

A Proposal to Establish a Global Water Institute

Carolina Faculty and Administrators

9 July 2004

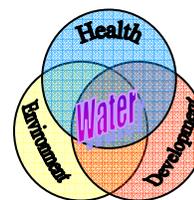
Abstract

This proposal outlines a faculty-led initiative and vision to build upon Carolina's history, strengths, stated priorities, and resources to establish a Global Water Institute (GWI), which will propel The University of North Carolina at Chapel Hill (UNC) to a position of academic leadership in an area of primary importance to humankind. Our vision is to launch a campus-wide institute uniting strengths at UNC, building links with Duke and North Carolina State University, and forging ties with RTP organizations and beyond to address a broad agenda of research and education issues related to global water resources. Further, our vision includes the recruitment of one of the world's foremost scholars back to Chapel Hill to head this institute and catalyze a high-impact, broad-based effort that will rapidly drive UNC to a preeminent international leadership position in this field.

Introduction

Chancellor Moeser has articulated a vision of prominence for UNC as the leading public institution of higher learning in the United States. He has pledged to invest in programs that can be among the best in the world in areas consistent with our mission. The University, under the leadership of Provost Shelton, has developed an Academic Plan to guide the selection of priorities of the University. The Academic Plan lists six overriding academic priorities for Carolina over the next five years, one of which is to extend our global efforts in research and teaching. The Academic Plan further articulates a vision to integrate interdisciplinary research, education, and public service in several areas, including global health. These priorities are clear and compelling; however, to the best of our knowledge, this proposal offers the first concrete implementation plan.

The goal of our proposal is to establish UNC as the leading academic institution in the world in the area of global water resources management and development. The specific objectives of this proposal are to: (1) define the scholarly focus of the proposed institute, (2) summarize the history and resources upon which such an institute can be developed, (3) detail an approach for attracting an outstanding scholar to lead the institute, (4) describe the process for developing, evolving, and vetting the concepts presented in this proposal, and (5) summarize our recommendations for meeting these goals.



Focus

Our desire is for UNC to make major contributions to humankind, become the leading academic institution in the critical area of water resources, unite scholars in the Carolina tradition of unselfish, interdisciplinary endeavor, and meet UNC's objective to conduct research and education of a global nature. Global water resources development and management is a critical area of scholarly focus that is consistent with our vision and the University's goals.

Our proposal is supported by three considerations: (1) the importance of the issues, (2) the availability of resources upon which we can build, and (3) UNC's comparative advantage in the field of water resources. We comment on each of these in turn.

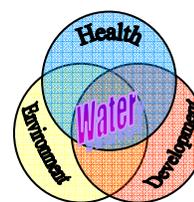
Importance of the issues

The availability of sufficient quantities of safe water is a prerequisite for human existence and development. The problems of water resources are ubiquitous; they transcend local, state, national, and continental boundaries, and they are posing increasingly greater challenges for society. Consider, for example, Chapel Hill, which is in a relatively water-rich part of the world. The Orange Water and Sewer Authority is presently making a major shift in how it serves its customers by reclaiming wastewater to be sold to UNC so as to better conserve fresh-water resources. This change, while perhaps seeming comparatively small and only locally relevant, has far-reaching implications, from technology to tariffs to institutions.

At the state level in North Carolina, most of the communities east of I-95 rely exclusively on groundwater, 75% of which must be replaced within the next 15 years by far more expensive surface water that is of poorer quality. These relatively poor communities will have to join with each other to share facilities and reduce costs in ways that cannot even be imagined at present; the impacts on NC's economy are expected to be enormous.

At the national level, the arid southwestern United States is rapidly growing in population and faces critical water shortages. Depletion of flows in major rivers spreads water shortage issues across state and national boundaries (e.g., the US and Mexico in the Colorado River basin), while the tendency to pump aquifers at unsustainable rates has endangered the viability of groundwater resources. As a result, many communities will have an increasingly difficult time ensuring a high level of water supply reliability, a necessary precondition for human well-being and economic growth. Furthermore, new research suggests that water resources challenges will become more formidable as climate change raises the likelihood of extreme droughts and tropical storms.

Globally, water resources development and management is one of the most important issues facing society. Billions of people live without adequate or safe supplies of drinking water, large areas of the developing world now face chronic and growing water scarcity,

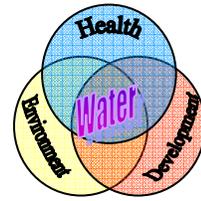


and poor countries will be affected most dramatically by climate change. Examples of important water resources issues in developing countries include the following:

- The lack of improved water supplies for one billion persons;
- The impact on water supply caused by the 2.4 billion people on the planet who lack sufficient waste disposal facilities;
- Growing scarcity of water due to increasing population and the need for technical and institutional solutions to ensure more efficient, sustainable use of the resource;
- The possible alterations in rainfall patterns and intensity due to climate change;
- Insufficient infrastructure to ameliorate the damages from both droughts and floods;
- Severely degraded water environments resulting from over-exploitation – rivers that have run dry, wetlands that have dried up, and aquifers that have been mined;
- Growing conflicts over scarce water – between villagers, between cities and farmers, between provinces in large countries, and between countries;
- Inadequate mechanisms for adapting water allocations to rapidly changing social demands (e.g., increasing needs for water due to population growth);
- Insufficient attention to the integrated management of land and water as development occurs;
- Lack of facilities for dealing with wastes of all sorts – human, industrial, agricultural – with often devastating health and environmental consequences via water borne vector processes;
- Inadequate supplies of potable drinking water for rapidly growing megacities in the developing world;
- Inadequate and poorly performing institutions at all levels, from basin and aquifer management to utility services and regulation; and
- Poorly developed capital markets for raising infrastructure finance.

A recent survey of developing countries done by the World Bank shows that the most significant need is for infrastructure development, which in turn requires such critical inputs as sustainable environmental development, legal and business expertise, management, and education. Experts in all of these areas are available at UNC and in the Triangle, and their expertise could be united through this proposed Institute. The following three high-profile examples illustrate how we might contribute to the resolution of problems in global water resources:

- Bolivia has enormous water resources that could generate hydropower for sale to ready markets in Brazil and Argentina, but it has no water laws. No foreign company would risk building power plants without legal assurances to protect its



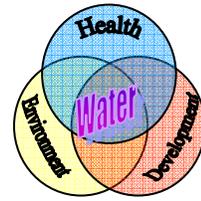
investments. Inputs from the Law and Business Schools can help rectify this situation.

- The Nile is shared by 10 countries, Egypt being the largest and farthest downstream. Upstream neighbors (Sudan and Ethiopia) are building irrigation dams that are threatening Egypt's supply and economy. International organizations are desperately needed to negotiate joint use of the Nile and similar rivers. UNC has worked with the World Bank in applying game theory to this problem.
- China allocates the majority of its irrigation water to subsistence farmers who get more than they need and don't know how to use it. Meanwhile, large agribusinesses that grow most of the food for the country are shortchanged and their production is constrained. This is a classic problem in allocating a scarce resource, which will require tools from economics and operations research to resolve.

Available resources upon which we can build

As the problems have become increasingly complex, it is imperative that more sophisticated solutions be devised, yet in many cases the tools do not exist to quantitatively and qualitatively assess regional scenarios and provide information critical for water resources planning. Addressing these challenges will require the mobilization of a wide range of disciplines:

- *First are the natural science disciplines* – hydrology, engineering, marine sciences, chemistry, ecology, mathematics, statistics, computer science, physics, and biology. These disciplines provide the basis for understanding natural processes and for devising solutions for dealing with the challenges of water quality and quantity, and the sustainability of the aquatic environment. Long-standing strength in these core disciplines exists at UNC in a variety of departments, and also at Duke and North Carolina State University.
- *Second are the related natural and public health sciences* – epidemiology, nutrition, health behavior, and health policy. These disciplines are critical to understanding the impact of engineering changes on human beings, and are represented strongly in various departments in the School of Public Health.
- *Third are the social sciences* – economics, public policy, political sciences, sociology, anthropology, and geography. These disciplines are critical to ensuring that technical solutions are translated into institutions, programs, and policies that will have the desired effect for people and ecosystems, and that the political and behavioral realities are understood and incorporated. There are strong programs in



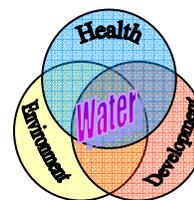
these disciplines on the Chapel Hill campus, and among them there is already considerable, ongoing, cross-departmental work involving water.

- *Fourth are the humanities* – history, philosophy, and literature. These disciplines are seldom incorporated into the study of global water issues, but they are arguably just as central in formulating approaches to water resource development and management. Water management is not something that is written on a blank page, not in the United States and even less so in the major civilizations of the world. On the contrary, the evolution of societies has always been heavily conditioned by historical developments in their relationships to water, developments that are reflected in literature and culture. An understanding of water history and water culture is therefore central to assessing proposals for new approaches and to understanding what can and cannot be transferred across cultures.
- *Fifth are other professional fields* – medicine, nursing, dentistry, and law. At UNC, medicine, nursing, and dentistry have programs that reach out to train and deliver services to communities located in other parts of the world with several examples in Latin America. Many of the health problems in these communities are caused by waterborne and other related vectors. The discipline of law plays an integral part of the solution for safe, efficient, and sustainable water supplies by providing credible legal and administrative structures.

Although important integration of these disciplines to focus on water resources problems has a history at UNC, this work has not been elevated to the profile nor the scope of the nature proposed for the Institute. Beginning with Kenan Emeritus Professor Daniel A. Okun's arrival in the early 1950's, the Department of Environmental Sciences and Engineering (ESE) began what is now a half-century of dedicated and committed scholarly pursuit centered on water management and service delivery in developing countries. Today, ESE is recognized throughout the world as a center for excellence in water and sanitation planning in developing countries, and this reputation provides a solid foundation on which to launch this new initiative.

Concurrent with the above work, UNC faculty from other departments have worked over the past five decades on water resources management problems in dozens of countries throughout the world and for all the major international donor organizations, including the World Bank, Asian Development Bank, Inter-American Development Bank, US AID, and the Organization for Economic Cooperation and Development. Through these efforts UNC has left a major mark in several areas in the development of:

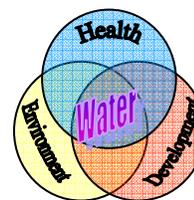
- appropriate technologies for water and sanitation for poor communities;
- valuation techniques for assessing the demand for water, sanitation, and other environmental services;



- microbiological indicators relevant for water quality in developing countries;
- an improved understanding of the relationships between water and health;
- the design of tariff systems; and
- an improved understanding of issues involving international conflicts over water.

In addition to these efforts, many other units on campus and in the Triangle area are positioned to contribute to making the Institute a success. A sampling includes:

- Other departments of the School of Public Health, which have world-class expertise in epidemiology and water-related health and hygiene behavior;
- The Carolina Population Center, which has a long history of integrating issues on water, health, and development into their large-scale population samples and analyses;
- Anthropology, which has a focus including culture, demographics, and natural resources;
- City and Regional Planning, which has internationally-recognized experts in water and land policy analysis;
- Geography, which has a focus on issues of watersheds and climate in both their research and teaching;
- Marine Sciences, which has a focus on the coastal estuary interface, where the majority of the world's population are within 100 miles of continental shorelines;
- Computer Science, Mathematics, and Statistics and Operations Research, which form a core group of quantitative sciences that can contribute to the essential activities related to modeling of water resources systems;
- Economics, which has globally-recognized expertise in issues of development economics and public finance;
- Political Science, which has a focus on the political economy of change in developing countries;
- The Business and Law Schools, which have expertise in international organizations, private sector provision of services in developing countries, and development of legal structures to encourage private investment in water resources infrastructure;
- Philosophy, which could make important contributions through a focus on ethics;
- Public Policy, which has a focus on urban issues in developing countries, and where a number of Humphrey Program scholars have focused on international water issues; and
- Infectious disease initiatives, which exist in a number of Schools and Centers.



Beyond Chapel Hill, the Global Water Institute would also draw on other venues of excellence and capitalize on the unmatched density of PhD-trained professionals in the Triangle region in areas related to this proposal. Other contributors would potentially include:

- NC State University, which has major capacity in hydrology and hydrogeology as well as a highly-regarded Center for Environmental and Resources Economics that has included work on water valuation issues;
- Duke University's Center for International Development, which conducts major mid-career training programs for professionals from developing countries;
- Duke's School of Environment and Earth Sciences, which has a focus on water management issues; and
- The Research Triangle Institute, which does substantial applied work on water and other resource management issues, and on associated conflict resolution.

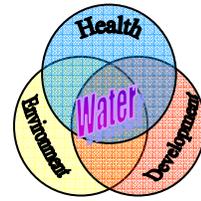
UNC's comparative advantage in the field of water resources

Virtually every major US university recognizes the challenges of engaging with a globalizing world. There is a plethora of university programs focusing on issues of international trade, and there are numerous programs (e.g., at Columbia, Harvard, Johns Hopkins, and Stanford) focusing on global and international health. However, there is remarkably no integrated program at a first-rank university that has been developed to address the vital issues of global water policy and development. (To some degree, some European universities, including the International Hydraulics Institute in Delft, have responded, but primarily in the form of technical training, not cross-disciplinary scholarship and research.) The establishment of the proposed Institute at UNC, along with the foundational resources, the right leader, and a strong institutional commitment would be a sufficient basis upon which to build the leading academic program of this kind in the world, which we believe could be accomplished within three to five years.

Scope

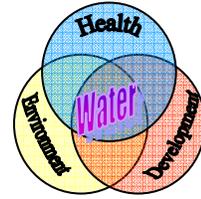
The focus of the Institute will be centered on water resources development and management research and education. Within this focus, the scope will be broad and inclusive, as will participation. We outline the scope as follows:

1. **Water Supply.** Only 0.05% of the total water on Earth is in the form of surface water in streams, lakes, and reservoirs that is typically associated with support of human needs for food production, business, and personal uses. This is also the portion that is recycling through the hydrologic cycle on a time frame that is meaningful for population change. Many countries, including the United States, are mining groundwater reserves at a rate that exceeds the recharge capacity. The remainder of the Earth's water is in the oceans, icecaps, and in underground



aquifers. The consideration of all the aspects of the mismatch of the geographical distribution of the supply and the multiple demands by growing populations will represent a major intellectual focus of the Institute; population growth is projected to add three billion additional people to the current 6.3 billion during this century. Elements include water rights, storage, reuse, and effects of climate change.

