

A Word from the Secretary General

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Dear Colleagues and Friends,

Even if it is a little bit late now: Happy New Year to all of you, wherever you are on this world—and I include all those of you whose new year started last Autumn. Last year was another good year for our organization. As you can see from the figure below (Fig. 1), IWMA had 419 paying members at the end of 2008. This is an indication of the growing interest in mine water issues worldwide; see also the following press release from Natural Resources Canada. The number of our corporate members is also increasing steadily. Our new treasurer has stated that he wants to double their number in the next 3 years; in other words, we are looking forward to having about 40 corporate members by then. If you look at the last page of this journal, or on our web site, you will see who is already an IMWA corporate member. Are you interested in seeing your company's logo there as well? Speak to your manager about your company becoming a corporate member!

This June and October, there will be two exciting conferences: one (ICARD) in Sweden and the other (IMWA's) in South Africa. I hope both are on your schedule already, because I am sure that both will be nice opportunities to meet with colleagues working in the same interesting field of engineering and science.

In January, the Treasurer sent out invoices for 2009. Presumably, you have already renewed your membership and your subscription to this journal by paying that invoice; if not, please do so! You may have also noticed that there is a fancy 12 letter/number code on the middle left portion of your invoice. This code is your personal key to access our journal on-line at Springer's web site. The old code that you got with your first membership mail is no longer active. Register using the instructions at: <http://www.IMWA.info/token>.

Glückauf, and all the best
Chris Wolkersdorfer.

Government of Canada and DEVCO to Fund New Research Chair at Cape Breton University

SYDNEY, N.S. Cape Breton University will strengthen its position as an international leader in the search for new ways to limit the long-term environmental impact of coal mining thanks to a new Research Chair in Mine Water Remediation and Management, Natural Resources Minister Lisa Raitt announced today.

“Cape Bretoners understand, like few others, the long-term environmental impacts of coal mining,” said Minister Raitt. “That is why they must continue to strive to be leaders in the development of long-term solutions to these challenges.”

The Government of Canada is contributing \$1.7 million over 5 years through DEVCO to help fund the research position. Dr. Christian Wolkersdorfer, a leading mine water expert from Germany, has been appointed CBU's first Chair of Mine Water Remediation and Management.

DEVCO President and CEO Dr. Ross McCurdy are looking forward to working with the new Chair. “DEVCO is excited to be a partner in this important initiative. We are confident that Dr. Wolkersdorfer's world-renowned research will lead to enhanced solutions which will benefit other mine systems in Canada and elsewhere in the world.”

“For CBU, just as tradition and innovation go together, so must energy and the environment,” said John Harker, President and Vice Chancellor for Cape Breton University. “It's already happening on our campus and in our community, and we foresee the new mine water management research impacting national and global decisions around this critical resource.”

Cape Breton has about 3,200 km of underground workings—the legacy of more than a century of coal mining. With

Fig. 1 IMWA's membership between 1992 and 2008

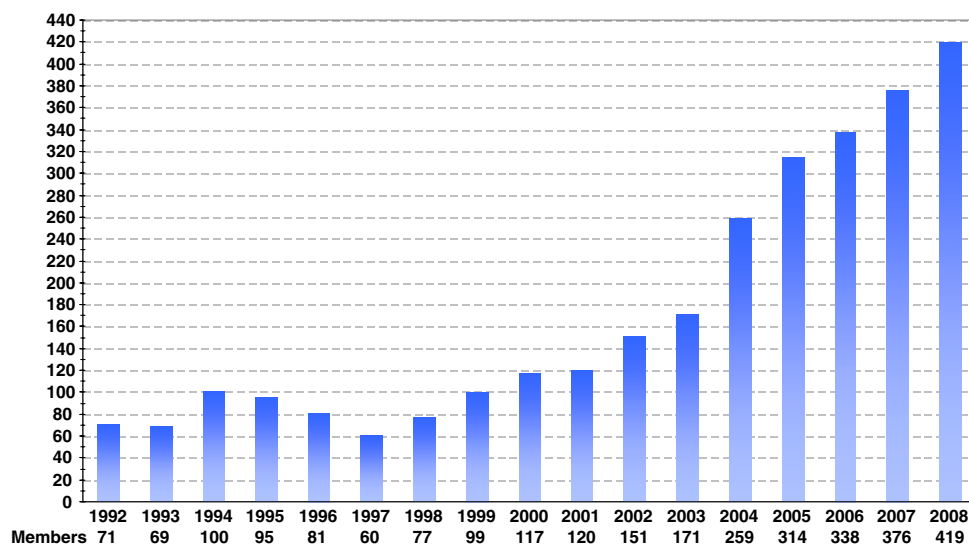


Fig. 2 Cascade at the newly constructed passive mine water treatment system of the IB hydraulic system on Cape Breton Island, Nova Scotia, Canada

the cessation of active mining, it is normal for mine workings underground to become flooded with water. This water can be acidic and contaminated with dissolved iron and metals. As a result, outflows of mine water must be managed or treated to protect the environment (Fig. 2).

