Report to the Oregon Senate Natural Resources Committee relating to the Ban on Placer Mining. RE: SB 401 and SB 838

Dear Senator Courtney, Senator Dingfelder and Committee Members:

I am opposed to the current bills proposing banning placer mining in Oregon and adding Scenic Waterways where none are designated now. Under ORS517.123 the Legislature found that" prospecting, small scale mining and recreational mining: (1) Are important parts of the heritage of the State of Oregon (2) Provide economic benefits to the state and local communities; and (3) can be conducted in a manner that is not harmful and may be beneficial to fish habitat and fish propagation (1999 c.354 2)". I have taken time to compile some facts that may assist you in making a sound choice whether to ban Placer Mining in Oregon or to take another course which will allow the continuation of Placer Mining. Today, placer mining helps accomplish economic sustainability in Oregon, particularly in the rural areas, and proper resource recovery methods in place by current regulations ensure protection of the environment.

The first report shows facts on what placer mining, conducted with a small scale mining dredge, accomplishes. The two following reports are taken from USFS and USGS reports related to Sustainable Development in world economies. It is critical to pay attention to their facts which show Mining is essential for sustaining economic standards in our world and State economies.

Reasonable environmental regulation is needed, and is currently in place in Oregon, through the DEQ, DSL, DOGAMI, the U.S. Forest Service and BLM regulations. The continued exploration for critical essential minerals is necessary for this Nation's well-being. Mining of these deposits in Oregon and other areas in the Nation helps to insure the safety of our nation, by providing strategic materials for National Security and Economic Stability. We must avoid relying on purchases of these materials from foreign countries. In addition, prohibiting mining on patented lands and deeded lands is an undeniable taking of private property, requiring just compensation. <u>To approve a Bill to ban or place a moratorium on Placer Mining will place the State of Oregon in litigation for years at considerable costs to the State and Taxpayers.</u>

After reviewing the proposed SB 401 and SB 838 submitted to the committee, our attorney found that the proposed bills are "*jobs killing bills*" which are in opposition to the Governor's Plan to increase jobs and improve the economy in the State of Oregon. I encourage the members of the Oregon Senate to act wisely and responsibly to make sure they do not contribute to the declining economic conditions currently found in Oregon.

The currently proposed bills will also violate Amendments to the Constitution. SB 401 will violate the 5th amendment of the Constitution. This will most likely end up in litigation against the State of Oregon at considerable cost to the State and its TAXPAYERS. SB 838 is another poor attempt by Senator Bates to remove the lawfully and legally mandated rights provided by the Congress to further the recovery of minerals and materials for our nation's security. His SB

115 was shut down by multiple letters in opposition and his SB 838 is like a spoiled bully pushing his personal agenda against citizens in Oregon and in other states that come to Oregon.

Please do not move forward with these ill-conceived bills. Oregon needs its miners and Oregon needs its mining jobs. **I come from a former environmental side of the battle and what the environmental groups use for their reasons to ban this Small Scale Mining are nothing more than false statements and improper use of limited science.**

In Washington we spent 2 years working with all agencies, State and Federal, to arrive at a set of regulations which have worked satisfactorily for the miners and agency staff since 2009. I have proposed to ODFW to review the "Gold and Fish pamphlet" as a possible guideline to reduce the number of litigations and constant problems facing all of us in Oregon. If Oregon can adopt a similar program, then the onslaught of lawsuits and continual permitting problems will be reduced.

Please make my comments part of the official record.

Thank you for your time,

Scott Atkinson
Northwest Mineral Prospectors – Former President and current board member.
Stream Steward
Former member – Trout Unlimited
Volunteer with the USFS
Member of NW Steelheaders

What is a Suction Dredge?

Is suction dredging really harmful to the environment?

The truth about suction gold dredging is far different than environmental groups would lead you to believe. The US EPA says "...**the impacts by small scale dredging activity are primarily contained within the mined areas and persist for about a month after mining season."** The first high water event removes evidence of dredging activity and redistributes the gravel. The activity of dredging can be compared to rototilling your garden and opens up the impacted gravels, creating better habitat for invertebrates.

A Floating Sluice Box

While some turbidity is created, it is short lived and water clarity returns to normal within 100 meters of the dredge site or less. A gold dredge is nothing more than a floating sluice box that uses an engine and pump to create a vacuum and send gravel, and hopefully gold, into the metal box suspended between the two pontoons. This sluice box filters out all heavy metals, including mercury, lead, and other trash metals, and returns the clean gravel to the river.

