



Water Risks in the Mining Sector

USA - Alaska¹

As of August 2016

1. Overview of mining in Alaska

Mining has historically played a major role in Alaska's economy. Much of Alaska's transport infrastructure was originally built to service Alaska's mines, and a number of Alaska's major communities like Fairbanks, Juneau, and Nome were founded on mining activity.

Alaska's mining industry produces zinc, lead, copper, gold, silver, coal, as well as construction minerals such as sand, gravel, and rock. There are currently five large-scale hardrock mines in operation in Alaska - Fort Knox (gold), Nixon Fort (gold), Pogo (gold), Red Dog (zinc), Rock Creek (gold), and Greens Creek (zinc, lead, silver, and gold)) and a further seven mines in the exploration phase.

Water appropriation in Alaska

Like most U.S. States in the West of the country, Alaska's water is subject to the doctrine of prior appropriation and beneficial use, although it only formally adopted the prior appropriation doctrine in its 1959 State Constitution. To obtain a water allocation for unappropriated water, an application must be made to the Alaska Department of Natural Resources – Division of Mining, Land and Water. For this purpose, surface and groundwater are treated the same and, contrary to many other U.S. States, water withdrawals in Alaska have been fairly evenly balanced between surface water and groundwater to date.² This has been attributed to the fact that Alaska has the greatest amount of available groundwater in the United States.

Waste water discharge is regulated by Alaska Department of Environmental Conservation and requires several permits to be obtained under both Federal and State law. Additional permits may be required when any structure or work could obstruct navigable waters or if any impacts are anticipated for endangered/threatened species under Section 7 Endangered Species Act (ESA).

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

¹ This project was managed by CCSI Senior Legal Researcher, Sophie Thomashausen. Research was conducted by Esmeralda Colombo and Sophie Thomashausen. Alaska officials from the Department of Natural Resources and the Department of Environmental Conservation were interviewed for the purpose of conducting the present research.

² Redlodge Clearing House: "Alaska Water Law," available at: <http://rlch.org/content/alaska-water-law>.



2. Regulation of water use in mining in Alaska

Water Quantity questions		
No	Question	Answer
1.	Which authority is responsible for water allocation?	Alaska Department of Natural Resources – Division of Mining, Land and Water. See here for an overview; here and here for legislation
2.	Water allocation process - How is water granted to a mining concessionaire/ permit holder? Is there a water licensing/ permitting process? A water market?	<p>A water right is a legal right to use surface or ground water under the Alaska Water Use Act (AS 46.15). A water right is required when a significant amount of water from a specific water source is to be diverted, impounded, or withdrawn for a specific use. What constitutes “a significant amount of water” is defined by 11 AAC 93.035(a) and (b).³</p> <p>Anyone who diverts, impounds, or withdraws a significant amount of water for use, without a permit, certificate, or authorization is guilty of a misdemeanor (AS 46.15.180).</p> <p>Applicants may require (1) a Temporary Water Use Authorization, (2) a Water Right, (3) or a Certificate.</p> <p>1) Temporary Water Use Authorization: A temporary water use authorization is issued for temporary uses, for a period of 5 years or less. It can be trumped by water appropriation permits in that it does not attribute any legally defensible rights. If required, a request for such a permit needs to be included with the Application for Permits to Mine in Alaska (APMA). The APMA is the yearly application form to be completed and submitted to the State Division of Mining, Land & Water Office nearest to where the activity will take place. It consolidates a number of permits required for placer mining, hard rock explorations, and suction dredging operations.</p> <p>2) Water rights permit: An application for a Water Right must be separately filed if the applicant seeks the recognition of legally defensible rights. The relevant agency is the DNR, Water Resources Section under AS 46.15.080.</p> <p>3) Certificate: A certificate is issued as the most comprehensive means for protecting water appropriation and is perpetual (unlike a temporary use</p>

³ The consumptive use of more than 5,000 gallons of water from a single source in a single day; the regular daily or recurring consumptive use of more than 500 gpd from a single source for more than 10 days per calendar year; the non-consumptive use of more than 30,000 gpd (0.05 cubic feet per second) from a single source; or any water use that may adversely affect the water rights of other appropriators or the public interest.



