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Water Risks in the Mining Sector¹
USA
Overview of Federal Legislation
As of August 2016

1. Overview of the federal legal framework regulating mining in the United States

The United States' legal system is inherently marked by its federal character at the legislative, executive and judicial levels.

Among the enumerated powers of Article I, the U.S. Constitution does not bestow express environmental competence on the federal legislature, but it does grant Congress a host of law-making powers, which have been expansively construed by the U.S. Supreme Court to create a broad federal competence in the environmental sphere. This competence is primarily grounded on the Commerce Clause (Article I, Section 8, Clause 3), empowering Congress "to regulate commerce with foreign nations, and among the several states, and with the Indian tribes." In turn, the Tenth Amendment provides that any powers that are not enumerated in the Constitution are reserved for the states.

Congress is able to wield a wide range of legislative strategies to regulate the environment in all fifty states. These strategies have been classified into four categories: (i) federal standards with federal implementation and enforcement; (ii) federal standards with state implementation and enforcement; (iii) federal management of federally-owned lands and resources; and (iv) federal requirements or incentives for state adoption and enforcement of environmental protection measures.² For instance, water quality issues are extensively regulated under the Clean Water Act (CWA), which is a federal statute concerning water quality, yet states may impose further water quality requirements under state law authority. Water quantity issues are generally regulated at the state level only.

In order to implement such pieces of legislation, the U.S. federal government possesses extensive regulatory powers to implement and enforce standards regulating private conduct in relation to environmental issues in the individual states. For example, under the CWA, civil enforcement actions can be undertaken by the Environmental Protection Agency (EPA) in case of violations of the Act on the

¹ This project was managed by CCSI Senior Legal Researcher, Sophie Thomashausen. Research was conducted by CLS Law Student Diane Nielson and Sophie Thomashausen.

² Cliona J. M. Kimber, 'A Comparison of Environmental Federalism in the United States and the European Union (Symposium: Environmental Federalism)' 54 Maryland Law Review 1658, 1677.

part of individuals. Federal enforcement powers can also be delegated to individual states (e.g. under the CWA).

However, not all environmental matters fall under the purview of the federal government. While environmental regulation generally pertains to federal jurisdiction, land use planning is vested in states.

Mining laws are generally enacted at a state level and also govern mining activities on federal lands.³ However, mining on federal lands is also subject to additional federal legislation, such as the Mining Act of 1872, the Surface Mining Control and Reclamation Act (SMCRA) of 1977, and the Uranium Mill Tailing Radiation and Control Act of 1978 (UMTRCA).⁴ Reclamation is generally regulated also at state level.

Common law at both a federal and state level is a further source of law in environmental matters.

Please see the Annexures for a description of the relevant legislation and institutions regulating water use.

2. Federal regulation of water use in mining in the United States

Water Quantity questions		
No	Question	Answer
1.	Which authority is responsible for water allocation?	Water allocation is regulated at a state level.
2.	Water appropriation process - How is water granted to a mining concessionaire/ permit	Water allocation is determined at a state level according to the riparian doctrine, the appropriation doctrine ⁵ , or a hybrid model incorporating the two. Water is usually appropriated by way of a permitting process. Some states have implemented a water market.

³ In *California Coastal Commission v. Granite Rock Company*, 107 S.Ct. 1419 (1987). the U.S. Supreme Court also upheld a state agency's right to regulate mining activities on federal lands. The Court found neither the Property Clause of the U.S. Constitution, Forest Service Regulations, nor federal statutes preempt the Commission's permit requirement for development of an unpatented mining claim on National Forest land.

⁴ See the Annexures for a description of the relevant applicable laws.

⁵ The **prior appropriation doctrine** states that water rights are determined by priority ("first use in time, first in right") and beneficial use. This means that the first person to use water or divert water for a beneficial use or purpose at a specified rate of flow can acquire individual rights to the water. Moreover, the right continues as against subsequent users as long as the appropriator puts the water to beneficial use. For these purposes, **beneficial use** is defined as "the use of water by man for any purpose which benefits are derived, such as domestic, municipal, irrigation, livestock, industrial, power development, and recreation." States applying the prior appropriation doctrine are the following: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Utah, Washington, and Wyoming.



