensive laws, and we will also hear about new legislation passed in Idaho and Michigan. These laws, at best, address the connection between groundwater and surface waters, mandate participation among those affected by pumping, and call for increasing levels of scrutiny for large withdrawals. At worst, state laws are woefully inadequate.

Although groundwater management is mostly a state concern—and many of the important decisions about locating a particular plant are local, the federal government does have a role. For years, scientists and policymakers have called on better funding for the U.S. Geological Service so that they can map and monitor groundwater and its connection to surface water. The federal government could, but generally hasn't, taken other steps to prod the states to better

groundwater management. There is also an issue whether Federal agencies adequately enforce Federal provisions, such as the Clean Water Act, the Wild and Scenic Rivers Act, and the Environmental Protection Act, that are triggered when surface waters are impacted by groundwater extraction. Finally, there is a concern that the Food and Drug Administration's definition of spring water, which purports to ensure water quality, actually creates incentives for pumping at the most environmentally damaging sites. As far as I am aware, this is the first Congressional hearing on many of these issues, and it is my hope that the hearing will aid the reform process at all levels of government.

Mr. ISSA. Thank you, Mr. Chairman. What most of you who aren't here regularly don't know is the chairman and myself have been able to very effectively find issue after issue we agree on. When I say we agree on, we agree on the issues. We do not always agree on the outcome or the view. The chairman and I have been able to work together very well on finding good issues. This is certainly one.

In this case, I find it unfortunate that perhaps we are not looking at the underlying problem of bad potable water coming from our taps. That is probably my greatest concern here today, and we are not going to talk about it. Perhaps ancillary, over time we will begin working on the issue. For example, here in the District of Columbia, if this water, as I suspect it did, did not come from a bottle, and is simply being disguised by being put into this carafe but in fact came out of the tap, please don't drink it. The amount of lead in our water is such that on a repeated basis each generation is told the previous generation didn't do enough. We have relined. We have done all kinds of things, but at the end of the day, and my staff behind me reminded me, the District of Columbia recently sent Brita filters out to take care of the accumulation of lead you will have if you drink that water. This is a problem in the District of Columbia and around the country.

Earlier, in the previous Congress, we dealt with arsenic. Dealing with arsenic meant essentially the pumps in New Mexico and other places were shut off, and people were forced to bring their water in from other areas. We have a serious problem of delivering quality drinking water, consumable water in this country. To a lesser degree, we have a problem delivering water for nondrinking purposes.

Mr. McFarland, I appreciate the fact you are from Shasta. I am a Southern Californian. It is no surprise that southern California, accused of killing fish and stealing water from the north, might at times recognize that California is, if you will, ground zero for this problem. Northern California has over four times the rain and snowfall that southern California has, while southern California has a majority of the population. Notwithstanding the attempts to build canals and to move water from the north to the south, far greater than all the bottled water that is being taken out of groundwater in California, far greater, and as a result, we could assume that what doesn't go into the ground in northern California and comes through peripheral and other canals doesn't go into the groundwater. California has been having this argument for in excess—well, I came to California—I will be honest—I came to California in the 70's. It was the hot topic then. It is the hot topic today.

Realizing that these problems in California and around the country will not easily be solved, I am an advocate for any system that guarantees healthy drinking water for our citizens. I have questions for today that will not be answered.

And Ms. Paul, I am not letting you off the hook. I still can't figure out why between drinking water and Starbucks coffee, gasoline seems like a deal from OPEC. There is a high cost of delivery of water through little bottles and so on. And I think that is a problem. The chairman pointed out in his opening statement that the

question of disposal of tens of millions of little plastic bottles, not just every year but every month, is a real problem in America; the need to come up with an aggressive recycling plan; the need to, if not regulate, certainly ensure that bottled water and other forms of water delivered around the public systems are at or greater in quality to those that can be received from the tap.

I thank the chairman for his bringing up this point today because it does open a dialog for the first time by this committee and, as far as I know, for the first time recently in Congress, to the fact that safe drinking water, affordable drinking water and sustainable aquifers around the country are in peril. So although I mentioned everything that wasn't in today's committee hearing, you have to begin somewhere. I commend the chairman for beginning the process. I am sure that when we review the notes of today, we will find far more available to us to digest than I am talking about here today. And hopefully, in time, we will hit all of the issues leading to America drinking high quality water.

And in closing, I will note that the chairman and I are both native Clevelanders. So I share the fact that the Great Lakes are the greatest body of fresh water available on the planet and that very much be need to look at that as a resource that is carefully managed. And I yield back.

Mr. KUCINICH. I want to thank my partner on this committee, Mr. Issa, for his comments.

And in response, I just want you to know that this is a beginning. I would like to be responsive to what you suggest in looking at questions of the potability of water, drinking water, in this country as well as looking at the questions of water quality generally, both for drinking and nondrinking purposes, as well as the issues related to plastic, or bottled drinking water. I also want to say, and I appreciate you mentioning Cleveland, because as I indicated in my opening remarks, the issues relating to Lake Erie and protecting that drinking water and protecting the volume of the water are also, you know, I know of concern to States like California, because the access to water in your State is a serious issue as well. So I want to work with you in making this the first of perhaps many hearings we could have on this issue of water. And I appreciate the gentleman's comments very much.

Mr. ISSA. Thank you, Mr. Chairman.

Mr. KUCINICH. I appreciate it. If there are no additional opening statements, the subcommittee will now receive testimony from the witnesses before us today.

We will hear from Mr. Richard McFarland, who is a founding member of the McCloud Watershed Council, a nonprofit community-based organization providing stewardship and advocacy for the McCloud River watershed in the Mount Shasta region of California. In addition to his advocacy, Mr. McFarland is president of Terra Mai, a pioneer in the green building movement, which uses recycled lumber for its building projects. He has also worked as a professional river guide and an expedition leader.

Next we will hear from Ms. Terry—is it Swier?

Ms. SWIER. Yes.

Mr. KUCINICH. Ms. Swier is the founder and president of the Michigan Citizens for Water Conservation, a nonprofit, grassroots



organization of over 1,900 members. Ms. Swier has helped educate State legislators and Members of Congress on the Nestle water issue, and has raised the public's awareness of the importance of water diversion and export. In addition to her environmental work, Ms. Swier recently retired after 30 years as a university librarian.

Next it will be Mr. Bill McCann. He serves on the board of directors of Save Our Groundwater and is chairman of the organization's Committee on Legislative and Governmental Issues. Founded in 2001 in response to a bottled water company's attempt to draw from a local aquifer, Save our Groundwater is a New Hampshire seacoast area citizens action organization dedicated to protecting water in the public trust. Mr. McCann has also been a New Hampshire State representative, where he served on the Resources, Recreation and Development Committee.

And finally, Ms. Heidi Paul. Ms. Paul has been vice president of corporate affairs for Nestle Waters North America since 2000. Ms. Paul is responsible for all aspects of the company's corporate communications and community relations. Before taking this post in 2000, Ms. Paul was the director of brand management for Nestle Waters. She is also chairwoman of the Project WET, a not-for-profit organization involved with international water education.

I want to thank each of the witnesses for appearing before our subcommittee today. And it is the policy of the Committee on Oversight and Government Reform to swear in all witnesses before they testify. I would ask that you rise and to raise your right hands.

[Witnesses sworn.]

Mr. KUCINICH. Let the record reflect that the witnesses answered in the affirmative.

I ask that each of the witnesses now give a brief summary of their testimony and to keep their summary under 5 minutes in duration. I would like you to bear in mind that your complete written statement will be included in the record of the hearing.

So let us begin with Mr. McFarland, if you would begin your testimony and address the Chair, we appreciate your presence here.

**STATEMENTS OF RICHARD MCFARLAND, FOUNDING MEMBER, MCCLLOUD WATERSHED COUNCIL; TERRY SWIER, FOUNDER AND PRESIDENT, MICHIGAN CITIZENS FOR WATER CONSERVATION; BILL MCCANN, MEMBER, BOARD OF DIRECTORS, SAVE OUR GROUNDWATER; AND HEIDI PAUL, VICE PRESIDENT OF CORPORATE AFFAIRS, NESTLE WATERS NORTH AMERICA, INC.**

**STATEMENT OF RICHARD MCFARLAND**

Mr. MCFARLAND. Thank you, Chairman Kucinich.

My name is Richard McFarland. My wife, Erika, and I settled in McCloud, CA, 20 years ago. We started a small reclaimed lumber business, which has grown considerably and is currently the largest private employer in our small town of 1,800. We started a family, and our three sons are also growing rapidly.

McCloud sits at the base of 14,000-foot Mount Shasta, a dormant volcano that dominates the landscape in far northern California and draws visitors from around the world. Mount Shasta's glacier and snow melt feed the McCloud River, a hydrogeologically unique,

crystal clear, ice cold stream, well known as a world class trout fishery. It is a major tributary of the Sacramento River, the backbone of California's public water system.

McCloud is a former lumber company town. The McCloud Community Services District provide our de facto city government. We are blessed with a spring-fed municipal water supply that provides exceptional quality, untreated cold spring water to every tap in town.

When I settled here in 1987, McCloud was economically depressed and was in a general state of disrepair. Most of the buildings downtown were dilapidated or boarded up. In the last two decades, there has been significant capital investment in McCloud. One old timer recently told me that the town has never looked better. To the objective visitor, McCloud would appear to be thriving.

In the fall of 2003, during a public meeting, the 100-year contract selling our water to Nestle was both announced and approved. We had assumed that this hearing was going to be the beginning of a public process. In fact, it was the culmination of back room negotiations between Nestle and a few local politicians and public servants. This triggered a series of events: a 3-year lawsuit, which resulted in the contract being thrown out by our county superior court and later reinstated by an appellate court; Nestle serving harassing and intimidating subpoenas on local community members, including myself; a draft environmental impact report, environmental assessment that generated an astounding 4,000 comments, most of them opposed to the project; the development of the Siskiyou County Water Network and the Siskiyou County Protect Our Waters Coalition.

The Mount Shasta area is already home to four other bottling plants already pumping unlimited groundwater. The scale of the proposed Nestle project raises serious concerns about cumulative impacts to Mount Shasta's unique volcanic ground and spring water systems. California lacks comprehensive statewide groundwater legislation. Sound policy requires that groundwater management be based on science.

This is a State and national water policy issue. I respectfully request the following of the subcommittee:

Please consider Federal support for State and local efforts to protect community water resources. Specifically helpful would be U.S. Geological Survey scientific inquiry to monitor and characterize Mount Shasta's ground and surface water resources. This is especially important in the face of potential climate change impacts on California's water supply.

Please ensure that the U.S. Forest Service completes an environmental impact statement for the Nestle project in McCloud. The pipelines for the project travel through several miles of U.S. Forest Service land on public easements intended for municipal use.

Please consider investigating the practices and impacts of Nestle and other large water bottlers in McCloud and other small rural communities around our country. Please consider enacting legislation or policies that protect the significant investment that taxpayers and ratepayers have made in our public water supply infrastructure from corporate exploitation.

And finally, please consider investigating the negotiation process that led to the contract between the McCloud Community Services District and Nestle Waters North America. Thank you very much for hearing my testimony today.

[The prepared statement of Mr. McFarland follows:]

Richard McCreed Testimony December 11, 2017 (per  
 "Assessing the Environmental Status of the Water Recycling Industry's Contribution to Environmental")

My name is Richard McCreed. My wife, Julie Ferguson, and I settled in McCreed, California 20 years ago. We started a small business, which has grown considerably and is now the largest employer in our small town of 1000 people. We also raised a family and our three sons are also growing up here.

McCreed sits at the base of 14,000' Mt. Shasta, a dormant volcano that dominates the landscape of the Northern California. The area is very scenic, abounds with local events and numerous recreational opportunities and draws many visitors from the largest urban areas in the state. It has become a preferred vacation destination over the more congested and upscale resorts of the Lake Tahoe basin and the Sierra Nevada Mountains.

McCreed is a former lumber "company town" from the 1930's. The local lumber firm Lumber Company, a.k.a. "Marty McCreed", owned the entire place. In the 60's, the lumber and other real estate were sold to the employees and the shareholders and still runs and is managed independently. Operating for 100 years worth of timber in a decade and closed up shop in 1970. Since then, there was one small successful operation until 2005, when I ran closed.

When I started here in 1987, many of the downtown commercial buildings were boarded up and many of the homes listed for sale and were in a state of serious disrepair. In fact, the reason my wife and I were able to purchase a home here was that property values were so below the rest of the California market and, as first time homebuyers, we were able to afford to become homeowners. In the past two decades, there has been significant capital investment in McCreed. One "old timer" recently told me that the town has "never looked better". Most of the old mill houses have been restored. The locally McCreed Hotel has been renovated. The McCreed Community Building, the centerpiece of our downtown, was recently restored from disrepair and is a structural safety for a number of stores and restaurants. Many of the homes have been purchased for vacation and retirement homes. Property values have dramatically increased and to the objective value, McCreed would appear to be thriving.

McCreed is unincorporated. We have an City Council. The McCreed Community Service District (MCCSD), a California Special District provides our local city government. A five member, elected, Board of Directors, governs them. A General Manager oversees day to day operations. They are chartered to provide basic services such as water, sewer, trash collection, fire, policing, etc. in our community. Economic development is not part of their charter.

McCreed is blessed with a spring that municipal water supply that provides exceptional quality, untreated, cold spring water in every tap in town.

In the fall of 2015, our community was given the requisite notice of a Public Hearing regarding a proposal to sell municipal water to North Water of North America (NWNA), who proposed to build a bottling plant in local town. The Public hearing was held in a meeting room only across from Elementary School here. Our community was contacted for the first time in the 1970's reorganization. My then Mayor, who provided a very able Public Hearing presentation stating the benefits of the proposed contract which had been available to the public for only about 30 minutes and community. He presented jobs and revenue for the always struggling WCSD. After an hour or so of questions and answers from the public, the MCCSD would approve the contract between MCCSD and NWNA. The resolution was decided. We had assumed that the hearing was going to be the beginning of a public process. In fact, it was the

**Richard McFarland Testimony December 11, 2007 2pm**  
**"Assessing the Environmental Risks of the Water Recycling Authority's Construction of Groundwater"**

collaboration of a fairly even cooperation between WWSA and a few local politicians and public servants. The "organizing committee" for the MEND consisted of three agricultural water-polluter locals, while WWSA had the best legal and business resources that money can buy on their team. It was not a fair match.

As the details of various separate contracts, continuously contracts over the course of the deal increased, the contract is approximately one sided. It gives WWSA access to both spring water and groundwater. The MEND is getting far below market rates for unlimited quantities of water of the best fresh state on the planet (compare \$24 per acre-foot vs. \$60 per acre-foot average here paid in California's 2009 dollars). The terms of the 10th year contract remain to provisions for inflation as for the increase in the value of the resource over the life of the contract. Indeed, total payments to the District are projected to be less than 1/10th of 1% of the proposed building plans "wholesale contract." But WWSA is left with all of the potential risks and WWSA will be handling

Concern over the contract and proposed project gave Trickle and the MEND launched a PR campaign around the promise of jobs and economic growth.

In 2004, Congressional McLeod Citizens (CMC) filed a lawsuit challenging the contract. In March 2007 Inyo County Superior Court ruled in favor of the plaintiff and declared it "in breach of contract" for the MEND to have approved the contract—albeit "not and not." January 2nd 2007 the Third District Court of Appeals affirmed the contract. In March 2007 Congressional McLeod Citizens appealed to the California Supreme Court and in May 2007 the Supreme Court declined a review of the case. Thus the contract stands only.

Local business owners and citizens founded the McLeod Waterflood Council (MWC) in 2004 to provide monitoring and advocacy for the McLeod River Watershed.

The McLeod River is a hydro-geologically unique spring fed river. It is a cold clear low-sulfur water you will know as a world-class trout stream. The McLeod was born in the Great Salt Lake basin in California. Runoff from there the McLeod River has provided the genetic stock for some of the finest trout fisheries of over the world. It is a major tributary of the Sacramento River, the backbone of California's public water system.

The proposed Trickle project, with a contract that allows them to pump collected groundwater, will tap into the springs and groundwater system in the headwaters of the McLeod River. As a proposed one million square feet, this would be the largest building project in North America. The MWC is publicly opposed to this project as it is currently proposed.

In January 2005 I, along with other members of the MWC, CMC and the Inland Empire Biological Ecology Center was served with a subpoena from Trickle attorneys. The subpoena demanded, among other things, personal financial information and documents pertaining to the Trickle contractors. It was a tactic that, in hindsight, was designed to harass and intimidate. A local judge ruled that the subpoenas were overreaching and had to cease.

A Draft Environmental Impact Report (EIR) released in August 2006 generated over 4,000 comments, most of them expressing opposition to the proposed project. The MWC comments at [www.mcleodwaterfloodcouncil.org](http://www.mcleodwaterfloodcouncil.org) and California Trout and Trout Unlimited comments at [www.growtheconomy.com](http://www.growtheconomy.com). A key area of concern is the lack of available baseline data on the area's hydrogeology upon which to make a credible

Richard McFarland Testimony December 11, 2017  
 "Assessing the Environmental Risks of the Waste Recycling Industry's Transition off-landfills"

scientific assessment of the present potential impacts. The scientist classified the EIR as "flawed", "incomplete, but lacking refinement." In regard of this year, NRCG withdrew the EIR and, presumably, is planning to review it and to release it in the future. It is important to note that an EIS was not completed.

We have seen how NRCG has followed its other local communities around the country and its very early of their locations. They came into our community and negotiated an agreement with central behind closed doors. They have complied with and influenced local politics, engaged in an aggressive anti-science Public Relations campaign that has divided our community and cost our community dearly in time spent on the issue. Community issue "Good Neighbor Policy" is not working for them in McCloud.

The McCloud community already knows that other existing plants. We feel that there is a need to conduct good science, understand the water balance in the system and protect the user from a more proliferation of existing plants exploiting our available public resources. California does not have any comprehensive statewide groundwater legislation and, therefore, leaves open the possibility of serious stress, such as allowing NRCG to have additional pumping for 100 years.

In light of the aforementioned, I would make the following request of the sub-committee:

4. Consider funding support and/or assistance for state and local efforts to protect community water resources. Specifically helpful would be support for USGS scientific inquiry, especially USGS efforts to determine and characterize ground and surface water resources, particularly in the face of climate change impacts on California's water supply (Mount Shasta being a key freshwater region for the Central Valley). Proper this is especially important.
4. Ensure that the EIR is completed as EIS for the NRCG project in McCloud. The pipeline for the project travel through several miles of State Service land or public resources, including for municipal use.
4. Investigate the practices and impacts of NRCG and other large water facilities in McCloud and other small rural communities.
4. Consider creating legislation or policies that protect against permit fees associated to Public Water Supply infrastructure from corporate exploitation.

Thank you very much for hearing my testimony.

Sincerely,

Richard McFarland  
 Board of Directors of the McCloud Watershed Council

Mr. KUCINICH. Thank you, Mr. McFarland.  
Ms. Swier.

#### **STATEMENT OF TERRY SWIER**

Ms. SWIER. Yes. Thank you.

It has been 7 years since the residents of Mecosta County, MI, were made aware of Nestle's plan to pump over 250 million gallons of spring water per year from a private hunting preserve, divert it through a 12-mile pipeline that crosses streams and wetlands to its plant, bottle it, and then truck it outside the Muskegon River watershed and the Great Lakes basin under the brand name Ice Mountain.

As Nestle moved into Michigan to privatize our water for its own profit, it announced that there would be no adverse resource impact to the natural resources. Then, in December 2000, about a hundred citizens met, and Michigan Citizens for Water Conservation [MCWC], a nonprofit, grassroots corporation, was formed.

MCWC's mission is and has been to conserve, preserve and protect the waters and natural resources and public trust in those resources of Michigan and the Great Lakes. MCWC has grown to over 1,900 members and continues to work on water preservation and conservation issues with other organizations.

MCWC began at the local level, asking our elected township officials to place a moratorium on the Nestle project to give us time to investigate and evaluate a proposal of this magnitude for the potential impact on neighboring wells, lakes, streams, wetlands, wildlife and the community's quality of life. Elected officials did not hear or listen to our voices. This eventually led MCWC to three petition drives on rezoning ordinances, and to three courts, the Mecosta County Circuit Court, the Michigan Court of Appeals and the Michigan Supreme Court.

The findings of harm from Nestle's pumping remain intact and unaffected in all three courts. MCWC believed then, and it now has been proven, that irreparable harm would occur to the waterways due to pumping by Nestle at the Sanctuary Spring site. Nestle's pumping has caused harm to the Dead Stream by reducing the flow and level, narrowing the stream, exposing mud flats and restricting the enjoyment of many of the members of MCWC, and the public for fishing, boating and kayaking on the stream. The findings of fact are in the court records that Nestle's pumping has created and will continue into the future to create adverse impacts to riparian uses and rights.

What will this ancient marsh watershed area, including Thompson Lake, be like for future generations? The lives of the 1,900 members, including the plaintiffs, those who live on the Tri-Lakes, and mine, have changed since Nestle came to Michigan. The issue has pitted neighbor against neighbor, friendships have been severed, and Nestle has violated our lives either directly or indirectly with telephone polling, private investigators, the FBI coming to our homes, and a potential Strategic Lawsuit Against Public Participation, a SLAPP suit, against my son.

MCWC has spent nearly a million dollars on the lawsuit against Nestle. We continue to hold fundraisers, such as bake sales and garage sales, to continue to pay our legal and environmental bills.

Nestle has affected families emotionally, physically, mentally and financially. MCWC believes much of what it has done and stands for is supported by a majority of Michigan citizens.

Michigan purports to be a good neighbor company to our area, yet it continued to pump at high rates during a low period of low participation and lower recharge. Even when bottom land and other dramatic impacts and damages to the Dead Stream, Thompson Lake and wetlands have occurred, Nestle has continued to pump. Nestle was cautioned by the trial judge that it proceed at its own risk in building its plant in Stanwood. True to form, Nestle pushed ahead in building its plant and continued to use the possible loss of jobs as ways to push through with its lobbyists in Lansing to get to the Governor and her staff and legislators to side with an international company and not the citizens.

Water grabbers like Nestle undermine the interests of our sixth-generation residents who live on the lakes and streams; the public that fishes, boats, swims and enjoys our lakes and streams; farmers who rely on our groundwater; and industry and our economy that are so dependent on our water. Water is our heritage and our culture. It must be protected for our future generations. Thank you.

[The prepared statement of Ms. Swier follows:]



**Congress of the United States**  
**House of Representatives**  
**Committee on Oversight and Government Reform**  
**Assessing the Environmental Risks of the Water Bottling Industry's**  
**Extraction of Groundwater**  
**Written Testimony of Farrell (Ferry) Baker**  
**On Behalf of**  
**Michigan Citizens for Water Conservation**  
**December 12, 2007**

I appreciate the opportunity to testify today concerning the environmental risks of the water bottling industry's extraction of groundwater. I am president of the grassroots group Michigan Citizens for Water Conservation. I have held this position for seven years. Before retirement in 1999 and having lived in and worked here in my family for three generations I was a lifetime resident of a community in Michigan's East.

It has been seven years since the residents of Okemos County, Michigan were made aware of Nestlé's plan to pump over 100-million gallons of spring water out over time to private bottling plants, direct through a 12 mile pipeline from various streams and aquifers in parts north & east then back to provide the Great Lakes Basin under the brand name Ice Mountain. Ice Mountain moved into Michigan to provide our water for its own profit, it assumed there would be no adverse adverse impact to the local economy.

In December 2001, about 100 citizens met in an community school and Michigan Citizens for Water Conservation ("MCWC"), a grassroots organization was formed. MCWC's mission is to educate, organize, and protect the water and natural resources and public trust of those citizens of Michigan and the Great Lakes. MCWC has grown to over 1,000 members, has made its own presentation and consultation issues with other organizations.

MCWC began at the local level asking our elected township officials to place a moratorium on the North Branch of the water to investigate and evaluate a proposal of the magnitude for its potential impact on neighboring wells, lakes, streams, wetlands, wildlife and the community's quality of life. Market officials did not have a time to act on this. This eventually led MCWC to their petition drive on securing easements and to have access the Michigan's water rights from the Michigan Court of Appeals and the Michigan Supreme Court. The findings of these from Nestlé's pumping water issue and resulted in all three courts.

In early 2005, MCWC presented local Okemos North Branch local citizens for their findings from a study conducted to assess its complete hydrogeological assessment as an proposed and gather for stream water pumping, aquifers, and water bottling operation near Big Rapids, Michigan. MCWC organized a public hearing with the Michigan Department of Environmental Quality

(“NEDD”) to which the citizens overwhelmingly opposed the North expansion. MCVW requested a declaratory judgment from the court that opposed the project by a 13:1 margin. With the help of local environmental groups, MCVW submitted comments to the NEDD during the final assessment and nothing was done.

MCVW petitioned the county Council to file a motion to file a petition and request that the County Water Resource Department file (“WRD”) with the county. After hearing arguments from MCVW and North, County Council Chairman issued a letter of opinion to Governor Taylor and the Legislature that the North project would exceed WRD. Even after this, the NEDD used a self-defeating water permit to North for pumping 400 gallons per minute in the summer of 2001.

In 2002, MCVW filed a lawsuit in Missouri Circuit Court. The issues in the case were:

- Why does and should Michigan’s water?
- What are the limitations on diversion and export of water under the common law of property and water?
- What is the meaning of volume under the public use doctrine and the Michigan Environmental Protection Act to prevent water diversion from Lake?

On November 21, 2003, after 14 days of oral testimony from twelve, Judge’s answer that water is abundant today. In his original opinion, Judge found that:

- North’s assessment and model were not reliable
- North’s extraction of water is an over-use inconsistent with the public use doctrine because the groundwater and spring formed Upper Lake and Deep Stream
- Removal of groundwater would divert and eliminate the flow of the stream by at least 15%
- The level of the stream and its lake would be lowered by 4 to 6 inches
- The effects of reducing would cause the stream, lake, and wetlands located on North’s and other property or improvements or areas of the plaintiff’s property
- The Court applied a common law rule that if water diverted or consumed from a watershed diminished the flow or level of water or stream, it was subjected to an unreasonable use
- Judge found against North’s expansion to water

North appealed to the Michigan Court of Appeals. With the help of the NEDD, North was granted a partial stay of the Judge’s order. North was allowed to pump up to 150 gpm during the appeal. In November 2003, the Court of Appeals affirmed the trial court’s findings on scientific facts and common law but not unreasonable use. However, the Court adopted a new “balancing test” that diluted water and property law to allow the diversion and export of water out of watershed. The Court says it has held that if there is existing water and the benefit outweighs the harm from a riparian, water may be diverted or pumped.

The Court of Appeals reduced the maximum pumping level to 200 gallons per acre and amended the easement to the extent that it established what level would pump water to the "flowing well" and it's finding as important to residents of the NEPA. As a result of the Court of Appeals ruling, NEPC was forced not only to a schedule of pumping from 100 gallons per acre average in higher precipitation months and to around 170 gallons per acre from June 1 through October 1 each year. The terms are based on the flow and water movement in the stream. The contract also allows either NEPC or Health to request the other party to suspend the pumping levels by written notice to the other party and the Court Court for the 20 years. The easement is full when it's applied to the Mortgage Supreme Court.

In early 1996, NEPC appealed to the Supreme Court arguing that the Court of Appeals "balancing test" would open the door for anyone outside the Great Lakes Basin to drill and pump water as long as the benefits of exporting water justify some damage to the basin. The flowing well would also imply that Mortgage's easement is the sole in the context of numerous benefits surrounding water or other resources under the future use.

Health also appealed using the Supreme Court to reverse the Court of Appeals decision under the NEPA. Health argued that NEPC or anyone else can have groundwater pumped without any risk to the property where Health's high-capacity well is located.

In February 1996 Mortgage passed a rule, lower than the maximum withdrawal under federal permit conditions, applied only to 2 million a gallons a day withdrawals, and average water pumped to customers would be 17 gallons.

In 1997, the Supreme Court heard oral arguments from both sides but only on the question of standing under the NEPA raised by Health. On July 25, 1997, the Supreme Court ruled 5/4 that even though NEPC and Mortgage had interests that were impaired and had standing under the NEPA as to the Great Lakes, Thompson Lake and adjacent wetlands, they did not have standing to prevent them to draw water and Upper Lake located on Health's property. The Court did not reach the remaining part of the Court of Appeals decision and amended to the other court.

NEPC requested a rehearing because Upper Lake and the other wetlands are in the same area affected by Health's pumping, in which Health's project or used and depend property. On September 26, 1997, the Mortgage Supreme Court denied NEPC's motion for rehearing to another 4/4 vote. The ruling does not affect NEPC's environmental claims under Michigan law and the NEPA. The ruling does strip the rights of return to the water under the NEPA to protect the environment. We feel we have been denied individual liberty granted by the Supreme Court Mortgage Court. Changes will have to address this problem through new legislation or constitutional amendments.

NEPC has won three court decisions. Judge Reed's findings of facts from the pumping in the Circuit Court and the Court of Appeals agreement will be ruling issues raised and resolved by the Supreme Court decision. However, the Mortgage Supreme Court has issued a ruling under 17 million gallons, the issue, but we're not sure we can that address to the second court for a



**WEPC would like to see:**

- **No pumping to Florida, including the pumping to South Dade county from the Everglades when it becomes too slow or slow or pumps are shut or down**
- **The protection of spring water by cap and by Florida's system of the Everglades - additional spring water by additional or directly connected to lakes and streams**
- **Water that passed or passed across boundaries of water, including exports to further from than 100 miles**
- **A license required from the Department of Agriculture with the power to license the water facilities like Florida's water and South Dade water, subject to strict public trust conditions. The water trust should have the right to revoke a license and stop a use that is not primarily in the public interest, public trust, or other respect on the water, air, and/or land**
- **All water facilities must meet standards to be set by the state and nation**
- **National laws or rules that require federal water to meet all standards prescribed for public use water, including programs of water, management used for and public education activities**

From partners, the Florida authorities the interests of our trust provisions include the use of the state and require the public that future, laws, orders, and require our lakes and streams, forests who rely on our groundwater and interests and our resources that are so dependent on our water - the water is our heritage and our future - it must be protected by our laws provisions.

Mr. KUCINICH. Thank you very much.  
Mr. McCann.

**STATEMENT OF BILL MCCANN**

Mr. MCCANN. Thank you, Mr. Chairman.

Good afternoon. My name is Bill McCann, and I am a member of the Board of Directors of Save Our Groundwater, which is located in Barrington, NH. I am a resident of the adjoining city of Dover, the seventh oldest settlement in the United States, having been settled in 1623. And I am also a member of the Conservation Commission in Dover, as well as a former State representative.

Last spring I submitted to this committee a document entitled an Analysis of the New Hampshire Department of Environmental Services Reversal from its previous denials of the Large Groundwater Permit for USA Springs on behalf of both Save Our Groundwater and a spin-off group called Neighborhood Guardians. I trust that at some point that will be entered into the record and the members of the committee will have an opportunity to review it. What transpired in Barrington was a private corporation coming into the community with the goal of extracting over 400,000 gallons of water a day. What transpired, and I can speak to this as someone who was involved when we passed New Hampshire's law, was the first implementation of RSA 485-C, which was New Hampshire's Groundwater Protection Act. And this was by far the largest withdrawal that came under the jurisdiction of this law. And I and other citizens in the area watched very carefully to see what was happening, because we thought the groundwater would be protected. What we saw was our State government and some Federal agencies not implement what we had anticipated. We had expected that there would be protections for the environment, protections for prime wetlands, protections for the people who live in the area.

Barrington and Nottingham are located in the southeast portion of New Hampshire equal distance from Concord and Portsmouth. All of their households rely on private wells for all their potable water. There is no town water system. These communities, like Dover, are old. Both were settled around 1719 to 1722. They have a rural nature. They try to work hard to protect their citizens. A total of about 11,000 people live in the two communities. What happened in this instance was a failure by State government and Federal agencies to protect the groundwater.

This company, as I said, a privately held company whose business plan said they are going to bottle this water and ship it overseas—in other words, take it out of the aquifer, have no impact, there will be no recharge in New Hampshire. It will have a definite impact on the quality of surface waters. The Lamprey River, which is nearby, is a federally protected water basin.

So we anticipated that between our State government and our Federal Government that steps would be taken to protect. At first it seemed to work. The permit was denied in 2003. It was denied a second time later in 2003. But then they reapplied for a new permit at the end of 2003, and 6 months later, the permit was conditionally approved. I can tell you from firsthand experience, a lot of people in the area of the southeastern portion of New Hampshire became very disenfranchised with what government was doing to

protect their precious water resource. They expect, and they still do expect that the State government or the Federal Government or some combination of the two will work to protect the aquifer and the water resources in our State, and hopefully in other States, because I am sure, as we have heard from these other witnesses, we are not the only ones impacted.

We are impacted because we don't know right now when this plant will start operation. There are people who are concerned that when that plant starts to operate, they are going to get up in the morning and find they don't have water. They don't have any reassurance from our Department of Environmental Services or from the Army Corps of Engineers or any other Federal agency like EPA that there is protection in place for this possibility. So they are very concerned that this particular situation with USA Springs, as I said, a privately held company, we don't know what will transpire once the plant is built. They are in the process of doing it. They are building the plant even though they have not received final approvals on their wetlands permits and there are appeals pending. The only thing they have used for their basis to continue moving forward is they did get a Supreme Court case to go their way in 2006.

But when the State issued the permit, there were 10 conditions. They haven't been met yet. And I hope that this committee can take a look at the situation and maybe be able to assist the people of New Hampshire, as well as the rest of the country, from having problems like this in the future. Thank you.

[The prepared statement of Mr. McCann follows:]

**Statement before Domestic Policy Committee**

Good afternoon Mr. Chairman and members of the sub-committee. My name is Bill McCann and I am a member of the Board of Directors of Sewer Care Groundwater (SCG), which is located in Barrington NH. I am a resident of the adjoining City, Dover NH the seventh oldest settlement in the United States being settled in 1623, I am a member of the Dover Conservation Commission and a former NH State Representative.

Last spring I prepared for this Committee a document entitled *Analysis of The NH Department of Environmental Services Request from its previous owners of the Large Groundwater Permit for USX*

Spring, Inc. on behalf of the Neighborhood Committee outlining the reversal of New Hampshire Department of Environmental Services (NH DES) in the granting of a "conditional" permit for the Large Groundwater Withdrawal of more than 307,000 gallons of water per day to be bottled and shipped overseas.

I hope you all have had an opportunity to review that document.



Barrington and Northampton are located in Southeastern New Hampshire about equal distance from Concord and Portsmouth. Households in both communities rely on private wells located on the property. There are no Town operated water systems. Both communities were settled within one hundred years of 1700 between 1711 and 1722. The combined population of both Towns is 11,000.

When the permit was denied in 2003 there were more than 25 scientific issues or issues given by NHDES for its decision.

I will not review each of these in my presentation today. I would like to concentrate on the wetlands issue and the contamination, which was allegedly 'discovered' following the jump out of the fall of 2002.

The mention of the contamination is confusing and vague at best. On page 38 of my submission you will find a record of a Water Advisory Committee Meeting Monday April 2, 2006. This record was prepared by William Ryle, based on a compilation of notes from several people present.

I was one of the people present at the meeting and I believe the record as found on page 38 and up to and including page 42 is accurate. Present at the

meeting were 1 NH State Senators, 2 NH State Representatives, the Executive Director of the Seaboard Regional Planning Commission, one of the Solicitors from the Town of Nottingham, 1 member of the Board of Directors of New One Groundwater, including myself, Anthony Guerin, Administrator Waste Water Div. of NHDES and 1 citizen including Mr. Kyle who prepared the record. As you can see there was discussion and questions about the communication issue and Mr. Guerin provided information to the group.

