

# Hydrogeologists Without Borders Newsletter

Vol.1 No.1

March, 2007

## Welcome!

**Hydrogeologists Without Borders** welcomes you to our first newsletter - Volume 1, Number 1. The goal of this newsletter is to keep our members informed about our growing organization and the numerous projects and opportunities that are available for you to support. We also wish to keep our members up-to-date with the challenges and opportunities around groundwater management in the developing world.

Our intent is to publish a newsletter in March, July and October. Feedback, Letters to the Editor and submissions from any member are most welcome.

*For further information contact:*

*Ron Hatch*

*rdhatch@shaw.ca*

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**By David Bethune, University of Calgary**

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## Who Are We?

**Hydrogeologists Without Borders** is a group of hydrogeologists, water well technicians, groundwater specialists, groundwater organizations and other individuals who share a concern about the very high importance of groundwater in developing countries. HWB places a particular emphasis on potable water supply to the most impoverished areas of the world. We seek to build hydrogeologic capacity, to apply local solutions, to develop,

## ←...Who Are We?

use and manage groundwater resources, and to support long-term protection of this vital resource in developing countries.

**Hydrogeologists Without Borders** shares a concern about the world water crisis as it pertains to the importance of groundwater in developing countries. HWB works within the “without borders” approach to assist developing countries.

The issue of access to safe drinking water, as articulated in the United Nations’ Millennium Development Goals, is paramount. The developing world’s already high usage of groundwater for potable water supply is expected to grow considerably in the next decades. HWB seeks to help developing countries benefit from their groundwater resources, as well as, manage and protect their groundwater for future generations.

The term “**without borders**” refers to a group of people acting internationally to provide assistance to people anywhere in the world regardless of nationality, religion, political system, race, language or gender. The expression was first associated with Doctors Without Borders, which was founded in 1971, and more recently with several new organizations: Engineers Without Borders, Reporters Without Borders, Lawyers Without Borders, Teachers Without Borders and Mothers Without Borders. These organizations are all mainly based in developed countries and provide either humanitarian relief or development assistance to developing countries.

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## Business Plan Ready

The draft business plan prepared by **Cathy Main** and the Steering Committee has been circulated and will soon be published on the website. This ambitious document outlines the five major goal areas of **Hydrogeologists Without Borders**. The business plan will guide the new society through its early stages until membership is established, the first Annual General Meeting is held and working committees are formed.

The five goal areas are:

1. **Provide Hydrogeology Support to Developing Countries**
  - Support for existing Non-Governmental Organizations to ensure sustainability of aquifer systems
2. **Support Hydrogeology Capacity-Building in Developing Countries**
  - Support the development and sustainability of hydrogeology graduate-level programs in developing countries
  - Provide short-term hydrogeology-related training courses in developing nations through existing partnerships with Non-Governmental Organizations

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## ←...Business Plan Ready

### 3. Networking and Partnerships

- Develop partnerships with organizations involved in hydrogeological programs or projects within developing nations.

### 4. Public Education and Awareness Building

- Educate hydrogeologists and the general public about the importance of, and issues pertaining to, groundwater in both developed and developing countries.

### 5. Administrative Operations

- Establish and maintain the base financial and administrative systems necessary to support the operation of HWB.
- Ensure responsible financial management of all funds and minimize overhead and administrative costs.

*For further information contact: Catherine Main [cmain@matrix-solutions.com](mailto:cmain@matrix-solutions.com)*

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## What Are We Doing Now?

1. Establishing the HWB organizational/administrative structure and registering HWB as a non-profit organization nationally.
  2. Gathering information on and contacting potential partner organizations involved in groundwater in developing countries. These organizations can be Canadian, international or from developing countries.
  3. Constructing a database of hydrogeologists who are able to volunteer their time.
  4. Supporting the CARA Network hydrogeology M.Sc. programs in Latin America
  5. Building a consortium of universities, NGO's, public and private sector companies and individuals to support Sub-Saharan Africa.
  6. Building awareness in Canada about the importance of groundwater in developing countries via public presentations and the HWB website.
  7. Seeking volunteers for HWB organizational support.
  8. Raising funds for HWB activities.
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## HWB Moves Towards National Status

**Hydrogeologists Without Borders** is quickly moving towards national society status and incorporation as a recognized charity reports Steering Committee member **Craig Robertson**. The Articles of Incorporation have been filed with the appropriate federal departments. "We are hoping this process will be completed in the next few months," says Robertson. →

## ←...HWB Moves Towards National Status

The soon to be born **Hydrogeologists Without Borders Society** will have an official address at 1212 – 58 Avenue SE, Calgary, Alberta T2H 2C9 thanks to the management at Wiebe Environmental Services INC.