Powered by a Lawnmower Engine

The key to suction dredging is portability. This limits the size of a dredge. The bigger the dredge, the bigger the river or stream must be to operate it. The average size of a dredge engine is 5 horsepower. This is the same size engine that powers your lawnmower. Nothing is added to the water, but heavy metals are captured by the sluice box and removed. ***(I have personally collected over 65 LBS of old fishing lead from a local SW Washington stream in a 12' diameter location).***

Removing Toxic Metals

Gold dredges do not add mercury to the water. Environmentalists would like you to believe that suction gold dredges are "stirring up" old mercury but did you know that in the forty years these small devices have been in operation, they have removed over 2.5 tons of mercury left over from the gold rush. The amount of mercury recovered is dwarfed by the amount of lead, iron and other heavy metals removed by suction gold miners. A suction dredge engine is air cooled and it adds nothing to the water and is in fact an order of magnitude cleaner than your average motor boat. In 2002 the miners in Oregon turned in over 10 LBS of Mercury. Miners in Washington received a Governor's 2008 Award for turning in 161 LBS of Mercury over 5 years.
http://www.youtube.com/watch?v=Wke15rWFnFg

Doing No Environmental Harm

There is broad scientific evidence that suction dredging effects are both temporary and localized. For every study cited that claims dredging harms the environment there are studies that refute that. Some of the most credible detailed and in-depth studies of suction dredging were ignored in the Environmental Impact Report **(US EPA Similkameen and US EPA Forty Mile studies).** Still, the SEIR found no documented cases of environmental damage from gold suction dredges.

Speculation and assumptions about effects that **may** occur in the future completely disregard the real world of hard evidence. The California SEIR disregarded the current state of the environment while acknowledging that assuming a state where suction dredging had never taken place was **"hypothetical"** and did not reflect the real world. Despite this acknowledgment the State of California pushed ahead with a study that ignored the real world, used experiments that were so flawed that results couldn't be used and **relied on speculation instead of facts.**

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http://www.fs.fed.us/geology/fs_blm_statement_of_support.pdf

United States Forest Service

Sustainable Development – Minerals Applications

Paragraph 46 of the Plan of Implementation states:

“Mining, minerals and metals are important to the economic and social development of many countries. **Minerals are essential for modern living.** Enhancing the contribution of mining, minerals and metals to sustainable development includes actions at all levels to:

(1) **Support efforts to address the environmental, economic, health, and social impacts and benefits of mining, minerals and metals throughout their life cycle**, including workers’ health and safety, and use a range of partnerships, furthering existing activities at the national and international levels among interested Governments, intergovernmental organizations, mining companies and workers and other stakeholders to promote transparency and accountability for sustainable mining and minerals development;

(2) Enhance the participation of stakeholders, including local and indigenous communities and women, to play an active role in minerals, metals and mining development throughout the life cycles of mining operations, including after closure for rehabilitation purposes, in accordance with national regulations and taking into account significant transboundary impacts;

(3) Foster sustainable mining practices through the provision of financial, technical and capacity building support to developing countries and countries with economies in transition, for the mining and processing of minerals, including small-scale mining, and, where possible and appropriate, improve value added processing, upgrade scientific and technological information and reclaim and rehabilitate degraded sites.”

We heartily endorse the Plan of Implementation signed at the World Summit on Sustainable Development. We will continue to implement the Mining and Minerals Policy Act of 1970, wherein Congress declared that the United States should have a strong domestic mining industry and reclaim those impacts created by mining related activities.