Unfortunately, as it turned out, the information provided did not reflect the reality of the situation. For example, Mr. Guerin stated "There will be a pump test with both sites running before a permit is issued".<sup>14</sup> Mr. Guerin is referring to the USA Springs Inc. site and the former Thomson site, now known as Jet/Care Realty. As of today no simultaneous pump test has been done. What has been learned recently is that NHDES closed its file on the communication issue [http://www.nh.gov/DES/2012/05/20/20120520.htm](#).<sup>15</sup> This becomes confusing when one reviews documents provided by the NH Department of Justice (NHDOJ), which allege that USA Springs Inc. was made aware of potential communication on five different dates [http://www.nh.gov/DOJ/2012/05/20/20120520.htm](#) as the matter.<sup>16</sup>

<sup>14</sup> [http://www.nh.gov/DES/2012/05/20/20120520.htm](#)

<sup>15</sup> [http://www.nh.gov/DES/2012/05/20/20120520.htm](#)

<sup>16</sup> [http://www.nh.gov/DOJ/2012/05/20/20120520.htm](#)

Are we to believe that after more than a year of NIGER's insertion on the potential contamination that in September 2000 they (ORR) suddenly decided that the threat is real and they are going to protect the welfare of the communities impacted? This issue was raised by one of the State Senators at the April 1, 2000 meeting when Mr. Givens was asked, "contamination issue was denied and now they're getting what they wanted on the same information?"

The response was "new information". Asked about the credibility of the information Givens replied, "we denied the existence and permit". He also said, "well done after the fact". He did not respond when asked about Governor's influence. He then told the group, "Information has come in at the last minute. If they walk out... These communities also fight for 20-25 years. People ask when are you (ORR) going to clean it up? The company is going to clean up at the cost of 1 million to 2 million dollars. It's a win-win situation."

Later in the meeting Givens stated, "Contamination did originate near to USA Springs".

Just prior to the end of the meeting O'Connell said, "I cannot name any other project more through DEC as fast as this project has been going". "

### WETLANDS

In October 2000 NDEES Wetlands Bureau ordered USA Springs Inc. to restore the wetlands violations affected by the construction of roads and the drilling of wells in the locations where work had already been conducted without permits.

On October 3, 2001 NDEES issued a letter of Deficiency WET 2001-01 to Dennis Place Real Estate/Investment Trust/ Francisco Remonda, trustee, also d/b/a USA Springs Inc. This was followed up by Administrative Order WC-02-01 to force the owner to do the restoration necessary. In addition as a result of the Pump Test done in November 2000 NDEES issued a second letter of Deficiency WET 2000-02 regarding an illegal well that was installed on the David Harvey property in Barrington during the Pump Test, showing the findings.

In both instances it has been acknowledged by NDEES that these two cases remain open as of November 1, 2007, [see page 7 of 7] some two years and

four months after Permit K001-45 was issued to the NHDEN. During this twenty-eight month period New Hampshire Governor John Lynch has asked the Army Corps of Engineers to review the wetlands permitting issue.

On August 5 2003 Governor Lynch requested the Army Corps of Engineers to complete an individual permit review. Issued on July 19 2004 the Army Corp issued to the applicant an authorization under 101 Best Program Grant Permit No. 12.

As both NHDEN and ACE have issued permits for the project to proceed even though two letters of Deficiency (WET 2001-45, & WET 2003-11) remain open and apparently unresolved. This case and other citizens in Southwestern New Hampshire are upset with the State and Federal Government's utter failure to protect the natural resources of our region.

Page 10 of 10 of permit application  
See Memo of David Manning, NHDEN on July 1, 2004 and John Hagan, NHDEN  
See page 1 of permit application  
Paragraph 4.1.1.1 of permit application  
Page 10 of 10 of permit application

Mr. KUCINICH. Thank you very much, Mr. McCann.  
Ms. Paul.

**STATEMENT OF HEIDI PAUL**

Ms. PAUL. Hello, Chairman Kucinich. Thank you for the opportunity to appear before the subcommittee today. My name is Heidi Paul. I am vice president of corporate affairs of Nestle Waters North America.

Nestle Waters bottles and sells 15 regional brands of bottled water, including Deer Park and Poland Spring. We employ 9,000 employees in North America, and we have plants in 21 communities in the United States and two in Canada. We have been invited today to testify about the environmental effects of bottled water on groundwater and our operations in communities. Bottled water represents 0.02 percent of groundwater used. As a company, our use is sensitive to the environment and very efficient. We bottle a very healthy beverage. Not including bottled water, there are close to 75,000 different types and sizes of containerized beverages for sale in America. Most have calories, coloring, chemicals, alcohol or caffeine. In 2006 alone, Americans avoided 356 billion calories because they switched from soft drinks to bottled water.

Today Americans consume twice the amount of calories from beverages as they did a generation ago. Childhood obesity is up 370 percent in the last 30 years. And at this rate, 25 percent of our children and 75 percent of our adults will be overweight or obese by 2015. Part of the solution to this epidemic is to drink more water, tap or bottled.

And bottled water has another important social role. For those who have ever lived through a natural disaster or other interruption of water service, including the hurricanes in Florida, ice storms in Maine, 9/11, Katrina, wildfires in California, floods in the Midwest, bottled water is the safety net to the most critical need of all, potable drinking water. Bottled water is also easier on the environment than any of these other beverages. It uses less water, and it uses less plastic.

And when it comes to collecting and bottling spring water, Nestle Waters has an inherent interest in being a steward of a healthy environment at our spring sites. Our spring sources and the facilities that use them represent our most valuable investment. And using springs in a responsible manner today is the only way to ensure our continued success. Moreover, we select only those sites with a safe and sustainable yield, measuring any effects of our withdrawal, and understanding the cumulative impacts of all water users and a shared supply.

It is appropriate that communities would have questions and concerns about our water use and other impacts on the community's quality of life, both in terms of opportunities, like jobs, and challenges, like truck traffic. For example, in Michigan, there are concerns about the water use impact. In fact, it went to court, as Ms. Swier mentioned. Michigan courts ruled that bottled water is a proper and beneficial use of water in Michigan, and the company has the right to withdraw water at an appropriate rate determined under the State's reasonable use balancing test. Following the Court of Appeals ruling, the company and project opponents en-

gaged in mediated negotiations to determine the allowable rate of water use. Data reflects that this is a very safe level.

In McCloud, CA, we are in the middle of a comprehensive environmental and community-based regulatory process. In response to concerns, we are engaged with environmental groups, concerned citizens, together with third-party science experts in biology and hydrology from the University of California, Davis. The goal is to get increased information on the sustainable and safe water use levels for the project. There remain open questions on the economic benefits to the town and other impacts. There are materials provided that address some of these concerns. We plan to meet with all stakeholders to discuss the economic reports that have just come out, and gain a greater understanding of concerns and different points of view. We respect differences and try to address concerns through a variety of actions, but there are also times when we have not been as successful. And we are learning in those places and are open to work with stakeholders to do this in a better way that is open and transparent.

We also have a responsibility to the environment. My company has supported and will continue to support comprehensive science-based laws and policies regulating water withdrawals. The goals must be long-term sustainability, fairness for all water users, openness to public input in order to provide a responsible framework for decisionmaking. For example, in Maine, New Hampshire and Michigan, we have supported recent legislation that meets these standards. Thank you for your time and attention.

[The prepared statement of Ms. Paul follows:]



**Testimony of  
Mark J. Paul  
Vice President, Corporate Affairs  
North Water North America  
Before the  
House Oversight and Government Reform  
Domestic Policy Subcommittee**

**December 11, 2007**

Chairman Stabenow, Ranking Member Levin, and members of the Subcommittee, my name is Mark Paul. I am Vice President of Corporate Affairs at North Water, North America. My office is in Groton, Connecticut. Thank you for the opportunity to present the written testimony.

First, I'd like to offer a note of personal perspective. When I joined the company in 1992, bottled water was not nearly as prevalent as it is now. Back then the average daily glass of choice was milk. Fortunately, some pioneering water is per capita consumption is far less. Today, soft drinks and alcohol loaded water glass tells me that the growth of bottled water reflects consumers seeking healthier beverage choices. These qualities of Americans drive bottled water.

We are a company loved by local Americans by our brands, such as Arrowhead, Deer Park, Ice Mountain and Polar Springs. But we are known to our local communities by how we operate as a corporate citizen and neighbor. Part of my responsibility is to help ensure the company's conduct in the communities it operates.

Our company is committed to success. We define success as producing healthy products and bringing good-paying jobs to each of our operational locations, as well as being a good neighbor and protecting the springs that fill us. The company is committed to improving its performance in these areas. No one and no company is perfect, but I truly believe this company consistently tries to be fair, respectful and operate with integrity.

More than ten years ago, we began to actively lighten our environmental footprint. We now have a goal for environmental and social responsibility to progress toward sustainability in every sense of the word.

**Company background**

North Water North America Inc. and its affiliate North Water Canada, manage bottling and Canadian bottled water operations. North Water North America Inc. has 6,000 employees in Groton, Connecticut and is an affiliate of Frito-Lay owned North Water, a food parent company in North U.S. of Mexico. Different bottled waters are the only products produced by North Water North America Inc. with 17 bottled water brands sold to consumers across the U.S. and Canada.

**History**

The company history starts in 1976. At that time we were a small city based business known as Great Waters of Groton, Inc. later to be The Danner Group of America, Inc. We sold one brand, Perrier® Spangly Natural Mineral Water, with a



benefit of employees. Rather than the bottling of a still in American beverage, Nature-Bottled water was a socially responsible alternative to alcohol and the drink of choice for active, health-minded individuals.

In 1980 we acquired our first domestic spring water brand, Polar Spring® Brand Natural Spring Water. We embraced its local heritage, recognized its growth and built it into a leading brand. We have done this with every brand we acquired since: Arrowhead® Brand Mountain Spring Water, Crystal® Brand Natural Spring Water, Deer Park® Brand Natural Spring Water, Crystal® Brand Natural Spring Water and our Mountain Brand Natural Spring Water as well as all the other brands with distinctive regional heritages and natural spring sources. Today these are our six core spring water brands, each a leader within its respective region of distribution.

Fast forward to 1999. Health, the world's largest food and beverage company, purchased Nature Water and acquired our company. They joined us The Nature Group of America, other spring water public utility of 12 bottled water brands, we became Nature Water, North America Inc. As part of that deal we have the corporate resources to support source, bottling and deliver exceptional water products. The spring and acid bottling will continue to support our business and our employees in the U.S. and Canada.

**Employment**

Nature Water currently has plant operations in 21 communities across the U.S. and 2 in Canada:

- |   |                 |                    |
|---|-----------------|--------------------|
| - | Utah 2          | British Columbia 1 |
| - | Massachusetts 1 | California 6       |
| - | Maryland 2      | Tennessee 1        |
| - | Florida 2       | Virginia 1         |
| - | Texas 2         | Ohio 1             |
| - | Michigan 1      | Colorado 1         |
|   |                 | Canada 2           |

We employ 1,000 people (2,400 with all our plants) with a total payroll of \$200 million. Our employment base was over \$80 million, and annual increase in 11 plant centers in capital in the last 5 years. These operations have the following tax benefits: local property taxes of \$20 million, state sales taxes of \$20 million, state income taxes of \$17 million, and federal income taxes of \$100 million.

**Corporate citizenship**

In addition to economic benefits, Nature Water, North America provides an invaluable product and service during times of disaster. In 2007 alone, we have donated to our partners that include: firefighters, and in total emergency response and over 1,000,000 bottles of water to communities in times of need.

We also have contributed millions of dollars and hundreds of hours of volunteer time to support national and local efforts to protect wilderness, improve water education, help kids at risk, and particularly to partner with our local communities on projects and initiatives of local importance: parks, the trails, scholarships, beach clean-ups, and hospitals to name but a few.

Having enumerated these benefits, we also acknowledge our impacts on the environment and society. While we have done much to address these impacts over the years, we need and expect to do more. Our goal is to work with stakeholders to

operate in an economically, socially and environmentally sustainable manner, and to be transparent and accountable to our partners.

#### **Setting new benchmarks**

Every community has different priorities and circumstances, and different zoning and development regulations, to which we must be attentive. WSPW adjusts its zoning activities to comply with a particular community's process. And in each community, we strive to live by the same set of principles. These are outlined in our Good Neighbor Policy.

The six parts of our Good Neighbor Policy include: 1. Open communication; 2. Environmental stewardship; 3. Responsible spring water resource management; 4. Water resource efficiency; 5. Sustainable land use; 6. Traffic mitigation; 7. Secondary employee practices; 8. Water education; 9. Emergency relief; and 10. Ongoing care.

We have many examples of this policy in action. In new communities, we send a welcome that provides information about the project and the process, we also participate in town meetings and other gatherings to discuss the projects.

In general, we have been the good neighbor and encourage you to contact our zoning consultants to investigate the project. In the family of municipalities where we have not been successful, we are learning. And please to continue working with municipalities to do the better, in a way that is open, transparent, and empowering for each community.

To demonstrate these efforts, please visit to view photos about our projects in Michigan and Missouri, CA, including my testimony.

#### **Rural economic opportunity**

Many of our bottling operations are located in more rural areas of the country, and for good reason. Natural spring water is the raw resource for our primary product. Spring water sources that are naturally clean and protected tend to be located in rural areas. In our experience, most of these communities welcome clean industry. We're committed to these efforts. Our manufacturing jobs pay in the top half of comparable jobs and come with healthcare insurance and 401(k) benefits.

#### **Smart water use**

- Bottled water is an obvious and visible use of water. In reality, bottled water actually uses only 1.03% of groundwater and 0.03% of freshwater used in the U.S., representing a tiny portion of our nation's overall water use.
- For another perspective, on average each year our plants each use about the same amount of water required annually to keep a golf course green in Arizona.

#### **Efficient water use**

- Of all packaged beverages, bottled water uses the least amount of water to produce. Why? Because there are no ingredients to grow or process.
  - For each gallon of packaged spring water, we use 1.27 gallons, including all water used in manufacturing.
  - By comparison, soft drinks use three gallons of water to produce each gallon of product. Beer uses four gallons of water and no package per gallon of beer, not including the water to grow and process the ingredients (which require the vast majority of water).

### **Spring water resource management**

Heald Foods North America has an inherent interest in being a steward of a healthy environment at our spring sites. Our spring sources and the facilities that use them represent our most valuable investment, and using them in a responsible manner today is the only way to ensure our continued success.

Spring water is a renewable resource, and we carefully select springs that are continuously replenished by precipitation and the movement of groundwater.

Our operations are specifically managed to long-term sustainability. This means our water withdrawals are limited to what the spring and surrounding watershed can provide within its natural cycle and that of the surrounding groundwater system. To accomplish this, we use an environmental and geological monitoring program, collection of data and scientific analysis of that data.

This program is administered by a team of 11 on-staff professional geologists and hydrogeologists, together with third-party technical consultants throughout the US and Canada. As part of watershed and on-going resource management, these experts use instrumentation to measure, if applicable, stream flow, surface water levels, and water table operators, assess the plant life and other biologic health of the site and monitor precipitation.

The level of science is considered by Heald Foods North America to be a requirement. It maintains our spring water sources, the surrounding environment, our region's water supplies and our company's reputation. Our best resource is a standard of continuous improvement. We aim to have an exemplary record for sustainable water resource management through collecting and evaluating hydrologic and environmental information.

### **Impact of using spring water or groundwater for bottled water**

Every withdrawal of groundwater - whether for private supplies for our communities and industrial manufacturing, or for other purposes including bottled water - has an effect on the flow or discharge of groundwater to surface water. We know there are complex interrelationships between surface water and groundwater. We employ an ongoing monitoring and management program to ensure, to the best we can, that we understand the impacts, if any, from our operations.

By virtue of our practices Heald's spring water operations are environmentally conservative. We select only those sites with a safe and sustainable yield, measuring any impacts of our withdrawals and understanding the cumulative impacts associated with other permit use.

As well, the permitting process we undertake for each of our projects typically include extensive regulatory oversight. As appropriate, agencies are responsible for assessing the effects of our spring water withdrawals and imposing on-going mitigation policies. Indeed, many jurisdictions require "no impact" measurements. Thus, our operations are permitted within the context that they will create no adverse resource impacts.

### **Summary**

All Heald's members of the Subcommittee, bottled water issues are more often in the spotlight it does capture that has in the future's supply from Heald's Michigan, its company and other water bottles...as you'll have seen from Heald President Joe Dier-Hahn and will continue to support comprehensive laws and

provisions that regulate water withdrawal based on protecting the resource and ensuring long-term sustainability.

This agreement is being finalized today about what one Water state legislator called one of the "biggest accomplishments" of the 2007 legislative session, by finding common ground on groundwater resources.

Water's new state law establishes a consistent, integrated and scientifically sound state policy that ensures the withdrawal of groundwater does not have an undue adverse effect on users of the state. This new law will have a lasting impact on groundwater protection in Illinois. We were very fortunate to have participated in crafting this law, and you'll hear from another participant, Mr. James Wilfong, the leader of this for Water, in the second panel.

In Michigan, we submitted landmark bipartisan legislation in 2006 that strengthened state water law, clarified permitting processes for all large quantity users of water, protected water resources and sensitive habitats, and authorized in state law the protection of groundwater resources of water from the Great Lakes Basin.

There are lots of the most recent cases that brought together people who had been adversaries, but when all was said and done, shared a common commitment and concern for water resource sustainability. Friends of good will may still disagree over competing uses of water, but these articles lay the framework for fair, resource-based, decision-making that is informed by sound science.

As you examine the regulatory structure of the environmental issues presented this afternoon, it is our hope that the discussion today will have a mutually constructive result and we look forward to working with all of you leaders that end.

Thank you.

Neil J. Papp

### **Michigan Case Study**

Beck's Waters chose to expand its nationwide family of regionally based bottled water production facilities in Michigan in 2000. The company's Midwest (or Mountain West) – products produced at a Pennsylvania facility – was experiencing marketplace growth as consumers increasingly chose healthier bottled water products over other packaged beverage products.

A multi-year site reconnaissance effort by company officials and scientists considered several potential locations in Michigan and the Midwest. During the process, Bechtel scientists concentrated the USA search of new Michigan for several features important to the company's primary product line of natural spring waters, including:

- The region's reliable and abundant precipitation (30 inches annual average) important for recharging + replenishing – groundwater systems
- Regional geology of sand and gravel aquifer systems, which provide efficient recharge of the groundwater systems, and which produce high quality and naturally good tasting water

The region presented other factors attractive to a major employer like Bechtel, including:

- Major market (with large economy and proximity to key Midwest markets)
- Available workforce with production experience
- An area that appeared poised to rise because development leading to economic and job base diversification
- Access to higher education institutions with technology training and other business and production management programs

Working with respected conservation organizations such as the Michigan Chapter of Trout Unlimited, Michigan water conservation clubs and others assigned to their mission to protect resources and habitats, Bechtel narrowed its site selection efforts to three potential sites, two in southern Washtenaw County and another in southern Genesee County. The counties also are affluent, and within two other counties that comprise a region centering on the City of Big Rapids as the largest urban area.

#### **Plant site and spring water source selection process**

Bechtel conducted a comprehensive site selection process that included community outreach and communications, scientific assessment of potential spring water sources and their environments, close sitting governmental and regulatory agency consulting, and permitting.

**Plant Site Selection** — In May 2001, Bechtel announced it would build its 2100 cubic meter bottling facility in Ingham County, Mich. The actual investment has grown to approximately \$100 million, a community located in southern Washtenaw County, eight miles south of the City of Big Rapids. The plant site was chosen because it provided close access (less than one mile) to major north-south truck route I-75, I-275, providing allowing Bechtel to address truck traffic, one of the leading concerns expressed by

total incidents relative to future operations. The dam location significantly limited truck traffic impact on surface streets and neighbors.

**Getting useful scientific study, permitting** – The company's team of scientists had identified a potential spring water source approximately 10 miles from the dam site. Heald negotiated an agreement with the landowner that allowed scientists to conduct a series of spring tests over several years required by Heald to support investment in the project and to ensure long-term sustainability of water supply and environmental protection. These studies also supported applications to the State for permits required for public water supplies, which include the state's water bottles.

**Getting to know a community, community relations and participation** – Strong community relations were integral to the Michigan project development, as well as an open approach to communications with neighbors, community leaders, and project opponents. The company believes that is one of the key factors behind the successful development of the Michigan project.

Recreation had started in 2000, creating jobs, serving as a strong link between the company and community. Heald enjoys positive relationships with business, civic, professional and general leaders throughout the area. These relationships are important as the company works to address questions and concerns about its operations and practices, act as a responsible corporate citizen of the area, and manage key business challenges.

Every community is unique. While there are many aspects of project development that are considered community to community, the company strives to appreciate each community's own character, practices and needs. In Michigan, the company acted to communicate with openness, accuracy and transparency in every aspect of its project development, recognizing the community's interest in having a say about project features, shared project features, benefits and considerations. Heald also provided information about the water cycle, scientific assessment processes, the experience of other communities where Heald has installed long-term environmental protection and resources to ensure good throughout the project development phase.

#### **Ice Mountain today in Michigan**

Today, nearly six years since operations started at Heald's Sharnett cooling facility, the Ice Mountain cooling facility stands as a major regional employer situated in the area. Ice Mountain is a good neighbor, contributing to the well-being of the community and a wide range of organizations and efforts, a good steward of the environment, and a catalyst for economic activity benefiting other businesses in the area.

#### **Economic Impact**

- A summary of the economic impact of the Ice Mountain facility in Michigan includes:
- Employment of approximately 277 people
  - Interest in growth investment of \$60
  - Annual payroll of \$16.6 million, including a state payroll impact of nearly \$4 million annually

- Average employee wage of \$60,000, adjusted for overtime pay, for about county wage and gross earning averages
- A benefits package including paid vacation and sick leave, medical, dental and vision insurance, retirement savings plans and profit-sharing, for Wharton pays 80 percent of these benefits
- Approximately 400 Michigan residents service the Ice Mountain plant

It is important to note that Ice Mountain jobs are created. Evidence of this includes the volume of applications received relative to the number of jobs posted by Ice Mountain. Simply Ice Mountain announced the plant would open with 40 jobs. A job fair resulted in more than 4,000 applications submitted. Ice plant employment has grown since 2002; the ratio of applications submitted to positions available has remained high. For example, in 2005, 3,000 applicants applied for 50 positions, 1,000 applicants applied for 60 positions in 2006, and in 2007, 300 applicants sought 30 open positions. Also evidence of the quality of jobs Ice Mountain provides is the low employee turnover rate at the Grandview facility. Industry turnover at Ice Mountain is 4.4 percent, significantly lower than Bureau of Labor Statistics rate, which shows turnover of 13 percent nationally.

Construction of the new \$100 million facility has generated an estimated 1,200 construction jobs.

It is common knowledge that Michigan continues to experience difficult economic times, primarily due to the loss of automotive manufacturing jobs, and the subsequent loss of the thousands of jobs that previously were created by spin off spending by the automotive industry. The west central region has not been spared.

According to government statistics, unemployment in Macleata County was 7.4 percent during October 2007. The national rate for 2007 was 4.6%. Clearly, the state and region need the jobs made possible by Wharton.

#### **Environmental Stewardship**

**LEED™ Certification** – The Grandview Ice Mountain plant was awarded Wharton first plant recognition for certification by the U.S. Green Building Council's LEED™ program (Leadership in Energy and Environmental Design), and also the nation's first first zero-waste facility to meet LEED™ certification. The facility incorporates a number of resource conservation features, including conserving the energy demand and indoor air-quality lighting, day-lighting, sustainable materials made of recycled material, and others. Wharton now has an LEED™ certified building plant in the U.S., and is committed that any future facilities be LEED™ certified.

**Water Resource Sustainability Program** – An extensive network of monitoring points in the area of Wharton's water permit are on-going stream of water table measurements, wetland and stream bank stream flow, and other environmental measures. Additionally, Wharton periodically visit to the site to collect observations regarding the health of wetlands, streams and fisheries. Ice Mountain's natural resource manager utilizes the information in identification of the water resources and the environment. Ice Mountain provides the data to the MDEQ, which conducts

independent measures of these resources. The company also provides a quarterly report to our governing officials and other interested parties.

**Consistency.** The monitoring board spanning seven years now, shows the water table, other water resources, and other components are not substantially affected by Nestlé's water withdrawals.

**Recycle, Reuse, Reduce** — Nestlé is committed to key conservation practices of reducing raw material and natural resource use, reusing materials whenever possible and encouraging recycling. Nearly every raw material used by the Mountain is recycled, including metal product pallets, corrugated plastics and other materials. An efficient use of water, Nestlé bottles/plastic use on average, just 1.5 gallons of water for every gallon of product produced.

The Mountain joined other Nestlé brands this year and now is drinking "lightweight" bottles. The Mountain bottles are among the lightest in the market, using 33 percent less plastic than other bottles. The result is less demand on energy and raw water. All of the Mountain's bottles are recyclable.

**The Mountain Environmental Stewardship Fund** — Founded in 2000 by Nestlé Waters, the The Mountain Environmental Stewardship Fund is an investment fund managed by the Forest Area Community Foundation. The Fund provides grant money to local organizations working to enhance or protect the Muskegon River watershed and its ecosystem. The Mountain has made annual contributions to the fund, which has been renewed for perpetual giving. A community-based advisory board that reports to the Forest Foundation board of directors assists the Fund. To date the fund has supported dozens of efforts, including fishery habitat restoration, stream projects, and pollution prevention and education.

#### **Support to others for the greater good and community involvement**

The Mountain and its employees appreciate opportunities to support organizations throughout west Michigan and beyond, through product donations, volunteerism and direct financial donations. In 2007 the Mountain will have contributed to over one million gallons of water to 229 organizations. The plant will have also donated nearly \$80,000 in direct financial support of charitable and community organizations.

Support is given to a wide range of needs, including health, seniors, recreation and environmental stewardship. Some highlights of the Mountain's support include:

- Assistance to area hospitals in emergency preparedness planning
- Support to the Muskegon Inland Conservation Club's youth conservation education programs, "Trails"
- Partnership with Americans and the American Red Cross for hurricanes (including Katrina) and other emergency relief
- Donation of nearly one half million bottles to Detroit in response to an extended electrical power outage in summer 2005
- Two years worth of bottled water product donated to the Muskegon Food Bank System in anticipation of the 2007-2008 need



- Ownership as the official bottled water for the 750 Third Street, East in Grand Rapids
- Purchase of 1000 program/weekend (recreation area/local partners)
- Funding for firefighting and other emergency response needs throughout the community
- Financial support of the Grand River Park renewal project in West Michigan

Our Member people are also personally involved in a number of organizations that work for the betterment of the community and state, including the Michigan and Grand Chairmen of Commerce, Grand's annual Grand FFA Fair, Michigan Chamber of Commerce, Michigan Green Association and others.

#### **Appropriate resolution of legal issues**

Litigation brought in 2001 against our Member has largely been resolved by Michigan courts in Grand's favor. The original case involved several legal issues arising under Michigan groundwater and public trust law, as well as the Michigan Environmental Protection Act ("MEPA").

Key subjects the Michigan courts have included:

1. Whether water is a proper and beneficial use of water in Michigan -- in other words, water may lawfully be used for bottling as bottled water. Water bottling is part of the state's economic industrial base.
2. Whether Grand has the right to withdraw water at an appropriate rate determined under the state's reasonable use balancing test that considers numerous factors including competing uses of the water. The "common-sense" criterion we has proved to be effective in allowing water use for a variety of purposes that society has chosen, and also in balancing of competing uses. Recent legislation in Michigan has implemented a regulatory and permitting system that sustains our common law to the purpose of resource protection.
3. Following a Court of Appeals ruling, the parties mutually agreed to a stipulation on the Member's allowable use of water use, which they stipulated was reasonable and would not harm the environment. The agreement provides both parties the opportunity to seek adjustment of the water use amount in the future, based on the monitoring data and science.

#### **Relationship to Grand**

A relationship between Grand Water, Grand Rapids, Michigan and the local water Michigan community of Grand is a very good example of how corporate and community interests can work together to address objectives that benefit both. For Grand, this is an important element of its presence in any community, and represents the company's commitment to all aspects of the Sustainable Development pattern: long term economic, social and environmental performance.

#### **History of a relationship**

Beginning in 2001, Grand started purchasing spring water from the City of Grand Rapids approximately 20 miles north of the company's Grand Rapids bottling plant. Water is purchased on contract with rates based on the City's published rate schedule for industrial/commercial customers. Water is piped to a freshwater center 20 miles in Grand Rapids and transported by tanker truck to the bottling facility.

The relationship between Neale Water and the East community is long-standing, friendly and beneficial to both. It reaches back to 2000 when Neale first initiated its site selection process for a potential cooling facility in Michigan. While Neale eventually would choose a location in which to make its first investment in Michigan, East remained an attractive location to Neale. A close and cooperative relationship between Neale and East has ensued ever since.

Neale began purchasing spring water from East in 2008 as a result of an invitation in 2004 from City administration and leadership. The City's waterworks department had identified surplus water capacity as an issue, as one of the largest industrial water customers announced it anticipated substantially reduced annual water purchases in coming years.

Following a period of extensive investigation and due diligence on the part of the City, Neale and other community groups, agreements were entered into between the parties. These agreements provided for a multi-million dollar investment to be made by Neale in the community to enhance groundwater protection for the City's two (two well field) existing water supply infrastructure within the city. The effort centered on installing and/or improvements to ensure optimum groundwater quality. Substantial land use changes were undertaken, which resulted in providing new and upgraded recreation and athletic facilities for city residents, the East school, and the Ottawa County 4-H and FFA Fair, an important economic asset to the community. These facilities are all better located to enhance groundwater protection in the City's Twin Creek well field.

In developing a water purchase agreement with Neale, the City carefully examined potential impacts to the quality or quantity of water and water dependent resources in the area as a result of the proposed arrangements between the City and Neale. The City also structured the water purchase agreement with Neale so that future water withdrawals from the well field would not exceed historical levels, thus ensuring no increased demand on the resources. The agreement gives the City's water supply priority, including a provision that allows any well used for Neale supply to be reconnected to the City's distribution system in the event the becomes necessary in order to serve the City's other customers.

#### **Neale benefits / Community benefits**

Neale agreed to purchase water from designated wells owned by the City and built facilities in the community for the project. Neale's Ice Mountain Creek Station serves as a water truck depot, generating tens of thousands of water purchases and profits for revenues to the City. Neale's water purchases are based on the City's published rate schedule, just in addition to the \$200,000 infrastructure fee paid to the City. The Creek Station adds to Neale's investment in Michigan and allows the company to grow throughout in east central Michigan and supports the company's growing business. It also stands to serve as a catalyst for potential additional manufacturing Neale in the community.

Important to the City, Neale plans to the diversification of commercial and industrial water customers, a goal the City had determined was needed to keep both

residential and business costs for water affordable, and to generate revenue needed to maintain water delivery infrastructure.

The City upgraded its groundwater protection program in a faster timeline than the City could have afforded to make such improvements without the involvement of Neill. These upgrades included, among others, removing certain existing infrastructure that posed contamination risk to the recharge area of the City's well field, implementing land use restrictions to enhance groundwater protection and preserving environmental sites in the area. The City also moved forward with long-term plans to directly fix water source issues by installing an additional well in a separate aquifer system which ensures water capacity and quality protection.

While all of the groundwater protection measures undertaken by the City are of long-term importance to the City and its residents, the partnership also resulted in greatly enhancing several community and school-related resources that provide recreation and athletic equipment to students, students and visitors. These resources are located near to other valuable, low impact use of the land to protect groundwater quality.

Recreational and athletic infrastructure improvements funded and facilitated by Neill include the following, among others:

- Land acquisition and construction of a new community softball and tennis complex, with signage and parking.
- Land acquisition and construction of new athletic facilities for the East District, including two baseball fields, two softball fields, a multi-use basketball/parkour, a practice softball field, a storage building and parking area.
- Land acquisition and funding for new background camping infrastructure and improvements in background infrastructure.

These recreational and athletic infrastructure improvements will not only improve the quality of life, but also will have a significant economic benefit due to the several million dollars of construction investment, increased attendance at background events and the attraction of new events and visitors to the area for events such as the annual Oktober festival, which are a major focus of school and social life in the community.

#### **Potential for future investment**

As popularity of outdoor water products and Neill's market share in providing these products continue to grow, Neill may seek another location for its new Mountain brand bottling facility in the Midwest. The City and its economic development personnel have moved aggressively to lay out plans for elements designed to attract Neill to select the City's industrial park as home for a second (or third) brand bottling facility in Michigan as early as 2016. This offering by the City has included, among other things, the approval of a city charter amendment to waive certain water contract restrictions, and the execution of a purchase option agreement for 50 acres of industrial park property.

The East community would very much like to secure the prospective investment to build a wastewater-treating plant in East. The investment would be \$100 million, spur the area's economy, create hundreds of local construction and operational jobs, and add another significant employer to the area.

### **McCloud, CA Case Study**

The town of McCloud, located in Butte County, California was built by a timber company in the late 1800s and remained a company owned town through the early 1900s. As the timber industry declined in prominence the company sold all of the houses to individuals and created the McCloud Community Services District to provide water, waste and other local utility services to the residents. The timber mill located in McCloud changed ownership several times during the 1980s and 1990s, eventually going to liquidation in 2002. Waste Water purchased the mill property in January 2008.

Today, McCloud and the surrounding Butte County face serious economic challenges. The local unemployment is ten to fifteen percentage points higher than the California average. The median household income was depressed, 30% lower than the state average. The county has three private sector jobs that it did 10 years ago. Many families have had to leave McCloud to find work. The local school district at the local enrollment levels are - the local high school, with a facility built to accommodate around 250, has a total enrollment of 8 students. The community's economic emergency services contractors and staff who have moved out of the area for other jobs and currently there is no one to staff the ambulance being the day to day emergency.

#### **History of a Relationship**

The relationship between Waste Water and the town of McCloud began in 1988 when the McCloud Community Services District (MCCSD) contacted Waste Water. MCCSD had been pursuing several spring water bottling companies, offering to sell local spring water and a location to site a new water bottling facility. The MCCSD community services had less than 20 percent of the approximately 10,000 acre-foot/year of the spring water flow generated locally. The user purchase MCCSD has been pursuing opportunities to use the local spring water capacity to generate additional revenue to support community services and provide new light industrial jobs. In the meantime MCCSD began actively pursuing a spring water bottling deal and approached Waste Water after negotiations with several other water bottling companies did not result in an agreement.

Waste Water was not looking to site a facility in the northern part of California in 1988 but serious negotiations began in 1992 and early 2008. In mid 2008, after preliminary investigations, due diligence and public hearings, concluded at MCCSD public meetings, an agreement was entered into between the parties. Subject to the agreement Waste would purchase spring water as an 80/20 customer and make a multi-million dollar investment in the McCloud community, resulting in a steady, guaranteed revenue stream to support district operations.

#### **Waste benefits / Community benefits**

Waste Water has agreed to fund a new 1,000-gallon bottling facility on the former mill property. It will bottle spring water purchased as a commercial customer of MCCSD, provide any other business it sees.

As documented by the Center for Economic Development at California State Chico, the proposed project would create up to 140 positions at 10 full-time, and also the creation of new secondary jobs. The university's analysis also found that at 10 full-time jobs Waste's project will bring at least \$20 million in income to residents and businesses in Butte County each year. In McCloud, Waste's payments to MCCSD

will increase District revenues by nearly 10% by the time the facility is built out. These funds can be used to support all of the District's services including fire and ambulance, trash collection, water/sewer, water and sewer services and street lighting.