	holder? Is there a water licensing/ permitting process? A water market?	
3.	<p>Scope of a water use permit/ license</p> <p>(a) Requirements separate water use permit – is a separate water permit required? What is the process for obtaining the permit</p> <p>(b) Time required to obtain permits – how long does it generally take?</p> <p>(c) Duration of water permit</p> <p>(d) process for permit renewal</p>	<p>Regulated at a state- and tribe level.</p> <p>Each state determines:</p> <ul style="list-style-type: none"> • How water rights can be obtained; • The steps required to obtain a water right; • What uses of water are “beneficial”; • What can be done once the water right is obtained; • How ground and surface water will be integrated; and • The regulation of water rights and water uses. <p>Evaluation of a tribe’s water rights requires a determination of two factors – the date on which the land became federally reserved (the “priority date”), and the amount of water needed to fulfill the “primary purpose” for which the land was federally reserved.</p> <p>Under the <i>Winters</i> doctrine, water use in federally-reserved land is governed by two principles: (1) reservations have a right to use sufficient water to fulfill the “primary purpose” of the reservation; and (2) these water rights cannot be destroyed by state water law or by water users acting in accordance with state law.⁶</p>
4.	<p>How does the process of securing a water allocation relate to the general mining permit approval process (i.e. is a water permit required before a mining permit, or is information about water use required for an EIA which is required for a mining permit)?</p>	<p>Regulated at a state level. Usually the grant of a mining permit precedes that of a water permit; however, in some states the permits required for a mining project are consolidated in one procedure (e.g. the Application for Permits to Mine in Alaska (APMA)).</p>
5.	Tariffs for water use	Regulated at a state level.

⁶ These principles were established in two landmark U.S. Supreme Court cases, *Winters v. U.S.* and *U.S. v. Rio Grande Dam & Irrigation Co.*



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	Do mines have to pay for water usage? If yes, who sets the tariffs?	
6.	Requirements for recycling water	Regulated at a state level.
7.	What rights, if any, does the relevant Authority have to change the amount of water allotted to a mine? Is the mining company allowed compensation for such changes?	Regulated at a state level.



3. Federal regulation of water quality and waste water discharge in mining in the United States

Water Quality questions		
No	Question	Answer
1.	Overview	<p>The Clean Water Act uses two methods to protect the quality of water – both monitoring water quality, and controlling discharge from point sources.⁷</p> <p>Under the CWA, states are required to classify bodies of water by their intended use (i.e. industrial waste disposal), and then must adopt a State Implementation Plan (SIP) to ensure the water meets these water quality standards.</p> <p>States must also set pollution limits to ensure the water is of high enough quality for its designated use. Water quality is controlled by both technology-based standards (requiring polluters to use the best available technology - BAT - to limit pollution, and quality-based standards (by setting Total Maximum Daily Limits - TMDL).</p>
2.	<p>Requirements for a permit for mine waste discharge</p> <p>Does a mine have to apply for a permit to discharge waste/ waste water into surrounding water courses? If so, what</p>	<p>National Pollutant Discharge Elimination System (NPDES) permits and dredge-and-fill permits are generally issued by federal agencies. Both types of permits need to be certified at the state level. Additional state-level permits in relation to waste water or mine-water discharge may be required.</p> <p>1. National Pollutant Discharge Elimination System (NPDES) permit⁸ Section 402 of the Clean Water Act requires all point source discharges from mining operations, including discharges from associated impoundments, to be authorized under an NPDES permit. The NPDES program regulates discharges from three general categories of mining activities, one of which is ore mining of hardrock minerals such as copper and gold,⁹ as well as the considerations</p>

⁷Cornell University Law School -Legal Information Institute: “Clean Water Act,” available at: https://www.law.cornell.edu/wex/clean_water_act_cwa.

⁸ For more information on the NPDES permitting process, see the EPA’s “Water permitting 101”, available at: <https://www3.epa.gov/npdes/pubs/101pape.pdf>.

⁹ The EPA explanation of waste from ore mining is as follows: “Mine operators extract **ores** (metal-bearing rock) from underground mines and surface mines using machinery, explosives and chemicals. Extraction processes include dressing (picking, sorting, washing of ores), milling (crushing, grinding, etc.) and beneficiation (processing to improve purity/quality). **Wastewater** is generated during the mining process from groundwater produced during ore extraction, from water used by operators for equipment cooling and dust control, and from precipitation entering mines. Wastewater is also produced during the ore milling and beneficiation processes (e.g.,



<p>permits are required? What is the permitting process?</p>	<p>associated with abandoned mines.¹⁰ NPDES are issued by states that have obtained EPA approval to do so, or by the applicable EPA Region¹¹ for mining activities in states without such approval.</p> <p>2. Section 404 dredge and fill material discharge permits</p> <p>A dredge and/or fill material discharge permit issued under section 404 of the Clean Water Act are administered by the U.S. Army Corps of Engineers.</p> <p>Satisfaction of requirements for water quality specified under each permit is made with reference to state water quality standards mandated under section 303 of the Clean Water Act.</p> <p>Where a federal agency maintains jurisdiction over 402 or 404 permits, a National Environmental Policy Act (NEPA) analysis must be performed prior to review of the section 402 or 404 permit. The NEPA review provides information for the federal agency decision to issue or deny the permit pursuant to the Clean Water Act.</p> <p>State-level water quality certification</p> <p>Section 401 of the Clean Water Act authorizes states to issue a State Water Quality Certification (401 Certification) for an activity or project requiring a federal permit or license, that may result in a discharge to navigable U.S. waters.¹² A federal agency cannot issue a permit or license until a state has certified, conditionally certified, or waived the 401 certification.¹³ A federal agency also cannot issue a permit or license if a state denies the 401 certification.¹⁴</p>
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chemical leaching), and from contaminated stormwater at storage facilities.” See EPA website on Ore Mining and Dressing Effluent Guidelines at: <http://www.epa.gov/eg/ore-mining-and-dressing-effluent-guidelines>.