DEVCO began a pilot program last year to examine the benefits of passive treatment of mine water using constructed wetlands. The CBU Chair will expand on this and other research efforts to enhance mine water management activities in the future.

Minister Raitt also announced that the Government of Canada is partnering with DEVCO and CBU in a Green Mines Green Energy pilot project at the Broughton mine site. Project partners are examining ways of utilizing organic wastes to rehabilitate mine tailings and grow energy crops.

The Broughton site is one of five Green Mines Green Energy sites currently being piloted by Natural Resources

Canada and partners across Canada, with additional sites under development. This technology holds great potential to stabilize mine tailings sites and establish a productive land use for them.

From: Jasmine MacDonnell; Press Secretary; Office of the Minister; Natural Resources Canada; Ottawa

Mine water will start decanting from Central Rand Basin in a few years

The Central Rand Basin is filling up with water, and within a few years it will start decanting, according to African Environmental Development technical services director Garfield Krige. An average of 32.51 million L drain into mine aquifers in the Central Rand Basin daily, through direct recharge derived from tributaries of the Klip River or indirect recharge from water lost from streams to groundwater that moves to transmissive mine aquifers. These losses occur at the three reef outcrops in the basin, the Main, Bird, and Kimberley reefs. The Main Reef outcrop loses double the amount of water that the Bird Reef loses, and the Kimberley Reef a quarter of what the Bird Reef loses.

Krige tells Mining Weekly that, even though no mines are currently in operation in these areas, the water drainage causes a major environmental problem. The water flowing into the mine workings contain contaminants such as sulphuric acid and metals, which causes acid mine drainage. The ERPM mine, in Boksburg, was the last mine operating in the mining area, and is located furthest downstream, which, Krige explains, will be the resting place of the water flowing through the interlinked mine voids.

“The water flowing into the voids is of decent (reasonable) quality. The water will end up flowing through the

voids, picking up metals, uranium and other contaminants and will finally flow out on the surface at (in the vicinity of) the ERPM mine, and that water will be of poor quality,” he says.

Krige recommends that canals should be constructed to carry the water that are in the streams over the reef outcrops, similar to what has been done to the Florida Lake outflow. On the West Rand, the water flowing into mine voids is already decanting and is flowing into dolomite in the Cradle of Humankind World Heritage site.

“This is an even worse scenario than what is going to happen in the Central Rand Basin; however, Harmony Gold is actively dealing with the problem, and the Department of Water Affairs and Forestry and the Department of Minerals and Energy is well aware of the implications, and is implementing some of the recommendations that have been made to reduce the problem,” he adds.

A report compiled by Krige states: “The water in the Western Basin mine void could probably not have chosen a worse place to decant. Of all the places in the world, the acid water chose to decant into a carbonate aquifer, which, in itself, is a formula for disaster in so far as the formation of sinkholes goes, but, even worse, the entire area downstream of the decant point has been declared a World Heritage site in order to preserve its very important caves and fossil finds for future generations.

“Further, the area immediately downstream from the mine water decant point is a game reserve and the stream flowing through it, which also conveys the mine void water across the length of the game reserve, is the only drinking water source for the animals.” He explains that the problem in the West Rand can be reduced by lowering the water table to the environmentally critical level so that it will not decant at the surface. This would require water to be continually pumped out of the mine voids to prevent it from decanting, and this water would have to be treated.

Adapted from “Mining Weekly”, by: Leandi Cameron, published 23rd January 2009; editor: Martin Zhuwakinyu.