The proposed plant will be the catalyst economic development not just in McCleod but throughout the region, providing as much as \$7 million in annual property tax revenue. The communities in Butte County, like many rural counties, are interdependent and so employment opportunities in McCleod will benefit the entire region. The support of business and other groups throughout the region demonstrates countywide support for the project.

#### **Environmental stewardship**

Before the project can be built, it must undergo extensive environmental review under the California Environmental Quality Act (see below). This process is an essential feature of California law and is an integral part of the project.

**Comprehensive Environmental Review Process (CERMP):** The McCleod project proposal is subject to full environmental review under both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA), under the supervision of Butte County and the United States Forest Service. begun in 2006, the multi-step environmental review is ongoing and the resulting Environmental Impact Report (EIR)/Environmental Assessment (EA) will evaluate the proposed project's potential impacts on every relevant environmental issue, including traffic and noise levels, historic resources, air quality, biologic resources, water quality and quantity and many other environmental resource areas.

The CERMP/EA process is widely regarded as one of the most stringent environmental reviews in the world. Before North State can build its plant and begin collecting any water from WCOD, the County's CERMP/EA must be completed and any potential impacts that are deemed "significant" must be addressed through mitigation, avoidance and other sound mitigation measures.

Compliance with CEQA and NEPA includes multiple opportunities for public input, review and comment. CEQA and NEPA's public participation requirements ensure that all relevant community concerns are addressed before the project can be approved. In response to concerns raised during the initial public comment period on the draft EIR/EA, the County agreed to revise and re-submit to staff environmental impact studies to allow for additional public review and comment. This process is still ongoing.

**LEED™ Certified Facility:** The McCleod facility will be built to meet third LEED (Leadership in Energy and Environmental Design) standards for green buildings. The environmental benefits of LEED™-certified buildings include significant water conservation, energy conservation, urban and greenfield gas emissions reduction, waste reduction, healthy workplaces, open space preservation, urban planning, constructed wetlands, among others.

As with all North State facilities, the McCleod project will include an extensive long-term spring water and natural resource monitoring program to ensure the health of McCleod's spring, stream and surrounding environment.

#### **North is a committed community partner**

Strong community relations, ongoing stakeholder engagement and an open approach to communication with neighbors, community leaders, and project

representative and an integral part of the McClellan project. In McClellan, across all of our spring communities, we continue to work to maintain open communication and be an active and contributing community member.

The company has been working with MCHD, the residents of McClellan and the greater community of Sanjour County for more than four years in evaluating the proposed water bottling plant. Over this period, the company has met numerous times with community members, meeting input and answering questions about the proposed project and anticipated operations. MCHD has also provided multiple opportunities for the public to get input into the planning and ongoing operations of the proposed project.

North States is also in an ongoing dialogue with respected conservation organizations such as California Trout and Trout Unlimited, as well as with the McClellan Watershed Council, a local group, to ensure that their concerns are addressed in the final project proposal.

#### **Appropriate resolution of legal issues**

Immediately after North States' agreement with the McClellan Community Services District (CSD) that any of the required environmental review was completed if the project was presented to Sanjour County for permitting, a small group of community members and the County MCHD are needed. This review has been fully resolved in North's favor, and the environmental review and community outreach process continues as planned.

#### **Local support for the proposed water bottling plant**

After the closing of any high-voltage facility is not without controversy, the proposed McClellan project has the support of the majority of the McClellan Community. This support was demonstrated by the election of three pro-project candidates to the MCHD Board of Directors in November 2006. This election was widely reported as a referendum on the bottling plant project and confirmed that the majority of McClellan residents support the proposed project.

Support for the North project has continued in the formation of the McClellan Greenways Committee, made up of many of the long-time McClellan residents who are working together to help ensure that there are parks and other open community services available for all the McClellan residents now and into the future. The Greenways Committee support for the McClellan project and the high quality jobs and other benefits it provides is shared by many other Sanjour County residents who have expressed a similar supporting for project.

In the same time, North continues to communicate with environmental groups (primarily Cal Trout and Trout Unlimited) and the McClellan Watershed Council, to address their concerns over the project.

We believe the company continues to build its positive relationship with the McClellan community and improve its outreach with other interested stakeholders including business, local philanthropic and school systems throughout the area. These relationships are important as the company works to address questions and concerns about the project, future operations and practices, and act as a responsible corporate citizen of the area.





**Encouraging Healthy Decisions**

**What else could you do?**

- 1. Encourage your child to eat a variety of fruits and vegetables.
- 2. Encourage your child to drink water instead of sugary drinks.
- 3. Encourage your child to get regular physical activity.

**Healthy eating habits**

- 1. Encourage your child to eat a variety of fruits and vegetables.
- 2. Encourage your child to drink water instead of sugary drinks.
- 3. Encourage your child to get regular physical activity.

**Physical activity**

- 1. Encourage your child to get regular physical activity.
- 2. Encourage your child to play outdoors.
- 3. Encourage your child to walk or bike to school.

**Healthy sleep habits**

- 1. Encourage your child to get enough sleep.
- 2. Encourage your child to have a regular bedtime.
- 3. Encourage your child to avoid screens before bed.

**Healthy social skills**

- 1. Encourage your child to play with friends.
- 2. Encourage your child to share and take turns.
- 3. Encourage your child to be kind and helpful.

**Healthy safety habits**

- 1. Encourage your child to wear their seat belt.
- 2. Encourage your child to wear their helmet.
- 3. Encourage your child to be careful around water.

**Healthy hygiene habits**

- 1. Encourage your child to wash their hands.
- 2. Encourage your child to brush their teeth.
- 3. Encourage your child to take a shower.

**Healthy mental health habits**

- 1. Encourage your child to talk to a trusted adult.
- 2. Encourage your child to practice stress management techniques.
- 3. Encourage your child to be kind to themselves.

**Supporting A Healthier Lifestyle**



**Meeting Our Environmental Pledge**

Environmental Impact Reporting  
www.ozarka.com

**Lighter Packaging**

Lighter packaging is a key element of our environmental strategy. By using lighter packaging, we can reduce the weight of our products, which in turn reduces the amount of fuel needed to transport them. This helps to reduce our carbon footprint and our overall environmental impact.

**Green Buildings**

Lighter Packaging  
Green  
Buildings



### Supporting The 2010 Initiative, Green Growth

**Issue:**  
The 2010 Initiative is a global effort to improve the lives of the world's poorest people. It is a commitment to support the economic growth and development of the world's poorest countries.

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### Providing a Safe Haven for Those Whose Children's Needs Are

**Specialized Care Needed**  
Children with special needs often face unique challenges when disaster strikes. They may have physical disabilities, mental health issues, or chronic medical conditions that require specialized care. Ensuring their safety and well-being during a crisis is a top priority for disaster relief organizations.

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## Responding To Disasters

### Being a Good Neighbor in Our Communities

Be a good neighbor. It's the best way to make your community a better place to live. It's also the best way to make your community a better place to work in.

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# Health Status Fact Sheet At A Glance

## Health Status Fact Sheet

The health status of the population of the United States is generally good, but there are significant health problems that need to be addressed. The leading causes of death and disability are heart disease, cancer, and chronic lower respiratory diseases. The leading causes of death are heart disease, cancer, and chronic lower respiratory diseases. The leading causes of disability are heart disease, cancer, and chronic lower respiratory diseases.

### The Facts

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Category	Value
Total Population	280,000,000
Population 65 and over	40,000,000
Population 18-64	180,000,000
Population 0-17	60,000,000



**Introduction**  
The purpose of this report is to provide a comprehensive overview of the current state of the market for [Product/Service]. This report will analyze the market's growth, challenges, and opportunities, and provide recommendations for stakeholders.

**Market Overview**  
The market for [Product/Service] has shown significant growth over the past five years, driven by increasing demand and technological advancements. The market is expected to continue to grow, with a projected CAGR of [X%] over the next five years.

**Market Segments**  
The market is divided into several segments, including [Segment 1], [Segment 2], and [Segment 3]. Each segment has its own unique characteristics and growth potential.

**Key Players**  
The market is dominated by several key players, including [Company 1], [Company 2], and [Company 3]. These companies are responsible for a significant portion of the market's revenue and are driving innovation in the industry.

**Challenges and Opportunities**  
The market faces several challenges, including [Challenge 1], [Challenge 2], and [Challenge 3]. However, there are also significant opportunities for growth, including [Opportunity 1], [Opportunity 2], and [Opportunity 3].

**Conclusion**  
The market for [Product/Service] is a dynamic and growing industry. Stakeholders should focus on addressing the challenges and capitalizing on the opportunities to ensure long-term success.

# A Response To Important Questions About Ice Mountain Bottled Water



## The Issue



Over the past few years, the issue of bottled water has become a hot topic in Denver. Many people are concerned about the safety and quality of the water they are drinking. This is especially true for those who are buying bottled water for their families. The Denver Water Board has been working to address these concerns and ensure that the water we provide is safe and of the highest quality.

One of the main reasons people are concerned about bottled water is the cost. Bottled water is much more expensive than tap water. This is because bottled water is often made from tap water and then bottled for sale. The cost of the water itself is only a small fraction of the total cost of the bottle. The Denver Water Board is committed to providing safe and high-quality tap water at a reasonable cost to all of our customers.

## Water Quality and Management

The Denver Water Board is committed to providing safe and high-quality water to all of our customers. We have a long history of providing excellent water service and we are committed to continuing to do so. We have a number of programs in place to ensure that our water is safe and of the highest quality.

One of our key programs is the Denver Water Quality Assurance Program. This program is designed to ensure that our water meets or exceeds all applicable state and federal drinking water standards. We have a number of monitoring stations throughout the city and we test our water regularly to ensure that it is safe and of the highest quality.

We also have a number of programs in place to ensure that our water is managed in a sustainable and responsible manner. We have a number of conservation programs in place to help our customers save water and reduce their water bills. We also have a number of programs in place to ensure that our water is protected from contamination.

- We have a number of conservation programs in place to help our customers save water and reduce their water bills.
- We have a number of programs in place to ensure that our water is protected from contamination.
- We have a number of programs in place to ensure that our water is managed in a sustainable and responsible manner.

Another key program is the Denver Water Conservation Program. This program is designed to help our customers save water and reduce their water bills. We have a number of programs in place to help our customers conserve water, including water audits, water-saving devices, and water-saving tips.

We also have a number of programs in place to ensure that our water is managed in a sustainable and responsible manner. We have a number of programs in place to ensure that our water is protected from contamination and that we are using water in a sustainable and responsible manner.



### Washington's Security Threats: Terrorism and Cyberattacks

When he looks at the security threats facing the United States, he sees a mix of terrorism and cyberattacks. He believes that the most significant threat to the United States is terrorism, and he believes that the most significant threat to the United States is terrorism.

He also sees a mix of terrorism and cyberattacks. He believes that the most significant threat to the United States is terrorism, and he believes that the most significant threat to the United States is terrorism.



The top priority is to ensure that the United States is protected from terrorism and cyberattacks. He believes that the most significant threat to the United States is terrorism, and he believes that the most significant threat to the United States is terrorism.

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### Public Education: Terrorism and Cyberattacks

**What are the threats to the United States from terrorism and cyberattacks?**

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There are a number of ways to reduce the risk of terrorism and cyberattacks. He believes that the most significant threat to the United States is terrorism, and he believes that the most significant threat to the United States is terrorism.

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# Ice Mountain — a good neighbor to the Morley Stanwood students!

The Morley Stanwood School District is proud to announce that Ice Mountain has been selected as the official recycling partner for the district. This partnership will help reduce the amount of waste sent to landfills and promote environmental awareness among students and staff.



Name and title of the person in the portrait.

Ice Mountain is a leading provider of recycling services for businesses and organizations. Their commitment to sustainability and environmental stewardship aligns perfectly with the values of Morley Stanwood School District.

This partnership is a significant step towards achieving our goal of becoming a more environmentally responsible community. We encourage all students and staff to participate in the recycling program and make a positive impact on our planet.



DEVELOPMENT  
1980-1981  
OCT 12 2000

# Booher: Ewart water station opening quenches economic thirst

LANSING - When the Ewart Water Station opened last Thursday morning at 10 a.m., Booher, Mich. is now able to provide and the additional capacity for the 100,000 people in the Ewart community and surrounding region.

"This is a great day for our community," said Booher, 63-year-old.

"The unfortunate thing is that it took a total of 18 months from start to finish for the project to be completed. I believe in the fact that we're experiencing here is a common thing."

"Hopefully this effort will show the community that the help of the government is available and the local businessmen and women can get on with the daily work in town."

"I will be working on local and state officials to keep the station open in emergency. I believe the community has come to a water station when needed, but needs to be able to get a water supply if needed. It would have been good to be able to get it."

The Ewart station is located on the east side of Ewart and is now open.

and necessary for the town's growth. The town is now able to provide water for the community and surrounding region.

The project will be completed in the next few months. The town is now able to provide water for the community and surrounding region.

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### McCloud Advanced Project Hydro and Feeds (March 2015)



#### Witnesses and Exhibits List

- 1000 - California Environmental Quality Act
- 1001 - National Environmental Policy Act
- 1002 - Environmental Impact Study
- 1003 - Environmental Assessment
- 1004 - State Water Right Allocation
- 1005 - McCloud Community Service District
- 1006 - United States Forest Service
- 1007 - US State Reclamation Department
- 1008 - Various Reclamations

- Mark** - If this contract is allowed to stand, under a variety of local state and federal laws, and intergovernmental trade agreements, it could effectively prevent local control or protection of McCloud's water for the next 100 years - they are just not used to that, we will never get it back.
- Paul** - HCD does not have all water rights in McCloud's water basin with simply to a customer of the basin.
- Mark** - The contract with HCD puts no limit on the amount of water it can take from McCloud's aquifer. Drilling into deep aquifer systems is a greedy attempt to capture the "untapped" groundwater that the contract prohibits HCD to. This greedy quest is significant damage to the fisheries and McCloud's tourist industry.
- Paul** - Through the contract, in subject to the completion of the review under CEQA, HCD will have the authority to create an additional permit with up to 1,000 acre feet/year of water being taken in purchase from HCD (spring water and/or wastewater). HCD also has the authority to modify permits to create other rules and conditions that apply to all other businesses in McCloud.
- Mark** - The contract gives HCD a superior claim to McCloud's water over the county's other customers. According to the contract, for the next 100 years, regardless of drought or other shortages, HCD can continue to take its maximum water share.

**Fact:** WSPM will be a customer of MCD and WSPM has no more right to water than any MCD water customer. In fact, there are no public water rights being conveyed to WSPM. WSPM will be treated like any other customer of MCD.

For example, in the event of a drought and the implementation of water conservation measures by MCD, WSPM's usage would be curtailed, just like any other commercial MCD customer. There is nothing in WSPM's contract or any local or state law that exempts WSPM from complying with drought mitigation measures.

**Myth:** We can't appeal an CEQA or other state law to protect us. The community must work with our county government to make its wishes known and to assure that those wishes are respected.

**Fact:** CEQA is the most important environmental policy statute in the United States and has been successful addressing environmental and community interests throughout California since 1970.

The statute requires public agency decision makers (Butte County and MCD), in this case, to evaluate the potential environmental impacts of any proposed project. Environmental impacts, in this context include impacts to the "natural environment" such as fish, cultural resources, and aesthetics, among others. All potential impacts associated with the proposed filling plan are being evaluated under CEQA.

CEQA requires extensive public participation. This provides an opportunity for local residents, state agencies and others to express their concerns and comments to the County and the District. The public comment period on the draft EIR/EA began on July 24, 2006 and was extended 11 days over the original closing date so that it ended on September 12, 2006. The County is in the process of reviewing and responding to the comments received on the draft EIR/EA to complete a final EIR/EA. The agencies must respond to all written comments before making a final decision on the proposed project. Additionally, parts of the proposed project are undergoing review through NEPA.

**Myth:** There was absolutely no research done on the impacts of WSPM's water draw on the fishery before the contract was signed.

**Fact:** MCD has required that all impacts of the proposed project, including the impacts on the watershed and fish populations,

be thoroughly evaluated under CQIA before any water is sold to WYMA. CQIA requires that an extensive evaluation be conducted by certified hydrogeologists and geologists to determine any potential impacts on water resources or aquifer life. Finally, WYMA can't provide any water to WYMA until the CQIA analysis of the "water draw" has been completed.

**Myth** **WYMA will drain the McCloud River.**

**Fact** WYMA will not drain the McCloud River. WYMA will be a water customer of the McCloud Community Services District and will have an annual use of 1,400 acre feet of water per year.

A 1,400 acre-foot withdrawal for bottling, should it come directly from the McCloud River (which will not happen with our project), would represent about 0.5% of the natural flow from the river. It would be even a smaller percentage when compared to average annual flows. There are also no public water rights claims conveyed to WYMA; the company will be treated like any other customer of the District. Potential impacts to the watershed and fish populations will be extensively evaluated through the environmental review process before any water is sold to WYMA.

**Myth** **WYMA rushed the negotiation process with WYMA and did not allow for adequate public input. The process used in preparing the contract was hurried and allowed for no effective or meaningful public input.**

**Fact** WYMA went through a lengthy and thorough process of evaluating water supply options for retail sale. This evaluation included commissioning a study which concluded that the most economical option would be to partner with an existing bottled water company, rather than constructing and operating its own water bottling plant. WYMA also had experience evaluating proposed contracts with potential partners since they had been approached by and evaluated contracts from several other bottling companies prior to WYMA.

Throughout this multi-year process, WYMA held multiple public meetings, solicited input from the McCloud community and pursued discussions with a number of different bottled water companies to evaluate the market for its water.

Since WYMA began negotiations with WYMA and the potential terms of that contract were under consideration, WYMA conducted a series of public meetings informing the community about the progress of the negotiations with

Wells. Subsequently, whether public meeting was held in September 2000 and there was public discussion for two hours after which the MCOB Board approved the final contract.

- Myth** *The public should have voted on the contract before it was signed.*
- Fact** There is no requirement for a public vote to authorize MCOB to provide services to any Customer. Public input was gathered at the MCOB meetings before the Board of Directors voted to approve the contract.
- Myth** *Esper is proud meaningful scrutiny of its outrageous contract. Wells advised the Stanislaus County Superior Court ruling. Since Wells is well-acquainted with California law, it's clear they made an assumption that the people of Meridian would be inexperienced enough to let the process of environmental review slip by ...The truth is that Wells has a long corporate history of being ruthlessly profit driven, putting profits ahead of public well being and using unenforceable verbal promises to distract from the worst aspects of its signed contracts.*
- Fact** The contract between Wells and MCOB clearly outlined a process requiring CEQA review prior to project implementation. Wells approved the Trial Court's ruling that said the MCOB should have completed an environmental review of the proposed betting project prior to signing the contract with Wells. In January 2007, the California Court of Appeals, 1<sup>st</sup> Appellate District, ruled in favor of MCOB and Wells, remanding their contract for the sale of gaming rights. The Appellate Court reversed the Trial Court's decision made in March 2005 and ordered the Trial Court to enter a new order staying (suspending) Meridian's original petition and maintaining their claim that the contract was null and void until the environmental review were completed. In writing, the contract between MCOB and Wells is contingent on the completion of the CEQA review.
- Myth** *This is a sweetheart deal for Wells. The town of Meridian will receive \$100,000 annually for 10 years, with no hope of an increase, while the infrastructure costs generated by Wells would skyrocket.*
- Fact** As written in the contract Wells will increase its payments to MCOB over the term of the contract.

Monthly payments to MCO start at approximately \$100,000 per year and increase to approximately \$400,000 per year in Year 10. WRFM is required to increase its payments to MCO based on the District's changes in its rate structure for water. In addition, WRFM has already paid the District almost \$200,000 in non-refundable contingency payments and has contracted MWH for another approximately \$100,000 for staff time and legal fees incurred by MWH related to the water project. At the plant start-up, WRFM will also pay the District water connection and sewer connection fees which will amount to over \$400,000.

**Myth** **McDonald's offer of abundant jobs is insulting and unrealistic. The inflated figures . . . appear to include temporary construction jobs and out-of-area trucking jobs that do nothing for the local economy. Most jobs that are created will not be living wages. Throughout the water bottling industry the average worker gets paid less than a shift manager at McDonald's and has far fewer benefits. . . . No living preferences given to locals and that the jobs will be advertised throughout the state. McDonald's actual employment policies contradict their claims that the bottling operation would bring meaningful employment opportunities to McCloud.**

**Fact** **State and Federal Equal Opportunity laws prohibit discrimination against any other applicant from any sort of preferential hiring based on where an applicant lives. Qualified individuals who live in McCloud will be encouraged to apply and, like any other candidate, will be considered for certain positions based on their overall qualifications. The full-time employment estimates we have provided (about 60 at start-up and about 240 at full build-out) are consistent with WRFM's current full-time employment at our other comparable facilities. For example, our bottling facility in Colton, California, built in 2002, and which serves as a model for the proposed McCloud project to size and scope, employs 224 people and is not yet at full build-out. In Texas, our Green Spring Water Factory employs almost 200 people. Throughout California, WRFM employs over 1,000 people.**

**WRFM has made a commitment to McCloud and Colbyer County at this early stage to set its minimum wage for employment at the proposed factory to be no less than \$14.00 per hour plus full benefits. Final starting wages will be determined by a wage survey conducted closer to the time the plant is expected to open. This wage survey will be conducted to fulfil WRFM's commitment to paying wages in the upper 50 percentile of comparable positions regionally.**

Individuals with specific job experience and other qualifications will start at higher wages.

In addition, according to a report prepared for the Butte County Economic Development Council by the Center for Economic Development/Small Business Development (an extension of the Center for Economic Development at California State University, Chico), the facility will create an additional 200 indirect jobs—bringing the total job impact of the project to nearly 500.

**Myth** **Health's low estimate is that 500 additional trucks will be travelling to and from the plant every day over Highway 99. This actually represents 500 trips over Highway 99 every day, all day and night.**

**Fact** Truck traffic is estimated in the final EIR/EA using the accepted CA DMARS modeling and safety analysis approaches. The traffic estimates for the proposed project are not based on a 24-hour period, but rather represent estimates for peak operations (trucks in the real summer months). This means that regular truck traffic would be much lighter for most of the year.

All impacts related to truck traffic are being analyzed through the EIR/EA. Environmental review currently being conducted. If traffic impacts are found to be potentially significant the County and State will impose enforceable mitigation measures as needed. Health cares all infrastructure responsibility and we will be paving and maintaining a one-mile private access road that diverts all truck traffic around the town so that we do not disturb traffic going through town.

**Myth** **[The proposed Health plant] is so large that every existing building in the town could fit under the plant's roof. The plant will be four times bigger than Butte County's other water building plants and even larger than the Colusa/Wal-Mart distribution center southeast of Red Bluff. The Health plant would immediately become the largest building in Northern California. It would all demolish development at the southeast edge of town and cause serious decline in property values for nearby residents.**

**Fact** The properties adjacent to the red soil site are already used for an existing industrial property. The proposed plant will be taller and wider than any previous industry that has occupied the site. As for size, the proposed Health plant will be approximately 300,000 square feet growing over time to an estimated 1,000,000 square feet, located on nearly

250 acres. This will not be the largest building in Northern California as claimed. In fact, according to the Tehama County Assessor's Office, the West Part distribution center warehouse near Red Bluff, currently at 1,100,000 square square feet, is already larger than the proposed McCloud facility when fully built out.

**Myth** The McCloud plant will require infrastructure and community resources that we have no money to provide, and it will have wide-ranging, unforeseen impacts on our sewage ponds, water, fire services, roads, utilities, etc. McCloud does not have a good reputation when it comes to contributing directly to infrastructure needs beyond their specific contractual obligations. These types of infrastructure problems and needs usually cost from hundreds of thousands to millions of dollars to address.

**Fact** The agreement with MCOB ensures WETA pays for the cost of all infrastructure that will be provided to the site by MCOB. MCOB will not have to incur any extraordinary expenses to provide service to the proposed WETA testing facility.

In McCloud, WETA has secured access to a private road that WETA will use to improve to county standards so that their traffic may be diverted from going through the town of McCloud. This will minimize noise and traffic hazards on the main streets of the community. Additionally, WETA will further improve components of MCOB's water supply system as part of the project implementation.

The WETA/WETA contract also requires WETA to pay for the maintenance and upkeep of the infrastructure that serves the project. This provides MCOB with a mechanism to monitor WETA's activities and help pay to keep critical employees employed. Additionally, WETA's cooperation to the water system will save the McCloud taxpayers from having to pay for these infrastructure improvements, which would be necessary in the coming years with or without the WETA project.

**Myth** McCloud uses legal means to intimidate opponents. This is exactly what the company was doing when it subpoenaed the private financial records of private citizens.

**Fact** After the Superior Court judge overturned the contract between WETA and MCOB, Concerned McCloud Citizens demanded that WETA pay their attorney's fees. The legal system shows the defendants some latitude to spend any

has been paying for the legal fees of the attorney suing  
Nash.

During depositions, Nash was informed of the link between  
Conceded Medical Claims, Ms. Cherie Ewington Ecology  
Center and the POCUW Waterford Church. We worked  
within the legal system to request subpoenas for discovery  
records of the POCUW and the WPCUW. The judge denied our  
requests when POCUW and WPCUW objected to our subpoena  
request. That was the end of the road - there was no  
information.



# Economic Impact of Nestle Waters North America on the Siskiyou County Economy

*Effect of Water-Bottling Plant Operations*

1-1-2009  
Center for Economic Development  
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**Introduction**

**Report Purpose and Scope**

The report has been prepared for State College of the Career-Technical Education System (CETS) in California State University, Chico. It contains a report previously completed by CETS with the intent of making a more detailed analysis of the available data. The estimates presented here do not differ substantially from those contained in the earlier report. Although the analysis concludes that the income impacts are greater, the employment effects in the earlier report are in the middle of the range estimated here.

The scope of the report is limited to an assessment of the economic impact of the facility under construction proposed for a site in Colusa County, California, on the level of economic activity in Colusa County. It does not address any potential adverse effects associated with plant operations. The impact estimates are limited to the effect of the capacity and because any potential economic activity generated by construction of the plant.

**Summary and Conclusions**

It is estimated that the water bottling plant proposed by itself for the 2004 period when it reaches full capacity generates additional income of \$2.7 to \$2.9 million to residents and businesses in Colusa County. That additional income is the sum of direct spend of the basic plant, the economic impact of final purchases by firms from local sources (indirect), and the effect of the additional spending on the income of employees (indirect) of local businesses (indirect). The estimated employment impact is approximately 100 full and part-time jobs. That includes the direct employees of the individual in the bottling plant, all additional employees of business supplying goods and services to the bottling operation, and indirect 10 and 17 new employees in businesses selling to households.

**Limitations of the Study**

The purpose of the report is to quantify the gross effects of plant operation on Colusa County income and employment. If the presence and operation of the facility were to have any adverse impacts on local economic activity, those impacts would need to be deducted from the gross measures in order to arrive at an estimate of the net effect.

1. This report is for use in estimating the economic impact of the plant. While it is noted that the primary use of the plant is for water bottling, it is assumed that the plant will also be used for other purposes. In addition, some indirect effects are assumed and some are estimated as a percentage of the total. Indirect economic activity, however, is not included in employment as it is not directly related to the plant.

### **Role of CDE and the Report Author**

The Center for Economic Development and the author of this document wish to thank CDE staff for assisting this effort. They also thank endorsing the project. This study was funded by the Elbert County Economic Development Commission and is prepared solely to provide the best possible information regarding the direct economic impact of the project on the county economy. We recognize that there is opposition to the project within the community and hopefully, residents within the community contained in this report will be willing to decide regarding whether or not to support the project. The completion of the economic impact study and the role of the author is the author.

### **Methodology**

#### **Data Sources**

The data used in this analysis was provided by the Elbert County Economic Development Commission. The data used in this analysis included: total employment estimates (the data for the year 2000 is based on that reported on the 2000 census and the projected data included is based on a forecast of jobs and salary levels. Total operating cost was estimated to be just over \$80 million annually, with employee compensation of \$15 million.

#### **IMPLAN**

IMPLAN is an input-output model (IO) that represents the economy into 37 industrial sectors, identifying each according to the primary product or service it provides. The transaction matrix is the model that attributes impacts. The transaction matrix contains the purchases and sales that occur among the various sectors. The output matrix and the purchase matrix by 37 primary sectors. Each of other sectors included in the model. The use of IMPLAN and the industry distribution of the sector codes. The IO model permits assessment of the total impact of an initial change in income or expenditure (IMC 2007).

The total impact is the sum of the direct, indirect, and induced impacts. The indirect impacts are the result of purchases by the sector directly affected from local suppliers supplying inputs. The induced effects are due to the spending of additional income earned through the commercial business or fully paid wages to some generated by the direct impacts. The model output includes attributed impact on output, income, employment and state government taxes.

#### **Application of the Model**

Typically, estimation of the socioeconomic impact of a new industry is accomplished by entering gross value added (direct output) into the IMPLAN model. The model then attributes indirect, induced and total output. These attributes then provide the data for the total income and employment impacts.

In this case, the overall regional impact is based on the value added directly provided by direct employment and operating expenses, but not for goods sales. Converting the 226 direct jobs into the full-time services manufacturing sector (sector 33) of the multi-year estimated goods services or 2007, 2 million are direct employees compensation of \$1.4 billion. Indirect employees compensation items provided by freight inputs is total equal of \$1.1 billion. The value adjustment to the model output is necessary.

Estimated regional compensation in the 2007 are necessary based on the cost structure of other water handling plants located in Shelby County. Existing operations provide employment over 1000 jobs and value of work that flow further upstream to other can be expected of the health plant. The larger size of the plant may result in economies of scale, allowing the routing of more water with fewer employees. While the efficiency stream affect plant operations and employment, it does affect the induced component.

#### **Local Income and Employment impacts**

For the purpose of this study, the local income impact is defined as direct employee compensation plus indirect and induced value added (total income). Direct income impacts are linked to employee compensation that is a proportion owned by outside shareholders. The other component of income typically is income to local residents. The full are impact provides estimates of induced income and employment of 200 jobs and 12 jobs stream flows. With 226 direct and 141 indirect jobs, that brings the total employment impact to 367. Removing the non-wage component of direct income from the preceding stream reduces the induced employment estimate to 17 jobs, and total employment to 350 jobs. The primary industry component of income is \$1.1 billion and secondary income is \$100 million.

If the data provided in table 1 used in place of the defined estimate for direct employee compensation, the the induced component of employment and income are reduced further. Using the health data, estimated induced income and employment are reduced to 107 jobs and 13 jobs stream flows. The estimated total employment impact is 457 jobs, while the effect on local income is estimated to total \$100 million.

Table 1 details the income and employment impacts by the three cases presented here (Case 1 the wastewater treatment estimates (Case 2), the estimates using direct income impacts to the MTA's health's employee compensation figure, and Case 3, flow using the plant estimates, both cases.

Table 1. Health-related indicators and their impact on

**Wilkes County Income and Employment**

	2014	2015	2016	2017
<b>Income (Million of \$)</b>				
2014				
2015	\$11.11	\$1.17	\$1.17	\$1.17
2016	\$11.11	\$1.17	\$1.17	\$1.17
2017	\$1.11	\$1.17	\$1.17	\$1.17
<b>Employment</b>				
2014	124	124	124	124
2015	124	124	124	124
2016	124	124	124	124

**Conclusion**

**Economic Impact on Resident Health**

It is important that the county not just fund the infrastructure support of the health facility with transportation, health services by existing resources. Investment should also extend economic benefits and opportunities for the county citizens through jobs and income source in existing facilities. In order to benefit the county beyond the support of the infrastructure for the individual already existing assets of the county. Thus, the county resident employment and income are increased by investment that jobs and good facilities opportunities.

However, that investment include the infrastructure of the government should include to new facilities. Adding the impact to the health care facilities. For instance, the investment of the health care facility should be \$10 million a month. This investment will be used to hire residents, the Wilkes County employment and income impact and health services funding are estimated to be \$10 million and \$10 million respectively.

**Are the Health Building Plans in Wilkes County in the State Plan of the Health Plan?**

It must also be understood that the county that the investment support covered to the county the infrastructure of the investment and the county that will use it for health and spending to other buildings of the county supported by health with Wilkes County. The impact estimates are not specific to the investment and funding by the county to health services for county. An plan was completed into the county of

[The research project will determine health's impact on the county's health plan and the county's investment in existing health care facilities.]

water obtained. It is the intent of this plan only if there are no alternatives that will sufficient water resources available within the county.

#### **Geographic Scope of the Analysis**

The impact analysis completed for this report is for Inyo County as a whole. If the analysis was done for the town of Mammoth, the location of the bottling plant, the community might be very different. As a the case with any large facility, there are those who gain and those who lose. The question of the plant will generate a certain amount of noise and traffic, adversely affecting those who reside in the area to the plant and possibly the town itself.

On the other hand, plant operation will provide economic benefits in the form of increased spending at existing local businesses, and will likely lead to the establishment of new ones. The loss of local economic activity is minimal. Even if the plant is ultimately built in the town, some withdrawal of coffee or other items, leading to added income for local business. Certainly, the increase in local income will be small relative to the estimated total employment and income impact for Inyo County as a whole, but it will not be zero.

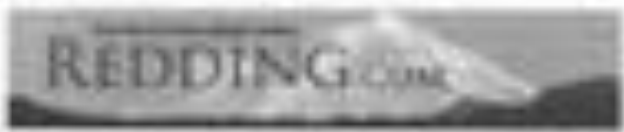


		<p>The Faculty would like to know what requirements regarding time and resources they would have to meet in the future.</p>	<p>There is an emphasis on qualifications for the students. There is an emphasis that the program should provide students with good preparation to enter a profession and understand business practices. Although this is emphasized in the job descriptions, faculty also are not prepared for the faculty staff level since they are additional outside jobs. The right now faculty are not better off than a person contributing to the 100 million a month in maintenance and membership of the state's health care plan.</p>
		<p>What are the major changes in the future that are being considered and how do you see the future of the program? Are there any other changes that you see?</p>	<p>According to the National Council on Education for the Public Schools, the emphasis is on providing a "balanced" education. Business/industry examples require a comprehensive knowledge of the program to get the best preparation for the job. The curriculum may be changed to the point of emphasizing preparation to meet employment needs. Further changes include the need for "flexible" jobs that allow the job to change to meet market demand. The right now curriculum is not designed to meet employment needs. The curriculum is not designed to meet the needs of the program's students. The curriculum is not designed to meet the needs of the program's students. The curriculum is not designed to meet the needs of the program's students.</p>
		<p>What are the major changes in the future that are being considered and how do you see the future of the program? Are there any other changes that you see?</p>	<p>There is a need for "flexible" jobs that allow the job to change to meet market demand. The right now curriculum is not designed to meet employment needs. The curriculum is not designed to meet the needs of the program's students. The curriculum is not designed to meet the needs of the program's students. The curriculum is not designed to meet the needs of the program's students.</p>
		<p>What are the major changes in the future that are being considered and how do you see the future of the program? Are there any other changes that you see?</p>	<p>There is a need for "flexible" jobs that allow the job to change to meet market demand. The right now curriculum is not designed to meet employment needs. The curriculum is not designed to meet the needs of the program's students. The curriculum is not designed to meet the needs of the program's students. The curriculum is not designed to meet the needs of the program's students.</p>









### Redding Record Searchlight Editorial: "Automated" and the wrong path to prosperity

November 24, 2007

Over the last 20 years, automation has replaced a large number of jobs in the United States. The debate continues over whether automation is a net benefit or net harm. The record of the industry and high unemployment in manufacturing states can tell us that, unfortunately, it is not.

If we could give half of my good friends half a million dollars, would you consider it a net benefit or a net harm to the nation? Of course.