¹⁰ Section 402 of the CWA requires that all construction sites on an acre or more of land, as well as municipal, industrial and commercial facilities discharging wastewater or stormwater directly from a point source (e.g. a pipe, ditch or channel) into a surface water of the United States (e.g. a lake, river, and/or ocean) must obtain the National Pollutant Discharge Elimination System (NPDES) permit.

¹¹ The EPA has ten regional offices across the country, each of which is responsible for several states and in some cases, territories or special environmental programs. See the EPA’s site on visiting a Regional Office, available at: <https://www.epa.gov/aboutepa/visiting-regional-office>.

¹² “What is a 401 Certification?” Water Quality Division: Permits: Clean Water Act (CWA) 401 Water Quality Certification Program, ADEQ website, Available at: <https://www.azdeq.gov/environ/water/permits/cwa401.html>

¹³ Clean Water Act, 33 U.S.C. §§ 1251 et seq., §1341 (Federal Water Pollution Control Act §401); <https://www.azdeq.gov/environ/water/permits/cwa401.html>

¹⁴ “What is a 401 Certification?” Water Quality Division: Permits: Clean Water Act (CWA) 401 Water Quality Certification Program, ADEQ website, Available at: <https://www.azdeq.gov/environ/water/permits/cwa401.html>



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		Tribes can request authorization from EPA to administer the 401 Water Quality Certification program. ¹⁵ The process is known as “treatment as a state” and when approved, provides the tribes with the same certification authorities and responsibilities as states. ¹⁶
3.	Other licensing/permitting processes that cover water quality/discharge	<p>Discharge into state drinking water sources is regulated at the state level pursuant to the Safe Drinking Water Act.</p> <p>Under the SDWA, states establish drinking water standards and may establish permit programs to allow discharges that may affect drinking water sources.</p>
4.	<p>Nexus with environmental impact assessments/statements</p> <p>What is the process for obtaining an environmental impact assessment? At which stage of the mining process must it be obtained? To what extent are water issues covered in it?</p>	<p>Section 404 permit actions in relation to mining operations may require a federal environmental assessment under NEPA (40 CFR Part 6, Subpart F).</p> <p>If a mine requires review under NEPA, the federal land manager at the Bureau of Land Management (BLM) is the lead agency conducting the review.</p> <p>The Army Corps of Engineers issues a Record of Decision (ROD) in conjunction with the final permit action.</p>
5.	Are there any requirements as to how mines must store waste water (including tailings)?	<p>During the permit application process (either under section 402 or 404 of the CWA), the USACE or relevant state agencies (delegated authority to administer section 402 applications by the EPA) determine the need for water waste storage facilities (CWA, Section 102(b)(2))) .</p> <p>Waste resulting from the extraction of ores and minerals, are exempt from regulation under subtitle C of the RCRA (see <i>Friends of Santa Fe County and Jeanie Cragin v. Lac Minerals et al.</i>, 892 F.Supp. 1333).</p>
7.	Acid mine drainage regulations	Environmental impacts regarding acid mine drainage are typically handled at the post-mine closure stage of a mine’s life cycle, the regulation of which is handled at a state level. A mining company must usually reclaim a mined area that has potential to generate acid rock drainage (acid mine drainage) in a manner that prevents the generation of acid rock drainage or prevents the offsite discharge of acid rock drainage

¹⁵ *Id.*

¹⁶ *Id.*



11.	Recycling requirements – Are there any requirements/ incentives for mines to recycle water/ minimize water discharge?	<p>The NPDES permitting process may require mines to reuse tailing and mine water for wetland maintenance as well as recycling/ reprocessing tailings and mine water in beneficiation processes as a means to minimize pollutant discharge.¹⁷ In this regard, effluent limitations guidelines for ore mining representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available</p> <p>Additional or more stringent water recycling requirements may be required at a state level.</p>
12.	Any specific regulation of waste for copper and/or gold mining?	<p>The Ore Mining and Dressing Effluent Guidelines and Standards (40 CFR Part 440) promulgated by the EPA in 1975 and amended several times covers wastewater discharges from ore mines and processing operations in relation to hardrock minerals including copper and gold. The Ore Mining Effluent Guidelines and Standards are incorporated into NPDES permits.</p> <p>Some additional regulation might cover waste from copper and/or gold mining at a state level.</p>