New Members

We welcome our following new members

Michael Alter, Tucson, USA
 Gary Birch, Adelaide, Australia
 Emma Golder, Adelaide, Australia
 William Goodman, Oviedo, USA
 Anthony Johnston, Adelaide, Australia
 Amy Lockwood, Fort Collins, USA
 Sam Milgate, Adelaide, Australia
 Charles Nesbitt, Adelaide, Australia

John Osnes, Rapid City, USA
 Richard Phillips, Adelaide, Australia
 Rick Pobjoy, Adelaide, Australia
 John Sweeney, London, UK
 Josef Van Hooydonck, Vina Del Mar, Chile
 Jon Weir, Adelaide, Australia
 Peter Woods, Adelaide, Australia

We hope that our new colleagues will benefit from and contribute to the extensive mine water knowledge and expertise gathered within our group of international experts. Please use your membership number in any correspondence, especially money transfers with IMWA. You can find it easily on your journal’s address label, in front of the word “GES”.

Lee C. Atkinson, Treasurer, Lakewood, Colorado, USA;
 Chris Wolkersdorfer, Secretary General, Cape Breton, Canada.

Back Issues

Members can find a complete index (issues 1–26) of the *International Mine Water Association Journal* and *Mine Water and the Environment* at our web-page: <http://www.IMWA.info>. Proceedings of the 7th and 8th IMWA Congresses are still available for \$15.00 (US) a copy. Some other back-issues are available on request—copies of single pages at \$0.60 (US) each. Please add \$5.00 (US) for shipping/handling. You can also access the journal on line, using <http://www.imwa.info/springer>. You can download an overview of European mine water issues from IMWA’s web page or use the Digital Object Identifier: <http://dx.doi.org/10.1007/s10230-005-0081-3>. Other past IMWA issues, published before 2000, can be accessed with the private login and password that you received with your membership invoice.

Chris Wolkersdorfer, Sydney, Cape Breton, Canada.

EU money transfers

According to European law, EU money transfers (in EUROS) must not cost more than national money transfers if you use IMWA’s IBAN and BIC numbers (which must be printed on your bank’s money transfer statements). Thus, within most of Europe, EU money transfers are not international money transfers! This law does not apply to: Andorra, Monaco, Switzerland, San Marino, or the Holy See.

The banks are not allowed to charge extra costs. Please help yourself and IMWA to save money by complaining if your bank does not accept EU or SEPA

money transfers. If your bank causes problems, go to: http://ec.europa.eu/internal_market/payments/crossborder/complaintbodies_en.htm. to see if your country has a national Complaint Body:

Lee C. Atkinson, Treasurer, Lakewood, Colorado, USA; Chris Wolkersdorfer, Secretary General, Sydney, Cape Breton, Canada.

Forthcoming Events

June 23rd–26th 2009, Skellefteå, Sweden

ICARD 2009—“Securing The Future”: <http://www.securingskelleftea.se> With the organisation of Securing the Future 2009 and the 8th ICARD in Skellefteå, the organizing committee wishes to bring together international experts on environmental and social aspects of mining and metals from the scientific community, from government agencies, from the mining and metal industries and from other stakeholders to share knowledge and experience and to discuss industry practices, challenges and research needs.

June 28th–July 1st 2009, Innsbruck, Austria

E^{mc}2009—European Metallurgical Conference: Global Growth of Nonferrous Metals Production; <http://www.EMC.gdmb.de>

September 14th–18th, 2009, Berlin/Potsdam, Germany

2nd International FEFLOW User Conference (FEFLOW 2009); <http://feflow2009.dhi-wasy.de>; feflow2009@dhi-wasy.de

September 15th–17th 2009, Perth, Western Australia

Water in Mining 2009—from concentrator to community—protecting our license to operate. The aims for WIM 09 are to update progress in areas previously identified as important in WIM 03 and WIM 06 (and other national and international forums) and to raise emerging issues that require attention for research, management and policy formulation; <http://www.ausimm.com.au/content/docs/wim2009.pdf>; otetfong@ausimm.com.au

September 13th–17th 2009, Bariloche, Argentina

18th International Biohydrometallurgy Symposium; www.ibs2009.org.ar; info@ibs2009.org.ar

October 19th–23rd 2009, Pretoria, South Africa

IMWA 2009 Symposium
<http://www.IMWA.info>; imwa2009@IMWA.info

September 5th–12th 2010, Sydney, Nova Scotia, Canada

IMWA 2010 Symposium
<http://www.IMWA.info>; imwa2010@IMWA.info

September 4th–11th 2011, Aachen, Germany

11th IMWA Congress
<http://www.IMWA.info>; imwa2011@IMWA.info

2012, Denpasar, Bali, Indonesia

IMWA 2012 Symposium
<http://www.IMWA.info>; imwa2012@IMWA.info