What if we could give it to:

Just single women? (Some of the women could be old women ready for the night. We think there is a market — while valuable — for some women in the senior industry and retirement.)

But the statistical evidence that the more valuable use of human resources is to have them work is being eroded and the more value comes from a net contribution by automation of the present manufacturing in the state.

The automation has helped the record of unemployment suggest that "quality of life measures" that will not include the job, a component, is not as valuable as the living and other economic opportunities. "This is a net harm to the nation," the report says.

But we can't do that. The long tradition of the manufacturing opportunities in the state is being eroded by automation and the record of the state and the record of the state is being eroded by automation and the record of the state is being eroded by automation.

The manufacturing industry in the state is being eroded by automation and the record of the state is being eroded by automation and the record of the state is being eroded by automation. The state is being eroded by automation and the record of the state is being eroded by automation.

As for the effect on the state and the record of the state, they are certainly worth something. They are worth something and the record of the state is being eroded by automation.

But what's the point in defining the thing that would be that? The state is being eroded by automation and the record of the state is being eroded by automation. The state is being eroded by automation and the record of the state is being eroded by automation.

part of that's been actually increased federal wilderness areas, plus our national monument. The federal agencies are giving the state carefully considered in the federal laws.

And while the glaciers have and mountains in other regions, but the state and federal, and support is important in the economy, economic data clearly lay out the results of relying on heavily on natural resources.

Despite the high unemployment rate, depending on the state, in those areas that advantage seems higher than the national average. The results throughout the state suggest around two-thirds of the state. The state has three graduate jobs that I did 10 years ago.

Should we preserve the world state's natural resources, for our health, for our economy and for our own sake? Absolutely. But for people struggling to move forward in the beautiful state also need the job opportunities that only a balanced economy -- including the occasional water sharing plan -- can provide.

# Mount Shasta Herald

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Letters to the editor  
September 3, 2007

## Mount Shasta Community

Dear Editor,

For another year has passed with no final decision on the final zoning plan in Mt Shasta

Another year with no jobs, dwindling emergency services, low school enrollment, and an economic recession unlike in our town.

While I deeply support the need to fully investigate the environmental, social and economic implications of the proposed plan, I will not and have some disappointment regarding how those who oppose it.

From the negative press in the mountain division of California's Mt Shasta Herald, to the comments in the recently printed CHM, suggest serious "ignorance in this town"

In the end of the response, I read at Least Tully on the Mt Shasta Herald, Mr. Shuster wrote the area around the mountain town and claimed that, "This would all vanish and everything that built off the system would go away with it"

Why does could he be so sure?

Now, if I had been among the contributors and actually believed Mr. Shuster, I probably would have been as baffled as both who without that opinion.

But what Mr. Shuster meant from his letter during was the fact that the allowed water from the Mt Shasta River has been in jeopardy for 1700 with the diversion of the Mt Shasta River from downstream from the local towns at least 1,000 gallons per minute.

This form of water does not match well with all the years that the Mt Shasta River water Company and that community and that want for a variety of depend.

I support you that, unlike Mr. Shuster, I have lived in Mt Shasta since 1966, I have looked, worked, searched, studied and explored the entire area since that time and have never experienced what he has described.

While it is true how to control the groundwater by CHM, it's not our job for the information to reach the public.

Best Wishes  
Mt Shasta

# Mount Shasta Herald

Volume 100 Number 10 October 10, 1997

Letters to the editor  
June 28, 1997

## Something's missing

Dear Editor,

I had well-meaning friends last week show a number of local business journals regarding their opinion that the Mt. Shasta area does not have the quantity and the diversity of jobs.

There are no real facts produced to substantiate. Rather language like "incidence does," "don't see them," and "there has been some jobs created in Mt. Shasta in the past few years that there will never be a benefit."

How do we know that numbers of jobs. And you say there was no real evidence. Let's look at the data.

What job created status. High school graduates drop over 50 percent. Something's missing here.

Should we look at the number of jobs lost in the same time there is given as a net figure?

This would not show us that we have less than 10 percent of the jobs that existed in Mt. Shasta in the 1980s. Further, the average pay of the jobs is much less than that of the 1980s.

The allegation that the industrial plant will not have sufficient jobs to replace local businesses is not as absurd. I will tell you what will not happen. It is unemployment. And that is a double tragedy on the economy.

Do you think it is a coincidence that the local sheriff's department is Mt. Shasta's largest employer? And that as some manufacturers will be displaced by a mining plant. Absolutely none.

What challenge would drive by the existing plants in Mount Shasta and "What another come back and more job-creating businesses. What is healthy-looking?"

My business has spent \$200,000 previously to attract over 20,000 customers from outside the area to Mt. Shasta in the last 20 years. If you still deny a clear industry like health, my business will be the one coming.

And the unemployment is evidence.

Bill Foster  
Mt. Shasta Herald, Mount  
Shasta Shasta, Calif.

# Mount Shasta Herald

WEDNESDAY, FEBRUARY 11, 1997      MOUNT SHASTA, CALIFORNIA      \$4.00 PER COPY

**Editorial signed by Don Alderman**  
June 20, 1997

As a Mt. Shasta High School graduate and someone proud to bring my hometown's name, I feel compelled to write this letter in support of the proposed Mount Shasta building plan at Mt. Shasta.

I am confident about Mt. Shasta's ability to attract students, and as one of the few professional engineers to have graduated from Mt. Shasta High School in over 40 years and believe I am well qualified to speak to the full spectrum of local surrounding the issue.

When I first heard of town's plan to construct a new building plan at Mt. Shasta, I was encouraged by the fact that this is a clean, sustainable product aimed at making the world provide much needed employment to the community using a natural resource that is available in abundance.

Furthermore, I recognize that any community's survival is dependent on producing a product or service that brings value added income to the community. Locally, I have been struck by the degree to which the plan has been attacked. Recently, I saw a newspaper that placed editorial that followed suggestion that the upper Mt. Shasta area be impacted negatively by the future plant, which is not produced as to ensure the health and well-being of the community.

From research over 10 years of past local Mt. Shasta news items, they can not honestly know that the affected groups that would be impacted through future growth rather than I wish to see what I would describe as the lower Mt. Shasta.

There is still the matter of the published facts about those of 1980 with that you can see the fact that the reported 2.2 cubic feet per second for Mt. Shasta per second is my opinion does not accurately report highest stream flows.

Simply put, the amount of water proposed for generating should not be an issue for a nationally based discussion.

My fellow Mt. Shastans, you cannot not know, the proposed Mount Shasta project deserves your support.

To the Shasta County Board of Supervisors, I urge your immediate support of this project that will bring needed job creation to the county and enjoyment for community of Mt. Shasta.

To the Mt. Shasta Service District, I urge you to hold firm to your commitment to make decisions that ensure Mt. Shasta's sustainable future.

The House approved the health plan. Congress is now back and reflect upon the substantial benefits the plan offers to the entire community and not focus your energies against what is a small and viable means for the need to control its costs.

→ The World Bank High School graduate and former resident (see 2004) is a professional engineer.



Mr. KUCINICH. Thank you very much, Ms. Paul. I would like to begin by asking Mr. McFarland—and I may ask the same question of Ms. Swier—in McCloud, did Nestle hold any public hearings before you signed the contract with the municipality? And how many public meetings has Nestle—before the contract was signed with the municipality, and how many public meetings has Nestle held since the signing of the contract?

Mr. MCFARLAND. There was one public meeting that the contract was discussed. And that was the same public meeting that the contract was approved.

Mr. KUCINICH. So since the signing of the contract—

Mr. MCFARLAND. Since the signing of the contract, I believe that Nestle has held two or three public meetings in the community. And they have been—they have been designed to—they were public relations events.

Mr. KUCINICH. What do you mean by that?

Mr. MCFARLAND. They touted all the benefits of the project and didn't really discuss any of the potential negative impacts.

Mr. KUCINICH. Did the general community have an opportunity to participate in designing the plant?

Mr. MCFARLAND. None.

Mr. KUCINICH. Where it was located?

Mr. MCFARLAND. No.

Mr. KUCINICH. What about in Michigan?

Ms. SWIER. The same in Michigan.

Mr. KUCINICH. If you could turn the—

Ms. SWIER. I turned it on.

Mr. KUCINICH. Thank you.

Ms. Swier.

Ms. SWIER. Yes. No, in Michigan either.

Mr. KUCINICH. No to what? No participation in designing the plant, where it was located?

Ms. SWIER. No.

Mr. KUCINICH. What about, did Nestle hold any public meetings before the contract was signed with the municipality?

Ms. SWIER. We are not a municipality.

Mr. KUCINICH. With the area?

Ms. SWIER. Pardon?

Mr. KUCINICH. With your community. Was there any public—were there any public meetings before the contract was signed?

Ms. SWIER. The contract was signed with a private property owner.

Mr. KUCINICH. And were there any public meetings before that?

Ms. SWIER. I knew of two public meetings before. No, not before, not before—I am sorry, not before we found out about Nestle coming into Mecosta.

Mr. KUCINICH. OK. And since the signing of the contract, were there meetings?

Ms. SWIER. Yes, there have been meetings.

Mr. KUCINICH. And what was the nature of those meetings?

Ms. SWIER. The nature of the meetings were Nestle would get up and speak to the audience of what a good neighbor they were—that it was going to be and that there would be no adverse resource impact.

Mr. KUCINICH. And were you there present to respond, or were there people from the community that responded, or was it pretty much accepted that what Nestle said was true?

Ms. SWIER. No, there were people at the meetings, like myself, that were able to get up and ask questions.

Mr. KUCINICH. Mr. McCann, in your opinion, what would be the effects upon your community of the proposed water bottling plant?

Mr. MCCANN. Well, clearly the major impact is the unknown factor of what will be the impact on everyone else in the area. You are talking 307,000 gallons of water a day. You are looking at wells that are—that are considerably less deep than what has been proposed. So the impact on those wells is the unknown. And those were the questions that were asked at the public hearings that the State had.

Mr. KUCINICH. Do you think it would be possible for the bottling plant to exist without causing the kind of consequences you are talking about?

Mr. MCCANN. I don't believe so, no. I think that the situation is such that, without a thorough scientific review ahead of time, but here you have a company that owned the land and just decided this is where we are going to do it.

Mr. KUCINICH. To your knowledge, has there been any thorough scientific review?

Mr. MCCANN. There has been some scientific review done by both the company and by one of the towns involved, and they aren't in agreement. The State becomes, I guess you would say, the mediator. And the final decision is the State's of whether or not to grant the permit.

Mr. KUCINICH. Does the company show an interest, Mr. McCann, in being responsive to the community's concerns?

Mr. MCCANN. No. Unfortunately, the company took the attitude from day one that it was their land; they could do what they want. They—beginning back in 2000, they actually went in and disturbed some of the wetlands without a permit. This is the way it started. And this is what had the people concerned. And their attitude throughout the whole process has been, "You people shouldn't be out here bothering us. You shouldn't be complaining. We are going to provide jobs. We are going to provide—increase the tax base." So they had a very negative view of public input.

Mr. KUCINICH. Do you feel existing laws and regulations are sufficient to prevent those consequences even if the company is not willing to prevent them on their own?

Mr. MCCANN. Well, as I said in my opening statement, I thought what we had done in 1998 to protect the environment seemed on the surface to work good, but in actual operation, no, I would say now that the State and Federal laws failed.

Mr. KUCINICH. In your written testimony you criticize Governor Lynch for his role in the permitting process. What should he have done differently in your opinion?

Mr. MCCANN. I wouldn't say I was being necessarily critical. I just think that the reality is the Governor could have probably come in sooner and maybe worked with EPA and the Army Corps of Engineers instead of waiting until 2005. I think that what he has tried to do was thwarted by what had been done by his prede-

cessor, who made sure that DES was, quoting as he said in one of his speeches, "more business-friendly." I think that the Governor had some difficulties that were not his fault, but he also had a situation where I think he could have acted sooner, but he didn't.

Mr. KUCINICH. You criticize the role of the Army Corps of Engineers. What should they have done differently?

Mr. MCCANN. As I understand the request from the Governor to them, they were supposed to evaluate the information provided by the applicant, USA Springs, the State and the scientific data that I mentioned earlier that was provided by the Town of Nottingham and the consultant Nottingham had. In reviewing what they issued in August 2006, they basically took the information provided by the applicant and accepted it as a fact.

Mr. KUCINICH. I am going to return to the questioning in a moment. The Chair is going to recognize the distinguished Member from California, Congresswoman Diane Watson, for a round of questions.

Congresswoman.

Ms. WATSON. I want to thank you, Mr. Chairman, for holding what I feel is a very important meeting, and very sensitive and relevant to our climatic conditions and what is happening today. The consumption of water is increasing at a rapid rate. And in the year 2002, Americans consumed 6,018 million gallons of bottled water. And I think I did most of that consumption myself. The United States, as well as the global population, is putting the strain on existing water supplies. And that is putting a strain on our existing supplies of groundwater and surface water.

And the bottling industry is currently seeking to extract more water from rural areas to meet this growing demand. And I understand some of the water companies are taking the water in their city and bottling it and selling it in stores. And so there is a double profit there. But I am very, very concerned in the way the process is being done, not only our drinking water but our purification of water. And you might be aware that along the southern coast of California, we have a great deal of mercury in our water. And it has contaminated the sea life and particularly gotten into our fish life, particularly tuna, and we warn our citizens to not eat tuna off the western coast of California.

So I understand that water that is extracted from ancient sources, and once that water has been depleted, it is gone forever. I missed the first part of the hearing, Mr. Chairman, but I don't know if the witnesses are from areas where there are ancient sources of water. And as you were speaking, I thought maybe you could tell us what we need to do to protect those sources and particularly now when we are in drought in California. And we have our water up in the northern part of our State. And we had talked at one time about a peripheral canal with the water from the north in the deltas could come down to southern California into our desert. But what can we do, and should we regulate the way groundwater is extracted and how much could be extracted? And should these fields be left alone for a while so groundwater could accumulate? That would take millions of years in California because we don't get much rain truly. But let me just start and go

down the panel. What would you have us do here in Washington to protect that groundwater from ancient sources?

Let me start with Mr. McFarland.

Mr. MCFARLAND. Thank you very much. As I said in my opening testimony—

Ms. WATSON. That I missed.

Mr. MCFARLAND. Yeah, one thing that I think that is really critical, and you talk about ancient groundwater, and one thing, I am from Mount Shasta in far northern California, and I requested that this committee, the subcommittee, encourage U.S. Geological Survey scientific inquiry to monitor and characterize Mount Shasta's ground and surface water resources. This is especially important in the face of potential climate change impacts on California's water supply. So what it gets down to is good science. And I think that we don't really know whether the water that Nestle is proposing to bottle in McCloud is ancient water, or if it is water from last year, or if it is water from 10 years ago. And I think it really points to the need for really good U.S. Geological Survey studies of these aquifers before we start drawing them down.

Ms. WATSON. Thank you.

Mr. MCFARLAND. Thank you.

Ms. WATSON. Ms. Swier.

Ms. SWIER. I agree with Mr. McFarland on his proposals also. Also, I think that there needs to be a protection of Federal and State wetland laws from water extraction and diversion for export. And all water bottlers must meet standards to be set by the courts and the State law, including the no likely pollution impairment or destruction standard of Michigan's well-respected Michigan Environmental Protection Act, and an amendment to the Federal Water Resource Development Act to provide interested citizens with the right to enforce by citizen suits.

Ms. WATSON. Thank you.

Ms. SWIER. Thank you.

Ms. WATSON. Mr. McCann.

Mr. MCCANN. I would agree with what has been said earlier, and I think that the important thing is the Federal Government's role should be to help bring, through the geological information that has been talked about, the facts to the situation when we have developments proposed like was in New Hampshire or what has happened in Michigan or California. I found from my own experience that we don't know the science of the aquifers. And a consultant for a company can come in and say, "Oh, there is tons of water here; we don't need to worry about the impact," and there is no scientific backing for that. And I think the Federal Government's role would be to help provide that data so that both parties could sit down and look at what an aquifer—what the impact may really be. And so I would support what has been said by the two previous speakers.

Ms. WATSON. Should that be the responsibility of EPA?

Mr. MCCANN. I would think EPA or the Department of Interior or both. I mean, the Department of Interior has some of the records because they have designated, like I mentioned in my testimony earlier, one of the rivers that could be impacted in the New Hampshire case, the Lamprey River, is a wild and scenic river. It is so

designated by the Department of Interior. So I would think that a combination of the Department of Interior and the EPA would probably have the best data.

Ms. WATSON. Thank you.

Ms. Paul.

Ms. PAUL. I first want to clarify that we don't use any ancient waters that are not replenishable. One hundred percent of our water use is from replenishable sources.

As far as the Federal role, I think we support the Linder bill, which would say that we need a commission to look at water needs for the next 50 years and what information can be provided, for example, from the USGS to inform the decisions at the State level.

Ms. WATSON. I kind of like that idea, Mr. Chairman. Maybe we are looking at a different organization to develop standards, and let States—and we have Cal. EPA in California. Water is our big issue. And I think, State by State, we ought to require them to have their own standards, their own organization that deals with water, and plan for the next hundred years or so. Thank you so much, panel. I appreciate your input.

Mr. KUCINICH. I thank the gentle lady for her questions.

To Ms. Paul, in your testimony, you represent yourself as a trustworthy steward of the environment. Absent a court order or other legal requirement, if local people in a community bring to your attention significant adverse environmental impacts from your pumping operations, such as low stream flows, would your company be willing to reduce or to stop pumping?

Ms. PAUL. We base all of our pumping decisions on the science that says what is a sustainable use. So if the science was showing it was not a sustainable use, yes, we would cut back.

Mr. KUCINICH. OK. Well, if that is the case, and I take it as you say it is what you believe, this subcommittee has been informed that your company continued to pump from its Stanwood plant in Michigan in the summer months this year even when presented with photographic evidence that clearly show the flow levels in the stream-fed Dead Stream were dangerously low. We have a photo that was supplied to us by attorneys for MCWC that appears to show the Dead Stream living up to its name. Now, I would like you to look at the picture there, which represents the low flow levels of the Dead Stream. We have also been informed that while Nestle's pumping may have been technically in compliance with a court order, this court order was only in place pending remand to a trial court after MCWC won its court case in order to determine safe pumping levels. Now, did Nestle see these photos? Have you ever seen these photos?

Ms. PAUL. I have never seen that photo.

Mr. KUCINICH. Have you ever seen any photos similar to that? Have you seen any photos of the Dead Stream?

Ms. PAUL. Let me say, I think the question that is being raised here is I think those might be the mud flats? Are those the mud flats? Well, I guess I can't—so this is what I know.

Mr. KUCINICH. This represents a picture taken of the Dead Stream.

Ms. PAUL. There are low flows and high flows of water bodies naturally occurring. And just because there is a low flow—

Mr. KUCINICH. So you are maintaining that this was a naturally occurring low flow. Is that your position?

Ms. PAUL. My position is that there is no harm to the environment, that there are naturally higher and lower flows, that this is affected by dams built by beavers, by many things; that the mud flats—when they show are a feature that has resulted from a dredging, a historic dredging, and is the natural sediment coming back to replace the dredged amount, the dredged soils.

Mr. KUCINICH. So again—

Ms. PAUL. So no harmful impact from our use. I do agree with that statement.

Mr. KUCINICH. And that is based on science. Is that correct?

Ms. PAUL. Yes. Yes, it is.

Mr. KUCINICH. And so it is either—now, that position that you have offered, is that the result of scientific studies that you have had done, or is it only your study, or is it a consensus of a number of scientific studies that have been done? And do you have those studies to make them available to the committee?

Ms. PAUL. We do have studies, and we would be happy to make them available.

Mr. KUCINICH. But is it one study that you have done or are there other studies? Are there studies that are independent of your studies?

Ms. PAUL. I know of no independent studies, but I am happy to share our studies.

Mr. KUCINICH. Do you have any kind of knowledge of any scientific opinion that disagrees with your characterization?

Ms. PAUL. What I can say to that is there were in the original lower court some models created of what would be, could be, the impact of our use. That would be information that is different than what we have seen when we have actually used the water source.

Mr. KUCINICH. Now, Ms. Paul, it is my understanding that the source of the groundwater in McCloud is partly from a glacier. How is Nestle going to address the restriction on water supply over the next hundred years with climate change, which potentially will change the amount of water flows from your source given that your source is glacier-fed?

Ms. PAUL. We have a permitted amount that we are planning to use. If there were any harm of that use, we would cut back. The amount—I feel compelled to give a little history here, but maybe I shouldn't. McCloud came to us asking for our interest in coming to the area to build a bottling water plant. The reason being, it was a town, a lumber town built that was in decline. And today, in the school built for 250, there are eight students. It is my understanding that there is not—they are not able to afford an ambulance driver in the day. It is a community that is looking for opportunity, for more jobs. They are looking for a light industry. They had a water use of the lumber mill prior that they wanted to allow that water to be put to good use. And the contract to which you referred earlier, there were four meetings, public meetings on that contract.

Mr. KUCINICH. Has Nestle ever had any meetings with the Garrison Place Real Estate Investment Trust and/or Francesco Rotondo, trustee, doing business as USA Springs, Inc.?

Ms. PAUL. No, not to my knowledge.

Mr. KUCINICH. Do you know if there was any contact that any of those entities have had with Nestle?

Ms. PAUL. Not to my knowledge.

Mr. KUCINICH. Do you know if Nestle either offered or received a request to engage in a business transaction with any of those entities—

Ms. PAUL. Not to my knowledge.

Mr. KUCINICH [continuing]. Relative to the Barrington-Nottingham—

Ms. PAUL. I don't believe we have any connection, any dialog.

Mr. KUCINICH. Has Nestle done any site characterization of that area at any time or engaged in any discussions with any principal or representative relative to the siting of a water bottling plant or business transactions subsequent to that in New Hampshire?

Ms. PAUL. Anywhere in New Hampshire?

Mr. KUCINICH. In that area, at Nottingham and Barrington.

Ms. PAUL. Not to my knowledge.

Mr. KUCINICH. Any other place in New Hampshire?

Ms. PAUL. We look for spring sites in many States, and we have likely looked in New Hampshire.

Mr. KUCINICH. But you don't know; you have never heard of Mr. Francesco Rotondo?

Ms. PAUL. No, I have had no contact with him.

Mr. KUCINICH. Or USA Springs, Inc.?

Ms. PAUL. I have heard of them. I don't know them.

Mr. KUCINICH. Has it been Nestle's practice over the period of time, given the large share that you have in the bottled water market, to acquire bottling companies or bottling interests or to lease or to purchase any assets that relate to water bottling and the acquisition of the water that the bottling plants use?

Ms. PAUL. Yes, we sometimes do buy those rights or the business from others, yes.

Mr. KUCINICH. How many, in how many instances have you done that? Is it rare, or is that the way your business grows?

Ms. PAUL. I would say it is neither rare nor how the business grows, but it is a way; it is one of many ways. If you would like me to find out the details of that, I would be happy to offer it in written testimony.

Mr. KUCINICH. Yes, I would also like you to provide this committee, since you expressed that you didn't know, any kinds of documents that you have relating directly or indirectly to the Nottingham-Barrington site that relates to the Garrison Place Real Estate Investment Trust, Francesco Rotondo, USA Springs, any discussions, memoranda, e-mails, letters that relate to contact relative to that site or to the principals who are involved in that site. If you would do that, this committee would appreciate it.

Ms. PAUL. We will do that.

Mr. KUCINICH. Thank you very much. I want to—my time has expired I have been informed. And the gentle lady from California is recognized.

Ms. WATSON. I would like to give you my time, Mr. Chairman, so you can continue your line of questioning.

Mr. KUCINICH. I want to thank the gentle lady.

I want to go back to Mr. McCann. Mr. McCann, in your testimony you alleged specific failings in the enforcement of the New Hampshire and the Federal laws with respect to the siting of a water bottling plant in your community. To what do you attribute these failings? Are the laws adequate, or do they clearly prescribe the environmental safeguards that must be followed? And if it is a question of inadequate enforcement, to what do you attribute this laxity?

Mr. MCCANN. I think, as I said earlier, it is the law as written perhaps can provide some public protection. The implementation needs to be improved. The Federal role was, to put it mildly, I think very vague to people in the first year or two of this project. The environmental—Department of Environmental Services' role was to be fair. I think they were overwhelmed with the fact that this company wanted to take this water out and didn't appear to have all the scientific data that DES had looked for and that people like myself were asking for. So I think that it was, as I mentioned in my earlier testimony, this was the first test of our State law. I think the report card is still mixed. It is probably in the vicinity of C-minus. And most of that might be as a result of poor administration by the agencies involved, not necessarily poor writing of the law. But I don't deny that there is perhaps room for improvement in correcting what we have seen in the first 10 years of that law.

Mr. KUCINICH. I had asked Ms. Paul, whose presence we are grateful for, a series of questions. Is there any question that I should have asked that I didn't ask relative to the issues that relate to the community that you are here on behalf of?

Mr. MCCANN. As far as the connection with the—

Mr. KUCINICH. I am just saying, are there any questions that I did not ask that you think should have been asked?

Mr. MCCANN. I can't think of any, Mr. Chairman. I think you did a thorough job.

Mr. KUCINICH. OK. Let us go down the line here, starting with Mr. McFarland. Water bottlers often choose relatively remote or rural areas for bottling or pumping sites, and will often seek access to watersources that are located in protected natural areas, areas that are protected either because of their intrinsic natural value or because of their relative ecological fragility. How do you think this committee should weigh the economic value of the industry of the water that is extracted and bottled versus the ecological value of protecting the delicate balance of these areas?

Mr. MCFARLAND. I think they should use good economic analysis and look at the true costs versus benefits of all of the resources in the area. And you know, I think that the subcommittee understands that there is economic value to the water for downstream uses. Not only is it of economic value to—in terms of commerce, direct commerce. So I think that the science of economics today looks at the other value of those resources aside from just the pure, you know, dollar value of the resource put into a bottle.

Mr. KUCINICH. Thank you.

Ms. Swier.

Ms. SWIER. Yes, I am from Michigan, which you know, and we are living—I live in an economically depressed area. And I do feel that we have to look at the economic picture. And when Nestle



came into our area, that was one of the major draws that Nestle had said of coming into Mecosta County. But we also, as residents of my area, this is our livelihood. I am surrounded by lakes. I happen to live on a lake myself. And this is one of—the water is our heritage. And I feel that it needs to take into effect what the effect is going to be in the area. And with more scientific data available, MCWC has hired a hydrologist. And he is continually looking at what the harm is to our area, to our natural resources, which a good one was, you know, the one that you had there. And I live just 5 miles from the Dead Stream.

Mr. KUCINICH. Could that have been—that low water level, could that have been caused by beavers?

Ms. SWIER. There had been beavers there on and off for years. The people who live on the Dead Stream have never—

Mr. KUCINICH. Is that a yes or a no? I mean, could that have been caused by beavers?

Ms. SWIER. Yes. Yes, it can be caused by beavers.

Mr. KUCINICH. And in this case, do you think that it was caused by beavers?

Ms. SWIER. I can't answer that. I do not know.

Mr. KUCINICH. OK. Thank you.

Mr. McCann, do you want to comment as to the fact that these water bottlers are choosing relatively remote and rural areas for bottling or pumping sites and often seek access to water sources that are located in protected natural areas? And how do you think this committee should weigh the economic value of the industry versus the ecological value of protecting the delicate balance in these areas and also the access to water for civilian populations?

Mr. MCCANN. I think that, clearly in the past, in the instance especially in Barrington and Nottingham, but I read about, you know, other companies, obviously the economic value of a proposed development is part of the process to quote-unquote sell it to the community. And if a community has had hard economic times, it is clearly one mechanism they can use to try to come in.

I think the Federal legislation and the ideas that have been put forward by Mr. McFarland make sense. I think we need to have a level playing field, which means we try to, as I said earlier, balance the scientific data, but we also work to try to have equal opportunity for development but also at the same time recognizing, as you said, that we have a very delicate balance. And if there is a reason for the government to become more involved, I think it is to protect the environment and to ensure that a well-regulated industry is working. But it shouldn't be at the deprivation of the environment or the people who live in the community.

Mr. KUCINICH. Out of fairness, Ms. Paul, do you want to respond?

Ms. PAUL. Yes. Thank you. Everything is made with water. Everything. In fact, our bottle—the biggest user of water is the plastic bottle—which is the lightest weight plastic bottle on the market, as I mentioned; it is less than a half an ounce. So think of anything made of plastic that is greater than half an ounce; it is made with more water. We are a very visible user of water, but we are not a very large user of water on the global scale or on the U.S. scale or on our region's scale.

On a particular site, we do two things. We pick sites where our use can be sustainable, and then we monitor that use.

Mr. KUCINICH. What about the environmental effects? Do you consider those at all times, the ecological effects of what you do?

Ms. PAUL. Yes, we do. I think we are a model water user.

Mr. KUCINICH. Thank you very much.

I want to thank the members of the panel for responding.

I am going to recognize Mr. Issa. And I want to say that our clock for some reason always stays on green.

Mr. ISSA. Which is looking better all the time right now.

Mr. KUCINICH. Which is good. OK.

Mr. ISSA. Thank you, Mr. Chairman.

A lot of the questions that needed to be asked, you asked. And so I will try to do followups mostly.

Ms. Paul, do you produce, does Nestle produce beer?

Ms. PAUL. No.

Mr. ISSA. Do you produce soft drinks?

Ms. PAUL. No. Well, define soft drinks. We do have—

Mr. ISSA. Pepsi, Coca-Cola type products?

Ms. PAUL. No.

Mr. ISSA. OK. Now are these figures in your estimation accurate, that bottled water consumes about 1.3 gallons per gallon of water delivered, while soft drinks consume about 1.7 gallons per gallon delivered, and beer consumes about 2.1 gallons for every gallon delivered? Do those figures ring a bell to you from your history?

Ms. PAUL. My history would say that our company uses 1.3; that carbonated soft drinks, for just processing, uses 3, not counting the water to process the ingredients or the water to grow the ingredients; and beer is more like 9 gallons, not counting the growing and the processing of the ingredients.

Mr. ISSA. Right. Because they have to boil the hops and all the—

Ms. PAUL. It is distillation.

Mr. ISSA. I apologize for the low figures. I chose the lowest of all of them I could get just because I love Anheuser-Busch, and I am a beer drinker from time to time. So I didn't want to do anything adverse.

Mr. KUCINICH. Let the record stipulate.

Mr. ISSA. But as a Californian, I love my wine, too, let us not kid that. But I am a Californian. Let me understand this. If you are a typical crop producer, for every gallon of water you pump out—let me rephrase that—for every 10 gallons you pump out, 8 gallons are going to evaporate. Basically, nothing is going to deplete the groundwater table as much as, for example, our rice production in northern California. By definition, we are spraying water out and asking it to please evaporate in a 100-degree Sacramento day. Is there anyone—Mr. McFarland, you know, you have seen that. That is essentially how we grow rice is you spread water over it and ask it to please evaporate.

Mr. MCFARLAND. Absolutely.

Mr. ISSA. So although today we are talking about the bottled water industry, and clearly you concentrate your taking from one area, wherever your plant is, we have in California and around the country, but particularly California where we don't have the Great

Lakes, which my understanding the Great Lakes are basically a river with some big puddles in them, that every bit of water—if we took every bit of water out of the Great Lakes today, in a matter of 2 years, they would essentially refill. I know there is a gentleman shaking his head no, but I am a Clevelander. I remember when the Great Lakes were dead, and it took less than a decade for them to come back to life because they flow completely through every couple of years. We don't have that in California.

So, Mr. McFarland, excluding the fact that I clearly understand how you are personally affected and your water table is affected, don't we have a national problem of groundwater, ground table, aquifer management? Wouldn't you say that you are picking out this particular point because it is in your backyard, but you would agree that we have throughout California and the Nation a question of, how are we managing groundwater?

Mr. MCFARLAND. Yes.

Mr. ISSA. And I think although you are not in agriculture, you shook your head yes like most of us as Californians, we understand that agriculture, clearly needed, is the biggest consumer, because of the fact that we spill it on the ground, of water that doesn't get back into the water table.

Mr. MCFARLAND. Absolutely. And I believe that if Nestle was paying as much in McCloud as the rice farmers pay for their water in Colusa, that there would be less opposition to it in McCloud.

Mr. ISSA. Well, and I am a businessman, so I understand a problem is something money can't solve. It does sound like money could solve this one.

Mr. MCFARLAND. It could solve part of the problem here. Part of the big problem here is that this is an outrageously egregious contract. It is very unfair to the community of McCloud.

Mr. ISSA. The price.

Mr. MCFARLAND. The price.

Mr. ISSA. The price they are paying for the water.

Mr. MCFARLAND. They are stealing it.

Mr. ISSA. As a southern Californian, remember, I opened up with all northern Californians think southern California steals. But I get your point that it is a question of how much money is being spent for the resource that is being taken from your region. I am a Federalist. I believe the Federal Government only has the right to do what it implicitly has the right to do. Other than ensuring Federal access to navigable waterways, the national fisheries and the Clean Water Act, other than those, do any of you know a legitimate existing Federal hook that we can take? I mean, and those three are big. We do have a right to make sure that Nestle or anyone else is not taking water in a way that pollutes somebody else's water. We have to make sure that the 0.3 gallons that don't go into the bottle don't end up being backflushed in some way. And we all know some of the history of that. But are there any other hooks that we should really be aware of that exist today beyond—because we primarily make sure that agencies are doing their job. That is one of the biggest things we do on this committee. So are those three the big three that we should be looking at as we are going through this problem not just of a particular bottling operation or two, but groundwater and safe drinking water?

Mr. MCFARLAND. Boy, that is a question that is out of my league.

Mr. ISSA. But those thing three ring a bill, and you are comfortable—

Mr. MCFARLAND. Yeah, the navigable waterways thing, that comes up as definitely potentially applicable here.

Mr. ISSA. We can certainly make sure the Corps of Engineers ensured that not so much water was taken from any source as to adversely affect navigable waterways.

Any of the rest of you have anything I've missed? Because when this hearing is over and any subsequent hearings, that's what we have to look at, is can we make agencies do their jobs better. And something the chairman and I try to do whenever possible is make the agencies do their jobs without legislation.

Ms. Paul, you know, you're obviously the subject of a lot of this because of your company's operations. You mentioned your stewardship of the environment and how you make sure—or you said that what you take is sustainable. In the case of the Mount Shasta operation, could you go through the sustainability, in your company's opinion, the environmental impact and how you reached the decision for how much you can, individually and with the other companies already operating there, collectively take out of the aquifer or the groundwater?

Ms. PAUL. Yes. We're still in the middle of that regulatory process. We signed the contract, which we actually pay more for the water than any other users. And it is reliant on meeting the terms of CEQA. CEQA is involved in the environmental impact statement.

We have done the science to look at what our impact would be; and, in this case, it is a unique situation in the sense that we could take the amount of water that we'd use at peak out of the system to see the impact. You can't usually do that. You usually have to model it. But because of the way the springs come together and then we could divert one of the springs and just have the amount left—

Mr. ISSA. You could test the theory.

Ms. PAUL. We could test the theory. That said, we have heard from the town and from environmental groups that they want more information. And we are in a process—we're sitting down with environmental groups, concerned citizens and a third-party hydrologist and biologists from UC Davis at the recommendation of environmental groups; and we're going through what more science would they be comfortable with, that we'd be comfortable with to get more information.

Mr. ISSA. Excellent.

Thank you, Mr. Chairman. I think this takes us a long way with this panel. I appreciate your calling this hearing.

Mr. KUCINICH. I thank the gentleman from California for his participation as always. I know that you have a markup and you're trying to do double duty here. I appreciate you being here.