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		<p>authorization and a water rights permit. Two different situations for issuing it are described under AS 46.15.065 (determination of existing rights) and 46.15.120 (perfection of the appropriation upon completion of construction of the works).</p> <p>None of the above mentioned options represents a guarantee by the state of Alaska to the permittee or certificate holder that water will be available for appropriation at a certain volume, quality, artesian pressure, or cost.</p> <p>Water for sale by the state In the state of Alaska, the Alaska Department of Natural Resources supervises the selling of excess water that was appropriated by the state, but has been determined to be in surplus of the water requirements of the hydrologic unit within the relevant Alaskan government department (i.e. fishing, mining, timber, oil and gas, agriculture, domestic water supply. The sale must be made in accordance with certain requirements (AS 46.15.080) and must be sold at the fair market value of the water. This provision has been rarely applied (2 times).</p> <p>For a list of all mining, land and water applications see here and here.</p>
3.	<p>Scope of a water appropriation permit/ license</p>	<p>A permit evidencing the right to appropriate water is needed for diverting, impounding, or withdrawing water. There are three types of water permits: (1) a temporary water use authorization, (2) a water right, (3) or a certificate.</p> <p>A water right and a certificate are the only instruments for obtaining judicially defensible rights.</p> <p>A Temporary Water Use Authorization can be trumped by a water right or a certificate in case of conflict.</p>
	<p>(a) Requirements separate water permit – is a separate water permit required? What is the process for obtaining the permit</p>	<p>The application for a temporary water use authorization can be made through the APMA.</p> <p>A separate application is needed for a water permit and a certificate.</p> <p>All water appropriation applications should be filed with the DNR.</p>



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	<p>(b) Time required to obtain permits – how long does it generally take?</p>	<p>A temporary water use authorization requires up to 60 days, a water rights usually requires 2 years, and a certificate can be issued within a few months after the issuance of a water right.</p>
	<p>(c) Duration of water permit</p>	<p>A temporary water use authorization is valid for a period of up to 5 years.</p> <p>A water right is valid for a period of 2 to 5 years. In turn, a certificate can be issued for a period superior to 10 years. The certificate has no time limitation but is conditioned on beneficial use of the water and a failure of this condition causes a loss of the right.</p> <p>A water right is legally defensible as long as the amount of water specified in the permit or certificate is in use and there has been no change to the purpose for which it is being used.</p> <p>A permit can be terminated for a breach of its terms (AS § 46.15.175).</p>
	<p>(d) process for permit renewal</p>	<p>The permit renewal process is the same as the application process. There is no expedited track.</p>
<p>4.</p>	<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>The Water Unit at the DNR does not carry out an EIA. It only reviews EIA documents where other agencies, especially the DEC, prepare them and a water quality issue arises. The DNR has primary jurisdiction on water quantity and secondary jurisdiction on water quality.</p>



5.	<p>Tariffs for water use</p> <p>Do mines have to pay for water usage? If yes, who sets the tariffs?</p>	<p>There is no water tariff charged for water use. However, a small fee can be levied on water withdrawn as an administrative fee to maintain the records, but only for authorizations/permits lasting more than one year (so-called multi-year authorizations/permits). It is not considered a tariff and it is generally levied after 2 years and more. It was set by the legislator.</p>
6.	<p>Requirements for recycling water</p>	<p>Under Alaskan state law, wastewater generation needs to comply with the water management hierarchy, from minimization of water use to treatment and disposal. If a constant amount of water is used at a mining site, treatment is required on site for recycling water and re-using it in the mining operations. However, facilities that are located in remote areas might not be able to either maintain on-site treatment facilities or send wastewater to off-site treatment facilities. In this latter case, onsite disposal is permitted.</p>
7.	<p>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?</p>	<p>DNR has the power to revoke/amend the terms of permits evidencing water right.</p>

3. Regulation of water quality and waste water discharge in mining in Alaska

Water Quality questions		
No	Topic	Answer
1.	<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 permits are required? What is the permitting process?</p>	<p>Mine waste discharge into water and marsh land usually requires three permits:</p> <ol style="list-style-type: none"> 1. A Section 402 (or National Pollutant Discharge Elimination System (NPDES)) permit required under Section 402 of the Clean Water Act for discharge of wastes into surface water; 2. A Section 404 permit required under Section 404 of the CWA for dredge and fill activities in bodies of water; and 3. A state wastewater discharge permit. <p>Additional permits are required when (1) any structure or work could obstruct traditionally navigable water; or (2) if any impacts are predicted for</p>