2. **Water Quality.** The quality of water is related to its intended use. Some specialized scientific uses require the absolute highest quality containing the least impurities possible. Major use categories for the world's population are for irrigation for food production, personal uses for drinking water and sanitation, and industrial development. The world's population reuses water directly or indirectly. The knowledge base to reuse water in a safe and appropriate manner is incomplete. Simple examples are detection and removal of pathogenic microorganisms and toxic chemicals before use and reuse.
3. **Flood Control and Drainage.** The dynamic interaction between the uneven hydrological cycle and the surface characteristics of watershed and river basins often results in too much or too little water in a given area for some portions of the year. Many efforts of the past and present have been designed to alter the natural hydrologic cycle for the benefit of humankind; examples include the construction of large multipurpose reservoirs in the western United States, and smaller reservoirs in the Research Triangle, such as Jordan Lake and Falls Lake. The largest dam project in the world to date is the Three Gorges reservoir and dam in China. This project has many positive outcomes, including electric power generation, flood control, and improved navigation on the Yangtze River. However, it does not come without costs, both financial and otherwise. When the impoundment area is full, it will submerge cities, towns, cultural sites, and landscapes of great scenic beauty and will result in the resettlement of millions of people.
4. **Sustainable management of land and water resources.** Throughout the developing world, land and water resources are being degraded at an alarming rate. There are some signs of change—in ensuring that ecological flows are restored to rivers in Southern Africa, and in managing the watershed of the Loess Plateau in China—but these need to be strengthened, amplified, and generalized.
5. **Economic Issues.** From the largest project in the world to the smallest, such as provision of safe drinking water at the individual household level in a village in a rural part of Africa, access to safe drinking water illustrates the issues of efficacy of technology, appropriateness to scale, the economics of the project, and stakeholder involvement. Poverty, access to financial capital, cost recovery, maintenance, and improvements to service are all elements of the economic issues associated with water and development. Even for the smallest project,

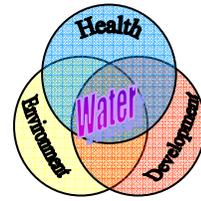


collectively there are costs associated with technology development, affordability, and education for the proper use of simple local units.

6. **Social Sciences and Water.** Many water resources problems have important social and cultural dimensions that require the efforts of interdisciplinary teams with significant participation from social scientists. The management of water resources and sustainable delivery of high-quality water and sanitation services require sociologists and political scientists in the creation of institutional arrangements and governance structures to ensure accountability of service providers. Economists need to think carefully about tariff structures that balance the objectives of economic efficiency, cost recovery, and poverty alleviation, as well as the design and regulation of markets for exchanging water rights. Anthropologists need to better understand individuals' health-seeking practices and cultural beliefs about the role of water resources in society and at the community level, and participatory approaches to water resource management. Historians need to provide insights about the development and evolution of institutional arrangements, and the ways in which these constrain and facilitate change. And finally, ethical issues are at the heart of judgments about how water should be used. A productive Global Water Institute must ensure that the insights of all of these disciplines be brought to bear on this vital problem.
7. **Institutional and Management Issues.** Programs and policies work only if they are implemented by effective, accountable institutions. Reforming existing, often anachronistic, institutions is one of the greatest challenges in developing countries. It is widely understood that institutional design requires a multidisciplinary approach. Historians thus have a fundamental role in ensuring that reform proposals are grounded in, and influenced by, historical forces and in an understanding of what is and is not transferable across cultures. Similarly, water management is intrinsically a political process, which involves the identification of the interests of different stakeholders, including those who favor and those who are opposed to change. Finally, the "new institutional economics" has developed a powerful framework for understanding issues of institutional design and change. An exciting frontier for the Institute to explore is the integration of these skills with the institutional possibilities that emerge as information and other technologies cause economies of scale and scope to break down and as water management moves from being an "old economy industry" to a knowledge-intensive, participatory member of the "new economy."

The Vision of the Global Water Institute

Our vision is that the Global Water Institute will become a world leader in developing the intellectual underpinnings for facing these compelling issues and for training a new generation of professionals to address them. The Institute will be a vibrant



multidisciplinary center, where scholars from across the campus (and beyond) will apply their disciplines to research and scholarship on water issues, and where integrated, multidisciplinary educational opportunities will exist for undergraduate and graduate students. Without question, the Institute will attract substantial external funding for multidisciplinary research and training, and much of the fieldwork will be in developing countries where UNC already has a strong presence, including China, South and Southeast Asia, Latin America, the New Republics of Eastern Europe and Central Asia, and sub-Saharan Africa.

Global Water Institute Functions

The University of North Carolina at Chapel Hill, as a Class I Research University, has a complex and interlocking educational mission to learn from the past, to understand the present, and to generate new knowledge for the future. To accomplish the mission of the University requires a robust knowledge base, critical thinking, mentor-student relationships at the undergraduate and graduate level, and the appropriate environment for learning. This University has the critical mass of scholars throughout its schools and departments to transform the intellectual area of water resources into outstanding learning experiences for our undergraduate and graduate students.

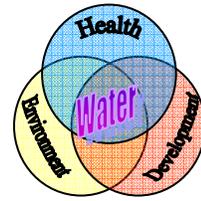
This Institute will:

- Draw faculty members together around a topic that has local to global significance and importance;
- Promote intellectual linkages of research activity from local-state-national to global applicability;
- Host annual “flagship” conferences with recurring themes on areas such as problem definition, research needs, and testing of solutions, and on *ad hoc* topics such as waterborne diseases, water and development, water and culture; and
- Enhance educational opportunities at undergraduate, graduate, and community outreach levels.

Water supply and quality will be a part of the professional and/or personal lives of all future graduates of this university. The focus of this Institute can become a model framework for future issues they will face in the Twenty-first Century that will span from the local to the global scale.

Leadership

The success of the Institute will depend upon a strong, cross-campus institutional commitment and our ability to attract a preeminent scientist to the position of Director. Allocation of a Kenan Eminent Professorship to the Institute will provide the means to



attract a scholar of the kind needed to lead the Institute. **The leader we have in mind is Dr. John Briscoe.**

John Briscoe is a former UNC faculty member, who left UNC in 1987 and accepted a permanent position at the World Bank, where for the last eight years he has been the highest ranking professional in water resources, with responsibility for development of World Bank water policies and oversight of a \$50 billion portfolio of water projects.

Dr. Briscoe earned a PhD from Harvard in Environmental Engineering. He has had an extraordinary career of scholarship and service, the latter including residence in South Africa, Mozambique, Bangladesh, and India, and engagement with water management issues in countries in every region of the world. In addition to the World Bank, he has worked extensively with the World Health Organization, the United Nations, and the major bilateral donors throughout the world, including the United States.

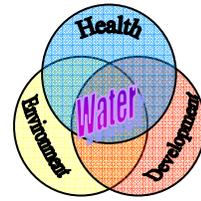
In his three major research/scholarship positions (at Harvard's Center for Population Studies, the Cholera Research Laboratory in Bangladesh, and at UNC), Dr. Briscoe demonstrated an extraordinarily diverse and strong commitment to multidisciplinary scholarship. He has published in engineering, epidemiology, anthropology, nutrition, economics, and political science journals. At UNC he was regarded as an outstanding teacher, and he is now recognized globally as one of the foremost public speakers on water issues, having given keynote speeches to most of the major professional organizations and at virtually all of the major international water conferences.

Dr. Briscoe is the right person to lead the Institute and realize the vision that we have outlined in this document. He has played the primary role in three world-wide water initiatives: the Stockholm Global Water Partnership, the Marseilles World Water Council, and the World Commission on Dams. He has the experience and the drive to build the interdisciplinary teams needed to make major contributions to the many problems that the Institute will target. He has the contacts and record of accomplishment to attract the broad-based external support needed for the Institute.

It is highly unlikely that there is anyone in the world better qualified to direct the Institute. Dr. Briscoe has Carolina history, ties, and affection, and we believe he would return to Carolina to direct the Institute if an offer were made to him of the kind described in this proposal, including a Kenan Eminent Professorship.

Process

This proposal to establish a Global Water Institute has resulted from the following process:



- The full faculty of the Department of Environmental Sciences and Engineering had a wide-ranging discussion to identify issues of primary importance to the world. In addition to issues, the faculty discussed institutional strengths and preeminent researchers in the world in the respective areas. The discussion resulted in a white paper, upon which this proposal is largely based.
- Meetings were held with Dean Dardess of the School of Public Health and the chairs of all departments in the School to discuss the proposed Institute and its leader. The proposed Institute and Dr. Briscoe received unanimous support from the SPH chairs and the Dean.
- Professor Cass T. Miller corresponded at length with John Briscoe to explore his interest and solicit his input to help articulate the vision.
- Several faculty members from around campus were invited to assist in articulating the vision of the Institute.
- A draft of the proposal was circulated to potential Institute members on campus and colleagues knowledgeable about the proposed Director. They were asked to write brief letters indicating their support and to comment on what aspects of the Institute would be of most benefit to their unit. These letters of support are included in Appendix II. We believe, because of the short time frame over which they were solicited, that the letters represent only a fraction of the support that exists for this faculty-led initiative.
- The final draft proposal was reviewed by Dean Dardess, chairs in the School of Public Health, and others who helped draft it; final modifications were made, and the proposal was returned to Dean Dardess for submission to Provost Shelton.

Summary and Recommendations

A faculty-led initiative was undertaken to identify an area of primary importance to the University and the world in which the likelihood is high that UNC can build a leading program within three to five years. After far-reaching discussion, the vision for a Global Water Institute emerged. The Institute will build upon an area of historical strength at UNC; it will unite an existing set of distinguished scholars at UNC, Duke, NCSU, and in the Research Triangle Park; respond to an area of high importance to the University; and will enable the University to be the preeminent leader in an area of crucial importance to humankind. The ideal Director of the Institute has been identified in Dr. John Briscoe, who has Carolina ties and a passion to build the Institute described in this proposal. Widespread support for this effort is documented in Appendix II. We stand ready to assist the University in the next steps needed to make this vision a reality.

Appendix I: John Briscoe CV

CURRICULUM VITAE

JOHN BRISCOE

Mailing Address

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Washington DC 20433
Telephone: (202) 473-5557; FAX: (202) 614-0678
Email: Jbriscoe@Worldbank.org

Personal Data

Born: South Africa, July 30, 1948
Citizenship: South Africa and Ireland. Permanent resident (Green card) in US.
Languages: English, Afrikaans, Bengali, Portuguese, Spanish

Education

1965-1969: B.Sc (first class honours) in Civil Engineering, University of Cape Town
1970-1972 MS in Environmental Engineering, Harvard University
1972-1976 Ph.D. in Environmental Engineering Harvard University;
Major field: Water Resources Engineering; Minor fields: economics and demography
1993: Leadership Course at Center for Creative Leadership, Greensboro, North Carolina
1998: Executive Development Program -- Harvard and Stanford Graduate Schools of Business

Education Honors

University of Cape Town:

1965: Alan Spiers Memorial Bursary
Max Michaelis Scholarship
Barney Barnato Scholarship
1966-69 Electricity Supply Commission Bursary
1967 University Medal in Mathematics
1968 University Medals in Hydraulics, Hydrology, Transportation, Highways, Soil Mechanics and Thesis;
City of Cape Town Gold Medal as Best Graduating Engineering Student at the University;
South African Steel Institute Award for Best Structural Design;
E. Oliver Ashe Scholarship for Post-Graduate Study;
Cape Town City Scholarship for Post-Graduate Study.

Harvard University:

1970-74: Harvard University Fellowship

1974 Clemons Herschel Prize (awarded annually to the outstanding graduating student in Environmental Engineering)

Professional Registration

Registered Professional Engineer (South Africa, No. 848025)

Employment

Dr. Briscoe has had a career which has focussed on the issues of water and development. This has included employment in:

- In major universities (Harvard and the University of North Carolina);
- In a major international public health research institution (the Cholera Research Laboratory, now the International Center for Diarrheal Diseases Research);
- In a non-governmental organization (OXFAM);
- In government water management agencies (South Africa and Mozambique) and
- In the World Bank, the premier development agency in the World, in a variety of research, operational and policy roles.

Year	Period	Institution	Position	Major responsibilities
1967	3 months	ESCOM (the South African electricity company)	Trainee	Construction of the Arnot and Hendrina thermal power stations
1968	3 months	John Mowlem Co	Trainee	Construction of the King George Dock, Hull, England
1969	3 months	Ninham Shand and Co., Consulting Engineers	Engineer-in-training	Design of secondary sewerage treatment plant for town of Mossel Bay (population 50,000).
1970	1 year	Department of Water Affairs, South Africa	Planning Engineer	Hydrological and economic planning of water resource investments.
1973-5	3 years	Harvard/India Water Resources Program, Center for Population Studies, Harvard University	Project Coordinator	Water resource planning for Narmada and Ganges river basins in India.
1976	9 months	Harvard School of Public Health and MIT	Research Scientist	Responsible for assessment of effects of infection on nutrition for World Bank-funded study of urban malnutrition.
1976-7	1½ years	Epidemiology Division, Cholera Research Laboratory, Bangladesh	Epidemiologist	Design and execution of field research on water demand, health impact of water use, and political economy of rural energy.
1978	6 months	OXFAM, Bangladesh	Advisor	Review of role of NGOs in development in Bangladesh.
1978-9	1 year	Division of Applied	Research	Research projects on water demand, diarrheal

		Sciences, Harvard University	Fellow	disease epidemiology, and social structure and energy use in Bangladesh.
1979-81	2 years	National Directorate of Water, Mozambique	Water Engineer	Management of a provincial water supply service. Design, planning and supervision of water and sewerage projects in rural areas and medium-sized towns.
1981-87	5 years	School of Public Health, University of North Carolina at Chapel Hill	Assistant/ Associate Professor	Research and teaching on water supply and water resources management.
1986-7	1 year	Policy and Research Division, Water Supply and Urban Development Dept, World Bank	Consultant (full-time)	Design and execution of multi-country research study on demand for water; preparation of World Bank Policy Paper on Rural Water Supply.
1988-90	2 ½ years	Population and Human Resources Division, Brazil Department, World Bank.	Senior Economist	Lending and analytic work on health in Brazil.
1990-96	5 years	Water and Sanitation Division, The World Bank	Chief	Responsible for the staffing and management of a new unit, with responsibility for providing specialized support to Bank operations, and for Bank research and policy in the water and sanitation sector. By 1996 the division comprised a professional staff of about 100, 70 of whom worked in field offices in Latin America, Africa and Asia. In 1996 the annual budget of the division was about \$16 million.
1996-date	8 years	The World Bank	Senior Water Advisor	The senior water professional position in the World Bank. Responsibility for corporate policies and strategies on water and oversight of a portfolio of about \$50 billion of water resources, irrigation, hydropower, water and sanitation and water environmental projects. Author of the Water Strategy of the World Bank (2003). Since April 2003 has added dual responsibilities - as Senior Water Advisor for the South Asia Region while continuing to serve as Bank-wide Senior Water Advisor.