The gentlelady from California has informed me she doesn't have any other questions of this panel. Nor do I. I want to thank each member of the panel for your participation. This committee will continue to look at the issues that have arisen as a result of your

testimony, and we reserve the right to submit additional questions in writing.

And I appreciate Ms. Paul's presence here; and we would ask that you'd respond, you know, to the committee's inquiries as you indicated you would.

So I'm going to dismiss the first panel, and we're going to call the second panel to come up. Thank you again.

Will the second panel please come forward.

I want to thank all of the members of the first panel again. We're going to try to get this second panel started in an expeditious manner, and I would ask that the witnesses be seated.

I'm going to do some introductions.

We have here Ms. Wenonah Hauter, who is the executive director of Food & Water Watch, an organization dedicated to educating policymakers and the public about food safety, agriculture, environmental issues and water rights.

From 1997 to 2005, Ms. Hauter served as director of Public Citizens Energy and Environmental Program, which focused on water, food and energy policy. Before that, she was environmental policy director for Citizen Action and worked on sustainable energy campaigns for the Union of Concerned Scientists.

Next, Mr. David Hyndman. Mr. Hyndman is professor of geological sciences at Michigan State University where he studies the physical and chemical processes that influence groundwater flow. Professor Hyndman's research also examines how land use changes in regional watersheds affect ecological health. For the past 10 years, Professor Hyndman has been associate editor of the journal *Groundwater*, was association editor of the journal *Water Resources Research* for 5 years and is published widely on hydrological issues.

Professor Noah Hall is a professor at Wayne State University Law School in Detroit, MI, where he teaches environmental law and water law. Before joining the Wayne State faculty, Professor Hall taught at the University of Michigan Law School and was an attorney with the National Wildlife Federation where he managed the Great Lakes Water Resources Program. Professor Hall also worked in private practice in Minnesota for several years and clerked for the Honorable Kathleen A. Blatz, Chief Justice of the Minnesota Supreme Court.

Mr. Joseph Doss is president and CEO of the International Bottled Water Association in Alexandria, VA. The IBWA was founded in 1958 and is the trade association representing the bottled water industry both internationally and domestically. Mr. Doss has extensive experience in association management, food and drug matters, governmental affairs, public relations and legal issues. Before joining the IBWA, Mr. Doss was the director of Public Affairs At the Consumer Healthcare Products Association from 1997 to 1999.

Mr. James Wilfong is an entrepreneur, educator and public servant. He is executive director of H2O for ME, a ground water advocacy group. He also served as a member of the Maine Legislature and as an assistant administrator for the Office of International Trade at the Small Business Association during the Clinton administration. Mr. Wilfong is co-founder of several enterprises, including

Atomic Ski USA and Innovative Applied Sciences, a software development company of which he is the chairman.

I want to thank the members of the panel for being here. It is the policy of the Committee on Oversight and Government Reform to swear in all the witnesses before they testify. I'd ask each of you to rise—all of you to rise and raise your right hands.

[Witnesses sworn.]

Mr. KUCINICH. Thank you very much. Let the record reflect that the witnesses have answered in the affirmative.

As with the first panel, I ask that the witnesses give an oral summary of his or her testimony and to keep this summary under 5 minutes in duration. Bear in mind the complete written statement will be included in the hearing record.

I'd like to begin with Ms. Hauter.

Thank you. You may proceed.

**STATEMENTS OF WENONAH HAUTER, EXECUTIVE DIRECTOR, FOOD & WATER WATCH; DAVID W. HYNDMAN, DEPARTMENT OF GEOLOGICAL SCIENCES, MICHIGAN STATE UNIVERSITY; NOAH D. HALL, WAYNE STATE UNIVERSITY LAW SCHOOL; JOSEPH K. DOSS, PRESIDENT AND CEO, INTERNATIONAL BOTTLED WATER ASSOCIATION; AND JAMES WILFONG, EXECUTIVE DIRECTOR, H2O FOR ME**

#### **STATEMENT OF WENONAH HAUTER**

Ms. HAUTER. Good afternoon, Chairman Kucinich and Congresswoman Watson. Thank you for the opportunity to testify today.

My organization, Food & Water Watch, is very concerned about the commodification of water, which is a resource owned by no one and needed by everyone. In setting the context for the discussion of the bottled water industry's mining in rural communities, it is important to acknowledge both the industry's explosive growth over the last 20 years and its profit—that its profitability is based on selling the myth that bottled water is some how safer and better than tap water.

The truth is that bottled water is generally no cleaner, no safer or healthier than tap water and that the Federal Government requires far more rigorous and frequent testing and monitoring of municipal drinking water. Almost half of all bottled water is nothing more than reprocessed tap water. The FDA only requires that companies test four empty bottles once every 3 months for bacterial contamination, and they must test a sample of water after filtration and before bottling for bacteria once a week.

In contrast, the EPA requires that public water systems serving more than one million residents test water 300 times per month and utilities serving more than 3 million people must collect and test 480 samples monthly.

Now I raise this issue because the lax regulation of the bottled water industry is one of the things that helps make it profitable, along with the little that they pay to access water.

A former chairman of Perrier was quoted as saying, "it struck me that all you had to do is take the water out of the ground and then sell it for more than the price of wine, milk or, for that matter, oil." And it is true. Bottled water costs more than gasoline or the com-

panies charge about \$1.50 for a 20-ounce bottle of water which penciled out to more than \$9 a gallon. That profit must be measured against the mere cents that it costs them to bottle the water.

But those few cents are only the company's internal costs, the ones they have to pay. The mining of water does not include the external economic, social and environmental costs to rural communities and society in general, such as the loss of groundwater, toxic emissions from plastic production and disposal, air pollution and damage to roads and other local infrastructure from transporting the products.

For instance, plastic bottle production in the United States annually requires more than 1.5 million barrels of oil, enough to fuel 100,000 cars. Worldwide bottling of water uses about 2.7 million tons of plastic. And after the production of billions of plastic bottles and the national and international travel of bottled water, billions of those empty bottles remain. Eighty-six percent of empty plastic water bottles in the U.S. land in the garbage instead of being recycled.

Besides the cost to the environment of the plastic bottles, water mining could have long-lasting effects on the rural communities where it is mined. When the flows and levels of a region's springs, wetlands, lakes, streams and rivers are materially altered because of the extraction for bottling, the entire local and even regional environment suffers; and this extends to the activities that depend on water: agriculture, the individuals in the community, businesses, tourism and recreation.

And groundwater is a fragile resource. Our Nation's groundwater reserve is not a single vast pool of underground water but is contained within a variety of aquifer systems that cross political lines at county, State and international boundaries.

Groundwater management decisions in the United States are made at local level by a State municipality or special district formed for groundwater management. The monitoring of groundwater reserves is uneven around the country and often the amount of water available in an aquifer is unknown because of lack of data collection and the analysis that is needed to support informed decisionmaking about groundwater.

Some communities across the country developed water management plans that take into account such issues as population and climate change, including drought. The people and businesses living and operating there have to live within the rules set forth in these plans, but often bottling companies get a nearly free pass, even though they're permanently removing water from a community's aquifer. Indeed, in McLeod, CA, which we discussed earlier, they plan to extract about 500 million gallons of water annually; and it appears that the contract would give the company preference over the town's ratepayers.

What is more, the local water district bears all the responsibility for the well-being of the springs and the water infrastructure. The ongoing extraction of water from cities and rural areas to be bottled and sold—

Mr. KUCINICH. I'm going to ask the gentledady to wrap it up because your time has expired, and I just want to try to keep to the 5-minute rule. Thank you.

Ms. HAUTER. So our recommendation is that the Federal Government should, of course, strengthen bottled water quality regulations. But, just as importantly, we believe that there must be some kind of regulation or standard at State and local levels that addresses how much water bottling companies can extract from State. Federal funding should be provided to collect adequate data about the health and quantity of groundwater, and this data needs to be properly analyzed.

Mr. KUCINICH. Thank you. I want to thank you for your excellent testimony.

[The prepared statement of Ms. Hauter follows:]



Testimony

of

**Thomas Hines, Executive Director of Food & Water Watch**

**Drinking Water Policy Subcommittee**

**Overight and Government Reform Committee**

**Wednesday, December 11, 2007**

**1014 Rayburn HOB - 1:00 P.M.**

Good morning Chairman Kucinich, Ranking Member Dingell and Members of the Subcommittee, my name is Thomas Hines, and I am executive director of Food & Water Watch. We are a non-profit consumer advocacy organization based here in Washington, D.C.

I welcome this opportunity to testify today on an issue that is very important to our organization: the negative environmental consequences of water bottling plants extracting groundwater and spring water from rural communities. I would like to discuss the broader policy context of the water bottling industry's operations in rural communities.

The bottled water industry, including Nestle, Pepsi, and other companies, has seen explosive growth over the past 30 years. These companies are enjoying hundreds of millions of dollars in profits annually from selling the multi-gal bottled water to

essentially safe or better than tap water. The truth is that bottled water is generally not cleaner or safer or healthier than tap water. The federal government requires the most rigorous and rigorous safety and testing and monitoring of municipal drinking water.

The regulatory reality with bottled water is that the Food & Drug Administration has been slow to regulate companies that sell bottled water overnight. The federal rules apply only to bottled water packaged and sold across state lines, which leaves out the 60 to 70 percent of water bottled and sold within a single state. For the 10 to 20 percent of bottled water that FDA does regulate, it requires that companies test their empty bottles once every three months for bacterial contamination. They must use a sample of water after flipping bottles, testing for bacteria once a week. When it comes to chemical, physical, and radiological contaminants, a sample of water must be checked only once a year. Companies do not have to test the water after bottling or storage.

Only one out of five states has bottled water laws and regulations. Some of the most regulations across FDA standards, some are state regulations and some fall far short of meeting consumer safety.

In contrast, the Environmental Protection Agency regulates water systems serving more than one million residents and 100 water supplies per month, while setting testing and monitoring requirements for water supply and water supply quality. So even though the source water may be bottled water.

Almost half of all bottled water is nothing more than purified tap water. But whether it originates from a municipal tap or from an aquifer in a rural community, such as McDonald's, California, or Michigan's Crows, Michigan, water is a life-giving resource that

• **water treatment and recovery:** People, plants, and animals depend on this water - a public resource - that beverage corporations are bottling, bottling, and selling to make big big private profits.

The business has been relatively easy money for the bottlers, given how little they often get charged to pump the water. Indeed, a former chairman of PepsiCo was quoted as saying, "It struck me... that all you had to do to take the water out of the ground and then sell it for more than the price of wine, milk, or the cheap water, oil." It's true: bottled water costs more than gasoline (without oil) on a per-gallon basis. These companies charge about \$1.50 for a 20-liter bottle of water, which probably cost no more than \$0.40 to get. That profit can be measured against the water costs that it costs them to bottle the water.

But these low costs are only the companies' internal costs, the ones they have to pay. Unfortunately, raising the water does not include the external economic, social and environmental costs that the world community and society is paying: that that with such as loss of groundwater, toxic emissions from plastic production and incineration, air pollution, and damage to roads and other local infrastructure from transporting the product.

For instance, plastic bottle production in the United States annually requires more than 1.3 million barrels of oil, enough to fuel 100,000 cars a year. Worldwide bottling of water uses about 1.7 million tons of plastic each year. And after the production of billions of plastic bottles and the external and environmental cost of treated water, billions of empty bottles remain, almost 90 percent of the empty plastic water bottles in the United States

sent to the garbage instead of being recycled.

The amount of plastic that ends up in landfills is still a problem every year. Single-use water bottles and other beverage containers, often used on the go, are recycled on a lower rate than containers typically used at home. The national recycling rate for all PET (polyethylene terephthalate) bottles is just over 33 percent in 2015. And ultimately, many plastic bottles of all types and sizes will be incinerated, which releases toxic hydrocarbons, carbon dioxide gas and ash laden with heavy metals.

Besides the cost to the environment of the plastic bottles, water recycling could have long-lasting effects on the local communities where it is stored. When the flows and levels of a region's springs, wetlands, lakes, streams, and rivers are naturally altered because of construction for building, the water level and even regional precipitation suffers, and this extends to the activities that depend on the water—agriculture, individuals, businesses, tourism, and recreation.

Many communities across the country develop water management plans that also take account with issues on precipitation and climate, including drought. The drought and business being not operating there have on how water the water use level in those places. The building companies are often get to supply the water, even though they are permanently covering water from a local community's supplies.

Indeed, in Malibu, California, where health wants to build a building plan to account about 100 million gallons of water annually, concerned citizens have said for the proposal contract between the Malibu water provider and the environmental group

plant would give the corporate profiteers over the town's water because the company would draw the maximum amount of water it wants, regardless of drought or water shortage. What is more, the local water district loses all the responsibility for the well-being of its springs and the water infrastructure. McDonald's interests have been fighting the plan, contending that the company, paying only \$100,000 a year for access to the water, would leave the town with only a PENNY for every 17 gallons.

The ongoing conversion of water from cities and rural areas to be bottled and sold now as a high-priced commodity. We are seeing a steady shift of a public resource, water, into private hands. No one owns water. The people who live in a community have the right to reasonably use it for drinking, growing food, and other activities. Over the long run, it would become difficult for state and local governments to regulate water being removed from local communities, precisely because the water will be sold, in legal terms, as removed from the community and classified as a product. Companies could challenge any attempted regulation under the auspices of the World Trade Organization or other free trade agreements, which are nothing more than rules allowing corporate managed trade.

So, why are rural water providers – and urban municipal water systems, for that matter – opening to all these corporate hordes and they own the water? In many cases because local governments are strapped for cash and public water systems are financially underfunded. According to EPA, we are facing an annual shortfall of \$12 billion in terms of the investment spending we need to ensure clean, drinkable water.

Without adequate water, communities are faced with 10- or 20-year contracts that mean

business in terms of what the leader will pay. But studies have shown that the companies are not really creating the value seen in the community or what happens when the stock is gone. The jobs created by these leading firms are seasonal, low-paying, and often go to people outside of the community. And, again, none of these corporations really address what we pay for the full cost of the economic, social, and environmental damage they cause, while paying billions of dollars of marketing advertising fees to poorly regulated manufacturers, chemical, material and computer products, all of which are covered in our report on the lengthy list of problems with bottled water – *Take Back the Tap: Why Bottling Tap Water Over Artificial Water is Dangerous for Your Health, Your Pocketbook, and the Environment*.

Given that communities are struggling financially to address water issues, it is important for the Congress to pass and the president to sign into law a clean water trust fund that would provide a solid, consistent source of money to be used for improving our clean water infrastructure, including rural water systems. Successful investment in public water infrastructure through dedicated funding like a clean water trust fund, would ensure that communities have the financial resources necessary to keep their pipes upgraded, their water safe, and their natural resources in their community. As set at Food & Water Watch could be another of our reports on water, *Clear Waters: Why America Needs a Clean Water Trust Fund* it also would create more long-term, sustainable jobs. For example, one billion dollars invested creates about 27,000 jobs.

The federal government should also create stronger bottled water quality regulations. But just as importantly, we believe that there must be some regulation or standard, probably at state and local levels, addressing how much water bottling companies can

prevent from being. At the federal level, we should be commodity water, which would help to prevent private companies from treating it as a product that they can treat as a commodity as well. The solution is to have the rule and control of water in the form of a water utility, including setting water levels in the Great Lakes or through ensuring Michigan's municipal water supply, rather than water control, water and commodity water. America must have the freedom and the resources to protect their local water supplies now and for future generations.

I thank the subcommittee for its attention, and I would be happy to respond to any questions that you might have.



Mr. KUCINICH. I just want every member of the panel to know that your statement, the entire statement, will be included in the record of the hearing. So, you know, I know, having been on the other side of a panel and testifying, that the tendency is to try to get in every word. That's where I learned how to talk fast. But you can just present a good, solid 5 minutes, and we'll include everything in the record, and I think during the Q&A we'll probably have an opportunity to cover it all.

So, with that, again I want to thank Ms. Hauter for her testimony and proceed to Professor Hyndman.

#### STATEMENT OF DAVID W. HYNDMAN

Mr. HYNDMAN. Thank you, Chairman Kucinich and members of the subcommittee, for inviting me to testify today.

Mr. KUCINICH. Could you move a little bit closer to the mic.

Mr. HYNDMAN. Certainly, Sir.

In addition to my research in groundwater hydrology and surface water hydrology that you mentioned, I've also been an expert witness in several cases involving groundwater; and those have included several that relate to the bottled water industry. And in all cases so far, I have been retained by those opposed to the bottled water industry. However, today I've been asked to come here on my own behalf and give general scientific opinions about the impact of the bottled water industry on surface water, groundwater and riparian areas. And in addition to that testimony, I'll briefly discuss some issues related to the Food and Drug Administration's definition of spring water, which I think relates to many of the issues where bottled water companies are placing their plants in the headwater of stream systems.

The issues that I see with the FDA definition is there is little to distinguish spring water from diffuse groundwater seepage into stream systems. In addition, if we look at what is happening in groundwater systems, an area that could be called a spring is really a focused area where water is coming out of the subsurface, whereas most groundwater is flowing in in a diffused sense along the surface water systems; And that is where I think some of the confusion comes to play.

The FDA has a specific definition that says if the groundwater is not extracted directly from the orifice of the spring, then it can be tapped by a bore hole that is in connection with the same formation and that connection has to be shown in a hydrogeologically scientific fashion.

The issue with that specific clause leads bottle water plants to often be put in headwaters of streams. Because, in those areas, it is really easy to demonstrate that connection because there is very little flow coming into the system other than what is coming in via some localized areas. The problem with that is that these headwater systems are also environmentally sensitive, and they are areas where the consequences and impacts of pumping may be the largest.

If you separate these out into really groundwater and surface water issues and you look at what the previous panelists have already mentioned, most of the impacts that you heard were related



to surface water and that is because that's where a lot of the environmental concern is.

You also heard a little bit about groundwater concerns. If there are people living in the vicinity of high capacity wells, the water table or the level of water in the subsurface is declined in the vicinity of that well, and that can extend over a large area. So there are potential impacts to localized groundwater users.

I'll focus most of my testimony, however, on the surface water issues because that is where, again, the most environmental harm is. If you pump shallow groundwater effectively, there is a one-to-one relationship between how much is pumped and the reduction in stream flow in the nearby areas. So high capacity wells can, as a result of that, cause large percentage declines in the flow of surface water.

When you reduce surface water flow, by the nature of doing that you're also reducing the level of streams. If you reduce the level of streams, there is environmental consequences, especially if there are riparian wetlands right in the vicinity of that. Some of the concerns that have been expressed in cases I've been involved are reduced navigability, degraded aesthetic quality and impairment of the stream for aquatic organisms and fish. In addition, the pumping can alter the water temperature, which can also be a problem for the ecological systems.

Finally, some of the most sensitive systems are wetland and lake systems where if you lower the groundwater level below these, if they're connected to groundwater, the level of the wetlands will also decline.

The seasonal effects are worse. If you look at pumping during the middle of the growing season, the declines will be more significant. They are even more significant if you're in a drought period. So all of these things are on top of the natural variability in a system.

In terms of recommendations, I'd recommend additional funding in areas of hydrologic science. Several people have mentioned this already in terms of examining new mapping approaches and new approaches that characterize what the impacts are of not only bottled water pumping but any broad level of pumping and climate change and land use change.

Thank you for the opportunity to speak to you today.

Mr. KUCINICH. I thank the gentleman.

[The prepared statement of Mr. Hyndman follows:]

WRITTEN TESTIMONY OF  
Dr. David W. Hyndman  
Associate Professor, Michigan State University  
BEFORE THE  
SUBCOMMITTEE ON DOMESTIC POLICY,  
COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM,  
UNITED STATES HOUSE OF REPRESENTATIVES  
December 13, 1997

**Introduction**

Thank you Chairman Kucinich, and members of the Subcommittee, for inviting me to testify today. My name is David W. Hyndman, and I am an associate professor at Michigan State University in Groundwater Hydrology. My main areas of scientific research are: 1) evaluating the impacts of changes in climate and land use on water quality and quantity, and 2) developing novel methods to characterize subsurface properties that control the movement and fate of water and associated contaminants.

I have participated as an expert witness in several legal cases involving groundwater and surface water, including several concerned with the impacts associated with the bottled water industry. In all cases involving this industry to date, I have been retained by interests opposed to bottled water. I am here today on my own behalf, and am providing my scientific opinions, not those of my university or any other organization.

Today, I have been asked to provide some general testimony related to the impacts of the bottled water industry on groundwater, surface water, and riparian areas. I will also briefly discuss where these bottled water wells and plants are being located, and the relationship of the resulting environmental impacts to the Food and Drug Administration (FDA) definition of Spring Water.

### Definition of Spring Water

I have highlighted the most relevant portions of the TDA definition of Spring Water in [DRAFT] 601 (1)(B) as:

*The water of water derived from an underground formation from which water flows naturally to the surface of the earth may be "spring water." Spring water shall be collected only at the spring or through a bore hole tapping the underground formation feeding the spring.*

*There shall be a natural flow causing the water to flow to the surface through a natural orifice. The location of the spring shall be identified. Spring water collected with the use of an external force shall be from the same underground stratum as the spring, as shown by a measurable hydraulic connection using a hydrogeologically valid method between the bore hole and the natural spring, and shall have all the physical properties, before treatment, and be of the same composition and quality as the water that flows naturally to the surface of the earth.*

*If spring water is collected with the use of an external force, water must continue to flow naturally to the surface of the earth through the spring's natural orifice. There shall demonstrate, at request, to appropriate regulatory officials, using a hydrogeologically valid method that an appropriate hydraulic connection exists between the natural orifice of the spring and the bore hole.*

In my opinion, there are several issues with this definition:

- 1) There is fails to distinguish "spring water" from other groundwater usage across broad areas or surface water bodies
- 2) The nature of the required hydraulic connection and the potential encouragement of these "spring water" extractive wells in areas where the environmental consequences of such extraction is likely the most significant.

- b) Groundwater flow through sediments is generally a diffuse process, and areas that are being tapped as "springs" are often simply areas in the subsurface with coarse grained material that causes water to flow more rapidly to the surface.

### Common Locations for Spring Water Wells

Pumping facilities for spring water are often placed in the headwaters of streams, where the groundwater level reaches the surface. Because it is easier to show the reduction of streamflow at these locations during times of pumping. Unfortunately, these sites tend to be environmentally sensitive ecosystems.

The water with a "spring water" in some cases contains shallow groundwater that would not have otherwise flowed to a spring's "natural outlet".

### Groundwater Impacts

When water is extracted from the shallow subsurface using wells, the elevation of the water table (defined by the water level in surrounding wells) will decline in what is called a "cone of depression". The decline is largest adjacent to the extraction well, but this cone of depression can encompass a large region. If individuals have drinking water wells in the cone of depression, their water supply can be affected by the reduction in levels.

### Surface Water Impacts

#### **Streamflow and Level**

Groundwater is the main source of streamflow in most humid areas, such as the Midwestern United States. In these areas, there is essentially a one-to-one relationship between pumping of shallow groundwater and the resulting reduction of runoff to surface water. In other words, for every gallon of water pumped out of groundwater, there is one gallon of water lost to streams in the watershed. High capacity bottled water extraction in headwater locations can cause large percentage reductions in the flow of streams. For example if the natural flow of a

stream was 1000 gallons per minute, and 500 gallons per minute were estimated to be bottled as "spring water". The flow of the stream which would capture the captured water would be reduced by 50%.

When the flow of a stream is reduced by significant groundwater extraction, the level of the stream is also reduced. The more familiar example is the opposite case: stream level rise when streamflow increases after a large storm event. Common associated with reductions in level include reduced navigability, degraded aesthetic quality, and impairment of the stream for aquatic organisms such as fish.

In addition changes in flow and level can also affect the water temperature relative to an unaltered system. In turn, this can have significant consequences for organisms that live in these water bodies.

#### **Wetland and Lake Levels**

If pumping reduces the groundwater level below lakes or connected wetlands, the level of these surface water bodies will generally drop by a similar amount. In addition, riparian wetlands exist on the margins of many stream systems. As a result, reduction of the levels of a stream would also reduce the water level in adjoining wetlands.

#### **Seasonal Impacts**

In locations such as Michigan, our research has demonstrated that there is very little recharge to groundwater during the growing season, because most of the precipitation that falls during this period evaporates or is transpired (used) by vegetation. Therefore during the growing season there will almost certainly be the same outflow of groundwater, which is reduced by large groundwater extractions in the vicinity of these streams. The largest impacts would occur when large volume extractions continue during drought periods, because the impact of pumping exacerbates already low streamflows during wet periods.

#### **Necessary Information for Informed Decisions**

Decisions about the location and capacity of high capacity pumping are facilitated by hydrologic research and mapping. Specifically, there is a need for detailed mapping of subsurface properties, including the geometry of the shallow aquifer systems, the storage and transmission properties of subsurface materials, and the detailed nature of connections between surface water bodies and groundwater. This information, along with detailed climate data, can drive emerging numerical models that can predict the local and regional influence of large volume groundwater extractions under current and future conditions.

#### **Summary**

Large groundwater extractions for “spring water” bottling have significant impacts including:

- reduction in the flow and level of regional streams,
- decline in groundwater level, which reduces the level of lakes and some wetlands,
- change in the temperature of surface water bodies, and
- alteration of the habitat for fish and other species that live in lakes, streams, and wetlands.

These impacts are most significant during dry portions of the year, especially during droughts.

The RMA definition of spring water encourages placement of “spring water” extraction wells in environmentally sensitive headwaters of stream systems.

Additional research is needed in the hydrologic sciences to address these concerns.

Mr. KUCINICH. Professor Hall.

**STATEMENT OF NOAH D. HALL**

Mr. HALL. Thank you, Mr. Chairman and members of the committee.

I'm going to very briefly summarize the applicable State and Federal law that deals with the extraction and pumping of groundwater both for bottled water and for other water uses.

Water use and extraction, both groundwater and surface water, is primarily the domain of State law. The rules governing how much water you can pump, from what resource, how much impacts are allowed are typically addressed under State law.

State law comes at groundwater pumping from two directions. There is background common law principles that are intended to primarily address conflicts between water users of a shared water resource. The original rule that was used here was what was called a rule of capture. What this meant was basically if you could pump the water, it is yours. It would be no different from me turning to Mr. Doss on my left here, grabbing his water, drinking it and saying I got it and now it is mine. So, in effect, the rule of capture is really no rule at all.

That rule has not remained in almost any State. The one exception being Texas, which I'll come back to in a moment. But in almost every other State, the rule of capture, we've moved beyond that, and we've evolved toward a more correlative rights approach to share groundwater resources. What this means is that a landowner has the right to the reasonable use of the groundwater below his property unless that reasonable use interferes with the neighboring landowner's reasonable use of the same groundwater.

And when reasonable uses of shared waters are in conflict or interfere with each other, courts reconcile those conflicts using a variety of equitable principles, including opportunities for water conservation, sharing, reduction of need, reasonableness of use, economic values, social harms, environmental impacts, etc.

Most recently, we've seen this shared correlative rights approach to groundwater use extend to the types of conflicts that Professor Hyndman just mentioned where groundwater withdrawals impact surface waters and courts have begun applying the same principles: shared, reasonable use, correlative rights, equitable remedies to resolve groundwater and surface water conflicts.

The common law, however, is not perfect. It has some serious shortcomings. Primary among those, I believe, are, first of all, the cost of litigation, which several members of the first panel can attest to firsthand. Common law litigation tends to be very expensive and requires the use of numerous expert testimony.

Second, the common law does a very good job of protecting shared rights and groundwater, but it doesn't do such a great job of ensuring environmental protection of public resources from water pumping, and this is where State statutes have come in. Many—I'd say most, but not all, State have in place some type of regulatory statute scheme to ensure that water withdrawals don't have unreasonable harm on natural resources, aquatic life, fisheries, wetlands, etc. Some of these systems and programs work quite well. Some of them don't. There is tremendous diversity both

in how strict the standards are, how well they are enforced and in the ability for citizens to avail themselves of remedies under the statutes.

Beyond State law, I want to briefly mention the Federal role in all of this. The Federal Government doesn't regulate water use, and for the Federal Government to take on regulation of water use would be an undertaking that would make regulation of carbon emissions seem modest in comparison.

But the Federal Government has been a driver of water use. The Food and Drug Administration [FDA], for over a decade through its source identity regulations have required that if water bottlers want to label their bottled water as spring water—and spring water seems to be the label that consumers prefer over any other—then, as Dr. Hyndman said, it requires the water bottlers to go to groundwater that has an immediate and direct connection to a natural spring.

Inadvertently, this puts tremendous pressure on the water resources that are least able to withstand groundwater pumping pressures. Bottled water is not a large user of groundwater nationwide or on a macro scale. But when water bottlers, to comply with the FDA regulations, go into the headwaters of a relatively small spring system, even a modest size withdrawal, a few hundred thousand gallons per day, which is modest in this area, can have a significant environmental impact.

So I'd offer two brief recommendations for the committee's consideration. The first is, I would echo the recommendations of several of the panelists before me that we give the USGS, U.S. Geological Survey, increased support and resources to conduct extensive groundwater mapping, water use data analysis, investigative studies. The USGS data is critically important to both State and private decisionmakers in this area.

Second, I would encourage this committee to exercise its oversight jurisdiction and powers to work collaboratively with the FDA and other stakeholders involved in this issue to reform and revise the FDA's bottled water identity rules to basically allow water bottlers to continue to identify their product in a way the consumers demand and deserve but doesn't put pressure on our most vulnerable springs.

Mr. KUCINICH. I thank the gentleman for his testimony, and I will note that you presented this committee with an extensive preparation. And I think the Members are grateful to you and to all of those who have presented this voluminous testimony.

[The prepared statement of Mr. Hall follows.]



**"Federal and State Laws Regulating Bottled Water -  
An Overview and Recommendations for Reform"**

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Testimony Before the United States House of Representatives  
Copyright and Government Reform Committee  
Domestic Policy Subcommittee

Hearing on "Assessing the Environmental Risks  
of the Water Bottling Industry - Extension of Groundwater"

December 11, 2007  
Rayburn House Office Building, Room 3116

This written testimony is being provided in response to an invitation to appear before the United States House of Representatives Copyright and Government Reform Committee, Domestic Policy Subcommittee's hearing on "Assessing the Environmental Risks of the Water Bottling Industry - Extension of Groundwater." The Chairman has requested that my comments describe "the existing state and federal regulatory schemes that apply to groundwater and spring water extraction by the water bottling industry" and evaluate "the adequacy of these regulatory regimes."

Pursuant to House Rule 30, I affirm that I am appearing in a nonrepresentational capacity and am not representing any other persons or entities. I further state that I have not received any federal grants or contracts during the current fiscal year or either of the two previous fiscal years. Finally, pursuant to the above House Rule, my contact information is attached to this written testimony as Appendix A.

This testimony provides an overview of the federal and state laws pertaining to groundwater and spring water extraction by the water bottling industry. It also provides several recommendations for new policies and legal reforms to address environmental concerns arising in water extraction and bottling.

## 6. Introduction and Summary

Water bottling is big business and getting bigger, growing by about ten percent annually over the past five years. The issue involves environmental concerns regarding the quality of bottled water, the waste and pollution associated with manufacturing, shipping, and disposing of plastic water bottles, and social concerns regarding water privatization and commodification. The most important environmental concerns stem from a legal and regulatory perspective arise in the impact of water withdrawals on the recharge of aquifers. Americans purchase every year. While water bottling has caused no impact on the total national freshwater supply, the majority of bottled water comes from groundwater which has a direct hydrologic connection to springs and other vulnerable surface waters. Thus, even relatively small water withdrawals for bottled water can produce significant impacts on the local water table, other water users and the environment.

Bottled water is regulated by the federal government as a food product by the Food and Drug Administration (FDA). This regulation provides for water identity labeling of bottled water. Current provisions seek to have bottled water labeled as "spring water" over bottled water from other sources, including municipal supply. This has inadvertently led to increased pressure on vulnerable spring resources. The FDA should immediately begin a process to review and revise its water identity rule to consider the impact of bottled water withdrawals on springs and other vulnerable water resources. Further, the federal government should increase support for the United States Geological Survey to provide additional data collection, research, and investigation regarding groundwater resources and use nationwide, a role that is critically important to both water conservation and

With federal environmental laws now increasingly apply to some bottled water operations, water withdrawals and use are generally by default of state law. State law governs groundwater withdrawals with a mix of common law rules and more modern regulatory schemes. Many states have adopted some form of common law right to competing groundwater users, under which property owners have a right to the use of groundwater from their property, subject to interference with neighboring property owners' reasonable use of the groundwater. More recently, the common right approach has been applied to groundwater withdrawals that impact surface waters. Both regimes under the common law is not as ideal system for protecting water resources from withdrawals and operations. Many states have already adopted or are currently considering regulatory systems that proactively ensure that water withdrawals (both surface water and groundwater) do not harm other users or the environment. The most significant example is the proposed Great Lakes St. Lawrence River Basin Water Protection Compact, which would protect and manage all freshwater within the Great Lakes basin pursuant to maximum sustained yield and other principles under the authority of individual states and provinces. The proposed compact establishes numerous protective provisions in the development of water use law, including specific measures for ground and surface water withdrawals, water conservation, water flow, and protection of environmental benefits. Examples such as this should be developed and implemented at the state and regional level nationwide.

## B. Background on Bottled Water

### A. The Bottled Water Industry

Bottled water is a tremendous growth industry. According to the Beverage Marketing Corporation, bottled water became the second largest commercial beverage category by volume in the United States in 2005, second only to carbonated soft drinks.<sup>1</sup> Americans buy more bottled water than beer, milk, or juice. In 2006, Americans consumed 4.2 billion gallons of bottled water, nearly ten percent more than the previous year.<sup>2</sup> This total consumption equates an average of 27.8 gallons of bottled water per person per year.<sup>3</sup> In 2007, total consumption of bottled water is expected to increase another ten percent and go over 4 billion gallons.<sup>4</sup> This is typical for the industry. In the past five years, bottled water consumption has almost doubled, averaging nearly ten percent annual growth.<sup>5</sup>

The tremendous growth in consumption has correlated with similar growth in bottled water product revenues. In 2005, bottled water sales in the United States surpassed ten billion dollars (\$10,000,000,000).<sup>6</sup> With revenues increasing by nearly six percent annually over the past two years, 2007 sales of bottled water are expected to approach twelve billion dollars.<sup>7</sup> Just one example of the size and value of the bottled water industry is that Whole Foods, the nation's leading organic grocer, had smaller, soft-drink/bottled-water than any other store.<sup>8</sup>

The vast majority (over 95% the past two years) of bottled water consumed in the United States is domestically produced non-carbonating water.<sup>9</sup> The largest producer of bottled water in the United States is Fanny Water North America, with a 2006 market share of 22.6% of the bottled water sales.<sup>10</sup> North Water North America focuses on "spring water" (filtered and deionized water filtered, and available in bottled water under different brand names by region). Its leading brands are "Fountain Spring" (Piedmont), "Arrowhead"

<sup>1</sup> Beverage Marketing Corporation 2006 Statistics, available at [http://www.beveragemarketing.com/pubs/stat\\_2006.htm](http://www.beveragemarketing.com/pubs/stat_2006.htm).

<sup>2</sup> Id.

<sup>3</sup> Id.

<sup>4</sup> Id.

<sup>5</sup> Id.

<sup>6</sup> Id.

<sup>7</sup> Id.

<sup>8</sup> Id. The Beverage Marketing Corporation projects 2007 sales of bottled water to be \$11.85 billion.

<sup>9</sup> North Water, <http://www.northwater.com> (last visited June 19, 2007), available at [http://www.beveragemarketing.com/pubs/stat\\_2006.htm](http://www.beveragemarketing.com/pubs/stat_2006.htm).