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		<p>endangered/threatened species under Section 7 Endangered Species Act (ESA).</p> <p>Section 402 permits are administered by the Alaska Department of Environmental Conservation (DEC) on behalf of EPA and are known in Alaska as Alaska Pollutant Discharge Elimination System (APDES) General Permits.⁴ If a proposed mining activity in Alaska qualifies for a General Permit, the APMA acts as a Notice of Intent (NOI) for issuance of an APDES permit. If the proposed mining activity does not qualify for a General Permit, a separate application may be necessary. Under the APDS, mine discharges are required to meet both applicable federal (40 CFR 44.104) New Source Performance Standards (NSPS) and Alaska state water quality standards.</p> <p>Section 404 permits are administered by the Alaska division of the United States' Army Corps of Engineers (USACE). Most mining operations qualify for either a Regional or Nationwide Permit Section 404 permit. Nationwide permits and regional general permits are Department of the Army permits that authorize activities that are similar in nature and cause only minimal adverse environmental impacts to aquatic resources, separately or on a cumulative basis. Nationwide permits are issued by the Corps on a national basis and are designed to streamline Department of the Army authorization of projects such as commercial developments, utility lines or road improvements that produce minimal impact the nation's aquatic environment. A regional general permit is issued for a specific geographic area by an individual Corps District. Each regional general permit has specific terms and conditions, all of which must be met for project-specific actions to be verified.</p> <p>If the mining operation does not qualify for a Regional or Nationwide permit, it would be necessary to apply for an individual permit directly with the USACE.</p> <p>Mining companies must also obtain state certification that any discharge under Section 404 complies with applicable state water quality standards (section 401 CWA). The relevant authority is the waste water discharge unit at DEC.</p> <p>The EPA retains review authority over APDES permits issued by ADEC and over the state water quality standards incorporated into APDES permits. Under Section 404 (c), EPA has review authority over the Corps of Engineers 404 Permit decisions.</p>
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⁴ In 2010, ADEC assumed responsibility for administering the NPDES permitting for the mining sector under 18 AAC 83.



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		<p>A state wastewater disposal permit must be issued by ADEC for discharges to land and groundwater (18 AAC 72) in Alaska. If injection wells are part of the wastewater disposal plan, a mining activity must meet the EPA’s requirements for Underground Injection Control (UIC) - Class V Wells – in addition to the requirements set out in the ADEC-issued wastewater disposal permit.</p> <p>Under Section 10 of the Rivers and Harbors Act of 1899, the Corps of Engineers must issue a permit for any structure or work that could obstruct traditionally navigable water.</p> <p>A further permit is required if any impacts are predicted for endangered/threatened species under Section 7 Endangered Species Act. With respect to water quality, this permit is relevant when mining facilities discharge in marine/riverine waters.</p> <p>See here for an overview.</p>
2.	<p>Other licensing/permitting processes that cover water quality/discharge</p>	<p>Fish habitat permit: If mining operations entails using, diverting, obstructing, polluting, or changing the natural flow or bed of a specified river, lake, or stream, or using wheeled, tracked, or excavating equipment or log dragging equipment in the bed of a specified river, lake, or stream a Fish Habitat Permit is also required. The relevant application must be filed with the Department of Fish and Game (ADF&G) Division of Habitat.</p> <p>Special are permit: If a project is within a state refuge, sanctuary, or critical habitat, any activity within the special area will require a Special Areas Permit from ADF&G. Any sampling of fish or wildlife resources also require a permit from ADF&G, namely the Scientific Collection Permit. Further information is available here and here.</p> <p>A Storm Water Discharge Pollution Prevention Plan (SWPPP): A further permit, which is administered by ADEC through the APDES Multi-Sector General Permit for industrial activities. The SWPPP includes storm water best management practices.</p> <p>Mining activities may require separate APDES permits to cover waste water and storm water discharges, or the requirements may be combined into one APDES permit.</p>
3.	<p>Nexus with environmental impact</p>	<p>Section 404 permit actions are subject to the National Environmental Policy Act (NEPA) (40 CFR Part 6, Subpart F). Therefore, an environmental assessment would normally be required before the initiation of mining operations. The</p>



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	<p>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>Army Corps of Engineers would issue a Record of Decision (ROD) in conjunction with the final permit action.</p> <p>Moreover, if the mine requires review under NEPA, the federal land manager at the Bureau of Land Management (BLM) is the lead agency conducting the review.</p>
4.	<p>Are there regulations regarding the storage of tailings/ waste water by mines?⁵</p>	<p>Yes, see <i>supra</i> 2.6. Engineered plans for disposal of wastewater from milling operations and other non-domestic wastewater sources are to be submitted to the state for approval for either a state Wastewater Disposal Permit or an APDES Permit.</p>
5.	<p>Acid mine drainage regulations</p>	<p>A mining company must 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 (11 AAC 97.240).</p>
6.	<p>Recycling requirements – Are there any requirements/ incentives for mines to recycle water/ minimize water discharge?</p>	<p>Yes, see <i>supra</i> 2.6.</p>
7.	<p>Any specific regulation of waste for copper and/or gold mining?</p>	<p>Water quality limits for copper are quite low. Copper is of concern specifically for fish habitat.</p> <p>Under AS 46.16.070, the innovative gold recovery demonstration grant program is established as a direct grant program to give a person engaged in placer mining the opportunity to study and test new methods of gold recovery and water use reduction.</p>

⁵ Tailings are crushed rock particles that are transported hydraulically in a slurry form to a tailing impoundment or storage facility. The tailing solids are a mixture of sand, silt, and clay size particles. Tailings are sent to a tailing impoundment for disposition.