http://pubs.usgs.gov/circ/2007/1294/paper1.html

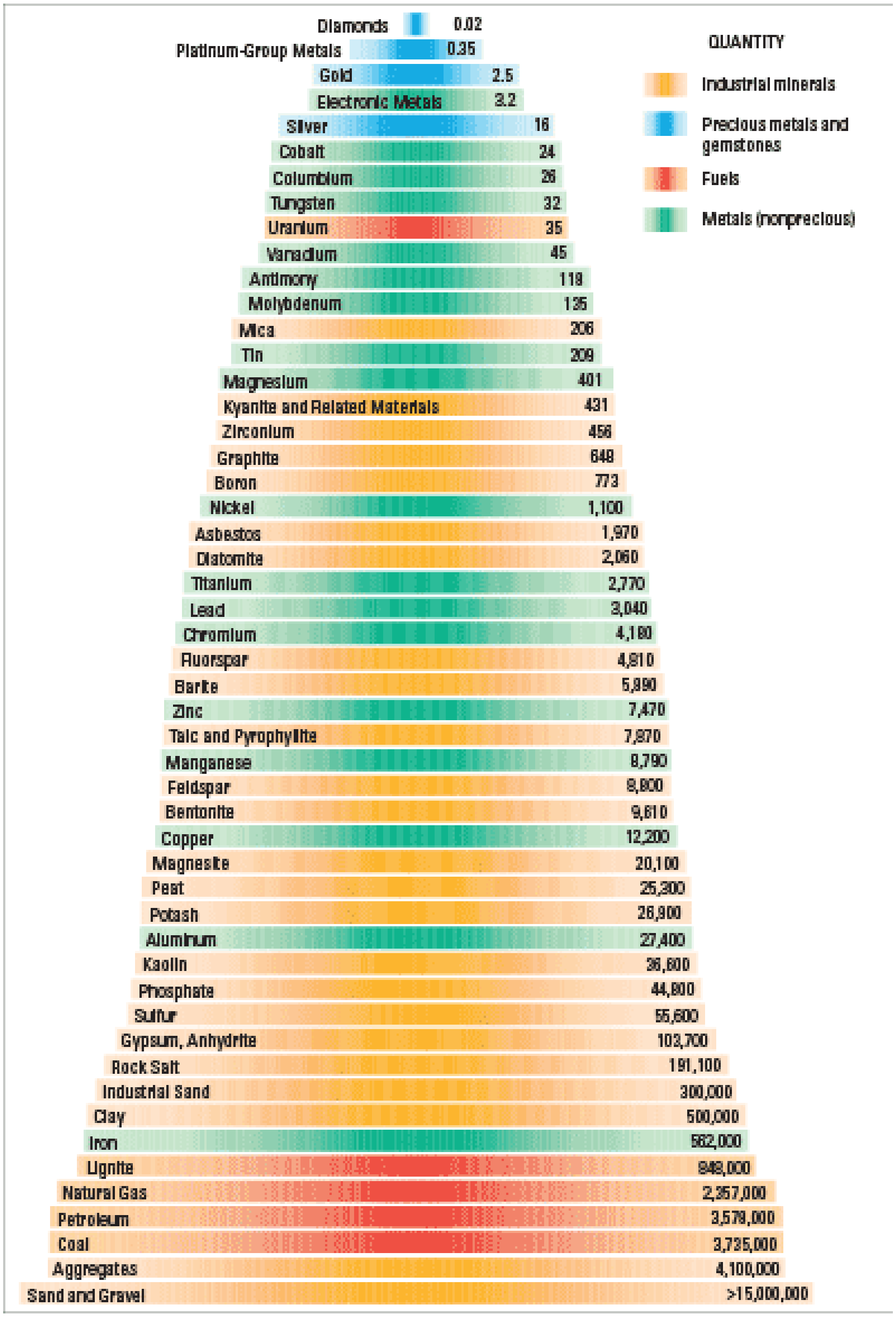
Global Nonfuel Mineral Resources and Sustainability

By Friedrich-Wilhelm, Wellmer and Jens Dieter Becker-Platen

Mineral Resources as Nonrenewable Resources

Most of the mineral resources we consume, of course, are nonrenewable. Nonetheless, ways must be found to fulfill the Brundtland Report requirement that future generations be able “to meet their own needs.” Current annual world consumption of mineral and energy resources is about 32×10^9 metric tons (32 billion metric tons), worth about 952 billion euros. Figure 2 is a bar diagram showing the annual world production of all mineral and energy resources by quantity in 1998. Figure 3 is the equivalent diagram based on value. **In both diagrams, the base of the pyramid is formed by sand and gravel, aggregates, and energy resources, all of which are required to meet our basic needs for housing, heating, and transportation.** Most of the nonmetallic resources are in the lower half of the quantity pyramid, whereas most of the metals are in the upper part of the quantity pyramid. Only the following nine metals are produced at a rate of more than 1 million metric tons annually: iron (Fe), by far the largest, aluminum (Al), copper (Cu), manganese (Mn), zinc (Zn), chromium (Cr), lead (Pb), titanium (Ti), and nickel (Ni).