<sup>10</sup> Beverage Marketing Corporation 2006 Statistics, supra note 1. In 2005, Americans consumed 3.774 billion gallons of bottled, non-carbonating water and 3.577 billion gallons of soft bottled water (including flavored product and sparkling water). In 2006, the numbers were 4.204 billion gallons and 3.574 billion gallons, respectively. In 2007, the projected numbers are 4.628 billion gallons and 3.577 billion gallons, respectively.

<sup>11</sup> See North Water North America Performance, available at <http://www.northwater.com/press/070604/P070604.htm>.

In 2006, North Water North America had bottled water sales of \$1.84 billion. Id.



and should ensure that just because he or she purchases water in a bottle that it is necessarily any better regulated, safer, or safer than most tap water."<sup>171</sup> NEDC performed "independent" testing of more than 1,200 bottles of 167 brands of water by their independent lab (and) found that most bottled water tested was of good quality, but some brands' quality was poor.<sup>172</sup>

Not surprisingly, the bottled water industry disputes NEDC's findings and conclusions. An analysis of the NEDC report by the Drinking Water Research Foundation concludes:

Throughout all of their analysis, NEDC found not one instance of contamination that would raise a legitimate health concern. Indeed, the survey would find only two results where federal health standards were exceeded. These two results, which the bottled water industry charged to the NEDC Report to environmental activists' methods, were in fact quite likely false positives because they could not be replicated in subsequent tests as required by federal standards. The other two incidences were for a fluoride standard in tap water, and with such limited applications, do not pose a concern to public health. In fact, the levels found in the bottled water are below the EPA health-based fluoride standard for public water systems.<sup>173</sup>

It should also be noted that NEDC has subsequently determined that many municipal water supplies also have incidences of drinking water standards.<sup>174</sup> For purposes of this analysis, it is far to conclude that concerns remain regarding drinking water quality standards from both bottles and taps, and environmental groups such as NEDC would advocate stronger standards and more enforcement to protect public health from all drinking water sources.

### 3. Concerns regarding pollution and waste resulting from the manufacturing, shipping, and disposal of plastic water bottles.

If bottled water had no water in it and consumers simply purchased empty bottles, the environmental impact of the bottled water industry would still be significant. The pollution and waste resulting from the manufacturing, shipping, and disposal of plastic water bottles affects many people as empty waste.<sup>175</sup> Most water bottles are made from the plastic polyethylene terephthalate (PET), which is derived from crude oil. The Earth Policy Institute originally estimated that the manufacturing of water bottles for United States consumption required more than 1.3 million barrels of oil annually, and later updated its estimate to 1.8 million barrels of oil annually.<sup>176</sup>

<sup>171</sup> *Id.*, Executive Summary.

<sup>172</sup> *Id.*

<sup>173</sup> Drinking Water Research Foundation, *Analysis of the February, 1999 National Research Institute Council Report on Bottled Water*, available at <http://www.dwrfa.com/analrpt.html>.

<sup>174</sup> See generally National Research Institute Council, *Water from Tap or Bottles? Benefits, Risks and Costs* (1999) (1999), available at <http://www.nrcsi.org/html/000409waterreport.html>.

<sup>175</sup> Earth Policy Institute, *Water as a World Problem*, *Earth and Water '99* (Earth Policy Institute 1998), available at <http://www.earth-policy.org/Issues/1999/water/1999>.

Manufacturing is only the first step in an energy-intensive process of distributing water in plastic water bottles. As noted by the Earth Policy Institute, "[t]he answer to tap water, which is distributed through an energy-efficient infrastructure, transporting bottled water long distances involves heating massive quantities of fossil fuels."<sup>167</sup> Then, after drinking the bottled water, the bottle is generally thrown out. While PET plastic can be recycled and the bottled water industry strongly encourages recycling,<sup>168</sup> 80% of plastic water bottles used in the United States become garbage or litter.<sup>169</sup>

The environmental concerns regarding the manufacturing, shipping, and disposal of plastic water bottles motivated the United States Conference of Mayors to recently pass a resolution to study the environmental impact of bottled water.<sup>170</sup> The Conference of Mayors resolution reads:

Bottled water must travel many miles from its source, resulting in the burning of massive amounts of fossil fuels, releasing CO2 and other pollutants into the atmosphere. . . . plastic water bottles are one of the fastest growing sources of municipal waste, and . . . in the U.S. the plastic bottles produced for water require 1.3 million barrels of oil per year, enough to generate electricity for 200,000 homes or fuel 100,000 cars for a year.<sup>171</sup>

While the bottled water industry does not seem to dispute the statistics regarding the pollution and waste impact arising in the manufacturing, shipping, and disposal of plastic water bottles, it may not be fair to compare these impacts to tap water. In an recent article on the subject, the *NYCist's* White House Market made the argument that water bottles are simply substituting for other plastic beverage bottles in the marketplace: "It's easier to buy bottled water to counterbalance plastic in bottles, just it's using energy transporting it. There's a substitution effect - it's substituting for plastic and Coke and Pepsi."<sup>172</sup>

The substitution argument notwithstanding, the waste associated with bottled water seems to have caught the public's attention. A recent New York Times article quoted a top EPA senior official as saying that "bottle-top Army incidents are so it [you just killed that puppy] if you don't drink a bottle in the garbage."<sup>173</sup> Yet despite the attention, people still buy bottled water. While many consumers probably don't consider the

<sup>167</sup> [http://www.earthpolicy.org/essays/09/0904\\_PlasticBottle.pdf](http://www.earthpolicy.org/essays/09/0904_PlasticBottle.pdf).

<sup>168</sup> See *Environmental Bottled Water Association* for giving Mayors Guide available at [http://www.bottledwater.org/essays/09/0904\\_PlasticBottle.pdf](http://www.bottledwater.org/essays/09/0904_PlasticBottle.pdf).

<sup>169</sup> *Earth Policy Institute*, supra note 167.

<sup>170</sup> United States Conference of Mayors, *Resolution regarding Manufacture of Bottled Water (2007)*, available at [http://www.conferenceofmayors.com/756\\_confdocs/resolutions.html](http://www.conferenceofmayors.com/756_confdocs/resolutions.html), 32 sep. 07.

<sup>171</sup> *The Conference of Mayors*, supra note 167, quoting White House Market.

<sup>172</sup> *See* Williams, *Plastic Water Incidents*, *As cited in the Briefing*, *The New York Times* (August 21, 2007).

environmental impacts of energy and waste, a South Africa article by the same New York Times article that also will help bottled water as a "quality product."<sup>23</sup>

### 3. Concerns regarding the preservation and commodification of water through bottling and sale of water

Water preservation and commodification is a complex and contentious issue well beyond the scope of this summary. However, as the issue often motivates bottled water operations, even when the high costs imposed come to other consumers, it is important to at least understand these concerns. The fundamental concern is articulated by the State of California Water Commission and Consumer Protection of Municipal Waterboards Services Panel, noting that "water is a public resource, not a commodity" and a basic right for all people.<sup>24</sup> The bottling and sale of water is often seen as a clear example of water preservation and commodification, with other examples including private control of water distribution systems and schemes for the bulk export and sale of water at a global scale.<sup>25</sup> It may not be fair to characterize these concerns as "environmental," since they are more fundamentally about social justice, human rights, and public governance. Nevertheless, the concerns often are at the heart of environmental opposition.

### 4. Concerns regarding impacts of water bottles/ production and spring water extraction on other water users and dependent natural resources

Unpopular bottled water typically involves concerns regarding the impacts of water bottles/ production and spring water extraction on other water users and dependent natural resources. To understand these impacts, it is important to first explain the quantitative water and scale of bottled water withdrawal.

Bottled water products come from one of two major sources. The majority of bottled water is not water the "spring water" label placement below is the source of FDA regulation) and comes from groundwater connected to springs (the bottling examples are the South regional brands). The second bottling source for bottled water is municipal water supply treatment (include Coca-Cola Deionized brand and Pepsi's Aquafina brand). Bottling municipal water almost never raises environmental concerns regarding the water withdrawal, since the water bottling is often using surplus municipal withdrawal and distribution capacity. Thus, the discussion will focus on the environmental impact of groundwater and spring water extraction for water bottling.

On a nationwide scale, water bottling results in an important amount of overall groundwater extraction. Groundwater withdrawal for bottled water production represents well less than one tenth of one percent (less than 0.01%) of the total groundwater

<sup>23</sup> *Id.*

<sup>24</sup> State of California Water Commission and Consumer Protection of Municipal Waterboards Services Panel, available at <http://www.waterboards.ca.gov/consumerprotection/commissioners.asp>.

<sup>25</sup> See e.g. Peter Gleick, Water Resources Institute, *Water: The Battle for Global Supply*, available at <http://www.wri.org/publications/200601>.

withdrawals in the United States. An Israeli sheep, milk and wool-farmed water production is approaching two billion gallons (not all of which comes from groundwater). The United States Geological Survey estimates that total annual groundwater withdrawals in the United States in 2007 were 39,000 billion gallons.<sup>76</sup> Of this total, agriculture use of groundwater for irrigation comprises over 60% (26,700 billion gallons) of the total groundwater withdrawal.<sup>77</sup> (Of course, water-footing results in a very high consumption of the water withdrawn, with essentially no water returning to the ground. However, agricultural irrigation uses the very high consumption rate rates, with returns ranging from seventy to ninety percent (70-90%),<sup>78</sup> so the resulting impact on total groundwater supplies is still remarkably disproportionate.)

While water footing has essentially no impact on the total national supply of groundwater, it can have significant impacts on local groundwater supplies. Groundwater extraction may affect the quantity and quality of the groundwater supply. Significant groundwater pumping can cause a temporary or permanent lowering of the water table, increased concentrations of contaminants, and in some regions salt water intrusion into the aquifer. The effects of groundwater extraction wells go far beyond producing fresh water.<sup>79</sup>

However, groundwater is also hydrologically connected to both surface water such as rivers, streams, and lakes (and groundwater that is bottled and sold as "spring water" is by definition hydrologically connected to natural springs, as discussed here before in the section on FDA regulation). Pumping groundwater can take water from these surface water systems. The basic hydrology was succinctly described in a recent report commissioned by the Michigan Legislature in the wake of the recent bottled water litigation in that state (excerpted in full below):

Over time, the discharge capacity of water in a well, particularly a well completed in an unconfined aquifer, changes in response. The water may either be decreased groundwater discharge in the stream or increased recharge to the groundwater system from the stream. In either case, streamflow reduction occurs and is often referred to as streamflow capture. In the long term, the cumulative streamflow capture from a groundwater system can approach the total amount of water being pumped from the system.<sup>80</sup>

<sup>76</sup> United States Geological Survey, *Compendium of Data on the United States in 2005*, Table 2, available at <http://water.usgs.gov/compendium/>.

<sup>77</sup> *Id.*

<sup>78</sup> See, e.g., *Water: From Ground to Groundwater* (John D. Carter, ed., 2008), available at <http://www.water.usgs.gov/pubs/ofw/ofw0801/>; *Water: From Ground to Groundwater* (John D. Carter, ed., 2008), available at <http://www.water.usgs.gov/pubs/ofw/ofw0801/>.

<sup>79</sup> For a more thorough discussion of these impacts, see Richard Lamm, *Water: From Ground to Groundwater*, available at <http://www.water.usgs.gov/pubs/ofw/ofw0801/>.

<sup>80</sup> *Groundwater Extraction from Streams: From Theory to the Michigan Courtroom* (Michigan State University, 2007), available at <http://www.law.msu.edu/groundwater/extraction.pdf>.





water quality standards.<sup>77</sup> Further, whenever the EPA issues its drinking water standards, the FDA must also set a similar level for bottled water or report to the Federal Register why it is not doing so.<sup>78</sup>

In addition to its water quality protection regulations, the FDA regulates "identity" labeling of bottled water.<sup>79</sup> The identity regulations describe the different types of bottled water by source and treatment process. In addition to simply labeling a product as "bottled water" or "drinking water," producers obtaining water from certain sources or meeting specified treatment standards can use numerous other labels, including "natural water," "ground water," "natural water," "purified water," "distilled water," "sparkling bottled water," "sterilized water," and "soft water."<sup>80</sup> Further, bottled water may be labeled as "from a community water system" or "from a municipal source" unless the bottled water has met certain treatment standards.<sup>81</sup>

Microbiological water testing is the labeling requirement for "spring water," which seems to be the identity that consumers prefer. The FDA regulations provide:

The source of water derived from an underground formation from which water flows naturally to the surface of the earth may be "spring water." Spring water shall be collected only at the spring or through a bore hole tapping the underground formation feeding the spring. There shall be a covered flow carrying the water to flow to the surface through a natural orifice. The location of the spring shall be identified. Spring water collected with the use of an artificial bore shall be from the same underground source as the spring, or drawn by a nonpressurized hydraulic connection using a hydrogeologically valid method between the bore hole and the natural spring, and shall have all the physical properties, before treatment, and be of the same composition and quality, as the water that flows naturally to the surface of the earth. If spring water is collected with the use of an artificial bore, water must continue to flow naturally to the surface of the earth through the spring's natural orifice. Plans shall determine, or report, or appropriate regulatory officials, using a hydrogeologically valid method, that an appropriate hydraulic connection exists between the natural orifice of the spring and the bore hole.<sup>82</sup>

The FDA also requires that in order to produce bottled water with the consumer desired label of "spring water," a bottled water producer must draw water either directly from a spring or from groundwater that has a direct hydrological connection to a surface spring. This requirement has had the unintended consequence of putting tremendous demand and

<sup>77</sup> See generally, for example, "Spring by" the name disclaimer. See *Spring Water Bottling Case*, 2011 WL 10000000, 2011 WL 10000000 (D. Minn. 8/11/11), 2011 WL 10000000.

<sup>78</sup> 21 C.F.R. § 163.10.

<sup>79</sup> 21 C.F.R. § 163.100.

<sup>80</sup> 21 C.F.R. § 163.100(a).

<sup>81</sup> 21 C.F.R. § 163.100(b).

<sup>82</sup> 21 C.F.R. § 163.100(c).

pressure on springs, which are typically some of the most fragile and vulnerable water resources.

#### B. Federal Environmental Laws Applicable to Groundwater Extraction and Water Quality

While water withdrawal and extraction are not generally regulated under federal law, for groundwater in some cases, special federal environmental laws may incidentally apply in a specific water holding project.

##### 1. The Federal Water Pollution Control Act (Clean Water Act)

Section 404 of the Federal Water Pollution Control Act<sup>17</sup> (known more commonly as the Clean Water Act) authorizes the U.S. Army Corps of Engineers to “issue permits, after notice and opportunity for public hearing for the discharge of dredged or fill material into the navigable waters.”<sup>18</sup> Section 404 is a “modern equivalent”<sup>19</sup> to section 10 of the Rivers and Harbors Act of 1899,<sup>20</sup> which originally made it unlawful to construct or fill in navigable waters without authorization from the U.S. Army Corps of Engineers. The term “navigable waters” is defined by the Clean Water Act as “waters of the United States.”<sup>21</sup> The scope of this definition was the subject of a recent Supreme Court opinion, *Rapanos v. United States*.<sup>22</sup> While a complete discussion of the meaning of the term “navigable waters” after the *Rapanos* decision is beyond the scope of this analysis, it is clear that the most basic means and circumstances have recognized that Justice Kennedy’s concurring opinion offers the controlling analysis and law:

[T]he Corps’ jurisdiction over wetlands depends upon the existence of a significant nexus between the wetlands in question and navigable waters in the traditional sense. The required nexus must be assessed in terms of the wetland’s goals and purposes. . . . With respect to wetlands, the rationale for Clean Water Act regulation is, as the Corps has recognized, the wetlands are primary critical functions related to the integrity of other waters – functions such as polluted trapping, flood control, and runoff storage. 33 C.F.R. §101.4(b)(2). Accordingly, wetlands possess the requisite nexus, and thus come within the statute’s phrase “navigable waters,” if the wetlands, either alone or in combination with nearby related lands in the region, significantly affect the chemical, physical, and biological integrity of other covered waters more readily understood as “navigable.” When, in contrast, wetlands’ effects on water quality are speculative or inconsequential, they fall outside the area fairly encompassed by the statute’s term “navigable waters.”<sup>23</sup>

<sup>17</sup> 16 U.S.C. §1364.

<sup>18</sup> 16 U.S.C. §1364(a).

<sup>19</sup> *Waters of the United States*, 1984 Committee on Water Resources Administration Report.

<sup>20</sup> 33 U.S.C. §§101-144 (1899).

<sup>21</sup> 16 U.S.C. §1362(7).

<sup>22</sup> 547 U.S. 317 (2006).

<sup>23</sup> *Rapanos v. United States*, 547 U.S. 317, 340 (2006) (concurring opinion).

The Clean Water Act has jurisdiction over many waters and wetlands, yet section 404 only applies to the "discharge" of dredged or fill material.<sup>75</sup> While groundwater and spring water discharge, for water filling or any other purpose, may draw water from hydrologically connected surface waters and wetlands, the discharging of water from surface waters and wetlands is not regulated by the Clean Water Act. A water filling operation only needs a section 404 permit if it results in filling wetlands in-stream to the water resource.

### (c) Wild and Scenic Rivers Act

The National Wild and Scenic Rivers Act of 1968<sup>76</sup> provides that certain rivers "shall be preserved in free-flowing condition."<sup>77</sup> The act vests in designated Wild and Scenic Rivers the "Department or agency of the United States (here) recommending authorization of any water resource project that would have a direct and adverse effect on the values for which such river was established."<sup>78</sup> However, the act does not have any adverse limitations.

First, the Wild and Scenic Rivers Act only applies to river segments designated as National Wild and Scenic Rivers. The National Wild and Scenic Rivers system has only 11,400 river miles in U.S., which represents merely one-quarter of one percent of the nation's rivers.<sup>79</sup> Second, the act only expressly applies to federal actions, not private water withdrawal, such projects as dams etc. It has not been settled through litigation how a conflict between the goals of the National act and a water withdrawal/ such project or dam has would be resolved. Section 11 of the act provides:

#### (b) Compensation for water rights

The jurisdiction of the States and the United States over waters of any stream included in a national wild, scenic, or recreational river may shall be determined by established principles of law. Under the provisions of this chapter, any taking by the United States of a water right which is owned under other than a federal law as the time such river is included in the national wild, scenic, or recreational river system shall entitle the owner thereof to just compensation. Nothing in this chapter shall constitute an express or implied claim or demand on the part of the Federal Government as to compensation from State water laws.

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#### (b) State jurisdiction over included streams

The jurisdiction of the States over waters of any stream included in a national wild, scenic, or recreational river may shall be unaffected by the

<sup>75</sup> 33 U.S.C. § 1364(a).

<sup>76</sup> 16 U.S.C. § 1271.

<sup>77</sup> 16 U.S.C. § 1271.

<sup>78</sup> 16 U.S.C. § 1271(b).

<sup>79</sup> National Wild and Scenic Rivers System: River and Streamflow, available at <http://www.fws.gov/nwsr/flow.html>.

Chapter to the extent that such information may be compiled without impeding the purposes of this chapter or its administration.<sup>22</sup>

However, section 10 of the Act seems to provide authority in that case, since subsections that impede designated state:

Each component of the national wild and scenic rivers system shall be administered in such manner as to protect and enhance the values which caused it to be included in such system without thereby so to constrain lawfully existing activities that do not substantially interfere with public use and enjoyment of these values. In such administrative primary emphasis shall be given to promoting its culture, scenic, historic, scientific, and scientific features. Management plans for any such component may establish varying degrees of intensity for its protection and development, based on the special attributes of the area.<sup>23</sup>

### 3. The National Environmental Policy Act

The National Environmental Policy Act (NEPA)<sup>24</sup> of 1969<sup>25</sup> was intended to "promote environmentally sensitive decisionmaking without providing any substantive standards."<sup>26</sup> It accomplishes this goal by requiring information exchange and public process. NEPA "guarantees that the relevant information will be made available to the larger audience that may also play a role in both the decision-making process and the implementation of the decision."<sup>27</sup> NEPA's central legal requirement is that federal agencies prepare an Environmental Impact Statement ("EIS") whenever a proposed major federal action will significantly affect the quality of the human environment.<sup>28</sup> Again, however, the major limitation of NEPA is that it only applies to federal actions. Its water subdivisions are made pursuant to state law. NEPA does not generally apply. In some instances, such as when a federal permit is incidentally required under a Clean Water Act section 404 permit, discussed above, NEPA may be triggered.

### 4. The Endangered Species Act

The Endangered Species Act (ESA)<sup>29</sup> is a powerful regulatory law intended to prevent the extinction of endangered species. The law requires the Secretary of the Interior to determine which and what species that are endangered or threatened based on the best scientific and commercial data available, and to list such species and designate their critical habitat. Once a species is listed, federal agencies must insure that their actions do not result in jeopardizing the listed species' continued existence or harm their critical

<sup>22</sup> 16 U.S.C. § 1066(c)(2).

<sup>23</sup> 16 U.S.C. § 1066(c).

<sup>24</sup> Pub. L. No. 91-190, 84 Stat. 673 (codified as amended at 42 U.S.C. § 4321-4370).

<sup>25</sup> *Endangered Species Act*, 16 U.S.C. §§ 1531-1544 (1976).

<sup>26</sup> *Endangered Species Act*, 16 U.S.C. § 1531 (1976).

<sup>27</sup> *Endangered Species Act*, 16 U.S.C. § 1531 (1976).

<sup>28</sup> 16 U.S.C. § 1531(5).



### C. The United States Geological Survey

The United States Geological Survey (USGS) does not regulate water use in any way. However, it provides an equally more important function, supplying important data collection, research, and investigations that assist federal, state, and local decision-makers in groundwater management. USGS investigations and reports have informed many policy efforts and provided critical information to resolve groundwater disputes, including disputes involving limited water allocation.<sup>17</sup> Unfortunately, the agency has suffered from a lack of funding that has limited its ability to assist water managers and users nationwide.

### IV. State Laws Applicable to Groundwater Conservation and Water Rationing

State law is the primary authority for water allocation and management, including groundwater conservation for water rationing. A detailed and comprehensive survey of state law applicable to water rationing would be beyond understanding and is beyond the scope of this analysis. Instead, this section will provide a general overview of groundwater allocation law in some state's cases that represent both the general principles and diversity of state law.

#### A. Correlative Property Rights for the Use of Underlying Groundwater – Background Principles From Ohio

The common law regarding competing groundwater rights and use varies by state, but most states follow some form of correlative rights (a notable exception is Texas, discussed below). Generally, property owners have a right to the use of groundwater below their property, subject to interference with neighboring property owners' reasonable use of the groundwater. The origin and applications of this principle were explained in a recent case decided by the Ohio Supreme Court.<sup>18</sup> The case came to the Supreme Court of Ohio as a certified question from the Tenth Circuit Court of Appeals,<sup>19</sup> which here are not particularly important and the case provides an excellent summary of the law that the case did not involve further water. The certified question asked the Supreme Court of Ohio: "[W]hen an Ohio landowner has a property interest in so much of the groundwater located beneath the landowner's property as is necessary to the use and enjoyment of the owner's land?"<sup>20</sup>

The Supreme Court of Ohio first reviewed its prior decisions on groundwater rights and liability for groundwater well interference. In the non-commercial context, Ohio adopted a rule of capture for groundwater, treating the groundwater "to be regarded as part of the land itself, to be enjoyed absolutely by the proprietor within whose surface it lies."<sup>21</sup>

<sup>17</sup>For examples of the work that USGS does regarding groundwater, see USGS Ground Water Information Page available at [www.usgs.gov](http://www.usgs.gov).

<sup>18</sup>*Shelburne v. City of Columbus*, 2013-01-00001 (Ohio).

<sup>19</sup>*Shelburne v. City of Columbus*, 2012-01-00001 (6th Cir. 2012).

<sup>20</sup>*Shelburne v. City of Columbus*, 2013-01-00001 (Ohio).

Under this holding, Ohio refused to recognize any rule requiring the sharing of water among landowners overlying a common aquifer. Thus, any owner of property was entitled to use all the groundwater he could, without regard to how that use affected neighboring landowners. The Supreme Court of Ohio set both two public policy justifications for its holding:

1. Because the economic, social, investment and career interests of each owner, and the various social groups and other third beneficiaries, are so varied, courts are unworkable, that an attempt to enforce any set of legal rules to require or limit what he would be entitled to fracture operations, and would be, therefore, practically impossible.<sup>17</sup>

2. Because any such recognition of cumulative rights, would interfere, as the natural depletion of the common water, with drainage and aquifers, mining, the construction of highways and railroads, with various operations, building and the general progress of improvement in works of public interest and utility.<sup>18</sup>

This holding stood for over one hundred years, until the Supreme Court of Ohio adopted the Restatement (Second) of Torts § 859 cumulative-right "reasonable use" doctrine for groundwater.<sup>19</sup> The Restatement (Second) of Torts § 859 established, which has been widely adopted by other courts, provides that landowners have property rights with respect to groundwater, specifically the right to be free from unreasonable harm through lowering the water table and diminishing a water supply. The Ohio court concluded that the remedy of strict liability for negligent drilling causes to determine the effect of one landowner's water use on another landowner's property. The court eventually adopted the same property and liability rules for landowners in groundwater disputes as had been used for riparians in surface water disputes, giving legal protection to a landowner's groundwater supply.

In addressing the conflict question, the Supreme Court of Ohio held that this right of reasonable use doctrine is a property right. "This right [to use groundwater below one's property] is one of the fundamental attributes of property, constituting and an essential rule in the bundle of rights that is part of title in property."<sup>20</sup> The court further stated "[Groundwater] rights are appurtenant to title in real property.... By way of analogy, a riparian landowner draws his water in a stream that runs along his property, but he does not have the right to the reasonable use of the stream as a part of the title in his real estate."<sup>21</sup> The court concluded:

The authority of Ohio landowners, the stability of Ohio's economy, and the reliability of real estate markets require the protection of groundwater

<sup>17</sup> 100 Ohio St. 211, 215 (1913).

<sup>18</sup> *Id.* at 211.

<sup>19</sup> *Id.*

<sup>20</sup> *Id.* at 211 (the Supreme Court of Ohio cited this passage).

<sup>21</sup> *Id.* at 211 (the Supreme Court of Ohio cited this passage).

<sup>22</sup> *Id.*



rights. We therefore hold that Ohio landowners have a property interest in the groundwater underlying their land . . .”<sup>64</sup>

The Supreme Court of Ohio’s decision is representative of the general protective-rights approach to groundwater disputes, giving landowners a right of use subject to interference with their neighbors’ rights. The decision provides a clear vehicle of the traditional rule of capture for those with the greatest pumping capacity.

#### B. The Exception – The Rule of Capture Is Not the Law in Texas

Notable versions of protective rights for groundwater are not the common law in most states, but Texas stands out by maintaining the notable exception of Texas. In *Sproun v. Great Spring Waters of America, Inc.*,<sup>65</sup> the Texas Supreme Court heeded the trend displaced by Ohio and most other states and held that in the rule of capture, which is actually no legal rule for groundwater extraction at all.

The dispute began when Pacific sought a new water for its Cosho “spring water” brand. Pacific initially began pumping a relatively modest 90,000 gallons of water per day from Baku Springs in Big Bend, Texas.<sup>66</sup> Only four days after the pumping started, Baku Springs and several other local townships experienced decreases in their well water supply and brought suit against the water holder.<sup>67</sup> The plaintiffs’ suit was predicated on an attempt to reform the common law in Texas from a rule of capture to the more modern protective rights approach.

In short, the plaintiffs failed. The Texas Supreme Court upheld the state’s common law rule of capture, which had been in place for almost a century. As explained by the court, the “rule of capture essentially allows . . . a landowner to pump as much groundwater as the landowner chooses, without liability to neighbors who claim that the pumping has depleted their wells.”<sup>68</sup> In a separate comment, Texas Supreme Court Justice Hecht noted that Texas is the only western state out of eighteen to still follow the traditional rule of capture, but chose to leave to the state legislatures the task of modernizing Texas groundwater law.<sup>69</sup>

#### C. Protective Rights for Groundwater Users that Impact Surface Waters – A Michigan Case Study

While some versions of common law protective rights for competing groundwater users have been long established in most states, water bearing disputes often involve groundwater withdrawal that impact surface waters. Recently, some courts have begun to expand the protective rights approach to these disputes.

<sup>64</sup> *Ohio*, 2013 WL 220096.

<sup>65</sup> 134 S.W.3d 666 (2004).

<sup>66</sup> *Sproun v. Great Spring Waters of America, Inc.*, 134 S.W.3d 676.

<sup>67</sup> *Id.*

<sup>68</sup> *Id.* at 70.

<sup>69</sup> *Id.* at 71 (E).



To address this issue, the court adopted a cumulative rights approach to the competing ground and surface water rights. Under this approach, a court would look to the same doctrinal and factors employed for balancing competing riparian rights in a surface water case. The balancing test is based on three principles. First, the law will strive to ensure "the participation" in the water use, preserving an "equally beneficial use of the common resource as possible." Second, the law will only protect uses that are reasonable. Third, the law will only redress unreasonable harms to other water users. Numerous factors are then used on a case-by-case basis. For example, "natural" uses which are necessary for drinking and household needs have priority over "artificial" uses "which merely increase one's comfort and prosperity and do not seem so essential to his existence, such as commercial profit and recreation."<sup>67</sup> Other factors include the suitability of the water use to the location, the extent of harm, the benefits of the use, and the necessity of the use.

In applying these factors to the present dispute, the court first noted that both competing uses (Frank's water banking and the plaintiff's recreational and aesthetic enjoyment of the Great Smoky are reasonable and beneficial, and that neither one was so profitable or necessary such that it prevailed on that basis alone. Instead, the court looked to the extent of pumping, the suitability of the water body to Frank's use, and the extent of the harm. In this case, Frank did not need to pump 400 gpm from this location to meet its commercial needs. Further, the use of pumping would cause an unreasonable harm to the Great Smoky. Therefore, the court ruled that Frank's pumping of 400 gpm was unreasonable, equated Frank's pumping at that rate, and measured the cost to the rival user to determine what rate of pumping would be reasonable under this analysis.

The court further held that Frank's failure to obtain a permit under 38 CA does not constitute a per se prima facie case under 38 CA. Instead, the court demanded the necessary 38 CA claim to the rival court to allow both the plaintiff and defendant to present their arguments on the substantive 38 CA violation. The remedy was to get subsequently decided by the Michigan Supreme Court, which held that the plaintiff failed standing to bring a 38 CA claim to request a court injunction.<sup>68</sup> The court also affirmed the rival court's ruling that the public trust provisions for water in Michigan only apply to navigable waters, that Frank's groundwater pumping does not give rise to a public trust violation.

This case received considerable public attention, including coverage in national media outlets such as USA Today.<sup>69</sup> Much of the public attention was focused on bottled water, and the controversial expanding diversion and sale of water in Michigan. However, the court's opinion did not focus on the bottling and sale of water, but instead on the competing legal rights of surface and groundwater users. The Michigan court, as is typical, did not find the water banking any different from other commercial water uses.

<sup>67</sup> Michigan *Water Use Prior to 1900 and a Good Right Thereafter*, 177 N.W.2d 246 (Mich. 1981).

<sup>68</sup> *Interpretation, How State Judges by Decree*, 154 *ENVIRONMENT*, 200 (2012), p. 14.

### B. Non-Quantity Withdrawals – An Echo of the Michigan Fresh Case

The issue decided by this court under the common law and other state statutory provisions centers not on the final chapter in a bottled water dispute. Often, the litigation concerns matters where sought by both water bottles and consumers. An excellent example is the ongoing effort to reform water withdrawal regulations in Michigan in the wake of the Fresh case.

Immediately after the Michigan court of appeals handed down its decision in the Fresh case, the Michigan legislature made some modest reforms to groundwater law. In 2001, Michigan enacted a groundwater dispute resolution program. The program provides a simple process for small quantity well owners to “submit a complaint alleging a practical groundwater dispute if the small quantity well has failed to furnish the well’s normal supply of water and the owner has credible reasons to believe the well’s problems have been caused by a high capacity well.”<sup>101</sup> Small quantity wells are defined as wells with less than 100,000 gallons per day of pumping capacity. High capacity wells are defined as wells with capacity greater than 100,000 gallons per day.<sup>102</sup> Essentially, the statute provides a far cheaper and simpler mechanism than private litigation to protect the groundwater interests of individuals and small businesses harmed by large groundwater withdrawals.

After the Fresh decision, the Michigan legislature made far more significant reforms. Statutes enacted in 2006 require any person that develops any or increased water withdrawal capacity of over 2 million gallons per day (gpd) from an inland water source (including groundwater) or 1 million gpd from the Great Lakes to obtain a water withdrawal permit.<sup>103</sup> For withdrawals from inland waters and groundwater, the well needed for issuance of a permit is whether or not the withdrawal is “likely to cause an adverse resource impact.”<sup>104</sup> An “adverse resource impact” is defined as increasing either the level of a resource or the level of a body of surface water such that the water body’s “ability to support characteristic fish populations is substantially impaired.”<sup>105</sup> Permit terms are not specified, but the user may receive a permit if a “decision following a hearing, based upon other and compelling scientific evidence, that the withdrawal is causing an adverse resource impact.”<sup>106</sup> The permit process and appeals are subject to the Michigan Administrative Procedures Act.<sup>107</sup>

Water bottles are not subject to the above provisions, since they are regulated under Michigan’s Safe Drinking Water Act. However, the state Safe Drinking Water Act was also amended by the legislature to subject large water withdrawal to essentially the same standards.<sup>108</sup> The legislature gave developer water supplies the additional benefit of

<sup>101</sup> Mich. Comp. Laws § 206.670(1).

<sup>102</sup> Mich. Comp. Laws § 206.670(2).

<sup>103</sup> Mich. Comp. Laws § 206.670(1).

<sup>104</sup> Mich. Comp. Laws § 206.670(3).

<sup>105</sup> Mich. Comp. Laws § 206.670(4).

<sup>106</sup> Mich. Comp. Laws § 206.670(5).

<sup>107</sup> Mich. Comp. Laws § 206.670(6).

<sup>108</sup> Mich. Comp. Laws § 206.670(7), § 206.670(8).

being allowed to withdraw water even if the above standards have not been met, if there is an infeasible and prudent alternative location for the withdrawal<sup>177</sup> and "conditions related to depth, pumping capacity, rate of flow, and ultimate use ... ensure that the environmental impact of the withdrawal is balanced by the public benefits of the withdrawal related to public health, safety, and welfare."<sup>178</sup>

Beyond the general criteria to water withdrawal law, the Michigan statute subjects bottled water producers to many additional standards and requirements. Water bottles may be produced as a by-product process (recycled water or increased withdrawal of 100,000 gpd) and must also satisfy the following standards:

- The proposed use is not likely to have an adverse resource impact;
- The proposed use is reasonable under common law principles of water law in Michigan;
- The withdrawal will be conducted in such a manner as to protect riparian rights as defined by Michigan common law;
- The person will undertake activities, if needed, to address hydrologic impacts commensurate with the nature and extent of the withdrawal. These activities may include those related to the stream flow regime, water quality, and aquatic protection;
- Advanced consultation with local government officials and interested community members;
- Advanced public notice and an opportunity for public comment.<sup>179</sup>

The statute also notes that water packaged in containers of 5.7 gallons (21 liters) or less is not considered a prohibited diversion under Michigan law.<sup>180</sup> Since 1985, Michigan law has prohibited diversion of water out of the Great Lakes watershed, effectively prohibiting almost any bulk diversion of water from the state.<sup>181</sup> However, because there has been some concern for concerns about the constitutionality of the ban on prohibition, the new statute expressly provides that if the prohibition is determined to be invalid, this new diversion act subject to the approval of the Department of Public Health.<sup>182</sup>

It is worth noting that almost all of the state's leading business, scientific, agricultural, and environmental organizations (including the bottled water industry) supported the passage of the legislation. The general consensus was that both water users and environmentalists would be better served by a proactive permitting system than continue the litigation over water rights. Whether this will prove to be correct remains to be seen.

