

16 December 2007

Dear Director Humphries:

We, the undersigned, urge you to reject the proposal to allow Kennecott Mining Co. to create a nickel-sulfide mine in the Upper Peninsula of Michigan. Many of our colleagues have offered appropriate environmental reasons to reject the mining proposal. We appreciate those reasons. Here, we present additional reasoning for rejecting the mining proposal – reasoning that, we believe, has been underappreciated.

Mining proponents value the economic welfare of Michigan. As do we. Mining proponents realize that nickel is a valuable raw material that can be utilized in many positive ways (such as batteries for use in hybrid automobiles). We recognize this as well. Mining proponents see nickel mining as a way to promote Michigan's short-term economic welfare. We also see this. Mining proponents also realize that the proposed mine would cause and might cause various harms to the environment. We agree.

Ultimately, proponents of the mining proposal think that the certain, short-term economic benefits outweigh the risk of incurring short-term and long-term environmental costs. Although many Michiganders agree with this reasoning, many do not. For a democratically elected leader, the issue seems difficult to resolve because the (environmental) costs do not appear to clearly outweigh the (economic) benefits, nor does the reverse seem clearly true.

The apparent equality between these costs and benefits is a misperception for two reasons.

First, many appreciate the various environmental costs that scientists tell us will or may occur if this mine were built. Despite well-appreciated complexities that uncertainty brings to a decision-making process, uncertainty about the costs inevitably results in those costs being discounted, at least to some extent. Sadly, this accounting overlooks an important dimension of the costs – a dimension that transcends science and economics. Namely, many Michiganders, very simply and quite reasonably, think that the proposed nickel-sulfide mine represents an inappropriate relationship with Michigan's natural environment. In the same way that human prostitution is not made right because it would create jobs or because psychologists debate what exactly are its effects on human health, the value of nickel-sulfide mining cannot be made *right* by scientific or economic arguments. In contrast to the science and the economics of nickel-sulfide mining, there is no uncertainty that many (perhaps most) Michiganders respect nature in a way that precludes nickel-sulfide mining. Manifesting their respect is to manifest our democratic principles.

The second reason that the costs and benefits appear irresolvably similar is that the benefits of the mine have been greatly exaggerated. The health of our economy is not, as is implied, fundamentally dependent on having more nickel. If it were, we would work harder to satisfy more than just 1/3 of our demand for nickel with recycled nickel<sup>1</sup>. Moreover, the prosperity of our economy *cannot* depend on more nickel. Our own federal government reports that if the United States were to more equitably share nickel resources with the rest of the world, global nickel reserves would be depleted in less than 60 years<sup>1</sup>. From now on, flourishing economies

will be those that discover how to live prosperously in a world with less, not more, nickel per capita.

Ultimately, controversy about nickel-sulfide mining arises from being confused about the nature of our problem. Proponents of the mining proposal mistakenly think that our primary problem is how to get more nickel. However, our problem is indisputably how we will learn to flourish in an economy with less nickel, per capita.

Even if nickel is not fundamental to our economic health, might it be most sensible to develop sustainable economies *and* mine nickel for short-term profit? No. Unsustainable economic activities are fundamentally inconsistent with a sustainable economy. Without underestimating the severity of Michigan's current economic condition, the economic benefits of the mining proposal are exaggerated. The benefits are fleeting, distracting, and of too little benefit to too few Michiganders. At best, the mining proposal is a 'fix' to our current economic problems, in the same way that another hit of heroine fixes an addict's shakes. The mining proposal is far from a harmless fix; its costs are real and underappreciated. Rather than a *fix*, Michiganders need *solutions* that will carry us into the new economy.

For these reasons, we urge you to reject the mining proposal.

<sup>1</sup>source: U.S. Geological Survey, cited by David Cohen, Ph.D. economist, in a *New Scientist* article, doi:10.1016/S0262-4079(07)61315-3.

