Sierra Club testimony on SB 395/AB 499 for the Assembly Committee on Labor

The Sierra Club is testifying in opposition to SB 395 as amended /AB 499 as it is a comprehensive package of provisions that benefit potential mining companies by reducing protections to Wisconsin’s environment and limiting the public’s rights to participate in the permitting process in meaningful and constructive ways. It also establishes arbitrary permitting deadlines that makes review and analysis of permit applications more difficult for the Department of Natural Resources that is already handicapped by budget and staffing cuts. Most of the provisions of SB 395 can be accomplished if needed simply by directing the applicant to take advantage of the generous exemption and variance provisions that can be accessed within the current law.

Metallic mining proposals, whether for iron, base or precious metals are the largest and most complex and destructive land uses considered in the state. There is no question that mining activities are inherently destructive and create “boom and bust” local economies. The impacts from mining and mine wastes require strict and careful monitoring and management to limit environmental damage and negative economic impacts to local communities and the state.

New mining developments threaten our sustainable tourism economy that supports thousands of jobs and reached $20 billion in 2016, up $700 million from 2015 as reported by the State Dept. of Tourism. One in twelve jobs in the state is sustained by tourism. Mining threatens the natural resources that support and sustain our tourism economy for a handful of potential jobs, boom and bust economies, permanent land destruction, and mining wastes that can require perpetual treatment and care to contain pollution. These impacts threaten the quality of life in Wisconsin that will attract needed workers to the state.

The Sierra Club is joined by more than 50 statewide and regional environmental and conservation organizations that support preservation of Prove It First, including Trout Unlimited, River Alliance of Wisconsin, the Nature Conservancy, Wisconsin League of Conservation Voters, Wisconsin Association of Lakes, Natural Resources Defense Council.

The Sierra Club shares the legislature’s desire for a stable economy and productive workforce but it cannot be at the expense or diminution of the public’s legal rights. Those rights require that the legislature consider carefully any threats to public health via air and water and guard against any threats to our treasured lakes, streams, wetlands and other natural resources.
Each regulatory change proposed in SB 395 is less protective of our environment and less protective of the public’s rights to participate in meaningful and constructive analysis and critique of the impacts of mining proposals. The sum of these changes is a significant cumulative erosion of environmental protections for mining.

**Wisconsin’s Comprehensive Mining Law**

Wisconsin’s comprehensive mining law is already a product of compromise, drafted in large part by the mining industry itself. The program includes significant exemptions and exceptions for mining only and includes an allowance for variances or exemptions that applies to the entire mining chapter of the statutes (Ch. 293). Even before the Flambeau mine was permitted, the groundwater non-degradation standard for mine sites and wastes was repealed. Local mining ordinances were overridden by a process for “Local Agreements” that requires impacted local governments to negotiate with a mining company to satisfy local laws. This process puts local governments under extreme pressure from a mining company to give up their powers.

Since the permitting of the Flambeau mine, the compromise mining law that has only been weakened further by significant reductions of regulatory oversight, inspection and enforcement. Examples include:

- Public Intervenor’s office dismantled.
- DNR Secretary appointed by Governor instead of NR Board.
- DNR Rules must be approved by the Governor.
- Elimination of the DNR Science Services Bureau, significant cuts to science and education staffing and budgets.
- Wetlands deregulation including protections for sensitive wetlands.

Moreover, federal environmental oversight and protections are all under attack by the current administration. This means that even the current minimum protections in our laws for wetlands, rivers, streams, and air are likely to be further undercut in the future.

**Prove It First/Mining Moratorium Law**

The production of Acid Mine Drainage (AMD) and associated contaminants is widely considered mining’s largest environmental problem in the U.S.\(^1\) AMD is caused by acid produced when sulfide minerals in mines and mining wastes are exposed to air and water damages surface water and groundwater resources. The acid also leaches metals such as mercury, lead, arsenic, cadmium, zinc, copper and many others into the same water resources. The U.S. Forest Service considers these contaminants a greater concern than the acidity.\(^2\) In Wisconsin, economic

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2. USDA Forest Service 1993, Acid Mine Drainage From Mines on the National Forests, A Management Challenge
metal deposits such as at Flambeau, Crandon, and in Oneida, Taylor, and Marathon Counties are found as what are known as massive sulfide ores. Mining these ores requires separating the metals from the sulfide materials. The sulfide materials are the source of AMD and the chemical reaction leading to acid production in mine waste is extremely difficult and costly to halt.