4. Monitoring requirements

General questions		
No	Question	Answer
1.	Who monitors a mining operation’s water quality to ensure compliance with legislation? And how often does such monitoring occur?	<p>Monitoring is administered at either federal or state level according to the authority having jurisdiction on the water quality permit.</p> <p>Under the notion of self-enforcement, a section 402 permit usually requires the permittee to send a copy of all required reports, among which the discharge monitoring reports (DMRs). Moreover, it requires the permittee to notify the EPA of any involuntary discharge, such as a noncompliance which may endanger health or the environment within 24 hours from the time the permittee becomes aware of the circumstance.</p>

¹⁷ See EPA Office of Wastewater Management page on “Hardrock Mining: Pollution Prevention” available at: <https://www3.epa.gov/npdes/pubs/poll.htm>.



2.	Are there any reporting requirements?	Reporting requirements are implemented at either federal or State level according to the leading agency for the permit.
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5. Federal regulation of water issues related to post mine closure

Post-mine closure questions		
No	Question	Answer
1	Are mines required to put together a post-mine closure plan? If so, what does it entail? And who approves it, if anybody?	Regulated at a state level. The acquisition and reclamation of abandoned coal mines is also governed at federal level (SMCRA).
2	Is there any legislation regarding a mine's obligations to ensure that water is not contaminated from the mine post-mine closure (this may be part of the post-mine closure plan)?	Regulated at a state level. It is generally part of the post-mine closure plan, an initial version of which may need to be submitted as part of the application process for a state mine permit.
3	For how long, if at all, is a mine liable for water contamination after a mine has closed?	Regulated at a state level.
4	Who can take action against a mine for water contamination post closure, if anyone?	Regulated at either state or federal level (see enforcement section below).
5.	Are there any reporting requirements in relation to a mine's preparation for post-closure?	Regulated at a state level.

6. Enforcement/ Regulatory actions

General questions		
No	Question	Answer
1.	What enforcement actions, if any, can the government/ public authorities/ citizens take for breach of any of the relevant laws/ regulations?	Enforcement actions may be taken for violation of issued permits (section 402 and 404 of Clean Water Act) or under CERCLA. Under CERCLA, authorities may address violations of a section 404 permit.



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		<p>The Clean Water Act provides the possibility of criminal penalties, civil penalties and injunctions and administrative (section 309) and imminent hazardous authority (section 504).</p> <p>a. Criminal: Criminal sanctions (penalties or imprisonment) are imposed for negligent violations¹⁸, knowing violations¹⁹, knowing endangerment²⁰, and fast statements²¹.</p> <p>b. Civil Penalties and Injunctions: The Clean Water Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a civil penalty not to exceed \$37,500 per day for each violation.</p> <p>The Administrator can also bring civil judicial enforcement actions, seeking restoration and other types of injunctive relief.</p> <p>c. Administrative Penalties (section 309(a)): The Clean Water Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to an administrative penalty of up to \$177,500.</p> <p>The EPA can issue administrative compliance orders requiring a violator to stop any ongoing illegal discharge activity and, where appropriate, to remove the illegal discharge and otherwise restore the site.</p>
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¹⁸ Penalties range from \$2,500 - \$50,000 per day of violation and/or imprisonment of up to two years depending on the severity of the violation and whether or not it is a repeat violation.

¹⁹ Penalties range from \$5,000 - \$100,000 per day of violation and/or imprisonment of up to six years depending on the severity of the violation and whether or not it is a repeat violation.

²⁰ Penalties range from \$250,000 to \$2,000,000 and/or imprisonment of up to 30 years depending on the severity of the violation and whether or not it is a repeat violation.

²¹ Penalties of up to \$20,000 per day of violation and/or imprisonment of up to four years depending on the severity of the violation and whether or not it is a repeat violation. Any false or materially misleading representation or concealment of information required to be reported by the provisions of the permit, the CWA, or applicable regulations, which avoids or effectively defeats the regulatory purpose of a section 401 permit may also subject the permittee to criminal enforcement pursuant to 18 U.S.C. Section 1001.