<sup>177</sup> 2006-2007 House Bill 4263.

<sup>178</sup> 2006-2007 House Bill 4263, § 1(1)(b)(iii).

<sup>179</sup> 2006-2007 House Bill 4263.

<sup>180</sup> 2006-2007 House Bill 4263.

<sup>181</sup> 2006-2007 House Bill 4263.

### *E. The Proposed Great Lakes Compact: A Major Advance in Water Protection*

The eight Great Lakes states<sup>74</sup> have recently prepared and begun adopting the Great Lakes St. Lawrence River Basin Water Resources Compact.<sup>75</sup> The Great Lakes are the world's largest freshwater resource, providing about five percent of the fresh surface water in the United States and nearly percent of the world's supply.<sup>76</sup> The proposed Great Lakes Compact would protect and manage all freshwater groundwater and surface water within the basin pursuant to treatment standards administered primarily under the authority of individual states. The proposed compact puts collective law coordination under one rule and environmental protection standards into a proactive public law regime. The standards represent extensive advances in the development of water use law, including surface treatment for ground and surface water withdrawals, water conservation, water flow, and prevention of environmental impacts. Building on 1990 WQIA discussed above, the compact has decreased or water out of the basin, but leaves the individual states to decide whether to treat bottled water as a different subject to the law.<sup>77</sup>

### **V. Recommendations**

This review and analysis of laws applicable to groundwater and spring water extracted by the water bottling industry highlights several problems with the status quo and opportunities for reform. As a general matter, bottled water withdrawal's impact groundwater systems at the local level, federal regulation does not seem appropriate, however, there are no specific actions that the federal government can and should take to address the problem and state state governments and local communities. (Eggs, the EPA, should bring its bottled water identity labeling regulations which have waterworks, cannot, may, better is not, regulation, that, spring – one of the most vulnerable freshwater resources. Instead, the federal government should increase funding for state collection, research, and distribution regarding groundwater resources, and set standards, while the is critically important to both consumers and managers.

At the state level, the continued evolution towards proactive regulatory laws is a welcomed development. Most significant is the proposed Great Lakes compact, which would implement uniform protection for groundwater and surface water withdrawals, water conservation, water flow, and prevention of environmental impacts in eight states. The same laws apply portions of the proposed Great Lakes compact: a federal, and Congress should only be required immediately after it becomes the law.

<sup>74</sup> Michigan, Wisconsin, Illinois, Ohio, Indiana, Ohio, Pennsylvania, New York, Ontario, and Quebec.

<sup>75</sup> Great Lakes St. Lawrence River Basin Water Resources Compact (Oct. 15, 2008), available at <http://www.gslwrbcompact.com/About%20the%20Compact>.

<sup>76</sup> *Great Lakes St. Lawrence River Basin Water Resources Compact* (hereinafter "Compact").

<sup>77</sup> *Michigan's Local Government, Section 207.10 (2008)* (Michigan's Governmental Codebook Section 207.10) (Oct. 15, 2008), available at <http://www.legislature.mi.gov/doc.aspx/mcl-207-10.htm> (last visited 10/15/08).

<sup>78</sup> For a more thorough discussion of the proposed Great Lakes compact, see Mark D. French & Dan Hertzfeld, *Michigan State Government and Great Lakes Basin*, 77 *Environmental Law* 481 (2008) (discussing the compact's treatment of bottled water) 491-92.

## Appendix A - CV

## Nash D. Hall

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**Academic Appointments**

University of Michigan Law School, Ann Arbor, MI  
Visiting Professor, Spring 2008  
Teaching Water Law

Wayne State University Law School, Detroit, MI  
Associate Professor of Law, 2007 - present  
Teaching: Environmental Law, Water Law, Administrative Law, International  
Environmental Law, Advanced Topics in Environmental Law

University of Michigan Law School, Ann Arbor, MI  
Adjunct Clinical Professor, Winter 2002  
Teaching: Environmental Law Practicum

**Education**

University of Michigan Law School, Ann Arbor, MI, J.D., 1998

University of Michigan School of Natural Resources & Environment, Ann Arbor, MI,  
B.S., with distinction 1993 (graduated a first class with concentration in Environmental  
Policy and Behavior)

**Publications - Books**

*Environmental Law and Policy: Domestic, Law, and International* (James C.B.  
Paine, Robert H. Adams, Robert L. Giddens, Lisa Williamson, and David A. Wechsler  
ed., Aspen Publishers, forthcoming 2009)

**Publications - Articles**

*Political Externalities, Institutions, and a Proposal for an Efficient Environmental  
Impact Assessment Policy*, 22 *Harvard Environmental Law Review* ... (forthcoming  
2008)

(available at <http://www.earthrpt.org/2008/> and <http://works.bepress.com/nashd/>)

*Climate Change and Freshwater Resources* (with Ben D. Slosky and Robert H. Giddens),  
22 *Natural Resources & Environment* ... (forthcoming, Winter 2008)

*Transboundary Pollution: Resolving International and Domestic Law*, 40(1) *Michigan  
Env. Services* 40 (2007) (last updated 08/08)





Mark B. Wolf

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### Previous Legal Employment

#### National Wildlife Federation, Ann Arbor, MI

Senior Manager, Water Resources Program, 2001 - 2007

Developed new water resource policies for the Great Lakes region, working closely with government and state legislators to draft legislation and a regional interstate compact/federal water management agreement for the Great Lakes

#### Minnesota Center for Environmental Advocacy, St. Paul, MN

Executive Director, 2001 - 2003

Successfully litigated numerous matters involving wetland protection, environmental review, energy policy, and administrative law in state and federal trial and appellate courts

#### Lawrence H. White and Deborah, Minneapolis, MN

Associate Attorney, 1998 - 2001

Practice focused on environmental and energy litigation for both private and non-profit clients

### Education

#### Minnesota Supreme Court, St. Paul, MN

Judicial Clerk, 1998 - 1999

Served as judicial clerk for the Honorable Justice A. Dale, Chief Justice of the Minnesota Supreme Court

### Litigative Accomplishments and Published Writings

*Public Use v. Citizens*, 507 F. App'x 24 (6) (D. Minn. 2015) - successfully represented amici litigation group of non-Indians in a Constitutional challenge to a state law intended to prevent biological pollution to the Great Lakes

*Clean v. Citizens*, 763 F.3d 10 (6) (6) (2015) - successfully represented amici conservation organizations in nationally recognized decision holding that the Great Lakes shoreline wetlands are protected by the public trust doctrine and open to recreational access

*All Aquatic Users for Water Conservation v. North Platte North America, Inc.*, 769

F.3d 10 (7) (6) (2015) - successfully represented amici conservation organizations in precedential ruling clarifying legal rules and protections between groundwater and surface water users

*All Users v. National Ice Program v. National Energy Bd.*, 401 F.3d 10 (7) (6) (2015) - successfully represented an environmental organization in NEPA challenge to proposed and then denied expanded increases in national surface-groundwater (S/GW) extraction



**Council of Great Lakes Indians – Building a Sustainable Great Lakes Water Quality Agreement** (Ann Arbor, MI, November 16, 2005)  
*Elements of Sustainable Development and the Role of Government*

**International Union for the Conservation of Nature and Natural Resources: Institute of Environmental Law – 17<sup>th</sup> World Water Conference** (New York, October 14, 2006)  
*The Evolving Role of Citizens in Global Issues/Canadian International Environmental Law Compliance*

**University of Michigan Law School – The Great Lakes: Reflecting the Landscapes of Environmental Law Symposium** (Ann Arbor, MI, September 20, 2006)  
*Transboundary Pollution: Harmonizing International and Domestic Law*

**Government of Canada Policy Research Initiative – Freshwater for the Future** (Ottawa, Ontario/Ontario, Québec, May 04, 2006)  
*Boundary Waters: Implementing an Ecosystem Approach/ Managing Conflicting Interests*

**Canadian Bar Association – Annual National Environmental Energy and Resource Law Society: Canada-U.S. Cross-Border Issues** (Toronto, Ontario, April 26, 2005)  
*Waterways Waterways: The Protection, Taking and Use of Water*

**International Inter-Commission – The Role of Groundwater in the Great Lakes Basin** (Lansing, MI, March 9, 2006)  
*Refining Public and Private Rights in Groundwater*

**Michigan Bar Association – Environmental Justice Conference** (Ann Arbor, MI, February 4, 2006)  
*Federal Administration for Wetland Protection: The Clean Water Act in the Supreme Court*

**University of Texas College of Law – The National Water Crisis: Energy and Issues for All** (Austin, TX, November 14, 2005)  
*New Legal Approaches: Controlling Inflows in Great Lakes Water*

**University of Michigan Law School – The World Today: Multi-Disciplinary Perspectives on Climate Change** (Ann Arbor, MI, March 25, 2005)  
*Climate Change Litigation Strategies*

**Society of Environmental Jurisprudence – 14<sup>th</sup> Annual Conference** (Pittsburgh, PA, October 25, 2006)  
*Great Lakes Water Law and Policy*

#### **Selected Media Appearances**

**Debra A. Sarno – quoted in The Lynch, Lansing Mirror in Power: Lake** (December 6, 2007)

Book # and	Page #
Cleveland Plain Dealer - quoted in editorial, Preparing Great Lakes Water for a Great Success (December 2, 2007)	
Cleveland Plain Dealer - quoted in Tom Harty, Global Warming Pushes Down Basin (Great Lakes Tribune) (November 26, 2007)	
Milwaukee Journal Sentinel - quoted in Dan Eggen, Power Plants Shift to The East (November 18, 2007)	
Milwaukee Journal Sentinel - quoted in Jerry Costello, Great Lakes Fish Deaths as 1 From (November 18, 2007)	
Chicago Tribune - quoted in The Issues, Great Lakes Ship From a Basin (December 26, 2007)	
Milwaukee Journal Sentinel - quoted in Dan Eggen, 2 Power Plants Join the West (October 1, 2007)	
Milwaukee Journal Sentinel - quoted in Dan Eggen, BP Acknowledges Increasing Lake Pollution (August 25, 2007)	
Windsor Star (Canada) - quoted in Great Lakes Basin (Great Lakes Water) (April 25, 2007)	
Lake Times (Canada) - justified extensively and correctly quoted in Basin Study, Ontario (Great Lakes) (April 25, 2007)	
Windsor Star (Canada) - quoted extensively in Fuel Spill Pollution, Lake (January 18, 2007)	
Montreal Public Radio - invited radio guest to provide commentary on water privatization disputes (December 18, 2006)	
Montreal Public Radio - invited radio guest to provide commentary on Massachusetts' EPA case against federal US E. Superfund fund (November 18, 2006)	
Chicago Tribune - quoted in John Gierber, Bad Problem Great Lakes Water (After Mid Storm) (September 8, 2006) (this article also was re-submitted other newspapers, including the Globe and Mail and the Toronto Star Post)	
Milwaukee Journal Sentinel - quoted in Dan Eggen, Why Should We Care if 'Superfund' Lacks? (July 14, 2006)	
Milwaukee Journal Sentinel - quoted in The Spill and Other Problems, Multiple Basin (Great Lakes) (New York Times) (A Report on Great Water) (June 25, 2006)	

*United States* – quoted in *White Paper, Michigan/Case Act on Wildlife (February 11, 1986)*

*Michigan Public Radio* – invited and participated on “White North” show in *Ann Arbor, Michigan* (November 1, 1985)

*Michigan Public Radio* – provided commentary on *Case v. Gravel* case decided by the Michigan Supreme Court (September 1, 1985)

#### **Research for Teaching**

Donald Gordon, *Board and Membership for Teaching Excellence (2007)*

East Valley Psychological International Case Award (1988)

Consistently one of the highest rated faculty members based on Student Teaching Evaluations

#### **Academic Service**

Wayne State University Law School

Faculty Appointments Committee member (2007-2008)

Institute for Continuing Legal Education, Executive Committee member (2005, 2007)

Faculty Affairs Committee, chairperson (1998, 2007), member (2001-2006)

Faculty advisor, Master Case Program (1996-2007)

Faculty advisor, National Environmental Law Moot Court Competition (2000-2008)

#### **Professional Memberships**

American Bar Association, Section of Environment, Energy and Resources

Michigan Bar Association (Environmental Section)

Association of American Law Schools (member in Environmental Law)

#### **Bar Admissions**

Michigan, 1980

Minnesota, 1988 (inactive)

Also admitted to Federal District Courts for the District of Minnesota, Tenth District of Michigan, and Eighth Circuit Court of Appeals

Mr. KUCINICH. So, Mr. Doss, please continue.

**STATEMENT OF JOSEPH K. DOSS**

Mr. DOSS. Good afternoon, Chairman Kucinich. And Congresswoman Watson I think has just left.

My name is Joe Doss, and I am president and CEO of the International Bottled Water Association. We appreciate this opportunity to discuss environmental issues associated with the bottled water industry's extraction of groundwater.

Groundwater, particularly spring water, is the primary water source for bottled water products sold in the United States. Because a long-term, sustainable supply of high-quality water is the foundation and lifeblood of bottled water companies, IBWA members recognize the critical importance of environmental conservation and stewardship of all water resources. In particular, IBWA supports groundwater management laws that are comprehensive, science-based, multijurisdictional, treat all users equitably and balance the rights of current users and the future needs to protect the sustainable resource.

The bottled water industry uses only minimal amounts of groundwater to produce this important consumer product and does so with great efficiency. According to a 2005 study by the Drinking Water Research Foundation, annual bottled water production accounts for less than 2/100 of the 1 percent of the total groundwater withdrawn in the United States each year.

The two largest users we've heard before of groundwater in the United States are irrigation and public water systems. According to the 2004 U.S. Geological Survey, irrigation accounted for 68 percent of the total groundwater withdrawn, while public water systems was the second largest user at 20 percent.

It is important to note that an aquifer or other groundwater source does not know the difference between water withdrawn to produce bottled water and water withdrawn to make other beverages or consumer products. Although bottled water is currently the second most consumed beverage in the United States, its consumption volume is about half of that of carbonated soft drinks and only slightly ahead of milk and beer. All such beverage products fundamentally have a high water content. Bottled water is just one of countless products and enterprises that use water; and to single out any one product or industry, particularly one that accounts for only 0.02 percent of all withdrawals, will not be effective in sustaining groundwater resources.

The States have a strong interest in regulating and ensuring efficient use of water resources and must effectively manage them to ensure that this important resource will be sustainable for all users. IBWA believes that in order to ensure sustainable water resources, a comprehensive management approach must be taken. To this end, the bottled water industry has been a strong and vocal supporter of comprehensive State groundwater management legislation that requires the permitting of large groundwater withdrawals and ensures a science-based approach to evaluating potential impacts of all users.

For example, we recently supported the enactment of such laws in Maine, Michigan and New Hampshire. Based on our experiences

in the State, it is very clear to IBWA that there is a need for more and better data on the aquifers throughout the United States in order to assist State authorities in managing available water resources. We think that this is an area where the Federal Government can play an important role. As a result, IBWA supports the enactment of H.R. 135 which would establish the 21st Century Water Commission to make recommendations on how to ensure comprehensive water resource strategy in the United States.

The Commission would be authorized to, one, project U.S. future water supply and demand; two, study current water management programs of Federal, intrastate, State and local agencies; and, three, consult with representatives of such agencies to develop recommendations for a comprehensive water strategy.

Bottled water is comprehensively regulated as a processed food product by the FDA. By law, FDA's bottled water regulations must be as stringent and protective of the public health as EPA's standards for public drinking water systems.

Under FDA regulations, there are two fundamentally distinct types of bottled water products. The first type is natural water, such as Artesian water, mineral water and spring water, which all have groundwater sources. The second type is processed water, such as purified water, which could be from a groundwater or a municipal water source. Bottled water is sold in small containers at retail locations and restaurants and is also delivered to homes and offices in three- and five-gallon bottles used with water coolers.

In summary, Mr. Chairman, bottled water is a safe, healthy, convenient food product and is an extremely small user of groundwater when compared with all other users. The bottled water industry is a conscientious and dedicated steward of the environment which has been demonstrated by its active pursuit of responsible groundwater management policies at both the Federal and State level.

IBWA supports groundwater management policies, laws and regulations that are comprehensive, science-based, multijurisdictional, treat all users equitably and balances the rights of current users and the future needs to provide a sustainable resource.

Thank you for considering our thoughts, and IBWA stands ready to assist the committee and the subcommittee as it considers this very important issue.

Mr. KUCINICH. I thank the gentleman.

[The prepared statement of Mr. Doss follows:]

**Written Testimony of**  
**Joseph R. Gray**  
**President and CEO**  
**International Bottled Water Association**  
**Before the**  
**Consumer Policy Subcommittee**  
**Energy and Commerce Subcomm. Committee**  
**United States House of Representatives**  
**Hearing on "Assessing the Environmental Status of the Water**  
**Bottling Industry's Compliance of Requirements"**  
**December 11, 2012**

Chairman Gohmert, Ranking Member Lee, and Members of the Subcommittee, my name is Joseph R. Gray, CEO and President and CEO of the International Bottled Water Association (IBWA) in Alexandria, Virginia. Thank you for the opportunity to present the written testimony.

IBWA is the trade association representing all segments of the bottled water industry, including spring, artisan, mineral, sparkling, and groundwater and purified bottled water. Founded in 1978, IBWA's member companies include United States and international retailers, distributors, and suppliers. Bottled water companies produce a packaged final product that is comprehensively and stringently regulated by the United States Food and Drug Administration (FDA). IBWA is committed to working with state and federal governments to establish and implement stringent standards for ensuring the production and sale of safe, high-quality bottled water products. In fulfillment of this objective, IBWA has developed and published a Code of Practice pursuant to FDA's authority (<http://www.internationalbottledwaterassociation.com/ibwa>), which establishes standards of bottled water production, quality, and distribution that must be met by IBWA members. In several cases, the IBWA Code of Practice is more strict than state and federal regulations. As a condition of membership, IBWA bottles must adhere to an annual, unannounced plant inspection by an independent third party to document compliance with the Code of Practice and all applicable FDA regulations.

### **Background**

#### **Bottled Water is a Comprehensively Regulated Food Product**

Bottled water is comprehensively and stringently regulated in the United States both by the federal and state levels, which takes account to safety and quality. At the federal level, bottled water is regulated as a processed food product by the FDA under the Federal Food, Drug, and Cosmetic Act (FFDCA), 21 U.S.C. §§ 301 et seq., and several parts of Title 21 of the Code of Federal Regulations (CFR). It must also meet the general food regulations as well as standards of identity, standards of quality, good manufacturing practices and labeling requirements specifically promulgated for bottled water.



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The USDA defines "feed" as "articles used for food or other like uses in other animals."<sup>12</sup> The USDA further defines a "processed feed" as "any feed other than a non-processed commodity and includes any non-processed commodity that has been subject to processing, such as cutting, crushing, grinding, dehydration, or adding."<sup>13</sup> As a result, federal rules in relation to the general feed manufacturing Practices (GMP) and labeling regulations for all feed products, as well as the specific federal rules (GMPs) in 21 CFR 128, and the FDA established Standards of Quality and Identity in 21 CFR Part 101. Further, some (in case of only a few feed products) but not other additional, product-specific GMPs in addition to the general feed GMPs.

Additionally, Section 101 of FDCA requires FDA to review all U.S. Government Production Agency (GPA) National Market Quota, Water Treatment (NQPW) for public water systems to determine their applicability to bottled water. FDA determines that the NQPW is applicable to bottled water. It also established standard of quality for bottled water that are an integral and protection of public health as the FDA's standards for public drinking water. If FDA fails to act within 180 days of the effective date of any such EPA NQPW for public water systems, FDA must then apply the same NQPW to bottled water.

Under 21 CFR Part 101.101(c), strict standards of identity are established for bottled water. Standards of identity define which states grow their product, particularly in terms and the ingredients that may or must be used in the production of the drink. The standards of identity for bottled water are divided into two fundamentally distinct classes of product: natural water and processed water. Natural waters and composite grades bottled water in two main product categories. Natural waters include artesian water, groundwater, mineral water, sparkling water, spring water, and well water. Processed waters cover the United States (Manufacture) and otherwise exclude the purified water or sterile water, and the following processes may be used to achieve compliance with the standard: distillation, deionization, deionization, or reverse osmosis. These bottled water are usually from municipal water sources.

#### Bottled Water Consumption and Sales Figures

The United States bottled water industry is the second largest commercial beverage category by volume in the United States. According to the Beverage Marketing Corporation, in 2014, the total volume of bottled water consumed in the United States equaled 4.27 billion gallons, a 1.7% advance over the 2013 volume level. The industry has an average of 27.4 gallons per person, which means U.S. residents are drinking more bottled water annually than any other beverage besides soft drinks and juice (BMC). Sales revenue for the United States bottled water market in 2014 rose approximately 1.7 billion (or estimated delivery, a 1.7% advance over the previous year).

Bottled water is a safe, convenient, healthy and refreshing beverage that helps control coffee, or other agricultural beverages consumers tend to substitute or substitute in their diets.

<sup>12</sup> 7 CFR 101.101.101(c) (1)(i) (1)(i)  
<sup>13</sup> 7 CFR 101.101.101(c) (1)(i) (1)(i)  
<sup>14</sup> 7 CFR 101.101.101(c) (1)(i) (1)(i)

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although bottled water is generally the second most consumed beverage in the United States, its consumption volume is about half that of soft drinks and about 10% of coffee and tea. The 2006 bottled water advertising expenses totaled only \$72 million<sup>14</sup> for comparison purposes, WWT's activities are spent on advertising for residential and commercial advertising expenses for over \$100 million. Based on this data, it is apparent that consumers are drinking bottled water in greater numbers for various reasons. As an interesting side note, 75% of bottled water consumers also drink water from their public water systems.

#### **Bottled Water Business Models – Retail and Home and Office**

The bottled water industry can be divided into two primary business models. The first model is the home and office delivery (retail) of the home and five gallon bottles used with water coolers, which accounts for about 30% of the bottled water market. The second model is small sales of bottled water to consumers in 1 1/2 gallon, 1 gallon, and smaller sized bottles (e.g., half liter and liter), generally through convenience and grocery stores, as well as vending machines. Retail business accounts for about 60% of the bottled water market and is the largest and fastest growing segment of the United States bottled water industry.

#### **Greenwater, Inc. in the Bottled Water Industry**

##### **Bottled Water Companies are Good for much of its Environment**

Greenwater is the primary water source for bottled water producers sold in the United States. However, public water systems utilizing both surface and groundwater, are the water source for nearly 90% of the total bottled water market. Because a long-term sustainable supply of high-quality water is crucial to the success and "credibility" of bottled water companies, WWT is making bottles recognize the critical importance of environmental conservation and stewardship of all water resources. In particular, many bottled water companies perform multi-participant assessments relative to quality and quantity of source water and participate in local and regional water stewardship partnerships or similar programs.

Greenwater is a sustainable natural resource that is replenished through the hydrologic cycle. The function of the hydrologic cycle is influenced by weather patterns, evaporation rates and characteristics, geologic settings and other site-specific factors. When developing and using water resources, it is essential that one is balanced with the hydrologic cycle and the requirements of the regional demand for the resource. WWT is a corporate environmental management policies, laws and regulations that are comprehensive, science-based, multi-jurisdictional, cover all water systems, and balance the rights of various users against the future needs to provide a sustainable resource.

##### **Bottled Water Companies Use Minimal Amounts of Groundwater**

The bottled water industry uses minimal amounts of ground water to produce an important consumer product – and does so with great efficiency. According to a 2000 study by the

<sup>14</sup> Beverage Marketing Corp.

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Groundwater Research Foundation (GRWF), annual bottled water production accounts for less than 2/100 of our nation's (0.2%) of the total groundwater withdrawals in the United States each year.<sup>5</sup> Additionally, based on information gathered in the GRWF study, in 2004, 87% of the water withdrawn by bottled water companies, on average, was actually bottled for consumption by humans, as the bottling process is a very efficient one.<sup>6</sup>

The two largest uses of groundwater in the United States are for public water systems and irrigation. According to a United States Geological Survey (USGS) report published in 2006, irrigation accounts for 40% of the total groundwater withdrawals, while public water systems get the second largest use at 30%.<sup>7</sup> What comparing the amount of groundwater used by other industries with the 0.2% that is used by bottled water companies, it becomes very clear that any attempt to manage groundwater withdrawals from an all water use will target the two big industries.

Criticism of the bottled water industry by groundwater management officials is not based on the science or technology of groundwater withdrawals by the bottled water industry. The key fact is that bottled water is a valuable product essential for human consumption – just like milk, eggs, milk products, beer and other beverages – all other beverage products automatically have strong water content. Bottled water is just one of countless products and commodities that are made, and to single out any one product or industry is inequitable and will not be effective in reducing water resources.

In 2006, total bottled water consumption (including both groundwater and municipal water systems) was about \$2 billion gallons. Although this may sound like a significant quantity of water, it is approximately the same amount used annually by the public water systems to water the state of Illinois, West Virginia, Maryland, Massachusetts, or Kansas, Ohio, which have a population of approximately 10,000. It is important to recognize that the sustainability of the quality and total water resources is not threatened by who uses the water, but by how much is being withdrawn.

#### The Bottled Water Industry Supports Comprehensive Groundwater Legislation

The water laws primary jurisdiction over both water resources and most effectively manage them is water. For this important reason will be mentioned GRWF believes the focus on water resources water resources, a comprehensive management approach must be taken. To this end, the bottled water industry has shown strong and vocal support of comprehensive water groundwater management legislation needed in some years in Maine, Michigan, New Hampshire, Pennsylvania, Virginia and Wisconsin. In that sense, the bottled water industry actively supported a system that requires controlling of large quantity groundwater withdrawals and ensured a science-based approach to evaluating potential impacts of all withdrawals.

<sup>5</sup>Groundwater Research Foundation, 2007, *Bottled Water Production in the United States: How Much Groundwater is Actually Being Used?*

<sup>6</sup>GRWF Assessment of Water in the Groundwater in 2006 (2006) (June 2006, 2006)

<sup>7</sup>

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In several cases, WPA has supported the permitting and monitoring of groundwater test withdrawals. We have also supported establishing a regulatory framework to evaluate the permitting and water resource impact of all nonconsumptive or indirect withdrawals. It is vital for water resource managers to have quality data on current withdrawals and available water resources. Some of the comprehensive state groundwater management systems the bottled water industry has supported require a higher standard of approval for bottled water sources than for other uses of the same resource. The bottled water industry has accepted these standards in order to provide a foundation for a predictable future for the industry.

#### Indirect Legislation Directed to Greater Comprehensive Water Resource Management

Based on our experience in the states, it is very clear that there is a need for more and better data on the aquifers throughout the United States in order to make better decisions regarding available water resources. We think that this is an area where the federal government can play an important role. To that end, WPA supports the enactment of HR 1771, which would establish the 21st Century Water Commission to make recommendations on how to ensure comprehensive water resource planning for the United States. Every session of the current Congress, Policy Subcommittees were created in the 107<sup>th</sup> Congress created by HR 1771 when it passed the House of Representatives in 2001. The Commission would be authorized to: (1) gather U.S. water usage and demand; (2) study current water management programs of federal, state, and local agencies and private water utilities; (3) develop a national water supply and improving the availability, reliability and quality of freshwater resources; and (4) consult with representatives of each agency and utility in developing recommendations for a comprehensive water strategy.

#### All Groundwater Users Should Be Treated Equally

All groundwater use, whether for drinking purposes or non-drinking purposes, must be based on the volume of the particular use. WPA supports the development of comprehensive groundwater management legislation in order to make these decisions. However, such a framework must treat all groundwater withdrawals equally. WPA believes that it is a need for more and better data at the state level on groundwater resources. It involves all federal agencies, such as the United States Geological Survey, the United States Environmental Protection Agency, the Bureau of Land Management, the Bureau of Reclamation, and others, to ensure that data on water quality and quantity, and a central role helping the states to have this information when managing their groundwater resources. However, the data is not readily available and is not as complete as needed. Additional federal assistance in developing methods for evaluation of proposed large withdrawals would ensure that water resource management officials in these states have accurate data on withdrawals.

From the perspective of water management programs, the bottled water industry should be treated no differently than other beverage, food processing, or other manufacturing operations. If bottled water is produced according to FDA regulations, it is without question a food product, and all food products should be treated equally. To single out bottled water from other food products – not to mention beverages of other consumer products that are treated as an ingredient

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is in production – will not reduce the sustainability of water resources and is not in the best interest of consumers.

### **Bottled Water is a Safe, Healthy, Convenient Product**

Bottled water is a safe, healthy, convenient food product that consumers use because of its refreshing taste and because it is an excellent way to stay hydrated. Bottled water production is grown in proprietary facilities subject to numerous quality, safety, and environmental. Consumers also choose bottled water over other beverage choices to stay hydrated, reduce sodium, caffeine, sugar, artificial flavors or colors, alcohol and other ingredients.

Reports on consumer's declining health are in fact misleading about dairy, obesity, diabetes and heart disease are all on the rise. Bottled water is a non-healthy beverage choice, and the release of legislation at certain groups that would discourage the use of the product set out in the public's best interest.

### **Bottled Water Encourages Public Health**

The bottled water industry has always been at the forefront of water safety during natural disasters and other catastrophic events. Throughout the years, bottled water companies have immediately responded to the need for clean water after natural disasters, such as Hurricane Katrina, Florida, and Kansas, California wildfires, as the human disaster in the Hurricane and World Trade Center. Bottled water companies have donated billions of bottles of water to support in these types of catastrophes. Clean, safe water is a critical need for citizens and their dependent immediately following a natural disaster or other catastrophic event. Unfortunately, the availability of water from public water systems is often compromised in the aftermath of such an event. During these times, bottled water is the often first option to deliver clean safe drinking water (with) an additional water. Some bottled water companies before bottled water availability could be already emergency and relief efforts made, but the bottled water industry could be more and better help if the water is not properly.

### **Conclusion**

Bottled water is a fit natural use of groundwater when compared with all other groundwater uses within the United States. The bottled water industry is a conscientious and dedicated consumer and source of groundwater resources, that has been demonstrated by its active pursuit of responsible groundwater management policies at both the federal and state level. WWF supports groundwater management policies, laws and regulations that are comprehensive, science based, water conservation, treats all users equally, and balances the rights of current users against future needs to provide a sustainable resource. As defined by federal law, bottled water is a food product. The food industry does it should be afforded the same regulatory treatment as all other food products. Any efforts to restrict the food or discourage the bottled water industry's ability to offer consumers one of the healthiest product as one in the public's best interest.

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EPW's responsibility encompasses both assessment (such as the IIR) and to assist in help about the course the future water management to meet our nation's future needs. A Commission should identify the projected future water supply and demand to work to accomplish this goal, additional time in groundwater resources, both on and off property, will be needed. This data would also be helpful to the states to better manage their groundwater resources.

There are few alternatives for the future. EPW's needs study to assist the Administration with meeting the very important need.

**Attachments**

EPW's Groundwater Resource Management Policy Paper  
US Drinking Water Policy – Water by Volume  
Groundwater Usage Chart



## Groundwater Resource Management

### IBWA Policy

The International Bottled Water Association (IBWA) is dedicated to the responsible management of bottled groundwater resources. This can be accomplished by using sound science and engineering, ensuring the integrity of the aquifer, the surrounding environment or aquifers. IBWA supports comprehensive water resource management that respects both the quality and quantity of groundwater, and balances the interests and rights of those using this natural resource today and in the future.

### Background

The bottled water industry uses groundwater as its predominant source for bottling. Groundwater is a renewable natural resource that is replenished through the hydrologic cycle (shown below in Figure 1). The duration of the replenishment cycle is influenced by natural factors, recharge rates and characteristics, geologic settings and other site-specific factors. Other secondary and tertiary water resources. It is essential that use is balanced with the replenishment cycle and the requirements of the region served by the resource.

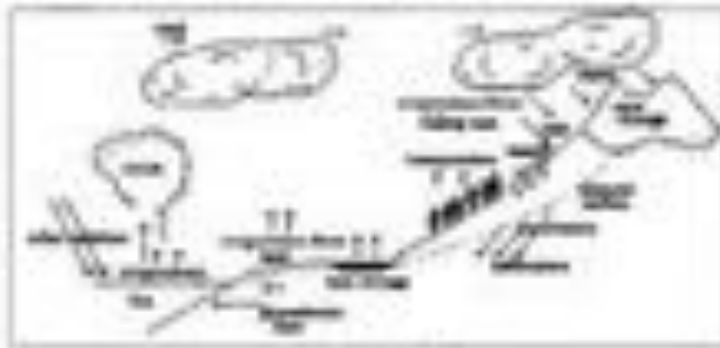


Figure 1

The United States population has grown by more than 100 million people since 1980. This growth has placed demands on regional water resources, resulting in concerns about water quality and availability. Such concerns have been a major factor in local community opposition to groundwater withdrawal. As the country continues to grow, these concerns along with the demand to meet all interests, creates a pressing need for a comprehensive approach to groundwater management.

### Water Policy Paper – Groundwater Resource Management Outline

Water of groundwater withdrawals should be managed in a sustainable and equitable manner. A study conducted that concerns about the limited water resources use of groundwater as an essential water resource. This research shows that no industry should be allowed to draw on the groundwater supply without the benefit of sound scientific evidence demonstrating its impact on the groundwater quality and quantity.

Surface water users account for only a fraction of a percent of the groundwater withdrawn each day in the United States, according to the U.S. Geological Survey. Data from groundwater withdrawals in the U.S. in 1990 (the latest year for which published data were available) were 27.4 billion gallons. In 2007, total annual groundwater withdrawals for surface water production were estimated to be 1.15 billion gallons. Thus, groundwater withdrawals for surface water production represent only 0.004 percent (less than one-thousandth) of one percent of the total daily groundwater withdrawals in the U.S.

### Regulation of Water Resources

Regulation of water resources varies from state to state. The management and use of water resources are based on water rights or equivalents in individual states. Water right systems can be grouped roughly into three water system types: appropriation and first-in-time.

1. The riparian system grants water rights to the owner of a parcel of land bordering a watercourse. This system applies in the 20 states east of the Mississippi River and Michigan.
2. Under the prior appropriation doctrine, water rights exist when the water is taken from the source and is used appropriated for a beneficial use defined by law and court decisions purposes. This system applies in the eight non-coastal states of the West and Alaska. The holder of the oldest appropriation water right receives priority to water delivery over more junior rights. In times of shortage, the water is not allowed but provided on the basis of seniority first in time, first right.
3. In the "first-in-time" states, the law of appropriation has been superseded or supplemented by riparian rights and first-in-time considerations have prevailed. The "first-in-time" is used in 17 states.

Water rights are also granted in a further of states by riparian and riparianized means and concepts. An example, the Great Lakes Water Resources Management Act requires large diversions of water through a cooperative agreement with the five riparian states and the two tributary provinces along the Great Lakes. In addition, a number of states that share a common watershed have developed processes designed to jointly address the management of their common water resources.

### Guiding Principles of Comprehensive Groundwater Resource Management

Water systems that comprehensive groundwater resource management must be supported by a foundation of sound science, which provides the foundation of use and determines the protection of the resource base. Such comprehensive resource management planning and policy must also incorporate a capacity to resolve conflicting interests based on the principle of equitable portion of the resource.