Research Development and Management

Harvard University (1973-1976):

- Managed a major Ford Foundation-funded research cooperation program on water management in India (1973-1976)
- Jointly with MIT managed a research project on infection and nutrition.

Cholera Research Laboratory/International Center for Diarrheal Diseases Research (1976-1978)

- Developed and managed research programs on water and cholera, on nutrition and on energy.

Harvard University (1978):

- Conducted a Rockefeller Foundation-funded research project on energy and society.

University of North Carolina at Chapel Hill (1981-1986)

- Managed a USAID program on water and health.
- Was responsible for water and environment components of a Carolina Population Center study on infant mortality in the Philippines.
- Developed and managed a study on water and health in Malawi.

The World Bank (1987-2004)

- Developed and managed a major study on the determinants of demand for water in developing countries
- Managed a research project on adult health in Brazil
- Managed a major multi-donor research program in water supply for poor communities
- Managed a research program on integrated water resources management
- Was a member of the Bank-wide Research Committee, responsible for oversight of the Bank's research program

The National Research Council (1996-2002)

- Was a member of the Water Science and Technology Board

Engagement with International Water Partnerships

Dr. Briscoe was a founding member of the major global water partnerships. These include the World Water Council, the Global Water Partnership, and the World Commission on Dams. He has played a major role in the Rio Earth Summit and the World Summit on Sustainable Development.

Interviews and Speeches

Over the past 12 years, Dr. Briscoe has had extensive interaction with the major print, television and radio media. Interviews with Dr. Briscoe have been run by the BBC, CNN, CSPAN, National Public Radio, The Economist, the New York Times, The Economic Times and The Financial Times.

Dr. Briscoe has given many speeches at major water, environment and development conferences throughout the world. These include keynote speeches to: the International Water Association, the International Commission on Irrigation and Drainage, the International Hydropower Association, the World Water Fora and the Water and Environment Federation.

Scientific and Professional Articles

Dr. Briscoe has published widely in journals from many disciplines, including public health, nutrition, epidemiology, water resources, demography, anthropology, political science and economics. His publications include:

1. Briscoe, John, Public Health in Rural India: The Case of Excreta Disposal, Research Paper Series, No. 12, Harvard University Center for Population Studies, May 1976, 414 pages.
2. Briscoe, John, "Infection and Nutrition: The Use of Public Health Programs as Nutrition Interventions", Report for the Urban Poverty Task Force of the World Bank, and background document for: Confronting Urban Malnutrition: The Design of Nutrition Programs, by J. E. Austin, Johns Hopkins University Press, Baltimore, 1980
3. Briscoe, John, "Bangladesh: The politics of an International Health Program", Economic and Political Weekly, (Bombay), Vol XIII, No.11, March 18, 1978, pp 518-520.
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18. Briscoe, John, "Evaluating Pump Characteristics in Poor Countries", Civil Engineering, Amer. Soc. Civil Eng., pp 58-61, November 1984.
19. Briscoe, John, "Water Supply and Health: Selective Primary Health Care Revisited", Proceedings of The World Bank International Conference on Oral Rehydration Therapy, Washington, DC, pp 141-150, 1984 (reprinted in Health Habitat and Development, ed. J. Tulchin, Lynne Rienner Publ.Inc. Boulder Colorado, 1986.)
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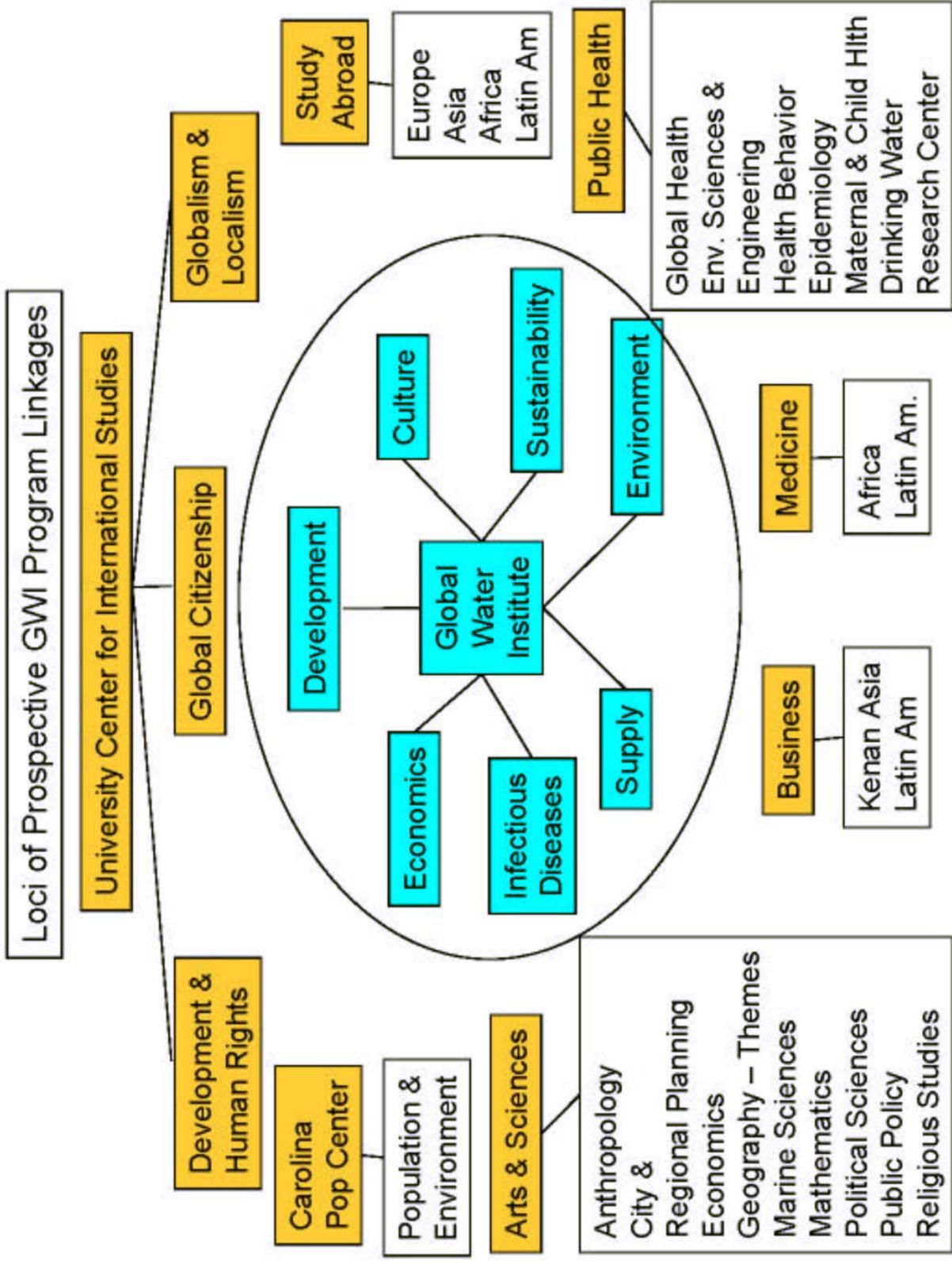
Appendix II: Letters of Support

14 Distinguished Professors; and 28 Chairs, Deans, Directors, and Administrators

Name	Title	Affiliation	School/College/University/Other
John S. Akin	Austin H. Carr Distinguished Professor and Chair	Department of Economics	Arts and Sciences, UNC-CH
Alice Ammerman	Director, Center for Health Promotion and Disease Prevention, Associate Professor	Department of Nutrition	Public Health, UNC-CH
Richard N. L. Andrews	Thomas Willis Lambeth Distinguished Professor	Department of Public Policy and Department of Environmental Sciences and Engineering	Arts and Sciences, UNC-CH
Terry Barnett	President		CMI® Washington/Carolina
Lawrence E. Band	Voit Gilmore Distinguished Professor and Chair	Department of Geography	Arts and Sciences, UNC-CH
Larry K. Benninger	Professor and Chair	Department of Geological Sciences	Arts and Sciences, UNC-CH
Margaret E. Bentley	Professor of Nutrition and Associate Dean for Global Health	Department of Nutrition	Public Health, UNC-CH
Timothy S. Carey	Professor of Medicine and Director, Cecil G. Sheps Center for Health Services Research	Cecil G. Sheps Center for Health Services Research	Medicine, UNC-CH
Myron S. Cohen	J. Herbert Bate Distinguished Professor Medicine, Microbiology and Public Health Director, Division of Infectious Diseases Director, Center for Infectious Diseases		Medicine, UNC-CH
Douglas Crawford-Brown	Professor and Director	Carolina Environmental Program	Public Health, UNC-CH
Margaret Dardess	Interim Dean	Public Health	Public Health, UNC-CH
Clarence E. Davis	Professor and Chair	Department of Biostatistics	Public Health, UNC-CH
Jo Anne Earp	Professor and Chair	Department of Health Behavior and Health Education	Public Health, UNC-CH
Eugenia Eng	Professor and Director MPH Program WK Kellogg Community Health Scholars Postdoctoral Program	Department of Health Behavior and Health Education	Public Health, UNC-CH
Barbara Entwisle	Professor of Sociology Director, Carolina Population Center	Carolina Population Center	Arts and Sciences, UNC-CH

M. Gregory Forest	Associate Chair of Applied Mathematics Grant Dahlstrom Distinguished Professor of Mathematics Co-Director, Institute for Advanced Materials, Nanoscience & Technology	Mathematics Department	Arts and Sciences, UNC-CH
David K. Guilkey	Boshamer Professor of Economics	Department of Economics	Arts and Sciences, UNC-CH
James W. Jorgenson	Kenan Professor of Chemistry and Department Chair	Department of Chemistry	Arts and Sciences, UNC-CH
Edward T. Samulski	Carey C. Boshamer Professor of Chemistry	Department of Chemistry	Arts and Sciences, UNC-CH
Jonathan Kotch	Professor and Interim Chair	Department of Maternal and Child Health	Public Health, UNC-CH
Peggy Leatt	Professor and Chair	Department of Health Policy and Administration	Public Health, UNC-CH
Francis Lethem	Professor of the Practice, Public Policy Studies; Director of Graduate Studies, PIDP Co-Director, Rotary Center	Duke Center for International Development	Duke University
David H. Moreau	Professor	Department of City and Regional Planning	Arts and Sciences, UNC-CH
Barry M. Popkin	Professor	Department of Nutrition	Public Health, UNC-CH
Jan F. Prins	Professor and Chair	Department of Computer Sciences	Arts and Sciences, UNC-CH
Kenneth H. Reckhow	Professor of Water Resources	Nicholas School of the Environment and Earth Sciences	Duke University
Dennis A. Rondinelli	Glaxo Distinguished International Professor of Management	The Kenan-Flagler Business School	Business, UNC-CH
William L. Roper	Dean and Vice Chancellor for Medical Affairs	School of Medicine and UNC Hospitals	Medicine, UNC-CH
David A. Savitz	Cary C. Boshamer Distinguished Professor and Chair	Department of Epidemiology	Public Health, UNC-CH
Philip C. Singer	Daniel A. Okun Distinguished Professor of Environmental Engineering Director, Drinking Water Research Center	Department of Environmental Sciences and Engineering	Public Health, UNC-CH
Kerry Smith	University Distinguished Professor	Agricultural and Resource Economics	North Carolina State University
John W. Stamm	Professor and Dean	School of Dentistry	Dentistry, UNC-CH
Michael A. Stegman	Duncan MacRae'09 and Rebecca Kyle MacRae Professor of Public Policy and Chairman	Department of Public Policy	Arts and Sciences, UNC-CH
Niklaus Steiner	Executive Director	University Center for International Studies	Office of the Provost

Francisco Werner	Professor and Chairman, MASC Dept. Chairman, GLOBEC SSC	Department of Marine Sciences	Arts and Sciences, UNC-CH
Dale Whittington	Professor	Department of Environmental Sciences and Engineering	Public Health, UNC-CH
Steven H. Zeisel	Associate Dean for Research AICR/WCRF Distinguished University Professor Professor and Chairman, Department of Nutrition Professor, Department of Pediatrics Director, UNC Clinical Nutrition Research Center	Department of Nutrition	Public Health and Medicine, UNC-CH





THE UNIVERSITY OF NORTH CAROLINA
AT
CHAPEL HILL

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June 24, 2004

Dr. Casey Miller
Chair, Department of Environmental Sciences and Engineering
UNC at Chapel Hill
UNC Campus

Dear Dr. Miller:

I am writing to lend my strong support to the proposal for establishing a Global Water Institute at UNC at Chapel Hill. I share the proposal's enthusiasm for the notion of making UNC the leading academic institution in the world in the area of global water resource management and development. In my work on health systems and provision of health care in developing countries, both in the academic setting of UNC and as a professional staff member at the World Bank, I have come to understand and appreciate the magnitude of the importance of water supply to the health and well-being of the poor people of the world. Along with preventive measures that are cheap and effective, and the education of mothers, making good water available and affordable can save more lives and prevent more serious illness than almost anything else the world can help poorer countries to accomplish. I go into countries like Uganda (where I lived for two years while working on health system reform for the World Bank) to help with programs to finance the health system and end up advising the leaders of the importance of first getting good water and sanitation and then worrying about such complex things as health insurance. Because of its strengths in environmental science and engineering, public health, medicine, nutrition, economics, and a number of other disciplines, UNC is amazingly well situated to develop the Global Water Institute. Nothing to compare exists elsewhere and the importance of the work it would do is beyond debate.