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		Violations of the NPDES permit may also trigger liability under Section 107 CERCLA. Enforcement actions are undertaken by the EPA.
2.	Which body is responsible for taking regulatory enforcement actions against mines? What is the procedure?	<p>The EPA's Office of Enforcement and Compliance Assurance is responsible for enforcing section 402; however this power may also be delegated to state authorities.</p> <p>Enforcement action for violations of section 404 is headed by the U.S. Corps of Engineers (COE) under a memorandum of understanding between the EPA and COE.</p> <p>CERCLA actions are administered by EPA.</p>
3.	Is there a database that collates information on any penalties/ fines that mining companies have to pay for a breach of legislation in relation to water use in the mining sector?	<p>Civil and criminal decisions regarding violations of Sections 402 and 404 of the Clean Water Act are available as a matter of public record.</p> <p>Information on National Priorities List (NPL) locations, as prioritized by the EPA under CERCLA, is available on the EPA website. http://cumulis.epa.gov/supercpad/cursites/srchsites.cfm</p>
4.	Briefly outline the procedure for bringing a case and specify which court the case would be brought to.	A state level Office of EPA's Criminal Investigation Division may initiate an investigation into permit violations (under section 402 or 404). Such violations may be prosecuted by the U.S. District Attorney in a District Court.
5.	Who has standing to bring a case?	<p>Afflicted parties have standing to bring civil action for injunctive relief.</p> <p>1) Citizens' suit under the CWA</p> <p>Citizens can bring a suit against a mining company under the Clean Water Act. Under section 505(b) of the Act, a citizens' suit may be brought immediately for violations of NPDES or toxic effluents standards. Conversely, there is a 60-day notice that must be served on a number of actors before a citizens' suit can be brought for violations of different provisions of the CWA, such as section 404 (505 (b)).</p>



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		<p>To bring a suit, citizens need to prove (i) an injury in fact; (ii) an injury that is fairly traceable to the challenged action of the defendant; (iii) redressability by a favorable judicial decision. A fourth prong has recently been introduced as a non-constitutional but only judicial requirement, and is prudential standing (zone of interests test), whether the kind of injury the plaintiff is complaining of is within the zone of interest protected by the statute (Comer v. Murphy Oil, 2013).</p> <p>Citizens often sue through environmental NGOs. However, standing has been increasingly limited for such NGOs, and the following elements are required: (i) at least one member would have standing to sue individually; (ii) the interests the organization seeks to protect are “germane” to the organization purposes; and (iii) neither the claims asserted nor the relief requested requires the participation in the lawsuits of individual members (Int’l Union, 1986).</p> <p>2) Common law: Common law protections allow a landowner whose land is being polluted to sue the polluter. A landowner may sue under a theory of trespass (a physical invasion of the property) or private nuisance (an interference with the landowner’s enjoyment of his property).²² Additionally, an action may be brought under public nuisance where the suit is brought by a public entity if it is the public that is harmed (rather than a uniquely harmed individual).</p> <p>3) CERCLA: For action under CERCLA to be taken, a mining site must be listed on the National Priorities List (NPL). Section 300.425(c) of CERCLA’s implementing regulations designates (3) ways in which sites may be placed on the list.</p> <p>The U.S. District Attorney has authority to bring criminal case.</p>
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²² According to the Second Restatement of Torts § 822, plaintiffs of a private nuisance action need to show a substantial harm and prove that interference is intentional and unreasonable or unintentional and otherwise actionable under the rules controlling liability for negligent or reckless conduct, or for abnormally dangerous conditions or activities.



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<p>6.</p>	<p>What is the relevant statute of limitations?</p>	<p>The Clean Water Act does not provide a statute of limitations for either citizen or government enforcement actions, leaving it to the relevant judge, if any, to decide whether and what statute of limitations is applicable.</p> <p>For CERCLA-related violations, the statute of limitations period depends on how an action has been characterized. Indeed, a CERCLA civil suit could be a contribution action (three years), a cost recovery removal action (three years after completion of the removal action, or a cost recovery remedial action (six years after the initiation of physical on-site construction of the remediation).²³</p> <p>The statute of limitations for most violations of the state wastewater disposal permit is generally six years.</p> <p>In private nuisance actions, the statute of limitations differs depending upon whether the activity is a "permanent" or "continuing" nuisance. However, the statute of limitations for actions based upon a "permanent" nuisance is usually three years from the date original creation of the nuisance. Similarly, actions based upon a "continuing" nuisance carry a statute of limitations of generally three years from the most recent repetition and/or continuation of the offensive activity.</p>
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²³ Sections 106-7 of CERCLA.



Annexures

A. Relevant Federal legislation (policies, laws, and regulations) governing water use and discharge in the mining sector²⁴