*For further information contact: Craig Robertson [craig.robertson@wesinc.com](mailto:craig.robertson@wesinc.com)*

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## Web Site Development

Have you checked out our website?

<http://www.hydrogeologistswithoutborders.org/>



The Website Committee, at this point a committee of one, **David Sweeney**, has been instrumental in developing this critical communication tool. This is an excellent place to start if you want an orientation of HWB. This will also be the main centre for communicating information, challenges and opportunities in which members can become more involved. The website is still evolving into its vital and professional role within HWB. Comments, contributions and assistance are welcome.

An excellent summary of global issues around groundwater management can be found on the HWB website under “Who We Are?” or by a direct link.

<http://www.hydrogeologistswithoutborders.org/1.2globalgroundwatersituation.html>

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## ←...Website Development

**Hydrogeologists Without Borders** also has a general e-mail address which is checked regularly. General inquiries, initial contact, comments, contributions, suggestions, Letters to the Editor, society business, etc. can be made through this address. Specific inquiries will be directed to the appropriate committee chair person.

Send to: [info@hydrogeologistswithoutborders.org](mailto:info@hydrogeologistswithoutborders.org)

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## What Can You Do?

### 1. Volunteers:

- Volunteer with the HWB Organization here in Canada
- Volunteer as a professional hydrogeologist, water well technician or other groundwater specialist for local public education programs
- Volunteer as a consultant with an existing NGO on behalf of HWB
- Volunteer to help raise funds to support the CARA Network hydrology M.Sc. programs

### 2. Partner Organizations:

- HWB is looking for like-minded organizations involved in groundwater development, management and protection
- These organizations could be located anywhere in the world
- You could contact a Steering Committee member and help form another networking opportunity



### 3. Donations:

- HWB is pleased to accept donations of books, journals, teaching materials and field or laboratory equipment related to groundwater management
  - Financial donations are being accepted from individuals and companies who wish to become Charter Members. These funds will support the process of HWB becoming a registered society and charitable organization
  - HWB is also interested in partnering with other organizations and businesses in applying for grants to support groundwater management and education
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## Member Database – An Opportunity To Join

**Hydrogeologists Without Borders** currently has 80 interested adherents according to the database maintained by volunteer **Tim Van Dijk**, our Communications Officer. If you received this newsletter by direct e-mail, chances are, you are on that list.

We have now reached the stage in our development as an organization that we are inviting people to formally join **Hydrogeologists Without Borders** as Charter Members. This is an opportunity for you to help in the foundational steps of **HWB**.

This year **HWB** will receive national status as a society and recognition as a charity. However, we are incurring expenses as we go through this process. Before we can apply for grants and charitable donations, people interested in becoming Charter Members are being asked to cover these initial legal and registration costs.

To this end, Charter Members are being asked to contribute \$25 as a membership fee for 2007. This will entitle you to a Certificate of Charter Membership, future newsletters, access to our growing resources and contacts, and the satisfaction of knowing you were in at the beginning of this exciting initiative. Future membership fees, including a business and corporate membership designation, will be determined at our first Annual General Meeting as a society, as yet to be announced.

To find out how to become a member, please refer to the Charter Membership Registration form at the end of this newsletter.

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## Public Awareness and Education

In keeping with the goals of **Hydrogeologists Without Borders** to raise awareness of the water crisis across the globe and to facilitate a greater understanding of the challenges affecting water supply, this sub-committee is faced with educating various segments of society. Part of our plan includes:

### 1. **Raise awareness within the hydrogeological community of the current global water situation and likely future developments.**

In our society, many people are not aware of the **Millennium Development Goals** (please see the website for more info), and what Canada's role is or should be. The IAH is active internationally, and HWB is tied closely to their efforts to ensure sustainability of aquifers for long term use in the future.