I could say much more about the value of the institute itself, but will move to an equally important part of the proposal that excites me almost as much as the institute itself, the recruitment of John Briscoe to be its Director. I have worked with John on survey design, I have co-authored papers with him on water supply and its value to health and well-being, I have traveled with him in some of the best and worst places, and I consider him to be one of the most impressive people I have ever known. John is possessed of both an exceptional mind and the exceptional judgment and common sense that allow it to be well used. He works exceptionally well with others both on academic research and on the minutiae of organization and management. He not only knows how to do things but he gets them done.

When John and I left UNC for the World Bank at essentially the same time in 1985 he kidded me that he would return to UNC but that I would end up staying at the World Bank. The opposite occurred, he stayed at the World Bank I returned to UNC to develop a program in health economics for developing countries. I think it is now time for UNC to correct the mistake of losing him the first time, by attracting him back to UNC. Under his direction the future of that Institute

should be bright.

Not only do I support the notion of the Global Water Institute and the hiring of John Briscoe to direct it, but I also envision that institute as being of great value to the Department of Economics and the Department as being an important contributor to the Institute. It is difficult to think of topics of import in the water supply and development area that do not have important economic components. UNC Economics' strengths in applied microeconomics, survey data collection and analysis, development economics, health economics in developing countries and public finance fit exceptionally well with the goals and needs of the institute. I envision that the Institute will draw much expertise and collaborative input from the Economics Department and that the Economics Department will grow in stature and be strengthened by its participation in the work of the institute. Both of these impacts will strengthen UNC and be of service to the world.

My best regards,

John S. Akin
Austin H. Carr Distinguished Professor and Department Chair



The University of North Carolina
Center for Health Promotion and Disease Prevention

School of Dentistry School of Medicine School of Nursing School of Pharmacy School of Public Health

June 29, 2004

Casey T. Miller
Professor and Chair
Department of Environmental
Sciences and Engineering
University of North Carolina at Chapel Hill
Chapel Hill, NC 27599

Dear Dr. Miller,

As the Director of the Center for Health Promotion and Disease Prevention (HPDP), I am pleased to express my enthusiasm and support for the proposed Global Water Institute, and for recruiting Dr. John Briscoe back to UNC to lead this effort.

The Center for HPDP is one of 28 Prevention Research Centers across the US funded by CDC to foster collaboration between universities and public health agencies in order to address critical public health issues, particularly among minority and underserved populations. We work with faculty in all 5 of the UNC health affairs schools: Medicine, Public Health, Pharmacy, Nursing, and Dentistry. Our faculty and staff also collaborate with the North Carolina state and local health departments as well as other community-based organizations to translate and disseminate research products and findings. Many of our intervention strategies and programs for chronic disease prevention have been culturally adapted for adoption in other states and geographic regions.

Nothing is more critical to the public's health than a safe and adequate water supply. Your vision for a Global Water Institute is an excellent example of bringing together a team of interdisciplinary scholars to focus their wisdom and energy on an issue of continuing importance to the global community. Global challenges related to safe water resonate with me personally in that my entry into the field of nutrition, after an interdisciplinary undergraduate major in African Studies, stemmed from my concern about the adverse impact of powdered infant formula promotion in the developing world which resulted in a decline in breastfeeding exacerbated by disease and malnutrition stemming from contaminated water supplies. With HIV now in the equation, the issues are even more complex and the need for a multidisciplinary perspective is critical.

Perhaps where our Center can make the greatest contribution to the mission of the Global Water Institute is from our experience and commitment to research regarding the most effective and sustainable applications of research findings to community-based intervention

programs. Aside from a large clinical trial in Malawi regarding breastfeeding, nutrition, and HIV transmission to infants, most of our research is domestic. However, many of the behavioral, social, and economic issues are cross cutting themes. For example, our Center's core research project over the past 10 years focuses on chronic disease prevention (cardiovascular disease, cancer, obesity) through lifestyle modification among blue collar working women in the eastern part of the state. With the devastation of Hurricane Floyd in this region a number of years ago, our research team has responded by securing additional funding to understand and address the impact of this natural disaster on increased rates of domestic violence, extreme economic hardship, and numerous other social and behavior factors that influence chronic illness and one's ability to access health care or take preventive measures.

Finally, an emerging (though not new) research approach to address seemingly intractable public health issues, particularly among disadvantaged populations, is Community-Based Participatory Research (CBPR). Done properly, CBPR can result in substantial positive impact on research quality (enhanced recruitment and retention, measurement validity, etc.) as well as improve the potential for applying research findings and products in a way that "returns the investment" to participating communities. This approach has been embraced by a number of researchers at NIEHS and used by faculty in the Department of Epidemiology at UNC to address a variety of environmental justice issues in North Carolina, including contamination of the water supply by the hog farm industry. We have just completed an AHRQ funded systematic evidence review of CBPR and believe our experience in this area could be useful to the Global Water Institute as you consider your combined approach to research, education, and public service.

The potential for the Global Water Institute to bring together the interdisciplinary talent and commitment of faculty at UNC and in the surrounding region is enormous, as is the potential to have a positive impact on the global community. I wish you the best with your efforts and am happy to offer support and assistance from our Center as needed.

Sincerely,

A handwritten signature in cursive script that reads "Alice Ammerman".

Alice Ammerman, DrPH, RD
Director, Center for Health Promotion and Disease Prevention
Associate Professor, Department of Nutrition
University of North Carolina at Chapel Hill



THE UNIVERSITY OF NORTH CAROLINA
AT
CHAPEL HILL

Richard N. L. Andrews
Professor of Environmental Policy
Department of Public Policy and
Department of Environmental Sciences & Engineering

CB# 3435, Abernethy Hall
Chapel Hill, NC 27599-3435
(919) 843-5011; Fax: (919) 962-5824
e-mail: pete_andrews@unc.edu

June 24, 2004

Cass T. Miller, Professor and Chair
Department of Environmental Sciences and Engineering
CB# 7431, Rosenau Hall
University of North Carolina at Chapel Hill
Chapel Hill, NC 27599-7431

Dear Casey:

I write to express my enthusiastic support for the initiative to create a Global Water Institute at UNC-Chapel Hill, and to seek a Kenan Eminent Professorship for Dr. John Briscoe to return to Carolina to direct it.

The issues associated with water – its availability, its purity, and its management – are serious and ubiquitous in the world today, and will only continue to increase in importance. In North Carolina alone we have faced both devastating floods and serious droughts in recent years, as well as water supply constraints for a still-growing population and water quality damage from both urban development and agriculture. All these challenges will continue and recur with increasing intensity in the future. Nationally, we are now experiencing historic multi-year droughts across much of the West, deteriorating infrastructures in the Northeast, and the approaching end of the design life of many of our major dams built half a century or more ago. Even these challenges pale beside the needs of the human population globally, an estimated three billion of whom still do not even have basic access to potable water and sanitation. One of the few explicit objectives and timetables agreed to by the United States government at the 2002 World Summit on Sustainable Development in Johannesburg, in fact, was a commitment to halve this number by 2015.

UNC-Chapel Hill is distinctly positioned both by its history and by its faculty resources to create such an institute, and to use it both to orchestrate these resources, to attract external funding, and to make a difference at all levels from North Carolina to the world.

The proposal itself documents many of these strengths, across the full range of the natural and social sciences as well as other professional fields and even the humanities. If one were to cite more specifics, one could only begin by noting the long and distinguished roles of Professors Dan Okun, Don Lauria, Dale Whittington, John Briscoe during his previous faculty appointment here, and others in developing water supplies and sanitation services in developing countries, as well as in training the water professionals and scholars in many developing countries themselves; the strong and growing cluster of water scholars in the Geography Department, from Larry Band on watersheds to Steve Walsh in geographic information systems and rising younger scholars such as Martin Doyle on hydrology and dam removal; and the longstanding and distinguished roles of Professors David Moreau and Milton Heath in North Carolina water policy, the former in directing the state's Water Resources Research Institute and chairing its Environmental Management Commission, the latter in drafting much of its water law.

The proposal itself notes many others, and these would be just the beginning: research, teaching, and professional service related to water management have been an area of distinction and of widely distributed strength at Carolina for at least four decades. More than many others, water management is an area in which Carolina has unusual and longstanding breadth and depth, but which has not been well orchestrated to capitalize fully on those strengths and to make them unified, visible, and effective. It has the potential to be a major asset to the world as well as the university through the leadership of a Global Water Institute such as the one proposed.

What matters crucially to the effectiveness of any such institute is not merely structure but leadership. If Carolina is able to attract John Briscoe back to a distinguished professorship and to the leadership of such an institute, I am confident that it would be both a major coup for the university and exactly the choice needed to make such an organization an effective and influential reality. I knew John well during his previous faculty appointment at Carolina: he was a highly productive and unusually farsighted researcher, a fine teacher, and an exceptionally likable and respected colleague. We felt it a great loss when the World Bank lured him away, but our loss has been the world's gain: few people in the world are as knowledgeable and effective in dealing with the world's water needs at a global scale, and in combining policy and program leadership on these issues with outstanding scholarship. His rise to leadership in the World Bank's water program speaks for itself. John is thoroughly interdisciplinary in his own work and thinking, and unusually comfortable in interdisciplinary collaboration with the full range of disciplines and professions as well as with both government officials and the ordinary people whose lives his work affects.

It would be enormously exciting to have John back here as a colleague, and particularly as the leader of such an initiative: I cannot imagine a better choice for such a position. I hope that the University will provide its full support to this initiative, and I look forward to participating in whatever capacities my own interests could contribute to it.

Sincerely,

/s/ Richard N. L. Andrews
Professor



Department of Geography
203 Saunders Hall
Campus Box 3220
Office 204 Saunders Hall
Chapel Hill, NC 27599-3220

THE UNIVERSITY OF NORTH CAROLINA
AT
CHAPEL HILL

Casey Miller
Chair - Department of Environmental Science and Engineering
UNC Chapel Hill
Chapel Hill, NC 27599

Dear Casey,

I am writing this letter in support for the proposal to establish a Global Water Institute at UNC, with collaboration from faculty at Duke and NC State. The subject areas outlined in the white paper include some of the most critical issues of the day in water science, engineering, economics and policy. Faculty at UNC active in hydrology and water resources are among the top academics in the field. We edit and co-edit the two major journals in the field and have leading researchers in several subdisciplines. This strength is spread through different portions of the university, with significant representation in the School of Public Health, Arts and Science, Medicine and Law. Significant and complementary strengths in the faculty of Duke University and NC State would also benefit this initiative. In my own department, our interests and expertise in hydrologic science focuses on water-ecosystem-climate links, but we have several faculty active in development and hazards research who could benefit and contribute to the activity of such a center.

The addition of a leading figure of John Briscoe's caliber, with a broad view of the interactions between hydrologic science, public health, management and policy would provide important organizational focus and visibility with the major water policy and governance entities at the global scale. In addition to the benefits to water science and engineering at UNC, this direction would fit into the theme of internationalization of our curriculum, research and service in the university.

The details of an institute in this area would need to be worked out with a set of current initiatives and interdisciplinary environmental programs and the provision of space and resources. However, the importance of water science and policy and strength of our faculty suggests this would be a very successful, and highly visible endeavor that would establish UNC and the consortia of universities in the Triangle as a leading center, if not the leading center, in water science and policy nationally and internationally.

Sincerely,

A handwritten signature in black ink, appearing to read 'Lawrence E. Band'.

Lawrence E. Band
Voit Gilmore Distinguished Professor
Chair - Department of Geography

CMI[®] Washington/Carolina

Conflict Management, Negotiation And Process Advice

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June 26, 2004

C.T. Miller
Professor and Chair
CB 7431, 106 Rosenau Hall
Department of Environmental
Sciences and Engineering
University of North Carolina
Chapel Hill, NC 27599-7431

Dear Mr. Miller:

I write to endorse the proposal to establish a Global Water Institute at UNC, drawing on the world-class resources available at UNC and other Carolina institutions, and headed by someone of the stature of Dr. John Briscoe.

For the past eight years, CMI has worked on transboundary water issues with officials of riparian countries, multinational financial institutions, NGO's, and other organizations. Our experience on five continents underscores the statements in the proposal as to the critical importance of water issues for North Carolina, the US and other countries, particularly those countries that are severely resource-restrained. Dealing wisely with these issues requires cross-discipline research, development and application here and abroad.

Currently there are few, if any, academic institutions that serve fully the needs of officials and residents of water basins throughout the world. Because water is essential to so much of human activity and existence (agriculture, health, industry, culture, recreation, literature, and even religion), using water wisely requires input and support across the intellectual and political spectrum. No university has yet institutionally approached the subject with the breadth. UNC can and should.

John Briscoe is a world leader in this critical area. He has headed the World Bank's Water Sector for several years and is now putting the best ideas and tools to use for the nations of South Asia. He builds teams and partnerships as he works, listens well, and remains a personable individual whom it is easy to call a dear friend. He also is a Tarheel, in spirit if not in birth, remembering fondly his years on UNC's faculty. There undoubtedly are other distinguished individuals who could lead the new Institute, but I know of none as well equipped as Dr. Briscoe.

Whether it is drought leading to starvation in Ethiopia, record floods destroying villages and lives in Mozambique and Bangladesh, or hurricane run-off polluting North Carolina waters, the issues that the Global Water Institute should tackle matter deeply to the wellbeing of Carolinians and billions of other global citizens.

I am privileged at UNC and Duke to lead a course on International Conflict Management for outstanding seniors and graduate students from the US and abroad. Conflicts involving water will increase in the 21st century. Wisely managing these conflicts can establish needed models for moving other issues (food, land use, air pollution, etc.) from conflict to wise collaboration. Our students will be very well served by having the people and resources of the Institute at close-hand.