No.	Name of Legislation	Brief description of how it applies
Mining laws		
1.	Mining Law of 1872 (30 U.S.C. §§ 401-413)	The Mining Law provides rights of free access to unrestricted public lands for purposes of claiming and recovering most metallic minerals. It also provides mechanism for claimants to obtain full title to claimed public lands.
2.	Surface Mining Control and Reclamation Act of 1977 (“SMCRA”) (30 U.S.C. § 1201-1328)	SMCRA provides for the cooperation between the Secretary of the Interior and the States with respect to the regulation of surface coal mining operations, and the acquisition and reclamation of abandoned mines, and for other purposes. SMVRA considers the hydrologic balance of a mining project, namely the relationship between the quality and quantity of water inflow to, water outflow from, and water storage in a hydrologic unit such as a drainage basin, aquifer, soil zone, lake, or reservoir. It encompasses the dynamic relationships among precipitation, runoff, evaporation, and changes in ground and surface water storage.
3.	Uranium Mill Tailing Radiation and Control Act of 1978 (“UMTRCA”) (Public Law 95-604)	UMTRCA gave the U.S. Department of Energy (DOE) the responsibility of stabilizing, disposing, and controlling uranium mill tailings and other contaminated material. UMTRCA authorized the U.S. Environmental Protection Agency (EPA) to develop cleanup standards in 40 <i>Code of Federal Regulations</i> (CFR) 192, “Protection of Environment”; surface cleanup standards were established in 1983, groundwater standards in 1995
Environmental laws		

²⁴ Specifically copper and gold, which are hard rock minerals. Also note that there may be some references to water use, environmental/ water discharge, and post-closure obligations in the mining code/ general mining legislation.



4.	<p><u>Comprehensive Environmental Response, Compensation, and Liability Act 1980</u> (“CERCLA”)</p>	<p>CERCLA²⁵ broad Federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA:</p> <ul style="list-style-type: none">• Sets out requirements concerning closed and abandoned hazardous waste sites;• Authorizes the EPA to seek out those parties responsible for any release and assure their cooperation in the cleanup;• Establishes a Federal "Superfund" to clean up uncontrolled or abandoned hazardous-waste sites as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment; and• Requires the EPA to clean up orphan sites when potentially responsible parties cannot be identified or located, or when they fail to act.. <p>The EPA is authorized to implement the Act in all 50 states and U.S. territories. Superfund site identification, monitoring, and response activities in states are coordinated through the state environmental protection or waste management agencies.</p> <p>CERCLA was amended by the Superfund Amendments & Reauthorization Act (SARA) of 1986. SARA, among other things, increases the level of state involvement in CERCLA remediation.</p>
5.	<p><u>Emergency Planning and Community Right-to-Know Act</u> (“EPCRA”) of 1986 (42 U.S.C. §§11001-11050)</p>	<p>The EPCRA was enacted by Congress as the national legislation on community safety. This law is designed to help local communities protect public health, safety, and the environment from chemical hazards.</p> <p>To implement EPCRA, Congress requires each state to appoint a State Emergency Response Commission (SERC). The SERCs are required to divide their states into Emergency Planning Districts and to name a Local Emergency Planning Committee (LEPC) for each district.</p>

²⁵ See the EPA website for more information on CERCLA at: <https://www.epa.gov/laws-regulations/summary-comprehensive-environmental-response-compensation-and-liability-act>.



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		<p>Broad representation by fire fighters, health officials, government and media representatives, community groups, industrial facilities, and emergency managers ensures that all necessary elements of the planning process are represented.</p> <p>Specifically on mining, there is a Guidance document to assist metal mining facilities in complying with Section 313 EPCRA on reporting requirements.</p>
<p>6.</p>	<p>Endangered Species Act (“ESA”) (16 U.S.C. §§ 1531-1544)</p>	<p>It requires federal agencies to ensure that all federally associated activities within the U.S. – including mining – do not jeopardize the continued existence of threatened or endangered species or of critical habitat. Agencies undertaking a federal action must consult with the U.S. Fish and Wildlife Service (F&WS) or the National Marine Fisheries Service (NMFS) to determine the potential impacts a project may have on protected species. In the case of mining, the Bureau of Land Management must consult with the F&WS or the NMFS.</p>
<p>7.</p>	<p>Fish and Wildlife Coordination Act (FWCA) of 1934 (16 U.S.C. § 661 et. Seq. P.L. 85-624)</p>	<p>Authorizes the Secretary of the Interior to provide assistance to, and cooperate with, federal, state, and public or private agencies or organizations in the development, protection, rearing, and stocking of all species of wildlife, resources thereof, and their habitat. Most of the Act is associated with the coordination of wildlife conservation and other features of water-resource development programs.</p> <p>Under section 665 of FWCA, the Secretary of the Interior, through the Fish and Wildlife Service and the United States Bureau of Mines, is authorized to make such investigations as he deems necessary to determine the effects of domestic sewage, mine, petroleum, and industrial wastes, erosion silt, and other polluting substances on wildlife, and to make reports to the Congress concerning such investigations and of recommendations for alleviating dangerous and undesirable effects of such pollution.</p>