Prior to the 1998 passage of the Moratorium Law, the mining industry was challenged to give one example of a metallic sulfide mine that had been safely operated and closed without polluting the environment. The mining industry could not document an example. Similarly, state regulators were tasked by the Natural Resources Board to search for examples and were unable to document successful metallic sulfide operations. Wisconsin DNR staff issued a report issued in 1995 that stated: “There are no ideal metallic mineral mining sites which can be pointed to as the model approach in preventing acidic drainage industry-wide.”

This conclusion confirming the industry’s failed environmental track record of mining metallic sulfide ores informed the legislature and led to the passage of the law. The findings remain valid today; the mining industry has offered no examples of safely operated and reclaimed metallic sulfide mines and the Flambeau mine is not a successfully reclaimed mine.

That the law is a moratorium in name only is well understood by regulators and the public. It is not a ban on mining. It is a permit condition that must be met before final permission to mine metals from sulfide ores is granted. A mining company could apply for permits today and not have to submit example mines until years from now to demonstrate compliance with state law. It is a concrete, unambiguous requirement limited to the language specified in state statutes. There is nothing in the law that bars or prohibits a company from conducting exploration or applying for permits to mine today.

In fact, Aquila Resources – the company behind the controversial Back Forty sulfide mine proposal within 150 feet of the Menominee River in MI – has conducted significant exploration drilling at two sites in Wisconsin as recently as 2012.

The provisions of the law were subject to compromise during passage that make satisfying the permit requirements easier for the industry. The law allows the industry to use examples from the U.S. and Canada – two countries with mining companies using the industry’s best and newest technology and methods to control pollution. The law also allows the use of more than

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3 An Overview of Mining Waste Management Issues in Wisconsin, Report to the Natural Resources Board by Wisconsin Department of Natural Resources Bureau of Solid and Hazardous Waste Management, July 1995, Updated October, 1997
4 See Legislative Reference Bureau Brief 98-1 for general permit requirements for metallic mining or Special Report 13, An Overview of Metallic Mineral Regulation, Wisconsin Geological and Natural History Survey for detailed permit requirements.
one mine to satisfy the requirement of safe mining, a compromise that defies common sense that a single mine be required. The law also allows example mines be found in climates and hydrogeology radically different than what is found in northern Wisconsin where we have four seasons and a water-rich natural environment.

“Example mines”

Proponents have suggested research done by both the DNR and independently demonstrated that the mines would not qualify. After review, the DNR formally rejected the Sacaton Mine on May 30, 2002. Independent review also found significant groundwater pollution from the mine. A review of the permitting record of the Cullaton Lake Mine found in 2003 that the mine was a documented source of significant pollution. The McLaughlin Mine is not yet closed and is not anticipated to be fully reclaimed until 2021. It has documented instances of large exceedances of surface water quality standards for arsenic, chromium, copper, lead, manganese mercury, lead, iron and zinc. It also has caused chronic degradation of groundwater beneath the tailings and waste rock dumps.

Flambeau mine

The arguments made in favor of SB 395 include misleading statements about the success of the Flambeau mine. The Flambeau mine is unique due to its small size and short span of production. The company itself billed it as the “world’s smallest and newest copper mine.” Permitting was finished in less than three years. Development and construction took place in two years followed by less than four years of production. Reclamation began in 1998 and is still unfinished 20 years later. Mine wastes that produced acid drainage while exposed at the site were backfilled into the unlined mine pit.