For all of these reasons, I am pleased to endorse the proposal for the Institute and stand ready to help make it a successful reality.

Sincerely,

Terry Barnett,
President

CMI Washington/Carolina acts as an advisor to and trainer for organizations and individuals on negotiation, and on the process by which they manage critical external and internal relationships around the globe. The firm brings to those clients (1) pragmatic analytical tools and developing theory from academic centers such as the Harvard Negotiation Project, and (2) extensive hands-on experience in applying this intellectual technology in complex negotiations in both the public and private sectors.



THE UNIVERSITY OF NORTH CAROLINA
AT
CHAPEL HILL

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College of Arts and Sciences
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CB 3315, Mitchell Hall
The University of North Carolina at Chapel Hill
Chapel Hill, NC 27599-3315

10 June 2004

Dr. Cass T. Miller, Chair
Environmental Sciences and Engineering
106 Rosenau Hall CB#7431
Carolina Campus

Dear Casey:

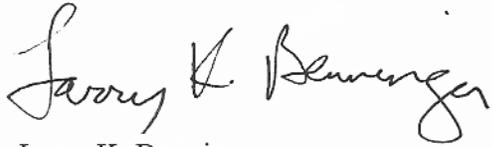
Thank you for sending me your draft document on the proposed Global Water Institute. I think there is no question that the coming century will be the century of water. The existing concerns about water supply and quality can only increase, and we shall have to find new technical, social, and political responses to these issues. With appropriate support for a Global Water Institute, UNC could surely develop a position of international leadership in these interlocking challenges.

As you know, geologists work closely with hydrologists in researching questions of the physics, chemistry, and biology of the hydrologic cycle. In my time at UNC the Department of Geological Sciences has always contributed to instruction on these topics, and our departments have shared both graduate and undergraduate students. If we can develop a strong Global Water Institute, I think the breadth and depth of our involvement in water science would surely increase. While, as a small department, we have been reluctant to commit to a lone position in hydrology, we would certainly reconsider that stance in the context of campus-wide initiative. Further, it has long been my dream that UNC would develop centralized analytical facilities which would enable us to address cutting-edge questions in water chemistry; I see a strong potential for such facilities within a Global Water Institute, and I am ready to work toward realizing that potential.

I'm sorry I don't know John Briscoe personally, but the qualifications you describe are certainly impressive. Coincidentally I encountered an example of his stature just yesterday. I was among a group of faculty and students who previewed a documentary for public television on the global issue of privatizing water supplies; John featured prominently as a cognizant official of the World Bank.

Please let me know if I can assist you further.

Sincerely,

A handwritten signature in black ink that reads "Larry K. Benninger". The signature is written in a cursive style with a large initial "L" and a prominent "K".

Larry K. Benninger
Professor and Chair, Geological Sciences

UNC
SCHOOL OF PUBLIC HEALTH
OFFICE OF GLOBAL HEALTH

Margaret E. Bentley, PhD
Associate Dean for Global Health

Cass T. Miller, Ph.D.
Professor and Chair
Environmental Science and Engineering
The University of North Carolina at Chapel Hill
4106 McGavran-Greenberg Hall
Chapel Hill, NC 27599-7431

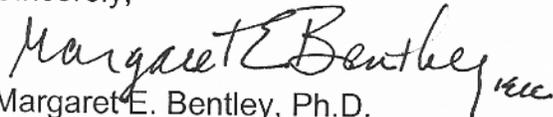
June 7, 2004

Dear Professor Miller:

It is with great enthusiasm that the Office of Global Health supports the proposed Global Water Institute. One of the goals of the Office of Global Health, as you know, is to expand the global health research and training activities within the School and across the University. A Global Water Institute would provide a powerful focus for establishing collaborative, interdisciplinary relationships among a wide variety of students and faculty. Moreover, this Institute could link other institutions, agencies, and organizations within North Carolina to approach complex water issues and their solutions within the state, nation, and world.

Access to safe, clean water is truly a global issue with environmental, population, public health, economic, political, social, legal and ethical dimensions. This University has strengths in all of these areas, and much work is already underway that has relevance to the proposed Institute. With vision, leadership and the appropriate resources, I expect a Global Water Institute based at UNC to become the premiere, international research and training center for water. The Office of Global Health will be an active partner in achieving this objective

Sincerely,



Margaret E. Bentley, Ph.D.
Professor of Nutrition and
Associate Dean for Global Health

THE UNIVERSITY
OF NORTH CAROLINA
AT
CHAPEL HILL



**Cecil G. Sheps Center for
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Timothy S. Carey, M.D., M.P.H.
Director

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*A World Health Organization
Collaborating Center in
Health Services Research
and Policy Analysis*

June 29, 2004

Casey Miller, Ph.D.
Professor and Chair
Dept. of Environmental Sciences
and Engineering
106 Rosenau Hall, CB #7431
Chapel Hill, NC 27599-7431

Dear Dr. Miller:

Many thanks for sharing the materials relating to the Global Water Institute.

I am currently Professor of Medicine here at the University of North Carolina at Chapel Hill and also Director of the Cecil G. Sheps Center for Health Services Research. The concept of a global water institute is extraordinarily exciting for the University and I'll be happy to assist in its development and implementation in any way I can. The Sheps Center conducts research in evaluating and improving methods of delivering health care. We have extensive experience in systematic reviews of the medical literature, health workforce planning, and implementation issues in medicine, nursing, and allied health.

If I or my colleagues can be of assistance as the institute develops, please let me know.

Sincerely yours,

Timothy S. Carey, M.D., M.P.H.
Professor of Medicine
Director, Cecil G. Sheps Center for Health Services Research

TSC/dkg

Professor C. T. Miller
Department of Environmental Sciences
and Engineering, CB 7431
School of Public Health
University of North Carolina
Chapel Hill, NC 27599-7431

Dear Dr. Miller,

I have read with interest your proposal for a UNC Global Water Institute (GWI). The purpose of this letter is to convey my strong support for this effort.

The Center for Infectious Diseases (CFID) is focused on preventing and treating infectious diseases, including those caused by both microbes and parasites. Our mission relates naturally and closely with that of public health, and increasingly our focus is on issues involving health on a global scale. Water is, of course, a primary mode of transport for many infectious diseases, hence a natural area of overlap between the CFID and the proposed GWI.

The proposed GWI would provide an important catalyst to stimulate and unite a wide variety of efforts related to global water resources management and policy. As the world's population continues to grow at a rapid rate, we expect infectious diseases to be an increasingly important issue related to water quality, management, protection, and policy. Clearly, important, fundamental scientific issues will require resolution, and we can contribute to this piece through collaboration. We also view the GWI as a means to build closer ties with others on campus in global health and infectious diseases.

I offer my enthusiastic support to this initiative and stand ready to help to build active and meaningful collaborations between the CFID and the GWI.

Sincerely,

Myron S. Cohen, MD
J. Herbert Bate Distinguished Professor
Medicine, Microbiology and Public Health
Director, Division of Infectious Diseases
Director, Center for Infectious Diseases
The University of North Carolina at Chapel Hill



Carolina Environmental Program

UNC-Chapel Hill

6-4-04

Casey Miller
Chairman
Environmental Sciences and Engineering

Dear Casey,

I have read through the material you sent me on the Global Water Initiative, and it looks really exciting. I, and the CEP, would love to play a part in it. Carolina, led by the Department of Environmental Sciences and Engineering, has unparalleled expertise in this topical area, extending from the basic sciences to policy to public health applications. Combining DESE faculty with faculty from Geography, Public Policy, Epidemiology, Medicine, the Environmental Finance Center, the Population Center, and so on would create a powerful core of people to tackle this important national and global issue.

Water issues are one of a handful of programs the CEP has identified as of top priority for use of our resources. It would be a great area of study for our undergrads and graduate students; as a topic of research for our faculty; and as a focus of outreach and service around the world. It would elevate Carolina's prominence on the international stage. So, I stand ready to help in both locating resources and even throwing a bit into the pot from my own budget. The possibility of attracting John Briscoe back to campus is tantalizing. You are right that he would be the natural person to head such an Institute. With our collective expertise on campus and John's contacts, there is a very high probability that large funding would be available to such an Institute.

Please let me know how I can help in any way, either in moving the proposal forward, finding resources, or providing logistical support. And thanks for including the CEP in the list of potential partners.

Best wishes

Doug Crawford-Brown
Director, Carolina Environmental Program



July 6, 2004

Cass T. Miller, Ph.D., P.E., Chair
Department of Environmental Sciences and Engineering
Campus Box 7431
University of North Carolina
Chapel Hill, North Carolina 27599-7431

Dear Casey:

On behalf of the Dean's Office of the School of Public Health, I write to express my strong support for the creation of a Global Water Institute at the University of North Carolina at Chapel Hill. Under the leadership of a person of John Briscoe's stature, this Institute could bring us closer to the goal of a safe and adequate water supply for all people—a concept essential both to public health and successful economic development. Additionally, creation of such an Institute would establish the University as a leading force in addressing the need for safe water around the world, now and in the future.

Combining the University's strengths in environmental science and engineering, public health, medicine, economics and disciplines within the social sciences under the auspices of an Institute that can provide a comprehensive global focus for the issue, UNC-Chapel Hill will be uniquely positioned for global leadership in water resource management and development. Moreover, the effort fits squarely within the University's academic priorities to further integrate interdisciplinary research, education and public service; to enhance public engagement; and to extend global presence, research and teaching.

I applaud your proposal and your efforts toward making the Institute a reality. Please keep me informed about your progress and let me know if there is any other way the Dean's Office can be of assistance.

Sincerely,

Margaret B. Dardess

June 22, 2004

C. E. Davis, PhD
Chair

Lawrence L. Kupper, PhD
Associate Chair

Cass T. Miller, Ph.D.
Professor and Chair
Department of Environmental Sciences & Engineering
Rosenau Hall
Carolina Campus

Dear Casey,

I write to give my enthusiastic endorsement and support to the proposed Global Water Institute. Clearly, adequate, clean water is an essential to the health of the public and UNC is ideally suited to lead the research into issues related to water resources. The establishment of the Global Water Institute would place the School of Public Health and the University at the forefront in conducting the important research into global water issues. In addition, John Briscoe is a unique and ideal leader for this important institute.

The Department of Biostatistics has a long history of collaboration with investigators in the environmental sciences. Our training grant for training young scientists interested in the environment supports not only biostatistics graduate students, but students in environmental sciences and engineering and epidemiology as well. Our faculty, led by Professor Larry Kupper, regularly collaborate with faculty members in the Department of Environmental Sciences and Engineering on important research projects, including several related to water quality. In addition, our faculty has a close working relationship with biostatisticians at the National Institute of Environmental Sciences and the Environmental Protection Agency. Staff members of both of these institutions are adjunct faculty members in our department.

Once the institute is established, we will provide high-level biostatistical input to any of the research projects that require it. We look forward with enthusiasm to working with our colleagues in this very important project.

Sincerely,



Clarence E. Davis, Ph.D.
Professor and Chair

The University of North Carolina
at Chapel Hill
Campus Box 7420
Chapel Hill, NC 27599-7420
Phone: 919.966.7250
Fax: 919.966.3804
www.sph.unc.edu/bios



June 24, 2004

Casey T. Miller
Professor and Chair
Department of Environmental Sciences and Engineering
School of Public Health, CB #7431
University of North Carolina
Chapel Hill, NC 27599

Dear Dr. Miller:

We give our most enthusiastic support to the appointment of **John Briscoe, PhD** to the position of Director of the *Carolina Global Water Institute*. It would be difficult to name an individual in the U.S., or internationally, who has done more to advance the multidisciplinary approach to ensuring adequate and safe water supply for marginalized communities, than Dr. Briscoe.

Dr. Briscoe's writings, studies, and direct assistance to communities in both developing and industrialized nations have had extraordinary influence. His policy papers, regarding water resource management and strategies, have become standard references for the World Bank, International Monetary Fund, and the United Nations. His action projects have served as models for creating partnerships among researchers, practitioners, and community residents to collaborate in a variety of environmental management and environmental justice programs in Bangladesh, Brazil, Mozambique, and South Africa, to name but a few.

During Dr. Briscoe's years at UNC, as an Assistant Professor of Environmental Sciences and Engineering, his multidisciplinary approach established important linkages with the Department of Health Behavior and Health Education. Each year, several HBHE students enrolled in his course on water supply in developing countries. He collaborated with Dr. Eng in several capacities. In 1981, they served on a health training consultation team, led by Dr. Robert Gearheart, to design a national manpower development plan for water supply and environmental sanitation in Tanzania. The resulting plan was produced and distributed by the Water and Sanitation for Health (WASH) Project, with funding from the U.S. Agency for International Development: Gearheart R., Briscoe J., and Eng E. Environmental Sanitation Master Plan for Training and Education in Tanzania. Technical Report to the Water and Sanitation for Health Project, contract no. AID/DSPE-C-0080, sponsored by the Office of Health, Bureau for Science and Technology, Agency for International Development, (34 pp), May 1982.

Recognizing the effectiveness of combining Dr. Briscoe's expertise in engineering sciences with Dr. Eng's expertise in social and behavioral sciences, they applied for and received research funding from the WASH Project to conduct a two-year study on the effects of community

participation in water supply projects in Togo and Indonesia. They reported the findings in the following peer reviewed publication: Eng E, Briscoe J, and Cunningham, A. The effect of participation in water projects on immunization. Social Science and Medicine, 30(12), 1349-1358, 1990. Dr. Briscoe described these HBHE-ENVR collaborations as the necessary joining of “software” (i.e., the social and behavioral sciences) with “hardware” (i.e., the environmental and engineering sciences) to ensure the conditions for people to be in good health.

While intelligence and innovation have been the engines that drive Dr. Briscoe’s work, there is little question that his commitment and personal style have enabled him to reach the large national and international audiences that look to him for leadership in global water research and policy. His influence at the World Bank (which has expanded both its research portfolio and worldwide water initiatives based on his work) is one example. His impact can be attributed, in part, to his ability to articulate the strengths of the multidisciplinary approach. His arguments are formed in a way that reflects the needs, concerns, and abilities of the environmental science community as it interfaces with the needs and concerns of communities, who have the most to gain (and lose) from water supply research and policy.