<sup>1</sup>USGS Study by Dr. Keith Bralower



### Check Your Progress - Groundwater Resource Management

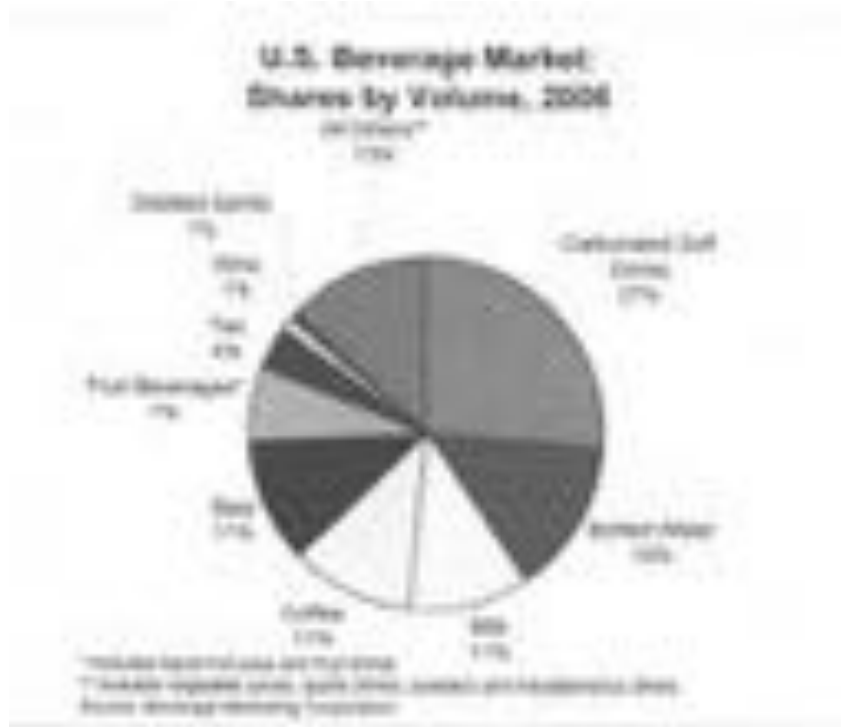
Which of the following guiding principles are the foundation for developing a comprehensive groundwater resource management plan and policy.

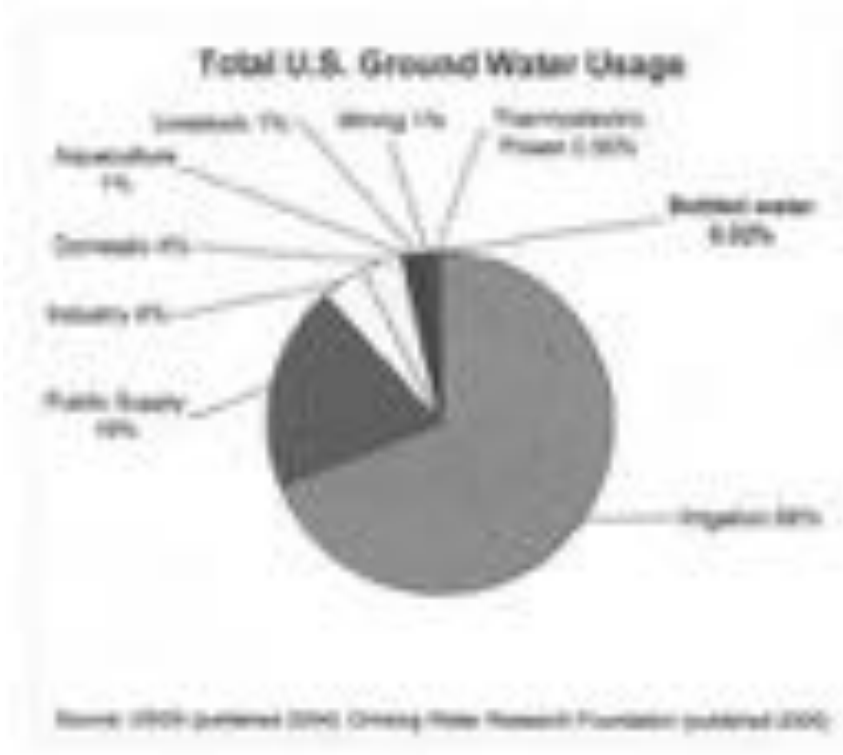
- 4. **Scientific Basis/Justification.** The primary effort of protecting and managing groundwater resources must be based on a solid foundation of appropriate and reasonably updated science. The two flow recharge rate surface water influence and recharge rate of contribution, and other factors affecting groundwater resource must be analyzed and considered in the design of a management plan. The science must be based within the context of science supported by empirical data, advanced research techniques and the collection of baseline data of groundwater resource characteristics and trends that must be critical to assess the analysis and design of groundwater management policies.
- 4. **The plan should be comprehensive and multi-jurisdictional.** Effective management of a groundwater resource must be multi-jurisdictional by its very nature. Municipalities, states, towns and counties do not necessarily hold political boundaries only. Municipalities, county and a local control of the management of groundwater resources cannot effectively address the issues of withdrawal from an aquifer that flows through many local jurisdictions. In addition, the multi-jurisdictional approach to management of groundwater resources will provide for fragmentation of permitting authority and overlapping management of the resource.
- 4. **Identify the quality and quantity of the groundwater.** In developing a comprehensive groundwater resource management program, the impact of use on quantity and quality must be fully assessed. Quantitative measures on the impact from various activities on groundwater resources must be identified and incorporated into any groundwater resource management approach. This includes withdrawal permitting and permitting surface water recharge of groundwater withdrawals, water budgeting, ground water use, groundwater resources, the permitting of water withdrawals can be more effectively managed through comprehensive understanding of the impact of the withdrawal on the total aquifer.
- 4. **Protecting all users from aquifer depletion.** Policies for water withdrawals must be developed under objective criteria that are based on scientific utilization of water resources should not be subject to requirements exceeding those applied to users of surface water and quality, such as requirements of less or increased permits for any surface water facilities. All users must be treated in an equitable manner with an emphasis on providing priority use of the groundwater resource for human consumption.
- 4. **Reduce the impact of non-point source runoff for the resource.** By having two scientific needs supported by appropriate quantitative measurements. By having of competing interests may be better evaluated and then a scientific method solution that supports the rights equally for an increased permit. It is essential for each user of groundwater to act as a steward of this renewable water resource in order to maintain both quality and quantity of the source and the amount of usage.

### Conclusion

**2010 Policy Paper – Sustainable Resource Management  
Strategy**

While public-private partnerships for government regulation will be essential for most of the program, EPA also will coordinate government management policies that are based on market-based policies wherever and whenever possible. EPA believes that only through the approval of government resource-management on the water needs of the population and the environment is effective management.





Mr. KUCINICH. Mr. Wilfong.

**STATEMENT OF JAMES WILFONG**

Mr. WILFONG. Thank you, Chairman Kucinich. Thank you very much for inviting to testify here today on this very important topic.

I'm from a little town in the western mountains of Maine called Stow. Stow is located in a very freshwater rich area backed up against the State of New Hampshire in the White Mountain National Forest.

In 2003, several citizens of this region, including myself, were concerned about the large-scale extraction that was taking place in the Fryeburg, ME, section of the Saco River Sand and Gravel Aquifer, an aquifer that extends from Bartlett, NH, to Hiram, ME. The recipient of this extracted water is the largest bottled water company in the world, Nestle. We knew that they were not here for a little water, that they were here for a lot of water. This raised several immediate questions and concerns for us.

One, who owns the water?

Two, who will control the usage of the water?

Three, how will the water be allocated if it becomes limited?

Four, is damage being done to the aquifer or the surrounding environment?

Five, do the citizens of Maine have a financial interest in this resource?

Six, which regulatory agency is responsible to sort out these many questions? Is it a State, local or Federal responsibility.

And, seven, since water is considered a tradable good or commodity, is trade treaty law somehow involved and how would that law affect local, State and Federal laws in the environmental area?

And finally, eight, is our community ready for this business?

I'm sure that we had a few more thoughts, but this was a start. The answers to these questions in Maine were not encouraging. We are ruled by the common law of absolute dominion. Essentially, this law means if the water runs under your property, you can pump it. In Texas, they call it the law of the biggest pump. Under this doctrine, the landowners over groundwater claim ownership. This may seem strange, as groundwater and surface water are part of one hydrological system and in Maine surface water is in the public trust and groundwater is not.

So several questions remain to be answered.

So who will allocate the usage?

It is not clear. It still has not been decided.

Is the environment and the aquifer being damaged?

Well, in some cases, studies have been done, but, in many cases, expertise for review and long-term evaluation has not been sufficient and the public isn't sure the resource is being protected.

What can citizens do to protect their interest?

In Maine, we wanted to pass a comprehensive law. We looked at four legislative concepts. We wanted to extend Maine's environmental law to large-scale extraction. We wanted a fair, open and transparent citizen's process. We wanted to establish reasonable use standards. We wanted to place groundwater under the public trust doctrine, and we wanted some recognition of the public investment in clean water. We suggested a severance tax on major

extraction and to have the revenues invested in a permanent fund similar to Alaska's oil trust.

H2O for ME, the bottlers and their stakeholders launched into a Statewide debate and added to the national debate on groundwater issues. After nearly 4 years of debate and discussion, H2O decided it was necessary to protect the resource and the environment as a first step. We found legislators who agreed. We also found a willingness among the bottlers and other stakeholders to be constructive, and we negotiated a position.

In June 2007, the Maine legislature passed a law that does the same.

It places all large-volume wells under the Natural Resource Protection Act.

Two, it provides for an open and transparent citizens process.

Three, it requires perpetual monitoring of all high-volume wells.

Four, it requires the applicant to pay for expert consultants to review, evaluate and make recommendations to the State.

Five, it establishes a freshwater resource committee within the State planning office to investigate all freshwater uses within watersheds.

And, six, it places environmental management and review responsibility for groundwater into two departments.

That is essentially what it does. It does not establish a public trust with water. It does erode absolute dominion. The law will only be effective if citizens are diligent about the enforcement of its intent.

Finally, what could the Congress do to help the situation?

Well, it could provide financial resources and technical assistance to local and State regulators involving environmental studies and review.

Two, it could establish Federal minimum environmental standards for major extraction wells.

Three, it could review trade rules concerning water being designated as a tradable good and ensure access and control of clean freshwater for the long-term best interest of U.S. citizens.

Four, it could extend standing to U.S. citizens using the Clean Water Act as a model.

Five, it could place all freshwater in the public trust, and it could hold the national conference on freshwater issues.

The Maine law is a start. Each State must review its situation and adjust its State statutes to meet the new realities of the freshwater demands of the bottled water industry. For those States with weak and outdated law, the new Maine law could be a first-step model.

I wish that more than 30 years ago when I was a young legislator who was working on clean water law that I could have seen the future. We could have fixed our groundwater law right then. Water was bestowed upon us by the same power that granted us our freedom. Water is life. When it comes to potable water law, we can't afford to get it wrong.

Thank you very much.

Mr. KUCINICH. I thank the gentleman.

[The prepared statement of Mr. Wilfong follows:]

**ENVIRONMENTAL POLICY SUBCOMMITTEE  
OVERSIGHT AND GOVERNMENT REFORM COMMITTEE  
RESPONDENT, DECEMBER 12, 1987  
1101 Rayburn Bldg  
(RM 3136)**

**CONGRASS'S EIGHTH MEMBERS OF THE COMMITTEE:** Thank you very much for inviting me to testify today on this important issue. My name is James Wilkey and I am from a little town in the western mountains of Maine called Stone. Stone is located in a very beautiful hill area backed up against the state of New Hampshire and the White Mountain National Forest.

In 1975, several citizens of this region, including myself, were concerned about the large-scale construction that was taking place in the Fryeburg, Maine section of the New River Gorge and Stone Agency, an agency that comes from Boston, not so close by. The impact of this proposed mine is the largest bonded water company in the world. There is concern that water from the Stone River flows here for a lot of water. This company averages 30,000 gallons a day. We had several immediate questions and concerns:

1. Who owns the water?
2. Who will control the usage of the water?
3. How will the water be protected if a hazardous incident?
4. Is damage being done to the quality of the surrounding environment?
5. Do the citizens of Maine have a financial interest in this mine?
6. Which regulatory agency is responsible to set up these many questions? Is it a local, state or federal responsibility?
7. Does water is considered a valuable good or a commodity in such terms has involved? How will that affect our local, state and federal laws in this environmental area?
8. Is our state ready for this business?

If you will let me have a few more thoughts for this year's year. The answers to these questions in Maine are not encouraging. We are ruled by the common law of absolute dominion. Essentially, this law means, if the water runs under your property you can pump it to the town, they call it the best of the biggest pump. Under this doctrine, the landowners own groundwater rights ownership. This does mean damage, or groundwater and surface water are part of the hydrological system and in Maine, surface water is in the public trust and groundwater is not.

So, who will enforce the usage? It is not clear. It is still to be decided. Is the environment and people being damaged? In some cases, studies have been done but expenses for review and long-term evaluation is not sufficient and the public will have the response to being protected.

What considerations do you present that justify? In Maine, we wanted to pass a comprehensive law. We looked at New England concepts: we wanted to control Maine's environmental law to large-scale construction. We wanted a fish, open and transparent citizen's process. We wanted to establish reasonable cost standards, we wanted to place groundwater under the public trust doctrine and we wanted some recognition of the public investment in clean water. We suggested a structure tax on major construction.

With the bill and its supporters and the business and other stakeholders involved in a statewide debate and tried to add to the national debate on groundwater issues. After nearly four years of debate and discussion we decided it was necessary to protect the resource and the environment as a last step. We found legislators who agreed. We also found a willingness among the business and other stakeholders to be constructive and we negotiated a provision. In June, the Maine Legislature passed a law that does the following: 1. It places all large volume wells under the Federal Resource Protection Act (RCRA); 2. It provides for an open and transparent citizen process; 3. It only grandfathered 2 wells all other environmental; 4. It requires perpetual monitoring of all large volume wells; 5. It requires the applicant to pay for expert consultants to review, evaluate and make recommendations to the state; 6. It establishes a freshwater resource commission within the State Planning Office to investigate all freshwater uses within watersheds; 7. It places responsibility for groundwater in two departments.

That is essentially what I done. It does not establish a public trust for groundwater. It does create absolute dominion. The law will only be effective if citizens are diligent about the enforcement of its terms. They must shoulder the responsibility.

What could the Congress do to help the situation?

1. It should provide financial resources and technical assistance to local and state regulation involving environmental studies
2. It should establish Federal minimum environmental standards for major construction wells
3. It should review state rules concerning water being designated as a suitable ground water source and control of clean fresh water for the long term from interests of US citizens
4. It should control mining on US citizens (using the clean water act as a model)
5. It should place all freshwater in the public trust
6. It should hold a national conference on freshwater issues

The Maine law is a step that may need to be by situation and adjust to more states to meet the new realities of the freshwater demands of the future water industry. For those states only with one existing groundwater law, the new Maine law could be a 1<sup>st</sup> step model. I wished that more than 10 years ago, when I was a young legislator, who was working on clean water law that I could have seen the future. We could have fixed our groundwater law right then. Water was treated open up to the same power that granted us our freedom. Water is life. When I return to justice what law we can't afford to get it wrong.



Mr. KUCINICH. We're now going to go to questions of the panel and to Professor Hall.

In many of the bottling cases, Federal jurisdiction is invoked when groundwater extraction affects surface waters. Do you believe that Federal agencies such as the Army Corps and the EPA diligently enforce acts like the Clean Water Act and the Endangered Species Act in these cases?

Mr. HALL. Thank you, Mr. Chairman.

In the bottled water cases—in many of the bottled water cases, including some of the ones I've been involved in—and I should disclose that I represented some conservation groups, Trout Unlimited, National Wildlife Federation and the Nestle case in Michigan—Federal jurisdiction and Federal statutes were not an issue. Federal statutes really come into play only incidentally, if, for example, the water bottler is also discharging pollutants into a navigable waterway or filling a wetland. But keep in mind that the Federal wetland regulations only pertain to the placement of dredged or filled material into a wetland, not the draining of water out of a wetland. So the U.S. Army Corps of Engineers doesn't really have much of a hook to address the environmental impacts of water withdrawals.

Mr. KUCINICH. Thank you.

Now, in the proposed Great Lakes Compact that has not been ratified by Congress, I understand there is an exception to the anti-diversion provisions for products that are less than 5.7 gallons. Does this provision effectively exempt typical bottled water products? And if it does, is there environmental justification for the 5.7 gallon threshold requirement?

Mr. HALL. That is an excellent question, Mr. Chairman. Thank you.

Of course, I've been intimately involved in both the negotiation and drafting of the proposed Great Lakes Compact. The exception that you mentioned, the Great Lakes Compact, bans diversions of water out of the Great Lakes basin which includes parts of eight U.S. State plus two Canadian provinces. Exempted from that ban on diversions of water out of the basin is water in containers less than 5.7 gallons, basically an office cooler. So you're correct. Bottled water is exempted from the ban on diversions.

However, the Great Lakes Compact would also require public management by the State of water withdrawals, both ground and surface water, at the State level for water that is used within the basin; and water withdrawals for bottled water or any other use are still subject to those requirements.

So I think it is actually a pretty fair compromise, all things considered. A water bottler within the Great Lakes basin, if the Great Lakes Compact is enacted, which I hope it is, would be subject to a long list of permit requirements, environmental protection standards, water conservation measures, as well as citizen review and judicial review of any permits that are granted. They wouldn't be flat-out banned, but they would be under pretty good regulations, and I think it would be a step in a good direction.

Mr. KUCINICH. It is my understanding that the FDA did not subject its spring water classification to a NEPA review. Do you think it was obligated to do so under law? And if it did undertake such

a review now, what would be the practical consequences? Could anything be gained.

Mr. HALL. That's another good question.

When the EPA promulgated its current bottled water rule, it did not conduct an environmental impact statement pursuant to the National Environmental Policy Act. I believe it should have. The issue was not raised at the time.

I think it is very clear, even just looking at the common agreement among the panelists, that bottled water withdrawals from springs certainly have the potential for significant environmental impacts, which is the threshold requirement for an environmental impact statement. And I think if the FDA were to relook at that rule or reconsider it or if there were a petition for rulemaking filed to the FDA, it would absolutely have to comply with the environmental impact statement in connection with its bottled water spring rule.

Mr. KUCINICH. I think that is quite significant.

Now, in the wake of recent Supreme Court decisions narrowing the definition of navigable waters in the Clean Water Act, have there been proposals to enact new legislation to expand Clean Water Act jurisdiction to the maximum that the Constitution permits to believe that this legislation is advisable and will it make much of a difference for the types of disputes that we have heard about today?

Mr. HALL. Yes, Mr. Chairman, I do. I believe it is Congressman Oberstar and my Congressman, Congressman Dingell, who have led an effort to enact the Clean Water Restoration Act which would make clear really that the Federal Government's jurisdiction over navigable waters extends to all waters of the United States to the extent of the commerce clause of the Constitution. I think that is excellent legislation. That is how the Clean Water Act was enforced and applied for over 30 years. I'd hate to see us take a step back in the wake of the Supreme Court's recent Rapano's decision.

Mr. KUCINICH. Thank you, Professor Hall.

Mr. Shays.

Mr. SHAYS. Thank you, Mr. Chairman. Thank you for having this hearing.

I view water as precious as gold in so many different ways. And it was not lost to me that foreign companies came and bought a number of water companies in the New England area because they bought it for the water and they bought it for the land because there is so much land that is reserved to protect our water supply.

I'm wrestling, though, with this topic as it is designed against—as it appears to be focused on bottlers of water. I look at Candlewood Lake in my State. I think a lot of that water goes to New York City. And I'm wrestling with the fact that water from northern California goes to southern California. I am wrestling with the fact that soda uses water. You know, Gatorade uses water. And yet we're focused on the water company. You know, I am tempted to ask you, Ms. Hauter, if you'd prefer and do you think that Coca-Cola is better for me than drinking water from a bottle. Is it better?

Ms. HAUTER. Well, I think what we believe—

Mr. SHAYS. No, no, I need you to—

Ms. HAUTER. I think that what we believe is that it is a societal question. Do we want safe and affordable—

Mr. SHAYS. That's not what I asked you. I asked you specifically if you think the water in a Coca-Cola is better for you than the water that would be pure?

Ms. HAUTER. I think that is a question—it is an unfair question.

Mr. SHAYS. It is not an unfair question. If you are going to come and testify before us and you are going to attack companies for making money, it is very fair. Otherwise, you're a meaningless witness, and I shouldn't ask you any questions.

Do you want to be relevant? Do you want to testify? Then answer the question. Please answer the question.

Ms. HAUTER. I think that Coca-Cola is unhealthy and that drinking a glass of tap water is a better option than drinking bottled water.

Mr. SHAYS. Let me ask you this, though. Why would you not have the concern—I guess I don't know. Maybe Professor Hall. Where does Coca-Cola get its water from?

Mr. HALL. Coca-Cola—both for the product Coke and as well as for what I believe is their Dasani brand primarily uses water from a municipal water supply.

Mr. SHAYS. Doesn't the same analogy apply to soda and beer that would apply to bottled water?

Mr. HALL. In some instances, yes, it does. For example, Coke, which primarily sells bottled water that comes from municipal water supply, I believe it is Dasani is their brand name.

Mr. SHAYS. I'm not talking bottled water.

Mr. HALL. Yeah, it is the same as Coke.

Mr. SHAYS. So they are depleting, in a sense, the water supply locally and distributing it nationwide?

Mr. HALL. Correct.

Mr. SHAYS. OK. Water, basically, I believe is 1/50th percent of the water that we consume. In other words, it is less than a percent. It is not 1/10th of a percent. It is 1/50th of a percent. So, in the realm of things, why should I be focused on this issue, as opposed to the other 99 percent?

Mr. HALL. That is an excellent question, Representative.

I would say that, as I hopefully made clear in my initial testimony, bottled water is a tiny microscopic use of the overall national water supply. And from a macro level, it is really not a major concern in terms of our water conservation and use. The concern is that spring water bottlers withdraw water from, by definition, springs which are very small, vulnerable water resources such that—

Mr. SHAYS. These are unique water systems that you're making the point about?

Mr. HALL. Exactly.

Mr. SHAYS. Let me ask you. In Stamford, CT, next door was Greenwich, CT. Greenwich—American Water Co., I think is the name of it, didn't have enough supply. The bog reservoir, they were going to pump from the ground and put into the pond—into the lake, and then they were going to take it. And we realized in Connecticut that we didn't have anything that focused on the water table. We focused on surface water.

So what I did as a State legislator is I gave that right to the Department of Health. Because I do think Ms. Hauter and others have an issue as it relates to a locally confined area that may find its water table being drawn down. Why wouldn't that just be an issue that Maine, New Hampshire and others should work out on their own without the Federal Government stepping in?

Mr. HALL. Well, first off, I'm pretty familiar with that region. I actually grew up in Richfield right by Stanford.

Mr. SHAYS. Do you have family still there.

Mr. HALL. Yeah. Yes, sir.

Mr. SHAYS. Geez, I have to be on my best behavior. I just want to say you have been an excellent witness.

Mr. KUCINICH. And even though the gentleman's time has expired, since there is this local connection, I'll ask the professor to answer the question.

Mr. HALL. Thank you. And, in all seriousness, it is an excellent question. I think that primarily water use should be managed at the State and local level; and I think, by and large, State and local governments have done and are doing an excellent job of improving their management. But, however, the FDA through the spring water rule has created essentially a national market for some of the most vulnerable water resources in localities and State, and so this is a problem that in some part was caused by the FDA and to some extent can be fixed by the FDA.

Mr. SHAYS. Just last, though, I mean, if the State of New Hampshire or Maine or whatever is concerned with what is happening with its aquifers, with its springs, it does have the legal authority to step in, correct?

Mr. HALL. Absolutely. Yes.

Mr. SHAYS. And I would just say that I hope it does in a constructive way working with the bottlers and so on.

Mr. KUCINICH. I thank the gentleman. His time has expired.

To Professor Hyndman, is there a difference from a hydrological perspective when you use groundwater for irrigation for agriculture versus using it for extraction for water bottling?

Mr. HYNDMAN. The primary difference is exactly what Professor Hall just mentioned. I mean, groundwater is groundwater. If we're talking about shallow groundwater, the quality of much of the shallow groundwater across, say, the Midwest is fairly similar. The main difference in agricultural pumping is that is largely from deeper aquifer systems that are further down in a watershed. They're not in the headwaters of a watershed.

Mr. KUCINICH. Is one more damaging than the other?

Mr. HYNDMAN. Yes. The spring water pumping is more damaging because of the fact that it is in the headwaters.

Mr. KUCINICH. Would you repeat that.

Mr. HYNDMAN. Yes. The spring water pumping is more damaging in my opinion because it is done in the headwaters of watersheds.

Mr. KUCINICH. Because it is done?

Mr. HYNDMAN. In the headwaters of watersheds in ecologically sensitive areas.

Mr. KUCINICH. Now I'd like to ask you one more question, but I'd also like to ask Mr. Doss and Ms. Hauter to respond. And I've always wondered this. Can people typically perceive a difference in

taste and is there a quality of difference between FDA defined spring water and bottled water that does not technically meet the spring water designation. Professor Hyndman.

Mr. HYNDMAN. For me, that would be a personal choice. And I—personally tasting between the two of them in a blind tasting, I probably could not tell you if one is spring water versus not.

Mr. KUCINICH. Professor Hall.

Mr. HALL. I doubt the average person could tell the difference. And, in fact, some municipalities like Evart, MI, have as municipal water, water that meets the FDA spring water definition.

Mr. KUCINICH. And Ms. Hauter.

Ms. HAUTER. No. There have been many taste tests around the country and people have difficulty. Basically, bottled water is marketed on its packaging and its sex appeal and the claims that it is healthier, not taste.

Mr. KUCINICH. Sounds like a Presidential campaign.

Mr. DOSS.

Mr. DOSS. It is a consumer choice. Obviously, some consumers may prefer tap water; some consumers may prefer bottled water. We don't disparage tap water. We think that if people are drinking water that is a good thing, because it is a very healthy product. Again, it boils down to consumer choice. I can tell the difference in many bottled waters, just as I can tell the difference between tap water and other beverages.

Mr. KUCINICH. You are saying you can't or cannot.

Mr. DOSS. I can.

Mr. KUCINICH. You can?

Mr. DOSS. Absolutely.

Mr. KUCINICH. Can we take a test right now.

Mr. DOSS. I'm just saying I can certainly tell the difference in many bottled waters that I drink.

Mr. KUCINICH. You're under oath, but you're—

Mr. DOSS. Absolutely.

Mr. KUCINICH. We'll give you an exemption.

OK. Mr. Wilfong.

Mr. WILFONG. Yes, I think there really is no difference. The water just happens to hit a low point in the ground and bubbles up and out of it. It is all essentially the same water system.

Mr. KUCINICH. OK. To Professor Hyndman, if the FDA changed its definition of spring water—I'd like to ask Mr. Doss to answer this, too, so you can get ready. If the FDA changed its definition of spring water to include groundwater not immediately and directly connected to a lake or spring, that is, you don't have to draw down the spring when you pump in order to sell it as spring water, would that alleviate the direct impacts in spring wetland surface water situations like in the McCloud, NH, and other locations where they have been having problems during lower precipitation—or there have been problems during lower precipitation or drought-like conditions.

Mr. HYNDMAN. Thank you, Mr. Chairman. It is an excellent question.

If the FDA changed the definition to include groundwater that is in the vicinity and even deeper groundwater, that could resolve the concern because the pumping would not be pushed into those head-

water areas. And, in fact, you could do hydrogeologic studies that would basically define the best areas to put this pumping where it would have minimal impact.

Mr. KUCINICH. Mr. Doss, would you like to respond.

Mr. DOSS. I think the issue really goes back to the question of sustainability at the State level. When a State grants a permit for a bottled water company to withdraw that water, they should take into consideration all the science involved. They should take into consideration all the concerns raised here today by these professors. And if they decide that the water source is not sustainable with the bottled water plant, then they should deny the plant the ability to pump water from that particular source. So I think it gets back to sustainability.

Mr. KUCINICH. I'd like to just go and ask every member of this panel a question. From your written and oral testimony, there seems to be broad support for the proposition that the USGS should be empowered and funded to assume a much greater role in groundwater mapping and monitoring. And if this is so, why hasn't it been done yet and what political obstacles stand in the way of that reform? Ms. Hauter.

Ms. HAUTER. I think it is something that has been overlooked and there has been a lack of funding for and that we have to get busy and it is not just for bottling—for bottled water, but we need to do it for a range of water issues from agriculture to industry.

Mr. KUCINICH. Professor Hyndman.

Mr. HYNDMAN. I think that the issues go beyond just mapping for the U.S. Geological Survey. In fact, it is very important for the funding for the USGS to have monitoring of surface water. It is an incredible network that the U.S. Geological Survey has across the country, but the funds have been continually cut. They have to keep going back to cooperators for money.

And personally when I do research on broad scales to try to figure out the impacts on the things like climate change and land use change, it is very difficult when these USGS gauges go off line or, you know, a new one will startup somewhere else because that is where a cooperator has an interest. If we don't maintain the network for the type of science we're talking about, it is very difficult to talk about what the impacts will be.

Mr. KUCINICH. Thank you.

Professor Hall.

Mr. HALL. The truth is that doing the scientific work, gathering information, the research, it is not sexy. It doesn't capture the public's imagination. The work that Professor Hyndman does, the work that I do, the work that USGS does is often overlooked, and that is unfortunate because really that information is the foundation for making good decisions. And so I think one of the most important things that this committee could do would be to strongly recommend more funding and support for USGS.

Mr. KUCINICH. Thank you.

Mr. Doss.

Mr. DOSS. I think I would say that we have a consensus here that decisions need to be made on sound science, and I would agree with that. And IBWA has supported the enactment of the 21st Century Water Commission, which will help those Federal agencies

share data with the State, that can allow the State to make more informed decisions, have better science. We think that is a great thing, and we support passage of that Federal legislation and think that is a proper role for the Federal Government.

Mr. KUCINICH. Thank you.

Mr. Wilfong.

Mr. WILFONG. Yes, I would agree with all that has been said. We need a lot of help, especially in the smaller communities that have few financial resources to be able to take a hard look at the groundwater situation.

Mr. KUCINICH. Thank you.

Mr. Hyndman, we showed a photo of the Dead Stream to the first panel witness from Nestle. And this photo was taken at a time after Nestle began pumping in Michigan. My staff was informed that this photo was shown to Nestle. What did you think the photo shows? What do you think it shows?

Mr. HYNDMAN. This is the mud flats in front of the Doyles' property, and the Doyles were involved in that case. And during this summer, as well as at least one previous summer, the conditions went to a point where the levels had fallen below what had been observed prior to pumping. And it is a situation where the pumping that is occurring is drawing down the water level beyond what the natural conditions would be. So, therefore, the impacts are exacerbated by the pumping that Nestle has—

Mr. KUCINICH. Was this beavers that did this?

Mr. HYNDMAN. No, this is not beavers. This is a low water level.

Mr. KUCINICH. How do you know? How do you know it wasn't beavers?

Mr. HYNDMAN. Because I am very aware of what is happening at this site. And there has been a beaver dam intermittently down below this site.

Mr. KUCINICH. How many beavers would it take do that?

Mr. HYNDMAN. I am not sure how many beavers.

Mr. KUCINICH. OK. I just thought I would ask.

Ms. Hauter, is there a connection between what you see as a threat of privatization of public water resources and the deterioration of the public water infrastructure? Could there be some sort of taxation scheme by which either consumers or producers of water products fund improvements in the public infrastructure, such as the Clean Water Fund that you propose in your written testimony?

Ms. HAUTER. Yes. This is one of our main concerns with bottled water. Because it is sold as safer, because we no longer see public water fountains being built, we are concerned that it is actually undermining our public water systems. And we do generally have very safe and affordable drinking water, but we have real infrastructure problems. And every year there is a \$22 billion deficit. And in the future, in the very near future, if we don't have more Federal investment in our water infrastructure, we could be in a situation where there isn't safe and affordable drinking water. So we would like to see that public commitment to safe drinking water grow. And we do need a clean water trust fund to do that.

Mr. KUCINICH. Thank you very much.

I want to thank all the witnesses. I am Dennis Kucinich, chairman of the Domestic Policy Subcommittee of the Oversight and Government Reform Committee. This has been a hearing on assessing the environmental risks of the water bottling industry's extraction. I want to thank all the witnesses from the first and the second panel for their cooperation. The subcommittee will be in correspondence with you to followup on some of the points that were raised today. I want to thank the staff on both sides for their participation, Mr. Issa for his cooperation.

And without further discussion, this committee stands adjourned.  
[Whereupon, at 4:26 p.m., the subcommittee was adjourned.]  
[The prepared statement of Hon. Bart Stupak follows:]



**Opening Statement by Congressman Bart Stupak**  
*Subcommittee on Domestic Policy*  
**"Assessing the Environmental Risks of the Water Bottling Industry's  
Extraction of Groundwater"**  
December 11, 2007

Thank you, Mr. Chairman, and Members of the Subcommittee for holding this very important hearing on the environmental risks posed by the water bottling industry's extraction of groundwater.

Since 1992, I have made it my mission to protect and promote Michigan's most precious resource, the Great Lakes.

The Great Lakes are important to area residents for more than just a source for drinking water. Millions of people rely on the Great Lakes for jobs, transportation, agriculture, and energy production. 110 million tons of cargo are shipped annually representing an over \$4 billion economy.

Currently, Great Lakes water levels have reached the lowest point in recorded history dating back to 1918.

As a result, additional expensive dredging projects will be required to sustain access to harbors and transportation routes for commercial shipping. Lower water levels have also affected water quality by reducing the lakes' ability to flush out toxic substances and excessive levels of nutrients, such as phosphorus and nitrogen.

Groundwater sources, which bottling companies seek to extract from, play a vital role in replenishing the Great Lakes. Groundwater alone makes up approximately 18% of Lake Michigan. Today, the Army Corps of Engineers website shows that Lake Michigan is more than 2 feet below its monthly average.

The Nestle Company pumps 208 gallons per minute of groundwater headed for Lake Michigan. The City of Detroit has also entered into water contracts with Coke and Pepsi to bottle and ship substantial amounts of Great Lakes water as Aquafina and Dasani. Future water bottling facilities have already been proposed.

These companies do not own this water, the people in the Great Lakes basin do. Regardless, bottling companies are being allowed to take a shared resource, our Great Lakes water, and turn it into a commodity which they sell for a profit.

With the net profit of the bottled water industry in the billions, the drive to extract more from the Great Lakes for commercial gain will increase. The problems associated with low water levels in the Great Lakes will only become worse with the expansion of the bottled water industry.

Many in the bottled water industry will argue that their extraction of this public resource will have no impact on the natural ecology.

However, Mr. Chairman, these arguments ignore the astronomical growth of consumption occurring in the United States. The Beverage Marketing Corp. estimated that the U.S. consumed 8.2 billion gallons of bottled water in 2006, 3 billion gallons more than 2001.

Without a ban on the extraction of groundwater sources in the Great Lakes Basin for bottled water export, it won't be long before irreparable harm is brought upon this pristine environment. The reckless commoditization of groundwater only serves to add unnecessary pressures to an already struggling environment.

Groundwater plays an integral part in replenishing our Great Lakes. According to a recent study on Great Lakes water, the lakes replenish themselves by less than 1% per year. We consume 1%-2% per year, resulting in an average net loss of as much as 4% per year. We cannot afford to lose any water that helps to replenish the lakes.

Mr. Chairman, thank you again for holding today's hearing on this critical issue.