In 2007, Flambeau Mining Company (FMC) applied for a Certificate of Completion for reclamation of the mine. Monitoring of the site demonstrated that the reclamation was not only incomplete but that the site had been polluting nearby Stream C, a tributary of the Flambeau River for many years. A number of state organizations challenged FMC’s application and it was partially rejected by the DNR due to the incomplete reclamation and pollution of Stream C. FMC was ordered to establish additional monitoring to ensure the site didn’t

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5 DNR communication, Larry Lynch to Gordon Reid, Nicolet Minerals, May 30, 2002
6 Evaluation Of Application To Use The Sacaton Mine In Arizona To Meet Wisconsin Mining Law – WIS. STATS. § 293.50 – By Nicolet Minerals Company, Southwest Research and Information Center, May 2004
7 Arthur Harrington & John Clancy, Godfrey and Kahn, SC letter to DNR Secretary Scott Hassett, April 24, 2003
8 Waste Discharge Requirements for McLaughlin Mine, California Regional Water Quality Board, Feb. 2, 2012
continue to pollute. The company is awaiting results from the 6th attempt at cleanup and reclamation of the site to determine whether contamination of Stream C has been halted.

A DNR assessment of the mine led to the determination that Stream C, a tributary of the Flambeau River was polluted by the mine\textsuperscript{10}. The assessment revealed the mine was a chronic pollution source:

"Monitoring done at the site between 2002 and 2011 showed that Stream C and its contributing drainageways contained copper and zinc concentrations that frequently exceeded acute toxicity criteria (ATC). On average, copper exceeded ATC’s in 92% of samples."

The stream is currently designated as impaired by the EPA\textsuperscript{11}.

As documented by Robert E. Moran, Ph.D. - a Geochemist and Hydrogeologist with 45 years of domestic and international experience with mining and water quality issues, the groundwater is contaminated at the mine site. This a direct result of the mining industry’s exemption from state groundwater rules required of other industry. Mining is allowed a pollution zone around mines and mining wastes of up to 1200 feet in all directions. The result of this exception is that the larger the mine or waste site is, the more groundwater it is allowed to legally pollute creating groundwater sacrifice zones for mining companies. Dr. Moran’s research findings are attached. Dr. Moran’s general conclusions include:

- Ground and surface water quality is being and has been degraded at the Flambeau mine site—despite years of industry public relations statements touting the success of the Flambeau mining operation.
- The Flambeau mine is an example of a deeply flawed permitting and government oversight process. The opposite of a clean mining operation, groundwater quality data shows contaminants that greatly exceed baseline data and water quality and aquatic life criteria.
- The Flambeau mining and remediation practices are not a sustainable, long-term solution. The mining company may have satisfied state oversight and disclosure requirements, but site ground waters are contaminated and treatment would be extremely costly.

\textsuperscript{10} Surface Water Quality Assessment of the Flambeau Mine Site, Wisconsin Department of Natural Resources, April 2012.

\textsuperscript{11} Decision Document for the Approval of Wisconsin’s 2012 list of impaired waters with respect to Section 303(d) of the Clean Water Act, United States Environmental Protection Agency, June 25, 2014.
The history and ongoing groundwater and surface water pollution at the Flambeau mine site reveals the need to protect and improve our mining laws, not repeal or weaken them.

There is also no evidence that the mine created any lasting positive economic impact in Rusk County. After construction, it only operated for 3 years and common sense tells us that a mine that employed less than 70 people for such a short time is incapable of generating any lasting or significant economic development. Nothing changes the fact that all mines are ultimately boom and bust and do not create long-term economic development.

The fact is that Rusk County before, during, and after the mining years ranked at the bottom or near the bottom of all 72 WI counties for several key economic standards: overall unemployment rate, individual poverty level, children living in poverty, and per capita income. There is no question that the mine had a short-term positive economic impact but there’s no objective statistical evidence showing the mine had any lasting economic impact beyond the short operating time frame.

**Mining Technology**

Modern mining technology is not successfully controlling pollution. An independent study in 2012 reviewed 14 out of the 16 operating copper sulfide mines in the U.S. responsible for 89% of U.S. copper production and found that 92% failed to control mine waste seepage and 100% experienced spills through 2012. These are some of the largest mining companies in the world, with the most resources available for pollution control and they all have pollution issues (mines chosen had to have been operating 5 or more years).

Modern mining technology is also failing to predict and mitigate pollution. A two-year research study found that 100% of mines are predicted to meet relevant water quality standards as they must to receive permits. But predictions didn’t match reality as 76% of those studied exceeded water quality standards and mitigation measures predicted to prevent water quality exceedances failed in 64% of those studied.