In sum, John Briscoe is one of today’s most influential thinkers in global health and water supply; bringing together knowledge production and action, with a particular emphasis on the political economy of ensuring adequate and safe water supply. And he is one of its most influential actors. True to his intellectual and personal commitment to the influence of both the built and social environment on the health of the public, he has undertaken research that stretches from the academy to affect thousands of people in communities around the world. Of equal importance, the way he works honors the talent, wisdom, and hopes of people too often lost in government efforts to achieve economic development. John Briscoe is exactly the type of leader we envision for the Carolina Global Water Institute.

Sincerely,



Eugenia Eng, DrPH
Professor and Director
MPH Program
WK Kellogg Community Health Scholars Postdoctoral Program



Jo Anne Earp, ScD
Professor and Chair

June 7, 2004

Casey T. Miller
Professor and Chair
Department of Environmental
Sciences and Engineering
University of North Carolina at Chapel Hill
Chapel Hill, NC 27599

Dear Professor Casey Miller:

On behalf of the Carolina Population Center, I am writing to express my strong support for the proposed Global Water Institute. With respect to your vision, CPC offers strong and empirically based social science perspectives and tools, a track record of research productivity and support, and a demonstrated ability to carry out innovative and integrative interdisciplinary research and training.

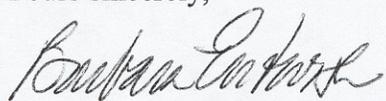
Three well-established CPC-based projects have as their overall goal a better understanding of population processes and other aspects of human behavior and agency in the transformation of the Earth's surface: one in Nang Rong, Thailand; a second in the Ecuadorean Amazon; and a third in Ngorongoro, Tanzania. "Project" in this instance is a bit of a misnomer, as each consists of a long-term research site, many interrelated studies and research activities, and funding from many sources (NSF, NASA, NIH, and the Mellon, Rockefeller, and Summitt Foundations). The Thailand and Ecuador studies have been underway for a decade or more. Related research is arising in other sites as well, including the Maya Biosphere Reserve in Guatemala and Chitwan Valley, Nepal. These research projects join the perspectives and tools of social, spatial, and natural science. Water is central to population-environment relationships in all of these settings.

In addition, NSF has recently awarded CPC a prestigious Integrative Graduate Education and Research Training (IGERT) grant in population and environment in recognition of CPC's leading role in the integration of social, spatial, and natural science in this area. This complements the strengths of our interdisciplinary research program and is directly relevant to the Institute you envision.

Finally, I would like to point out that at the moment, all of our relevant research and training activities are international, thus contributing to the global focus of the proposed Institute.

Please accept my best wishes for the further development of a Global Water Institute at UNC-Chapel Hill.

Yours sincerely,

A handwritten signature in cursive script, appearing to read "Barbara Entwisle".

Barbara Entwisle
Professor of Sociology
Director, Carolina Population Center



THE UNIVERSITY OF NORTH CAROLINA
AT
CHAPEL HILL

Mathematics Department
College of Arts and Sciences
FAX: (919) 962-2568

The University of North Carolina at Chapel Hill
CB# 3250, Phillips Hall
Chapel Hill, NC 27599-3250

Professor Cass Miller
Chair, Environmental Sciences and Engineering
UNC Chapel Hill

Dear Casey,

It is with unbridled enthusiasm that I support the concept paper on a Global Water Institute at UNC Chapel Hill. This is a brilliant idea which has profound implications for the most precious resource on Earth, which capitalizes on strengths at UNC, and which may position UNC as a world leader in the science, public policy, and social impacts of water resources. This is consistent with the faculty-led initiative in the late 1990's that coincided with the Science Complex planning process. Namely, the GWI could be the beacon for our emphasis on the environment at UNC, with strong linkages to medicine, health, basic science, quantitative and computational units such as computer science, bio- and core statistics, and applied mathematics and the Institute for Renaissance Computing.

On behalf of the faculty in applied mathematics, we offer our support and dedication toward making this concept a reality.

Sincerely,

A handwritten signature in blue ink that reads "M. Gregory Forest".

M. Gregory Forest
Associate Chair of Applied Mathematics
Grant Dahlstrom Distinguished Professor of Mathematics
Co-Director, Institute for Advanced Materials, Nanoscience & Technology



THE UNIVERSITY OF NORTH CAROLINA
AT
CHAPEL HILL

David K. Guilkey
Distinguished Professor of Economics
(919) 966-2385
FAX: (919) 966-6638

Department of Economics
Gardner Hall, CB# 3305
University of North Carolina
Chapel Hill, NC 27599-3305
E-Mail: david_guilkey@unc.edu

June 8, 2004

C.T. Miller
Professor and Chair
CB 7431, 106 Rosenau Hall
Department of Environmental
Sciences and Engineering
University of North Carolina
Chapel Hill, NC 27599-7431

Dear Professor Miller:

I am writing in support of the establishment of the Global Water Institute at Carolina and the recruitment of John Briscoe as a distinguished professor to head the institute.

I have known John since the early 1980's when we collaborated on the Cebu Longitudinal survey. In my opinion, John is one of the best scholars that I have ever worked with. He has total command of his own areas of expertise but he is also intensely interested in expanding his knowledge base. During our work together, he developed an appreciation of endogeneity problems that are inherent in economic models. He learned and understood the methods so well that he was able to write papers that explained the methods in very clear and concise ways to wide audiences.

This ability to tie together diverse fields should serve him well as the director of the Global Water Institute. I am sure that we will make every effort to extend the boundaries of water research to take advantage of the diverse expertise available at UNC-CH. During his time here, he insisted that the students who worked under his direction were broadly exposed to related disciplines as they prepared to write their dissertations. Having served on several of these committees, I can attest to the fact that his students were well trained and wrote excellent dissertations.

I think that the establishment of the Global Water Institute is an excellent idea. I have no doubt that such an institute will be well funded by external grants and John is the perfect person to head it. I would be happy to be involved to try and make this vision a reality.

Sincerely yours,

David K. Guilkey
Boshamer Professor of Economics



THE UNIVERSITY OF NORTH CAROLINA
AT
CHAPEL HILL

Department of Chemistry
University of North Carolina at Chapel Hill
Chapel Hill, NC 27599-3290

June 25, 2004

Dr. Cass T. Miller, Chair
Department of Environmental Sciences and Engineering
University of North Carolina
Chapel Hill, NC 27599-7431

Dear Casey,

Thank you for sharing with us the proposal to establish a Global Water Institute at UNC. We have both reviewed the proposal, and feel it is a sound and compelling plan. We appreciate that this plan takes advantage of the existing historical strengths of Carolina, and allies them with the stated vision for UNC to emerge as a global leader in scholarship and education. We applaud the very broad interdisciplinary nature of the plan, which manages to be inclusive in a meaningful way, of all branches of the University. We are strongly supportive of the plan, and hope to see it implemented in the near future. Please let us know what we can do to help you with moving the plan forward.

Sincerely,

A handwritten signature in black ink that reads "James W. Jorgenson".

James W. Jorgenson
Kenan Professor of Chemistry
and Department Chair

A handwritten signature in blue ink that reads "Edward T. Samulski".

Edward T. Samulski
Carey C. Boshamer Professor
of Chemistry

MEMORANDUM

**TO: Casey Miller, Chair
Department of ESE**

**FROM: Jonathan Kotch, Interim Chair
Department of MCH**

DATE: June 16, 2004

SUBJ: A Proposal to Establish a Global Water Institute

I am pleased to offer my personal support for your white paper on the subject of a proposed Global Water Institute at UNC-CH. The resources that you describe converge to make UNC an ideal location for this initiative. The Department of MCH would be in a position both to contribute its unique expertise in women's and children's health around the globe and benefit from collaboration with colleagues in the proposed institute's research, teaching and services programs. I am particularly excited about the possibility of our attracting Dr. John Briscoe back to UNC. I remember from my experience as a master's student having Dr. Briscoe as a lecturer and being impressed by his seminal article on water supply and health that appeared in the American Journal of Public Health 20 years ago. The lessons of that article and of Dr. Briscoe's approach to water supply and health, including child health, remain important for our students today.

I look forward to the successful implementation of your proposal.

Cc: Herbert Peterson



DEPARTMENT OF
HEALTH POLICY
AND ADMINISTRATION

June 15, 2004

Peggy Leatt, PhD, *Chair*
PEGGY_LEATT@UNC.EDU

Laurel A. Files, PhD, *Assoc. Chair*
LAUREL_FILES@UNC.EDU

Pam McDonald, *Registrar*
PAM_MCDONALD@UNC.EDU

Casey Miller, PhD
Chairman and Professor
Department of Environmental Sciences and Engineering
School of Public Health
Campus Box 7431

Dear Professor Miller:

I strongly support your proposal to develop a leading academic program in the area of global water resources management and development at UNC. I am particularly supportive of the broad approach being taken that can draw upon the rich resources from across UNC's diverse campus. The process set forth to define clearly the scholarly focus of the proposed Global Water Institute and to attract an internationally renowned scholar to lead the program is exemplary.

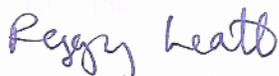
The Department of Health Policy and Administration will be an active and enthusiastic participant. In particular we can bring expertise in the social sciences such as economics, policy, political sciences, law, ethics and sociology that are essential to the appropriate management and communication about water resources. We work closely with Kenan-Flagler Business School and can jointly provide expertise in management disciplines such as finance, human resources and strategic management. We also have joint research and teaching programs with faculty from the health professions such as Medicine, Nursing, Pharmacy and Dentistry that could be an essential component of the Institute's work.

I am delighted to hear of the possibility to attract an outstanding scholar such as Dr. John Briscoe to lead the Institute. We would indeed be very fortunate to have a person of his outstanding worldwide reputation. I understand John Briscoe is a former UNC faculty member who left UNC in the 1980s to take up position at the World Bank where he has been the most senior person responsible for development of World Bank water policies. His international experience with the World Health Organization, the United Nations and the United States Government will be a considerable asset in developing this world-class academic program. He has the experience and the unselfish inclination to build interdisciplinary teams needed to make major contributions to the scope

of problems that the Institute will target. Dr. Briscoe has the connections and record to establish significant and broad-based external support for the global research and education activities of the Institute. He is eminently qualified to serve as the Director of the Institute.

In summary, let me indicate the Department of Health Policy and Administration's enthusiastic support and commitment to the development of the Institute. Please let me know how we can become directly involved.

Yours sincerely,

A handwritten signature in blue ink that reads "Peggy Leatt". The signature is written in a cursive, flowing style.

Peggy Leatt, PhD
Professor and Chair

G:\dcid\Water Institute.doc

June 8, 2004

Dear Casey:

This is to say how enthusiastic we would all be here at the Duke Center for International Development (DCID) if we could attract here in Carolina a Global Water Institute to be headed by such a remarkable professional as John Briscoe whom I have known for years at the World Bank.

Such a center would create numerous opportunities for many of us in the Triangle Area working in the field of international development and global issues. Collaboration with the Research Triangle Institute, the DCID (through speaking seminars and possible professional workshops), the Program in International Development Policy (through guest lecturer opportunities and short-term courses) and Duke's Nicholas School of the Environment, are just a few that come to mind. I would be delighted to speak of these possibilities further with you in the coming weeks.

Sincerely,

A handwritten signature in black ink. The first letter 'F' is large and stylized, with a long horizontal stroke extending to the right. Below the 'F', the name 'FR. LETHEM' is written in a smaller, more regular script.

Francis Lethem

THE UNIVERSITY OF NORTH CAROLINA
AT
CHAPEL HILL

Department of City and Regional Planning
College of Arts and Sciences
(919) 962-4756 FAX (919) 962-5206

New East 033, CB# 3140
The University of North Carolina at Chapel Hill
Chapel Hill, NC 27599-3140

June 18, 2004

Professor Casey Miller, Chair
Department of Environmental Sciences and Engineering
University of North Carolina at Chapel Hill
Chapel Hill, NC 27599-7431

Dear Professor Miller:

I am pleased to lend my support to the establishment of a Global Water Institute at the University of North Carolina at Chapel Hill and to the faculty-initiated efforts to attract Dr. John Briscoe to be its director. UNC-CH has established strengths in many areas envisioned in the proposal, particularly in public health aspects of water supply and sanitation, management of hazards due to floods and droughts, basinwide water quality management, and watershed hydrology. There is a need to further mobilize existing resources to better represent UNC-CH as an international leader in a comprehensive program for water resource management. There is also a need to develop UNC's capability in some areas in which we are not now intensively active, most notably global climate change and its effects on water resource.

Few people could match the capability of Dr. Briscoe to establish an institute and give it instant credibility. My knowledge of him goes back about 30 years when he began his doctoral studies in the Harvard Water Program in which Harvard's Department of Environmental Sciences and Engineering was a very significant partner. I graduated from that program just a few years before John entered the program. In 1981 he became a colleague here at UNC.

John is a person of exceptional intellect and leadership skills. He had an outstanding record as a student, as an academic, and as an international leader in water resources. The evidence to support that judgment is well documented in his curriculum vitae. He rose to the senior position for water management in the World Bank using both his administrative skills and his ability to formulate and articulate policy. The policies that John has influenced have been strongly rooted in basic economic principles that would find considerable support from his academic colleagues. Such policies may not be universally accepted, especially by those who have been accustomed to "pork-barrel" processes, and the Bank policies have not been free of criticism. Nonetheless, Dr. Briscoe would

bring to the Global Water Institute a well-developed theoretical framework combined with vast real world experience that would be a substantial contribution to the intellectual life of this institution.

I am delighted with this proposal and the identification of John Briscoe to lead it.

Sincerely,

A handwritten signature in black ink, appearing to read "David H. Moreau", with a long horizontal flourish extending to the right.