Figure 2. World primary production of mineral and energy resources in 1998 by quantity, (Kippenberger, 2001). Ores are given as metal equivalent in thousands of metric tons; natural gas, in millions of cubic meters. The label “Diamonds” represents all precious and semiprecious gemstones. Electronic metals include gallium, indium, and germanium. Details about the top of the pyramid are in figure 4.



The very top of the quantity pyramid, of course, is made up of the precious metals and semiprecious and precious stones that together are represented by the most important precious stone, diamond. The special and "electronic" metals, like gallium, indium, or germanium, also are at the top of the quantity pyramid. These metals are the most important commodities in our information technology society. They are essential for electronic components in measuring and control-engineering technology, which are key technologies for increasing the efficiency with which we utilize our resources, especially our energy resources. These metals are used annually in tens or hundreds of metric tons and are critical components for the efficient utilization of resources that are used and consumed on the order of millions and billions of metric tons.

One can ask whether we can maintain this level of consumption and still fulfill the requirements of sustainable development, particularly in view of the fact that we have consumed more resources since World War II than during the whole of our long history before that. Figure 5shows the relative cumulative consumption trends of the "old" metals—gold (Au), tin (Sn), copper (Cu), and iron (Fe)—using total consumption as of today as 100 percent. Of these four metals, iron is the "youngest." The beginning of its use in the Middle East marks the birth of the Iron Age about 3,400 years ago; gold, tin, and copper have been used even longer. Figure 5 clearly shows that in 1945, at the end of World War II, cumulative consumption of these metals was less than 50 percent of the cumulative consumption of 1995, only 50 years later.

Few people realize how much the production and consumption of natural resources have accelerated. The following two examples are given to illustrate this trend.

1. The most intensively researched historical statistics probably are those for gold production (table 1). During the nearly 1,000 years from the end of the Roman Empire at about A.D. 500 to the discovery of the Americas by Columbus in 1492, the estimated total world gold production was about 2,500 metric tons, approximately the same as a single year's production today.

Table 1. World gold production.
[From Wellmer and Becker-Platen, 2001; courtesy of Encyclopedia of Life Support Systems Publishers, Oxford, United Kingdom]

Period	**Production, in metric tons**
3900 B.C.–A.D. 500 (end of Roman Empire), 4,400 years	10,257
500–1492 (discovery of America), 992 years	2,472
1493–1999, 507 years	125,059
Total: 5,899 years	**137,778**
1999, 1 year	2,514

The efficiency of production and utilization of mineral raw materials will have to be increased. This improvement requires investments in research and development, which can be much more easily undertaken in the relatively rich industrialized nations than in the relatively poor developing nations. Moreover, industrialized nations start much higher on the learning curve for efficient use of natural resources than do the developing nations. After development by industrial nations, more efficient technologies then can be adopted by the developing nations to meet the natural resources needs of their growing populations. Such development and application of technology allow us to extend the three-cornerstone concept in the Rio Declaration of 1992 to a four-cornerstone concept by adding the need for research and technology to achieve a higher efficiency in the use of natural resources. In the long run, including research and technology is the only possibility for achieving sustainable development globally.

Finding new substitutes.—The effect of rising prices as a driving force on finding new solutions to mineral resource sustainability is well demonstrated by the cobalt supply shortage resulting from the political Shaba crisis in Zaire in 1978. This crisis caused the price of cobalt to skyrocket. Zaire, now the Democratic Republic of Congo, is the world's largest cobalt producer. In 1976, the German Government commissioned a study to analyze what effect a shortfall of 30 percent of a commodity would have on industry. For chromium and cobalt, which were considered very difficult to replace with substitutes, it was found that about 6 million jobs would be affected. However, this study totally underestimated the flexibility of industry to react to drastic price rises. Shortly after the price rise, new substitutes (ferrites) were invented, replacing cobalt in permanent magnets and thereby totally changing the consumption pattern for cobalt (Wellmer and Becker-Platen, 2001).

***Improving recycling*.—**What is the aim of recycling? Is it to make maximum use of the secondary material per se, or is it to minimize environmental impact (for example, by reducing energy input and thus CO_2 emissions)? Most people would agree that it should be the latter. Consequently, the optimum solution may not be to recycle 100 percent of the secondary raw material (Wellmer and Becker-Platen, 2001). Take aluminum as an example. The results of an investigation by Alkan and others (1999) to find the optimum rate for recycling aluminum used in packaging are shown in figure 8. The optimum in this case is 90 percent, definitely not 100 percent.