Moreover, a subset of the studied mines were determined to have a high risk of developing acid mine drainage – the mining industry’s most difficult management challenge. The study found:

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12 Data sources: US Census Bureau, Wisconsin Departments. of Workforce Development, and Revenue.


- 85% of the mines with elevated potential for acid drainage or contamination of nearby surface water exceeded water quality standards.

- 93% of the mines near groundwater with elevated potential for acid drainage or leak pollution exceeded water quality standards.

- And of the sites that did develop acid drainage, 89% had originally predicted that they would not do so.

These results are clear that predictions made to satisfy permit requirements do not match reality and these results are the norm for modern mining and demonstrate that the Prove It First law remains necessary.

The reality is that technological changes in mining are designed to maximize efficiency and profits. Innovations in mechanization and remote operations of equipment have reduced the number of people needed to work a mine and the related costs. Most easily-accessed, high-grade ores have been mined out. Instead of making mining safer, modern technology is facilitating the mining of lower grade ores using more processing toxics like cyanide, creating larger volumes of waste, stored behind taller and taller tailings dams; which is creating greater risk of failure of spills of toxics and tailings dam failures.\(^\text{15}\)

The amendment offered as replacement for the Prove It First law would add a requirement for the mining permit that the DNR must determine that the technology used by the applicant “is capable” of compliance with all applicable laws of the Department. This amendment is essentially redundant since the existing permit condition in 293.49 (1)(a) 2\(^\text{16}\) would require denial of the permit if the applicant proposed to use technology not capable of resulting in compliance with all applicable laws and rules of the Dept.

The Sierra Club would support enhancements to the law that would offer better guidance to state regulators. The law should be modified to require that the example mines submitted for compliance be constructed and reclaimed in geographical, climatic and hydrologic settings analogous or similar to Wisconsin without causing significant pollution. The law should be modified to require one mine demonstrate both safe operations and reclamation instead of arbitrarily allowing separate mines for compliance.

**Permitting Timelines and Deadlines**

\(^{15}\) Newland Bowker, Lindsay & Chambers, David M., The RISK, PUBLIC LIABILITY, & ECONOMICS of TAILINGS STORAGE FACILITY FAILURES, July 21, 2015

\(^{16}\) Wisconsin Statutes 293.49(1)(a): “The proposed operation will comply with all applicable air, groundwater, surface water and solid and hazardous waste management laws and rules of the department.”
Wisconsin’s current regulatory system for mining does not require establishing timelines that fast-track approval mining permits. Instead, regulators and mining permit applicants need the flexibility inherent in the system.

In 2012, the Senate Select Committee on Mining heard important testimony from federal regulators such as the US Army Corps of Engineers and experts like Dr. Tom Evans of the Wisconsin Geological and Natural History Survey about the need to respect that the federal government’s timelines do not include deadlines and that attempts to artificially shorten our timeline will only result in separate federal analysis and permitting process. This means that establishing deadlines for Wisconsin’s regulatory review of mining permits will accomplish nothing to shorten the process or create “certainty” for mine permit applicants.

The provision in SB 395 that requires the DNR accept data collected by an applicant prior to submitting a Notice of Intent to file for mining permits should be rejected [(amended 293.31(1)], meaning this data would not be controlled for quality or utility by the DNR prior to collection. The current law, NR 132.5(7)(e), is clear about the rationale for this policy: “The Department shall develop studies and quality assurance and verification programs in a manner consistent with future monitoring requirements.”

The quality of data submitted is integral to sound, educated permit decisions and the DNR should be involved in decision-making prior to data collection taking place. Moreover, poor quality data and/or the lack of appropriate data may actually lengthen review times instead of hastening the overall process. The current law that bars the applicant from collecting data prior to the hearing on the NOI should be retained.

Similarly, the provision directing the DNR to pursue memoranda of understanding with federal agencies that includes agreements on timelines [new 293.31(4m)] will likely be unsuccessful. The state requested that the Army Corps of Engineers work within the artificial deadlines created by the ferrous mining bill (2013 Act 1) but were turned down meaning federal permits may not be issued for months or even years after any issued by the state.