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8.	<p><u>Multiple Use and Sustained Yield Act of 1960</u> (“MUSYA”) (16 U.S.C. §§ 528-531)</p>	<p>This Act authorizes and directs the Secretary of Agriculture to develop and administer the renewable resources of timber, range, water, recreation, and wildlife on the national forests for multiple use and sustained yield of the products and services (five uses). This is the first law to have the five major uses of national forests contained in one law equally, with no use greater than any other. The Act allowed mining in national forest wilderness until 1984.</p>
9.	<p><u>National Forest Management Act of 1976</u> (“NFMA”) (16 U.S.C. §§ 1600-1614)</p>	<p>The Act articulates provisions to reform the Forest Service and ensure that the agency gives due consideration to mining and more generally resource extraction, wildlife, water quality, and recreation as well as the logging, road building, grazing. The legislation requires each national forest and grassland to develop management plans and periodically revise them. These plans are open to public review and comment.</p>
10.	<p><u>Ore Mining and Dressing Effluent Guidelines and Standard</u></p>	<p>EPA promulgated the Ore Mining and Dressing Effluent Guidelines and Standards (40 CFR Part 440) in 1975, and amended the regulation in 1978, 1979, 1982 and 1988. The regulation covers wastewater discharges from ore mines and processing operations. The Ore Mining Effluent Guidelines and Standards are incorporated into the NPDES permits.</p>
11.	<p><u>Resource Conservation & Recovery Act of 1976</u> (“RCRA”)</p>	<p>The RCRA authorizes the EPA to control hazardous waste from the "cradle-to-grave."²⁶ This includes the generation, transportation, treatment, storage, and disposal of hazardous waste.</p> <p>The RCRA also set forth a framework for the management of non-hazardous solid wastes.</p>
12.	<p><u>Rivers and Harbors Act</u> (“RHA”) (33 U.S.C. §§ 401-413)</p>	<p>The RHA regulates obstructions to navigation and prohibits the unpermitted dumping or discharging of refuse into a navigable water of the U.S, including mine waste.</p> <p>The Act also provides authority to regulate the disposal of dredged materials in navigable waters. These issues are also regulated under Sections 402 and 404 of the CWA.</p>

²⁶ For more information on the RCRA, see the EPA’s summary at: <https://www.epa.gov/laws-regulations/summary-resource-conservation-and-recovery-act>.



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13.	<p>Wild and Scenic Rivers Act of 1968 (“WSRA”)(16 U.S.C. § 1273 et. seq.)</p>	<p>The Act provides that certain selected rivers shall be preserved in a free flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations.</p> <p>Section 7 of the Act prohibits the issuance of a license for construction of any water resources project that would have a direct effect on rivers (or reaches of rivers) selected because of their remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values for the National Wild and Scenic Rivers System.</p>
<p>Land Management Laws</p>		
14.	<p>Federal Land Policy and Management Act (“FLPMA”) (43 U.S.C. §§ 1701-1782)</p>	<p>The FLPMA governs the way the Bureau of Land Management (BLM) and U.S. Forest Service (USFS) administer public lands, including mining on public lands.</p> <p>Under the FLPMA, any actions related to land use made by the BLM or U.S. Forest Service are subject to the process of the National Environmental Policy Act of 1969 (“NEPA”). Federal land managers generally require Plans of Operation, which include reclamation plans and provide details of the proposed operations.</p>
15.	<p>The National Environmental Policy Act of 1969 (“NEPA”) (42 U.S.C. §§ 4321-4327)</p>	<p>NEPA requires federal agencies to assess the environmental impacts of their proposed actions prior to taking a decision.</p> <p>The range of actions covered by NEPA includes:</p> <ul style="list-style-type: none"> - Making decisions on permit applications (such as the NPDES permits); - Adopting federal land management actions; and - Constructing highways and other publicly-owned facilities.²⁷
<p>Water laws</p>		
16.	<p>Federal Water Pollution Control Act 1972 ((The “Clean Water Act” or “CWA”) (33 U.S.C. § 1251 et seq.)</p>	<p>The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters.</p>

²⁷ For more information, see the EPA’s summary of NEPA at: <https://www.epa.gov/nepa/what-national-environmental-policy-act>.



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		<p>Under the CWA, the EPA has implemented pollution control programs such as setting wastewater standards for industry and water quality standards for all contaminants in surface waters.</p> <p>The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained.²⁸ EPA's National Pollutant Discharge Elimination System ("NPDES") permit program controls discharges.</p> <p>Pursuant to the CWA, mining companies must obtain:</p> <ul style="list-style-type: none">• Section 402 NPDES permits if their discharges go directly to surface waters; and• Section 404 permits for any dredge and fill operations in bodies of water.
17.	Safe Drinking Water Act of 1974 ("SDWA") (42 U.S.C. § 300 et seq.)	<p>The main federal law that ensures the quality of drinking water in the U.S. It focuses on all waters actually or potentially designed for drinking use, whether from above ground or underground sources.²⁹</p> <p>Under SDWA, the EPA sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards. To enforce this act, administrative orders, either with or without penalty, may be issued by an executive agency of the state or federal government. Judicial actions include civil and criminal court cases.</p>

B. List of relevant Federal departments and agencies involved in the regulation of water in the mining sector in the United States

²⁸ Point sources are discrete conveyances such as pipes or man-made ditches. See the EPA's website on the CWA at: <https://www.epa.gov/laws-regulations/summary-clean-water-act>.