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### ←...Public Awareness and Education

In HWB, this goal is being addressed by giving presentations at local IAH meetings and conference venues. To date, this has been met with a favorable response and has generated interest in HWB.

As people become aware of the global situation, they want to assist in efforts to mediate the effects of this crisis. We are planning on developing a slide show which HWB representatives could use to give local talks. The slide show would have a set of notes and would be updated regularly.

### 2. Raise awareness within society as a whole.

The target for this goal is school-aged children. We hope that as students become more aware of groundwater issues they will educate their parents and the other people with whom they come in contact.

Presently, curriculum is being developed by **Sara Ryan** to support volunteers who would present the program at any level of schooling. Ideas currently being considered for modules in the curriculum are: (i) groundwater vs. surface water, (ii) groundwater in the north vs. the south - using two example countries (i.e. Canada and Nicaragua) and (iii) building capacity vs. traditional aid.

This plan will require a large volunteer force.

If you are interested in participating in either of these two initiatives, please send Laurra Olmsted an email stating how you'd like to help.

*For further information contact:      Laurra Olmsted      lolmsted@matrix-solutions.com*

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## Water Management in Bolivia

The University of Calgary has recently been awarded a \$1 million project from the Canadian International Agency called "Water Management in Bolivia". The purpose of the project is to build institutional and human resource capacity in the Bolivian groundwater sector through an applied CARA M.Sc. program in hydrogeology and water resource management at the University of Saint Francis Xavier (USFX; Sucre). The project will be led by the Central American Water Resource Management Network (CARA: [www.caragua](http://www.caragua)). CARA-Bolivia will follow the model developed in Central America for capacity-building through the establishment of applied hydrogeology M.Sc. programs with related professional and technical training, community-outreach, applied research and public water policy-related activities.

*For further information contact:      Dave Bethune      bethuned@ucalgary.ca*

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## Sub-Sahara Africa

In association with the **International Year of the Planet Earth** (2007-2009), **Hydrogeologists Without Borders** is currently working to establish a consortium of interested parties to increase the hydrogeological capacity within Sub-Sahara African countries by supporting CARA in augmenting existing, or establishing new, M.Sc. hydrogeology programs in Africa.

The aim of **Hydrogeologists Without Borders** is to build on the model that CARA uses in Central America to increase the number of formally educated hydrogeologists. The SSA programs would be partnered with strong M.Sc. programs in developed countries ('DC'; Canada, USA, Europe). The DC universities would take the lead in finding funding to strengthen their own international aid programs.

At the current time we are looking for organizations and individuals who would like to act as a partner in this consortium.

*For more information contact: Laurra Olmsted*

*lolmsted@matrix-solutions.com*

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## FEATURE ARTICLE

### HWB Mandate #2: Hydrogeologic Capacity Building

By David Bethume, University of Calgary

I am very pleased and excited to be leading this task as it is clearly in my heart. The goal of HWB's Hydrogeologic Capacity Building program is to strengthen the capacity of the hydrogeologic sector in developing countries through assistance to universities offering hydrogeology programs. HWB will support existing hydrogeology programs and help initiate new programs. To this end, HWB is partnering with the CARA Network ([www.caragua.org](http://www.caragua.org)) which has three M.Sc. programs up-and-running at the University of Costa Rica (began 1995), the National Autonomous University of Nicaragua (began 2001) and the University of San Carlos, Guatemala (began 2001). The



Costa Rica program was initiated with financial support from IDRC and the vision and contacts made by the late Dr. Robert Farvolden who had a strong vision for hydrogeologic capacity building in developing countries. The adjacent photo shows seven (of ten) of the first group of students at a field site in Costa Rica. Three additional programs (at the University of El Salvador, National Autonomous University of Honduras and the University of San Francisco Xavier, Bolivia) will begin in 2007. Each of

these programs has been primarily funded by CIDA's UPCD program (<http://www.acdicida.gc.ca/CIDAWEB/acdicida.nsf/En/JOS-42814543-Q6U>). I am writing this the same day we were informed by CIDA that the Bolivia project has been approved! This project will strengthen an existing water resource M.Sc. program following the CARA model and join Bolivia to the CARA network.