It has been suggested by proponents of SB 395 that the bill increases the amount of public involvement in the permitting process. This is simply false. The bill adds arbitrary deadlines for the DNR where none were mandated before. And it removes an important step in the current process: the public hearing on the Draft Environmental Impact Statement prior to issuance of the Final EIS and the Master Hearing. Instead the bill requires the DNR to issue the Environmental Impact Statement prior to the single public hearing – the Public Information Hearing at the end of the process.

Mine permit applications are extremely complex documents requiring years of field study, climate data, waste characterization study, hydrologic studies, groundwater and surface water
modeling and more; many of which require a minimum number of years to be considered scientifically sound and defensible.

The fact that the Flambeau Mine received permits to mine proves that the system works for both the mining industry and regulators. Artificial and arbitrary timelines and deadlines set by the legislature based on mining industry recommendations will only lengthen the permitting process due to the likelihood of additional legal and scientific challenges to decision-making. Constraining regulators in this fashion does not respect the realities involved in mine permit decisions.

**Master Hearing/Contested Case Hearings**

The Sierra Club urges legislators to reject the provisions of SB 395 that curtail the public’s access and rights to information in the current permitting process and the right to challenge regulatory decisions via the contested case Master Hearing. The current requirements and process for public hearings were proven effective via the permitting of the Flambeau mine. Preservation of public comment opportunities and the Master Hearing are critical as they improve mining plans through the addition of public, scientific, and regulatory input during the hearings both for Draft and Final Environmental Impact Statements (EIS). Reducing public input may ultimately harm the success of a permit application since incomplete or inadequate applications are sure to be subject to legal challenge.

The replacement of the Master Hearing with a Public Information Hearing has several issues that we are concerned about. The hearing is for open public comment only and does not include the contested case portion that would require expert testimony be taken under oath and subject to cross-examination. This means false testimony could be considered in decision-making on permits. Moreover, removing the contested case hearing from the final public hearing shifts the burden of proof from the mining company to the public by forcing the public to petition for the hearing after decisions are made on permits. It removes the right of affected local governments to automatically be a party to the contested case hearing; instead an affected local government must petition for inclusion in the contested case hearing. The hearing is also scheduled with as little as 60 days of public notice; an extremely short period of time within which to review an Environmental Impact Statement and draft permits and provide meaningful public and expert comments and critiques.

We oppose the provision in SB 395 that prohibits the Hearing Examiner in a contested case hearing from halting any approved mining company activities during the hearing. This provision would allow a company to begin mine construction and even mining before a contested case hearing is concluded. It also compounds the problems created by basing permit decisions on testimony that was not offered under oath as in the current law. To allow
development of a mine prior to any modification of permits, mine plans or even a permit denial ordered as a result of a contested case hearing is extremely poor public policy. We urge you to ensure retention of the fundamental legal right of citizens to challenge regulatory decisions made by state officials before permits are issued and mine construction begins.

**Bulk Sampling**

SB 395 allows up to 10,000 tons of material to be removed (20 million pounds or approximately 75 rail cars) and alters the definition of bulk sampling so that it does not meet the definition of prospecting. This is important because the definition of prospecting includes a prohibition on the use of the material extracted for commercial exploitation; no such prohibition would be in place for bulk sampling under SB 395. It fast-tracks permitting for bulk sampling by requiring the DNR to meet short deadlines for approvals and by removing the requirement to prepare an EIS. It bars contested case hearings of decisions made for bulk sampling. We oppose this change from current law since it relaxes rules for small-scale mining projects that can have effects identical to full mining projects.

**Irrevocable Trust**

The bill repeals the irrevocable trust enacted in 2000 that was designed to have funds available forever for preventative and cleanup costs. SB 395 does so by exempting mine wastes from the solid waste financial requirements limiting long-term care financial responsibility to only the long-term care requirements spelled out in the waste site feasibility study and plan of operation.

The amendment requiring a financial security to cover contingencies is inadequate due to the fact that it expires at 40 years and is returned to the company. It does not address the long-term contingencies that the Irrevocable Trust was designed to do.

Similarly, the amendment for a financial security to cover the cap of the mine or the tailings control system for years 40-250 post-mining is also inadequate. It fails to address issues outlined in the existing irrevocable trust code (NR 132.085) such as remediation of spills, remediation of escape of hazardous substances from mine workings, remedial action required as a result of a mining waste facility to contain waste (think of a full dam failure or extensive groundwater contamination), and provision of replacement water supply. Even as amended, repeal of the trust could leave significant long-term costs to state taxpayers.