David H. Moreau
Professor



BARRY M. POPKIN

Professor

Phone: (919) 966-1732

Fax: (919) 966-9159/6638

E-mail: popkin@unc.edu

June 7, 2004

Casey T. Miller
Professor and Chair
CB 7431, 106 Rosenau Hall
Department of Environmental
Sciences and Engineering
University of North Carolina

Dear Casey,

I have worked closely with John Briscoe during his period at UNC-CH and have watched his subsequent career. During his time at UNC, he worked with me on the Cebu Longitudinal Health and Nutrition Study that I initiated. Second, we were involved in proposals to the Institute of Medicine and the NIH that were funded. Third, we discussed often development work and I was actively involved with John and a postdoc for 3-4 years of research after John left UNC.

As background, John Briscoe is one of the main world figures in the area of water and sanitation. His work at UNC, the World Bank, and with a range of international agencies has given him this background. He is a great writer who is most articulate and also quite analytic. Finally, he has excellent people skills and could build this institute.

John was actively involved with me in several key and quite visible papers as well as a revision of our NIH work and the entire execution of a state of the art set of studies on water source quality, in-house water processing and child diarrhea. In this work he was very thoughtful in his handling of the doctoral students and our collaborators from the Philippines. In addition, his scientific abilities were exceptional. In fact, he rewrote a failed NIH application into a most innovative and wise proposal that led to

a major rethinking of the modeling of child health and survival and became ultimately a classic in the public health and economics literatures.

I continue to be actively involved in a series of longitudinal studies around the world funded by NIH and others and would welcome John's return to UNC.

He would also enrich the intellectual climate and reach of our campus. He is a high visibility scholar who would provide a major place in the sun for UNC on this topic.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'B. Popkin', with a stylized flourish extending to the right.

Barry M. Popkin

BMP:fd



THE UNIVERSITY OF NORTH CAROLINA
AT
CHAPEL HILL

Jan F. Prins
Professor and Department Chair
Tel: 919-962-1913
Fax: 919-962-1799
Email: prins@unc.edu

Department of Computer Science
CB# 3175 Sitterson Hall
University of North Carolina
Chapel Hill, NC 27599-3175
USA

July 1, 2004

Prof. Cass Miller
Chair, Department of Environmental Sciences and Engineering
UNC Chapel Hill

Dear Casey:

I am writing in support of the proposal for a Global Water Institute at UNC and the possibility to attract John Briscoe to be its director. This strikes me as a tremendous opportunity for many reasons.

First, the central importance of this planet's water resources can not be overstated -- this is a topic with international relevance and one that will be with us permanently.

Second, the environmental, medical, societal, economic, legal, and governmental issues that must be addressed in a comprehensive treatment of water resources are an ideal match to the multidisciplinary strengths of UNC in all of these areas, and particularly to its excellent School of Public Health with its long tradition of internationalism.

Third, John Briscoe is one of the few people with the requisite breadth and depth of understanding of all of these issues to lead a center with international prominence and impact.

Finally, within the Computer Science department we are particularly enthusiastic about the potential for collaborative research that is inherent in this proposed institute. There are a number of areas that are clear candidates, with historical precedent for collaborations in each. They include (1) geometric algorithms for geographic information systems (where does the water go?), (2) high-performance computing for large scale simulations, and (3) visualization of, and interaction with, complex systems and simulations of all sorts. The multiple computational facets of a global water institute are also an excellent match to the integrative objectives of the Renaissance Computing institute under the direction of Dan Reed.

To establish the proposed institute here and now would be visionary and would uniquely leverage UNC's great strengths and Briscoe's great insight to prominently position the University and be of service worldwide. We are genuinely excited about the possibilities presented in this proposal and we offer our support to help make it happen.

Yours Sincerely

A handwritten signature in black ink that reads "Jan F. Prins".

Jan F. Prins
Professor and Chairman,
Computer Science Department

Duke University

Nicholas School of the Environment and Earth Sciences
Durham
North Carolina
27708-0328

Kenneth H. Reckhow, Professor

Telephone (919) 613-8026
Facsimile (919) 684-8741
reckhow@duke.edu

June 28, 2004

Dr. Casey Miller
Chair, Department of Environmental Sciences and Engineering
UNC-Chapel Hill
Chapel Hill, NC 27599

Dear Casey:

I am delighted to learn of the initiative to create a Global Water Institute at UNC-Chapel Hill. As you so clearly state in your proposal, the critical human needs for sufficient water quantity and quality pose severe challenges for science, for engineering, and for society. Further, as the UNC Water Resources Research Institute Director for the past eight years, I know of the quality and breadth of faculty and research programs at UNC-Chapel Hill; you clearly are well-positioned to take on these challenges.

In addition, I am pleased that the Global Water Institute will stress linkage with other institutions in the Triangle, including the Nicholas School of the Environment and Earth Sciences. As you know, we have a history of collaboration between our universities; the GWI has the potential to significantly increase the amount and effectiveness of collaborative work.

Finally, I am pleased that John Briscoe has been identified as the leader for the Global Water Institute. I have known John since our graduate school days at Harvard in the 1970s. John is a first-rate scholar and person; he will be a terrific leader.

Sincerely yours,



Kenneth H. Reckhow
Professor of Water Resources



UNC
KENAN-FLAGLER
BUSINESS SCHOOL

Dennis A. Rondinelli
Glaxo Distinguished International Professor of Management
The Kenan-Flagler Business School
The University of North Carolina- Chapel Hill
Campus Box 3490
Chapel Hill, NC 27599-3490

Tel: (919) 962-2678

e-mail: dennis_rondinelli@unc.edu

Fax: (919) 962-4425

June 24, 2004

C.T. Miller
Professor and Chair
CB 7431, 106 Rosenau Hall
Department of Environmental
Sciences and Engineering
University of North Carolina
Chapel Hill, NC 27599-7431

Dear Casey:

I am pleased to endorse strongly the proposal to establish a Global Water Institute at the University of North Carolina-Chapel Hill. Over the past 30 years of working as an advisor to international development organizations in Asia, Latin America, Africa and Central Europe and in my own research on international development and management, I have become more and more convinced that the effective development and management of water resources is a key not only to economic and social progress around the world, but increasingly, to world peace and stability.

On a research trip to Israel a few years ago I was strongly impressed with the difficulties that Middle Eastern countries, even those bordering on oceans, were having with the availability and distribution of fresh water, which is the lifeblood of daily living for hundreds of millions of people, for agriculture, and for industrial development. Israeli scientists were convinced that much of the tension in the region was over the control of territory with access to limited water supplies. Discussions in the media exploring the options spoke of a wide range of alternatives, including desalination of ocean water, purchasing fresh water and having it shipped by tanker ships from Turkey and other countries, and even towing icebergs from the Arctic region.

The experience brought home to me something that I had known but not thought much about: that many of the conflicts over territory around the world will focus on control over resources and especially over water resources.

The efficient development and management of water resources will be crucial to the social and economic well-being for people around the world and for the citizens of North Carolina in the future. The proposal to establish a Global Water Institute is timely, important, and builds on the resources of UNC-CH and nearby universities. It can involve at the University of North Carolina-Chapel Hill nearly every school on the campus and faculties from a broad range of disciplines. In my field of

international business, for example, it is clear that the increasing globalization of economic activities that bring jobs, income, and wealth to countries around the world and to our own country and state, depends on the availability of efficient infrastructure and services. Without access to well-managed water resources, infrastructure and services, the ability to provide people with effective livelihoods is extremely limited. The ineffective management and conservation of water resources can lead to flooding, drought, and physical devastation that can damage the lives of millions of people, especially the poor who live in areas vulnerable to water-related natural disasters and agricultural devastation.

A Global Water Institute at UNC can be a valuable means for our faculty to participate in research, advisory work, and education in a field that will be of crucial importance in the future for North Carolina, the United States, and the world.

I can think of no one more appropriate than John Briscoe to be recruited as a Kenan Eminent Professor and as director of the GWI. His distinguished career in the water resources field combines world-class scholarship, strong administrative experience, technical advisory capabilities, and extensive knowledge not only of water management but of the economic, social, technical, scientific, and political factors that affect it. He is ideally suited to working across disciplines with faculty throughout the university. His name is well-known in the international development field as well as in water resources. His work with the World Bank, the UN, and the WHO gives him the leverage to develop the GWI to the status of world prominence. His knowledge of international organizations and foundations that support work in water resources would make him an effective fund-raiser for the GWI and give him access to the sources of financing and expertise needed to expand and develop an institute such as GWI. His previous affiliation with UNC offers the opportunity to bring “back home” someone who has clearly succeeded in all dimensions of his field.

I sincerely hope that UNC grasps what seems to be a momentous opportunity to create an important institute and to recruit a world-class scholar and administrator to lead it.

Best regards,

Sincerely,

Dennis A. Rondinelli

Dennis A. Rondinelli
Glaxo Distinguished International Professor of Management



June 29, 2004

Professor C.T. Miller
Department of Environmental Sciences
and Engineering
School of Public Health
CB 7431, 106 Rosenau Hall
The University of North Carolina at Chapel Hill
Chapel Hill, North Carolina 27599-7431

Dear Casey:

I have reviewed your proposal to establish a Global Water Institute at UNC and applaud the effort to advance the important and compelling vision for this Institute. The issues outlined in the proposal are of utmost importance both locally and globally; the endeavor is consistent with the Academic Plan; and the proposal bridges multiple departments, schools, the college, and extends beyond the University. In my view, interdisciplinary efforts that encourage and combine intellectual talent are at the heart of what makes Carolina great.

The Medical School is enthusiastically supportive of this proposal. In the areas of infectious diseases, nutrition, and women's health, I see ready-made collaborations and am certain other areas of interaction exist or will evolve with time.

Dr. John Briscoe is the ideal person to direct the Institute. As a leading figure in water policy in the world, his record of accomplishment with the World Bank is impeccable. Because of his high profile and distinguished status, he would be an outstanding addition to the UNC faculty and the perfect leader for the Global Water Institute. He is fully deserving of a Kenan Eminent Professorship.

In conclusion, I am very supportive of the proposals to establish a Global Water Institute and to recruit Dr. John Briscoe to serve as Director of the Institute. We must strive to establish multidisciplinary programs of excellence in new and innovative patterns that will address the inevitable 21st century challenges resulting from population growth and a finite water supply. This initiative will promote this integration and should be adopted.

Sincerely,


William L. Roper

June 15, 2004

Cass T. Miller, Ph.D.
Chair, Department of Environmental Sciences
& Engineering
School of Public Health
University of North Carolina at Chapel Hill
Campus Box # ***

Dear Casey:

I am writing to express my enthusiastic support for the initiative you're leading to develop a Global Water Institute. This is an unusual, perhaps unique opportunity to address an issue of profound global societal importance in which we have much of what is needed in place to take a position of leadership. As an epidemiologist, I am well aware that our greatest public health achievement in human history is the control of infection from contaminated drinking water, and that much of the world, including at times in the United States, there is massive illness from improper water management. The multidisciplinary demands of such issues are exactly the sort of issue in which we can excel, bringing the needed expertise together more effectively than our peer institutions.

The potential for bringing John Briscoe back to UNC adds considerably to the plausibility of this great idea being implemented successfully. It is rare to find someone who has exceptional academic, programmatic, and interpersonal skills. His recruitment would be a compelling statement that we are taking this on with the highest ambition, and it seems quite clear that he would enable us to realize those plans.

Clearly, the Department of Epidemiology has much to offer and gain from this activity. We provide critical intellectual bridges between the environmental aspects of water resources and the impact on health of human populations. This includes both documenting past and present relationships of water and health as well as helping to project for the future. By having a structure (and a leader) who brings us in closer proximity to colleagues from natural sciences, engineering, economics, and the many other disciplines involved, we will develop valuable collaborations to address the issues of the institute and more generally become more closely engaged with our colleagues throughout the University.

I would very much like to see this go forward and offer whatever assistance I can towards that end. This has all the ingredients required to become a milestone in the evolution of the field and of the teaching, research, and service offered at the University of North Carolina at Chapel Hill if supported by the leadership at the highest levels of the University.

Sincerely,



David A. Savitz, Ph.D.
Cary C. Boshamer Distinguished Professor
and Chair



DRINKING WATER RESEARCH CENTER

SCHOOL of PUBLIC HEALTH UNC - CHAPEL HILL

Philip C. Singer, Director

Steering Committee

Donald Fox
William Glaze
David Moreau
A.T. Rolan
David Savitz
Linda Sewall
Mark Sobsey

Faculty

Micheal Aitken
Louise Ball
Raymond Burby
Larry Benninger
George Christakos
Russell Christman
Douglas Crawford-Brown
Francis DiGiano
Joel Ducoste
Melva Fager Okun
Donald Francisco
David Godschalk
Shermalyn Greene
Irva Hertz-Picciotto
Edward Kaiser
Detlef Knappe
Donald Lauria
Karl Linden
Dana Loomis
Frances Lynn
Cass Miller
Christine Moe
Daniel Okun
Frederic Pfaender
Charles Poole
Kenneth Reckhow
Rhonda Ryznar
Robert Sandler
Philip Singer
James Swenberg
Steven Walsh
James Watson
Howard Weinberg
Steve Whalen
Dale Whittington

Dear Casey:

I am delighted to support your proposal to establish a Global Water Institute at UNC with John Briscoe as its Director. As Director of the School of Public Health's Drinking Water Research Center, the mission of which is to coordinate research activities at UNC-CH pertaining to all aspects of drinking water, to explore new drinking water research initiatives, to provide technical assistance to potential users of this research, and to foster and facilitate collaboration with other engineers, scientists, and policymakers in other institutions and agencies in the US and abroad to address critical drinking water issues, I am enthusiastic about extending our efforts to the broader range of issues envisioned for the Global Water Institute. We have a world class faculty here at UNC that are involved with many aspects of water resources research, teaching, and service. Creation of a Global Water Institute will provide a focal point for all of our water-related activities, and a nucleus from which new ideas and new initiatives can be developed. Along these lines, I can think of no individual in the world more capable of directing this activity than John Briscoe. Dr. Briscoe's academic and research experience, coupled with his 20-year involvement with the World Bank, provides him with the perspective needed to guide this exciting activity.

I look forward to working with you to help make the UNC Global Water Institute a reality, and in recruiting John Briscoe to UNC.