Each CIDA project strengthens the university to deliver scientific yet highly applied hydrogeology/water resource management M.Sc. programs. To date about 80 Central Americans have completed one of the CARA M.Sc. programs and all (but one) are working in their home countries mostly for government agencies. Over 15 professors (such as Valeria Delgado from Nicaragua in the adjacent photo) have been trained at the M.Sc. level and are now delivering the M.Sc. programs. The M.Sc. programs also offer professional and technical short courses, emphasize field methods, and are highly connected to communities through municipalities, national government agencies, donor projects and NGO's.



Canadian professors (such as Dr. Cathryn Ryan at the University of Calgary in the adjacent photo) and professional volunteers assist with activities such as curricula design, short courses, student supervision, conferences and public education.

HWB will support the existing M.Sc. programs by setting-up a scholarship fund for CARA M.Sc. students. Organizations will be asked to sponsor a student (just as one can sponsor a foster child) for \$10,000/year for the two-year M.Sc. program. We are also seeking donations of hydrogeology textbooks, journals, software, and field/lab equipment.

Laura Olmsted is a member of the IAH Burdon Groundwater Network (<http://burdon.wgw.org/>) which supports hydrogeologists in developing countries to deliver the U.N.'s Millennium Development Goals. Laura and I are currently working with the IAH/Burdon and several other organizations to develop a strategy for



hydrogeologic capacity-building in Sub-Saharan Africa. The high importance of groundwater in SSA coupled with a lack of organizational or individual capacity is now being realized and now is the time to take action with short-term and long-term capacity-building efforts. This will take significant financial support and the involvement of many organizations. HWB is proposing a strategy

based on the CARA model where universities are the focal point for strengthening through partnerships with universities that already have strong hydrogeology programs (mostly in North America and Europe). Strengthening will start with 2-4 regional hydrogeology programs then gradually develop programs in each country of SSA.

We are currently seeking volunteers to assist with the following tasks: a) producing a promotional package for HWB and the CARA M.Sc. programs, b) a webmaster for the CARA website (English and Spanish), c) contacting potential donor-partner organizations, making brief (lunchtime) presentations and requesting their sponsorship of hydrogeology M.Sc. students, d) assisting developing country partner universities with teaching, research or other hydrogeologic activities, and e) assisting with the SSA hydrogeology capacity-building strategy.

**For further information contact: Dave Bethune      [bethuned@ucalgary.ca](mailto:bethuned@ucalgary.ca)**

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## **A Great Idea From EBA Engineering Consultants Ltd**

EBA Engineering Consultants Ltd. wanted to do something special for their 40th year anniversary in 2006 in tune with one of their company core values; “Improving Our Communities”. They aligned with a small Canadian aid group called “Partners in the Horn of Africa” (Partners) that has been working on aid projects in rural Ethiopia since 2001. Partners specializes in delivering relatively small-scale aid projects such as orphanages for HIV orphans, health care stations, footbridges for villagers in the rainy season, desks and structural improvements to schools and providing clean water to villages.

Partners unique features include having no administration costs, ensuring that all projects are endorsed by host communities who are required to “buy into” projects by contributing 15% of the cost (usually by providing local labour) and working in remote and difficult regions of the country where small projects make a big difference.

EBA’s projects have involved assessing, designing and overseeing construction of a system to protect year round springs in northern Ethiopia, the construction of an important footbridge link and a range of improvements to an elementary school in southern Ethiopia. The latter project includes a concrete floor, walls, windows, desks and a school library. This project is primarily funded by money collected by EBA staff from a range of fundraising activities including the proceeds from the sale of the EBA Hydrogeology Cookbook.

The cookbook idea evolved during an internal course for hydrogeologists within EBA. Clearly they have an interest in more than just water! These recipes are the pride and joy of this group, and they should “whet” your appetite.

Thank you for your contribution!!