Sincerely,

*(in alphabetical order)*

Robert Arking, Ph.D.  
Professor of Biological Sciences  
Wayne State University

Mark Axelrod, Ph.D.  
Visiting Assist Professor of Fisheries & Wildlife  
Michigan State University

Jackie Bird, DVM, Ph.D.  
Associate Professor, Biology  
Northern Michigan University

Burton V. Barnes, Ph.D.  
Professor Emeritus of Natural Resources  
University of Michigan

John G. Bruggink, Ph.D.  
Professor of Biology  
Northern Michigan University

Gene Cline, Ph.D.  
Professor of Philosophy  
Director of Prentiss M. Brown Honors Program  
Albion College

David J. Flaspohler, Ph.D.  
Associate Professor of Ornithology  
Michigan Technological University

Jacqueline B. Grant, Ph.D.  
Assistant Professor of Conservation Biology  
Michigan Technological University

Brent M. Graves, Ph.D.  
Department of Biology  
Northern Michigan University

Gail Griffith, Ph.D.  
Emeritus Professor of Chemistry  
Northern Michigan University

Thaddeus Grudzien, Ph.D.  
Associate Professor of Biology  
Oakland University

Scott Herron, Ph.D.  
Associate Professor of Biological Sciences  
Ferris State University

Casey J. Huckins, Ph.D.  
Associate Professor of Aquatic Ecology  
Michigan Technological University

Daniel M. Kashian, Ph.D.  
Assistant Professor of Biology  
Wayne State University

Barb Keller, Ph.D.  
Associate Professor and Chair  
Dept. of Chemistry and Environmental Sciences  
Lake Superior State University

Steven Kohler, Ph.D.  
Associate Professor of Ecology  
Western Michigan University

Mark A. Largent, Ph.D.  
Director of Science, Technology, and  
Environmental Public Policy Specialization  
Assistant Professor, James Madison College  
Michigan State University

Jordan J. Lindberg, Ph.D.  
Executive Vice President, eFulfillment Service,  
Inc.  
Adjunct Faculty, Department of Philosophy and  
Religion,  
Central Michigan University

Alec Lindsay, Ph.D.  
Associate Professor of Molecular Ecology  
Northern Michigan University

Terry Link  
Director, Office of Campus Sustainability  
Michigan State University

Alex S. Mayer, Ph.D.

Professor of Geological & Environ. Engineering  
Michigan Technological University

Aaron McCright, Ph.D.  
Assistant Professor of Environmental Sociology  
Michigan State University

Linda M. Nagel, Ph.D.  
Associate Professor of Forestry  
Michigan Technological University

Michael P. Nelson, Ph.D.  
Associate Professor of Environmental Ethics  
Michigan State University

Moti Nissani, Ph.D.  
Associate Professor of Biological Science  
Wayne State University

Kelly A. Parker, Ph.D.  
Associate Professor of Philosophy and Chair  
Department of Philosophy  
Grand Valley State University

Ivette Perfecto, Ph.D.  
Professor of Natural Resources  
University of Michigan

Rolf O. Peterson, Ph.D.  
Professor of Wildlife Ecology  
Michigan Technological University

Thomas Pypker, Ph.D.  
Assistant Professor of Forest Ecology  
Michigan Technological University

John Rebers, Ph.D.  
Professor of Biology  
Northern Michigan University

Alan Rebertus, Ph.D.  
Biology Department  
Northern Michigan University

Gary Stark, Ph.D.  
Assistant Professor of Business  
Northern Michigan University

Geoffrey Steinhart, Ph.D.  
Assistant Professor of Biology  
Lake Superior State University

Roger Strand, Ph.D.  
Associate Professor of Aquatic Ecology  
Northern Michigan University

Karen Strasser, Ph.D.  
Associate Professor of Biological Sciences  
Ferris State University

Jean I. Tsao, Ph.D.  
Assistant Professor of Biology  
Michigan State University

John A. Vucetich, Ph.D.  
Assistant Professor of Animal Ecology  
Michigan Technological University

Maarten Vonhof, Ph.D.  
Assistant Professor of Biological &  
Environmental Studies  
Western Michigan University

Craig Waddell, Ph.D.  
Associate Professor of Rhetoric &  
Communication  
Michigan Technological University

John Waller, Ph.D.  
Assistant Professor of History of Medicine  
Michigan State University

Gregory Zimmerman, Ph.D.  
Associate Professor of Biology  
Lake Superior State University