The Sink Problem of Natural Resources and the Resilience of the Environment

So far we have dealt only with rules 1 and 2 of the Enquete Commission. We also have to consider rules 3 and 4, which address the resilience of the environment.

Per the maxim, **"He who mines must dig," digging is unavoidable, even though it has an environmental impact.** In a recent study by Neumann-Mahlkau (1997), it was shown that anthropogenic mass movements have reached the same order of magnitude as geogenic mass movements: about 35 billion cubic meters per annum (m^3/a) compared to about 37 billion m^3/a. Fortunately, humanity has learned much over the past 30 years about reducing the environmental effects of mining. Good mining practices always use the best available technology that also takes into account inescapable economic considerations. **Such practices sometimes are labeled "BATNEEC" that is, best available technology not entailing excessive costs. Implementing BATNEEC means increasing limits on the quantity of water and reagents reaching the environment from the beneficiation of ores and implementing strict regulations about restoring mine sites.** It also involves minimizing the land area used for mining. For example, it has been calculated that only about 0.01 percent per year of the land area of Germany is used for exploiting natural resources (Gwosdz and Lorenz, 2000). Moreover, this percentage must have a bias toward higher land usage than in other equivalent industrialized countries because Germany is the world's largest lignite (brown coal) producer, having very large open pits. Germany also is a significant peat producer, for which relatively large production areas are required, as well. Nonetheless, all land used for mining and quarrying today is used only intermittently in most industrialized nations; such land areas are "borrowed." In Germany, for example, all such land must be restored for industrial, agricultural, forestry or recreational purposes or as a nature reserve (re-naturation).

Concluding Remarks

The process of continually finding new solutions for the replacement of our nonrenewable resources is governed by the prices of these commodities and, for mineral resources, is affected by the cycle of supply and demand and the effects of learning. In the opinion of the authors, this process so far has worked in our market economy to provide a dynamic balance between resources supply and demand. There is no reason to believe that the process will not continue to function in the future. **Concerning the environmental aspects and the sink issue, one can be optimistic that improved technologies will find the necessary solutions.**

Miners Produce Jobs

Environmentalists do not create jobs with the sole exception of creating an industry of litigation. Miners create jobs and the gold recovered from mining produces the phones, computers, Ipads and electronic systems that make the world work. *(Gold is also used in the smoke stacks of industry to collect airborne mercury and cancer treatments use small pieces of gold to laser burn tumors).*

The 1994 Environmental Impact Report conducted surveys of small towns; miners and businesses to determine the economic impact of mining and estimated that $24 million was spent annually conducting suction dredge mining during the four month mining season. Added to the value of gold recovered, tax revenue and sales taxes, the value of the suction dredge industry is approximately $50 million per year. It should be noted this money is currently not in the economy. When added to the costs to the State, the current lost revenue for California is $60 million per year to maintain the suction dredge ban. The benefit of the ban is speculative at best.

During the forty years suction dredging was continuously ongoing and producing jobs, tax revenue and creating small businesses the cost to the State of California was zero.

According to testimony provided by the California Department of Fish and Game in the court case Karuks vs. Fish and Game the Department stated that the costs of running the dredging program was entirely covered by revenues from permitting.

The radical environmental groups who would shut suction dredging down have cost the State over $5 million to date while completely eliminating the $22 million in gold produced by miners. To date the environmentalists have cost the State:

1. Legal reimbursement to the environmental groups and Karuk tribe for Karuks vs. CDFG

2. $2 million in program costs to produce the Subsequent Environmental Impact Report

3. Legal reimbursement in Hillman vs. CDFG

4. Current lawsuit costs in PLP vs. State of California challenging the legality of AB 120 / SB 670

5. Current lawsuits costs in PLP vs. CDFG challenging the Subsequent EIR and the resultant regulations

In a cost/benefit analysis it's clear that the State of California has lost nearly $30 million a year as a result of extremist environmental groups seeking to ban mining in California.

What was gained?

During the thirty year period dredging was ongoing the US EPA reported a 3% to 7% drop in mercury levels in California. Did the mining ban reduce mercury levels further? No.

The fact is mercury is not a threat to human health in the levels found in California waters. In their zeal to find a fund raising banner the environmentalists have picked mercury. **Ironically, at the same time these groups are seeking grant money to use suction dredges to "remediate mercury."**

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