**High Capacity Wells**

SB 395 removes prohibition on wells withdrawing over 100,000 gallons per day if the withdrawal would result in unreasonable detriment of public or private water supplies or of
public rights in waters of the state. It allows essentially unlimited amount of water withdrawal even if the detriments are predicted, provided the applicant provide a replacement water supply or temporarily augment quantity of water in, flowing into or from affected water body. In other words, there is no practical limit on groundwater pumping if mitigated somehow. This portion of SB 395 appears to violate of the Public Trust Doctrine in Wisconsin's Constitution which requires that the state protect the public rights in the waters of the state.

**Wetlands**

SB 395 repeals the comprehensive evaluation approach for wetlands destruction - NR 132.06 (4) - based on functional value for the state minimums passed via 2011 Act 118. Those state minimums were designed for small-scale surface developments without the large-scale impacts from mining such as significant groundwater pumping and massive waste sites. The current approach recognizes the importance of wetlands in ecosystems and prioritizes avoidance over use for mining and mining wastes. SB 395 reverses this approach to make destruction of wetlands or the use them for disposal of mining wastes easier to permit by making approvals for mitigation of wetlands loss easier to obtain. While a mining would still likely require individual permits that require more scrutiny, state wetlands law no longer automatically protects wetlands related to Areas of Special Natural Resource Interest that are our highest quality and most sensitive wetlands.

**Predictive modeling**

SB 395 arbitrarily limits predictive modeling for groundwater and mine waste interactions to 250 years post-operations by simply barring DNR from analysis beyond the limit. Limiting the planning horizon for predictive modeling to a specified number of years in the future is simply poor science that also limits regulatory flexibility when determining whether a mine and/or waste facility is designed adequately. Predictive modeling is not yet accurate enough and mining wastes are too complex for the certainty needed to allow a specified time frame.

A groundbreaking independent research report on geochemical testing of mining wastes, based on a survey of more than 200 reports and studies from the mining industry, educators, and governments, determined that predictive modeling remains a complex and evolving science with inherent uncertainties to every testing method in use\(^\text{17}\).

Initial factors used for predictions such as geology, climate, mining and mineral processing methods, and waste disposal methods are complex and differ from site to site. Geochemical testing must be done at every stage in the life of a mine to account for changes in rock

chemistry of ores and waste tailings and changing conditions in the mine and wastes over time to help predict changes in water quality and long term and make design changes as needed.

“The length of time over which a mine site will deviate from baseline or pre-mining conditions can be on the order of centuries to tens of thousands of years, as a result of potential delays in the generation or appearance of acid drainage and the long “half-life” of releases from mining wastes. Therefore, the “future” at hardrock mine sites approximates the period of interest for nuclear waste disposal rather than that for more conventional industrial facilities.” 18

In a related change, SB 395 bars the DNR from applying groundwater enforcement standards for saline or brine water encountered during mining that is disconnected from other groundwater. We are concerned that this change may lead to the potential for reduced standards for all (emphasis added) groundwater at a mine site and below mine wastes. It is the act of mining itself that accesses this water and potentially allows it to mix with groundwater. Mine sites are already exempt from groundwater protection standards so the purpose of this exemption is unclear and needs to be explained further.

Conclusion

Wisconsin’s mining laws are carefully crafted and comprehensive and already contain numerous exemptions and exceptions from law for mining along with a generous provision that allows applicants to apply for variances or exemptions from virtually any part of the law. These exemptions and exceptions in current law came from the mining industry itself and now it is asking the legislature for yet more favors. The changes proposed in SB 395 will in most cases create less certainty for mine permit applicants, will add time and expense to the review of permit applications and certainly will invite additional legal challenges from interested parties.

The Sierra Club is not anti-mining and recognizes that mining is a legal activity in the state, but metallic mining is an activity that requires the strongest standards and controls due to its inherent destructiveness. We repeat our contention that we have yet to hear compelling testimony to support relaxing or reducing state standards and believes the current regulatory program for mining has proven largely effective, flexible and protective of state resources. We remain committed to defending and strengthening the program.

18 Ibid., p. 2