Additional details of the project in Ethiopia are available on our web site at [www.eba.ca/ethiopia](http://www.eba.ca/ethiopia)



**For more information contact: J. Thomas Dance, M.Sc., P. Geol.,      [tdance@eba.ca](mailto:tdance@eba.ca)**

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## **HWB Volunteers In Action**

**Hydrogeologists Without Borders** is actively building a volunteer database which will be featured on our website. The goal of this database is to match interested volunteers with service opportunities and to facilitate networking. As the **HWB Volunteers In Action** database develops, there will be opportunities for individuals, organizations and businesses to register their willingness to become actively involved in our projects and business plan goals.

You are encouraged to monitor our website for the launch of **HWB Volunteers In Action** database. Below are the tasks for which we are currently seeking volunteers to assist or lead under Goal #2 of our business plan. Other volunteer opportunities will be posted on our website as soon as they are defined.

### **2. Hydrogeologic Capacity-Building in Developing Countries**

- a) production of a promotional package for HWB and the CARA M.Sc. programs,
  - b) webmaster for the CARA website (English and Spanish),
  - c) contact potential donor-partner organizations, make brief (lunchtime) presentations and request sponsorship of hydrogeology M.Sc. students.
  - d) directly assist developing country partner universities with teaching, research or other hydrogeologic activities.
  - e) assist with the SSA hydrogeology capacity-building strategy (experience in SSA preferred). We currently need three teams of volunteers working on: 1) researching current SSA university hydrogeology capacity/programs, 2) researching and contacting potential partner universities in N. America/Europe/Australia-NZ with hydrogeology graduate programs; and 3) researching funding opportunities with major donor agencies and seeking funding with partners.
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# CHARTER MEMBERSHIP REGISTRATION

## Privacy Policy:

The following information is being collected for the sole purpose of organizing **Hydrogeologists Without Borders** and communicating within its membership. The information you supply will not be used for any other purposes. Formal policy will be developed after the society has been officially established and the first Annual General Meeting has been held.

Name: \_\_\_\_\_  
*Last First Middle*

Title: \_\_\_\_\_ Gender: Male / Female

## HOME CONTACT INFORMATION

Home Address: \_\_\_\_\_  
*Street Address*

\_\_\_\_\_ *City Province Postal Code*

Home Phone: \_\_\_\_\_  
*Area Code Phone*

Personal E-Mail Address: \_\_\_\_\_

➤ Which contact information should be recorded as your primary location for Hydrogeologists Without Borders?

\_\_\_\_\_ Home Contact Information      \_\_\_\_\_ Business Contact Information

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### BUSINESS CONTACT INFORMATION

**Place of Employment:** \_\_\_\_\_  
*Company Name*

**Position:** \_\_\_\_\_

**Business Address:** \_\_\_\_\_  
*Street Address*

\_\_\_\_\_

<i>City</i>	<i>Province</i>	<i>Postal Code</i>
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**Business Phone:** \_\_\_\_\_

<i>Area Code</i>	<i>Phone</i>	<i>Extension</i>
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**Business E-Mail Address:** \_\_\_\_\_

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- **In which of the goals of Hydrogeologists Without Borders are you interested?**
  - **(Check all that apply)**

- \_\_\_\_\_ 1. **Provide Hydrogeology Support to Developing Countries**
- \_\_\_\_\_ 2. **Support Hydrogeology Capacity-Building in Developing Countries**
- \_\_\_\_\_ 3. **Networking and Partnerships**
- \_\_\_\_\_ 4. **Public Education and Awareness Building**
- \_\_\_\_\_ 5. **Administrative Operations**

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- **Please briefly share your training and experience:**

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- **Please summarize your interest in Hydrogeologists Without Borders and how you think you might want to become involved.**

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**REGISTRATION INFORMATION AND MEMBERSHIP FEES  
MAY BE SENT TO:**

**Hydrogeologists Without Borders Society**  
**C/O Wiebe Environmental Services INC.**  
1212 – 58 Avenue SE,  
Calgary, Alberta T2H 2C9

***ATTENTION: Craig Robertson***

**CHARTER MEMBERSHIP FEE for 2007 is \$25**

***(Please make cheques payable to Hydrogeologists Without Borders)***

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**NOTE:**

Thank you for your interest and support of **Hydrogeologists Without Borders**. As a Charter Member, you are helping with the foundational work of creating a national society and obtaining charitable status.

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