Sincerely,

Philip C. Singer

Dan Okun Distinguished Professor of Environmental Engineering
Director, Drinking Water Research Center

NC STATE UNIVERSITY

919.515.3107
919.515.6268 (fax)

June 30, 2004

Professor Casey T. Miller, Chair
CB 7431, 106 Rosenau Hall
Department of Environmental
Sciences and Engineering
University of North Carolina
Chapel Hill, NC 27599-7431

Dear Professor Miller:

I am writing to enthusiastically endorse the proposed Global Water Institute outlined in your white paper of June 7, 2004. As your proposal suggests, water is perhaps the most important *and underappreciated* resource in the economies of the developed world. But this state of affairs is rapidly changing. Large regions such as the Southwestern U.S. and the Pacific Northwest appreciate, for different reasons, the role of water as a critical resource. Water allocation throughout the west, and now for our neighboring states of South Carolina, Georgia, and Alabama, increasingly is at the top of the policy issues associated with sustaining regional economic activity. Unfortunately, water allocation rules throughout the world fail to signal to users its importance. As your discussion suggests, there are pockets of research activity on these issues at a variety of places in this country and in Europe. None of these research groups has assumed a fully integrated role. As a result, they have not attempted to consider the differences in how and why water is important as well as in how current policy measures often exacerbate rather than ameliorate the problems.

In some respects, your white paper understates the historical relevance of the issue to past faculty at UNC and in the region generally. I was a faculty member at UNC in the Economics Department over two decades ago and may be able to provide some context from that experience. When I joined the faculty Maynard Hufschmidt was still on the faculty of City and Regional Planning. Dan Okun and Maynard Hufschmidt are legendary scholars in the area of water resource policy, Dan considering the issues posed in public health and Hufschmidt, previously Director of Harvard's Water Program, considering the investment and management issues associated with integrated water resource systems. Maynard helped to recruit Dave Moreau, a leader in water policy in the state and the southeast, and Dale Whittington to the UNC faculty. I believe he was also instrumental in attracting John Briscoe. There are many others on your faculty and

throughout the Triangle who were attracted to the area and sustained active, but often independent research careers, because of this history. The Global Water Institute would be a catalyst for drawing together these diverse and incredible intellectual resources.

During my career I have had the opportunity to observe these faculty firsthand because I have been on the faculty at all three institutions and have served an active research role with RTI International for over twenty years. Much of this research has been associated with water issues, especially as they relate to water quality. Kenneth Reckhow at Duke, the outgoing Director of the WRRI, is another key faculty resource with his extensive experience in the science of managing water quality and EPA's TMDL process. Thus while your measured summary of the potential for the Water Institute recognizes many of the elements that I mentioned here, I would endorse a bolder appraisal. We have the opportunity and many of the intellectual resources to establish the Triangle as *the leading research center* for water related research and education. Moreover, this effort would complete the foundation established more than three decades ago by many of the scholars I mentioned.

There is no one better than John Briscoe to lead this initiative. I first met John when he and Dale recruited me to work with them (as an advisor) on an international initiative to estimate poor rural households' willingness to pay for public water and sanitation systems. Their carefully structured set of studies in Africa, Central and South America, and ultimately in Asia transformed the evaluation of water projects in the World Bank. First featured in the Bank's 1994 report on the Environmental Program the Briscoe-Whittington research program had an enormous impact on research and policy.

Overall then, John is ideal to head the Global Water Institute. He has the intellectual vision, energy, and respect for a transdisciplinary environment to make the Institute a reality. I will do anything I can to help.

Our own activities here at CEnREP are complementary to what you propose. We have several major projects on the economic and science issues associated with watershed management. Water allocation in North Carolina was a theme of an address I was asked to present at the WRRI's annual conference in 2003. The research associated with developing that address re-affirmed my belief that the Institute's focus offers a unique complementarity. More specifically, these issues are clearly among the most important facing the global community from a public health perspective. They are also central to assuring North Carolina realizes its potential – by raising incomes of its citizens and sustaining the state's wonderful quality of life.

Overall then I enthusiastically support the proposed Global Water Institute, recruiting John Briscoe to lead it, and look forward to working with him and others in fulfilling the potential that Okun, Hufschmidt, Moreau, Whittington, Reckhow, and many other scholars in the Triangle have made a feasible goal.

With best regards,

A handwritten signature in black ink, appearing to read "V. Kerry Smith". The signature is written in a cursive style with a large initial "V" and a long, sweeping underline.

V. Kerry Smith
University Distinguished Professor



7 July 2004

Dr. Cass T. Miller
Professor and Chair
Department of Environmental Sciences and Engineering
School of Public Health
The University of North Carolina at Chapel Hill
CB #7431

Dear Dr. Miller:

Re: Global Water Institute Proposal

With this letter I would like to support enthusiastically your vision and initiative to develop a Global Water Institute at UNC Chapel Hill. Your well organized proposal makes a compelling case for siting such an institute on our campus. Chief among those reasons is the very strong and widely recognize expertise contained within the School of Public Health's Department of Environmental Sciences and Engineering.

But as your proposal recognizes, this University offers many additional compelling advantages that argue for the ultimate success of such an institute. You have already identified our leading School of Public Health, the Carolina Population Center, The Kenan Flagler Business School, and our experience in working with a variety of USAID projects.

Moreover, North Carolina is a wonderful laboratory for your initiative. As the post-hurricane Fran and hurricane Floyd experiences have shown, North Carolina has more at stake than most when it comes to future water management in all its forms. This is especially so when added to the continuing future reliance on agriculture as a major export industry for our state. Thus, a high quality Global Water Institute would provide a great deal of benefit right here in North Carolina. In turn, our lessons can also be applied elsewhere.

I am also excited by the prospect of luring Dr. John Briscoe back to this state and to this University to head up the proposed Institute. While I do not know Dr. Briscoe personally, his qualifications and experiences suggest a very polished and worldly leader, one who would be the ideal person to get this major initiative started. In closing, I hope the Global Water Institute, as described in your elegant proposal, and initially led by Dr. John Briscoe, may become a reality on our Campus in the relatively near future.

Sincerely yours,

A handwritten signature in blue ink that reads "John W. Stamm".

John W. Stamm, DDS
Professor and Dean



University of North Carolina at Chapel Hill
Department of Public Policy

To: Professor Casey Miller
From: Michael A. Stegman, Chairman
Subj.: Global Water Institute Proposal
Date: June 29, 2004

I have reviewed and circulated to interested faculty in our department your exciting proposal to establish a pan campus, interdisciplinary Global Water Institute at UNC, and an effort to recruit back to Carolina, John Briscoe, to head this effort. The Department of Public Policy enthusiastically supports this effort.

As you know, dating back to our origins in the Department of City and Regional Planning, we have had nationally and internationally recognized faculty in water resources management, and environmental planning who will benefit from and contribute to this undertaking. One of the largest and strongest specializations in our doctoral program in public policy is environmental policy, including international water resources policy. With the successful development of the Global Water Institute we can only expect to enhance our reputation and ability to compete for the very best students.

My colleagues and I wish you the very best in this endeavor.



CELEBRATING A DECADE OF LEADERSHIP

Dr. Casey Miller
Chair, Environment Sciences & Engineering
106 Rosenau Hall
CB #7431

Dear Dr. Miller,

As the pan-university center mandated to extend the university's international presence and global perspective through interdisciplinary research initiatives, the University Center for International Studies (UCIS) sees this proposal as a potentially important and unique addition to the university's international agenda and therefore strongly supports giving the proposal serious consideration.

We are especially impressed by the strong case you make that the proposed institute would build bridges far beyond your own department and school; indeed, one can easily imagine involvement from faculty and students in law, business, political science, economics, anthropology, and geography to name just a few. In addition, you make the important point that the institute would engage colleagues from other universities, including institutions abroad. It is precisely this kind of intellectual engagement that UCIS fosters because it will elevate UNC's status internationally; too often we feel that while UNC is nationally seen as a leading university, our international reputation is not commensurate with our international accomplishments.

One way UCIS may be of immediate assistance is to invite you to take advantage of UCIS' new initiative to launch faculty working groups. We offer modest support to bring together interdisciplinary groups of faculty working on particular topics or themes. We aim to act as an incubator that allows faculty to work toward a specific product, whether it be a grant proposal, a edited book, or an institute as you propose. If you feel this would be helpful, we could formalize a "Global Water Working Group," and perhaps such institutional support would benefit your effort. Please let me know your thoughts.

Sincerely,

Niklaus Steiner, Ph.D.
Executive Director

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THE UNIVERSITY OF NORTH CAROLINA
AT
CHAPEL HILL

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12-7 Venable Hall, CB #3300
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16 June 2004

Cass T. Miller
Professor and Chair
CB 7431, 106 Rosenau Hall
Department of Environmental
Sciences and Engineering
University of North Carolina
Chapel Hill, NC 27599-7431

Dear Casey,

On behalf of the Marine Sciences Department, and as Chairman of the Scientific Steering Committee of the Global Ocean Ecosystems Dynamics Program (GLOBEC), I strongly endorse your proposal for a Global Water Institute (GWI).

Understanding “water” is one of the most important undertakings in environmental and social studies worldwide and the proposed GWI could be a leading unit among international efforts such as the Global Water System Project (<http://www.gwsp.org/>). The GWSP is one of the joint sustainability projects of the International Geosphere Biosphere Program, the World Climate Research Program, the International Human Dimension Program, and Diversitas.

From the standpoint of the marine system, quantifying the hydrologic cycle is essential. The exchanges between the coastal aquifers and the neighboring/overlying waters (of the coastal ocean and estuaries) determine the biogeochemical fluxes and fate of key elements on continental shelves and in the groundwater. On larger time and space scales, fluctuations in the hydrologic cycle (either anthropogenic or natural) impact the circulation of the oceans, e.g., changes in evaporation and precipitation regimes, increased buoyancy flux associated with the melting of the polar ice-caps and glaciers, etc., affect the stability of the water column with consequences (some potentially catastrophic) to the oceans’ physical and biological properties.

The establishment of the proposed GWI would allow for a wide and necessary range of scholarly, management and policy activities to take place under one roof. Marine Sciences faculty and students would find a natural partnership with the GWI as we work toward addressing these challenging and already critical problems.

Sincerely yours,

Francisco Werner
Professor and Chairman MASC Dept.
Chairman, GLOBEC SSC



June 18, 2004

Prof. Casey Miller
Chair, Department of Environmental Sciences and Engineering
School of Public Health
UNC-CH
Chapel Hill, North Carolina 27599

Dear Casey:

I am writing to express my strong support for the proposed effort to recruit Dr. John Briscoe back to UNC-CH as an eminent Kenan Professor to lead a new institute on global water policy. I have known John Briscoe as a friend and professional colleague for over twenty years. We have worked closely together on several large, complicated global projects. I have seen him work throughout the research process – from formulating research questions, to implementing complex research designs in the field in developing countries, to presenting the policy results to large diverse audiences. I have never known anyone who brings more energy and intellectual firepower to the research or policy process. I have the highest regard for his professional abilities and personal character. As we have worked closely together over the years, I can attest to his stature in the field of global water policy, and the respect he commands throughout the world. John Briscoe's return to UNC-CH would instantly signal to everyone in the water policy field that Chapel Hill is the premier place in the world for scholarly work.

I would like to focus my remarks in this letter on one particular advantage that I see in recruiting John Briscoe at this time. I believe that there is a great strategic opportunity in bringing John to Chapel Hill now because no other university in the United States has yet attempted to build a strong program in global water policy issues. Nor would we have serious competition from Europe. The Dutch Government and the Dutch royal family have recently made a strong push for excellence in this area, but to date they have not been able to attract world-class scholars such as John Briscoe. Thus, despite the obvious and growing importance of global water policy issues, UNC-CH would not have any serious competitors if it moved aggressively to become preeminent in this field. This would mean that under Dr. Briscoe's leadership, UNC-CH could quickly achieve world-class excellence in the field. We could recruit the very best graduate students and attract substantial funding from private foundations and others.

By way of background, in the early 1980s UNC-CH was widely recognized as the premier university in the world in the field of water supply and sanitation planning in developing countries due to the leadership of Profs. Daniel Okun and Donald Lauria. At the time John Briscoe and I were newly hired assistant professors, but with the four of us on the UNC-CH faculty, no other US university could claim this level of faculty expertise. Today both Profs. Okun and Lauria are retired, and John Briscoe left UNC-CH almost 20 years ago. Reputations take time to lose, however, so today UNC-CH is still very highly regarded in the field of water supply and sanitation planning in developing countries. If John Briscoe could be attracted back to Chapel Hill, he would find a strong base of good will and a global reputation on which to build.

In summary, I think the timing is right to renew this campus's longstanding commitment to global water policy issues. I cannot think of a better strategic hire than John Briscoe. His return would rejuvenate a field in which our reputation is still strong, but our actual capabilities have declined

dramatically over the past decade.

Sincerely yours,

A handwritten signature in cursive script that reads "Dale Whittington". The signature is written in black ink on a light-colored background.

Dale Whittington
Professor



Steven H. Zeisel, M.D., Ph.D.

Associate Dean for Research,
School of Public Health

AICR/WCRF Distinguished University Professor
In Food, Nutrition, and Prevention of Cancer

Professor and Chairman
Department of Nutrition
School of Public Health
School of Medicine

Professor
Department of Pediatrics
School of Medicine

Director
UNC Clinical Nutrition
Research Center

June 9, 2004

Casey Miller, PhD
Chairman, Department of Environmental Health Sciences
School of Public Health
University of North Carolina at Chapel Hill
Chapel Hill, NC 27599

Dear Casey:

I write to enthusiastically support the concept of the Global Water Institute. It presents a unique opportunity to take an area of excellence at UNC – the study of water quality – and extend it so that it draws in investigators from many different disciplines across campus. Water is likely to be the major worldwide problem that influences human health in this century.

I know that in Nutrition, water quality is of great importance, as diarrhea and subsequent malabsorption of nutrients remains a leading killer of children. I am sure that investigators in my department will be involved with this institute if it is created.

Sincerely yours,

A handwritten signature in blue ink, appearing to read "S. Zeisel".

Steven H. Zeisel, M.D., Ph.D.

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