²⁹ EPA summary of the SDWA, available at: <https://www.epa.gov/laws-regulations/summary-safe-drinking-water-act>.



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No.	Name (In English and local language)	Brief description of its role
1.	<u>U.S. Environmental Protection Agency (EPA)</u>	<p>The central coordinating agency for implementation of environmental quality standards legislation. The EPA:</p> <ul style="list-style-type: none"> • Administers the National Pollutant Discharge Elimination System (NPDES) (as authorized by the Clean Water Act) in collaboration with State environmental agencies; • Issues underground injection control permits, as authorized by the Safe Drinking Water Act; and • Issues hazardous waste identification numbers pursuant to RCRA. <p>The EPA has 10 regional offices, each of which is responsible for the management of the EPA’s programs within various states and territories.</p>
2.	<u>U.S. Army Corps of Engineers (USACE)</u>	<p>The USACE administers discharge permits under Section 404 of the Clean Water Act.</p>
3.	<u>U.S. Fish and Wildlife Services</u>	<p>The Fish and Wildlife Service has jurisdiction over a variety of areas designed primarily for species protection, such as National Fish and Wildlife Refuges.</p> <p>Although mining operations are generally prohibited in these areas, the agency has some statutory and regulatory authority for controlling allowed mineral development, including mineral development rights such as valid mining claims that had vested before the lands were designated as protected areas.</p>
4.	<u>National Park Service</u>	<p>The Abandoned Mineral Land Restoration Program operated by the National Park Service encourages the full restoration of lands affected by mining activities, addresses environmental concerns (metals contamination, acid mine drainage), safety hazards (vertical mine openings, unstable slopes), and the sustainability of bat species, which may rely on mine shafts for habitat.</p> <p>The National Park Service has an inventory of abandoned mineral lands on national park service units, which can be accessed here: http://www.nature.nps.gov/GEOLOGY/aml/inventory/index.cfm.</p>



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5.	Bureau of Land Management (“BLM”)	<p>The BLM administers over 258 million surface acres of public lands, most of which is located in the 12 Western states, and over 700 million acres of sub-surface minerals throughout the country pursuant to the FLPMA. For more information see the BLM’s publication on Mining Claims and Sites on Federal Lands. The BLM’s manages a program on Abandoned Mine Lands (AML), which seeks to improve water quality by reducing or eliminating the effects of past hardrock mining in the Western United States.</p> <p>BLM maintains an inventory of known abandoned mine lands on public lands that can be accessed here: http://www.abandonedmines.gov/wbd_hm.html.³⁰</p>
6.	U.S. Forest Service (“USFS”)	<p>Exploration and mining activities on lands administered by the USFS are subject to the regulations in 36 CFR 228(A). Any proposed operation that is likely to cause significant disturbance of surface resources must obtain the prior approval of the USFS.</p>
7.	Council on Environmental Quality (“CEQ”)	<p>The Council on Environmental Quality coordinates federal environmental efforts and works closely with agencies and other White House offices in the development of environmental policies and initiatives.</p> <p>In addition, the CEQ reports annually to the President on the state of the environment; oversees federal agency implementation of the environmental impact assessment process; and acts as a referee when agencies disagree over the adequacy of such assessments.</p> <p>Congress established the CEQ within the Executive Office of the President as part of NEPA. Additional responsibilities were provided by the Environmental Quality Improvement Act of 1970.</p>

³⁰ Most of the sites are abandoned hardrock mines. As of April 18, 2014, the inventory contained nearly 46,000 sites and 85,000 features. Approximately 23% of the sites have either been remediated, have reclamation actions planned or underway, or do not require further action. The remaining 80% require further investigation and/or remediation. The BLM and its partners are working on sharing and displaying AML spatial data within a National Mine Land Inventory. See BLM website at: http://www.blm.gov/wo/st/en/info/About_BLM.html.



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		One of the CEQ's current initiatives is the commitment to clean water .
8.	National Marine Fisheries Service	Section 7 of the Endangered Species Act requires federal agencies to ensure that all federally associated activities within the United States are not likely to jeopardize the continued existence of threatened or endangered species or of critical habitat that are important in conserving those species. Agencies undertaking a federal action must consult with the National Marine Fisheries Service to determine the potential impacts a project may have on protected marine and anadromous fish species.
9.	International Boundaries and Water Commission (IBWC)	Established in 1889, the International Boundary and Water Commission (IBWC) is an international body having the responsibility for applying the boundary and water treaties between the United States and Mexico and settling differences that may arise in their application.