3. Regulation of water issues related to post-mine closure

Post-mine closure questions		
No	Question	Answer
1.	Requirements for closure	<p>In accordance with Alaska Statute 27.19, reclamation is required of all mining operations.</p> <p>Mining companies may not engage in mining operations on state, federal or private land before a reclamation plan has been approved.</p> <p>Reclamation plan requirements differ depending on the size of the surface area of the proposed mining activity. Operations requiring less than five acres must submit a letter of intent to conduct reclamation and file an annual reclamation statement with the DNR. These operations are considered exempted (§ 27.19.050).⁶ Operations of five acres or more must be bonded by either joining the state wide bond pool or by submitting evidence of an individual financial assurance To the DNR</p> <p>At least 45 days before the proposed start of mining activities, a mining company must submit to the DNR a proposed reclamation plan for approval.</p> <p>All plans and notices on federal lands, which are managed by the Bureau of Land Management (BLM) require a separate reclamation plan to be filed with the BLM, which must be approved before the relevant reclamation documentation is submitted to the DNR.</p> <p>An annual reclamation statement is also included in the Permits to Mine in Alaska (APMA), namely the packet of permits.</p> <p>A reclamation plan on private land also requires a signed and notarized statement by the landowner that the mining company has the landowner's permission to operate throughout the period covered by the proposed reclamation plan; however, this statement is not required if the mining company is the landowner, or if the mining operation is on a prior federal mining location and the private landowner received title subject to that location.</p>

⁶ Miners with a multi-year APMA permit should still submit annually the following documents: 1. Signed Bond Renewal form 2. Signed Reclamation Plan or Letter of Intent to Reclaim. 3. Signed Reclamation Statement.



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	<p>(a) Closure plan: What are the requirements for a closure plan?? Who approves it, if anybody?</p>	<p>The requirements are generally the same as those set in the permit to operate.</p> <p>A reclamation plan on state land must attain:</p> <ul style="list-style-type: none"> - A condition that can reasonably be expected to return waterborne soil erosion to pre-mining levels within one year after the reclamation is completed, and that can reasonably be expected to achieve revegetation, where feasible, within five years after the reclamation is completed, without the need for fertilization or reseeding; - A condition that allows for the surface contours after reclamation is complete be conducive to natural revegetation or be consistent with an alternate post-mining land use approved under AS 27.19.030(b) on state, federal, or municipal land, or with the post mining land use intended by the landowner on private land (11 AAC 97.200). <p>The requirements for Reclamation Plan are set out in 11 AAC 97.310.</p> <p>The relevant approving body is the DNR. The commissioner will, in his or her discretion, approve a reclamation plan for any term not to exceed 10 years.</p>
	<p>(b) Bond requirements</p>	<p>Bonds are required for operations of five acres or more.</p> <p>Mining companies are liable for the full costs of reclamation regardless of the amount of the reclamation bond or bonding pool deposit and fees (11 AAC 97.430).</p> <p>In the post-closure plan, mining companies need to set out the estimated reclamation costs and certify that they have the resources to meet the closure requirements. If the company defaults, it will be the state’s responsibility to execute reclamation.</p>
	<p>(c) Water quality/ Tailings dam requirements</p>	<p>Water quality standards are usually the same as those set out in the permit to operate. If tailings dams are to be maintained in perpetuity, they will need to be transferred to a new entity – according to land ownership. Therefore, if the land is privately held, the responsibility to create and manage the entity will rest with the land owner. If the land is held by the federal government, the entity will generally be managed by the federal agencies in charge of issuing permits.</p>



2.	Post-mine closure monitoring requirements	Monitoring requirements are mandated in post-mine closure plans. Reclamation plans are usually updated every five years.
3.	Liability period - For how long, if at all, is a mine liable for water contamination after a mine has closed?	A mining company is liable for a minimum of 30 years from the date that mining activities are suspended.
4.	Are there any reporting requirements in relation to a mine's preparation for post-closure?	A description of the reclamation measures that will be taken to comply is required in the general mining permit, most notably: (A) measures for topsoil removal, storage, protection, and replacement; (B) measures for reclamation of tailings impoundments, settling ponds, reservoirs, heaps, open pits and cuts, shafts, adits, tunnels, portals, overburden, waste rock storage areas, and all other affected areas; (C) measures for stream placement and reclamation at the end of mining; and (D) a proposal for reclamation or post-mining conversion of access roads leading to the mining operation, airstrips, and other associated facilities.

3. Monitoring

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?	Water quality monitoring is under the jurisdiction of the Department of Environmental Conservation. Typically, a wastewater discharge permit will have effluent and ambient water quality monitoring requirements and usually requires the permittee to take samples and report results following a Department-approved monitoring plan and quality assurance plan. DEC tracks the reported results, monitors the results for compliance with permit limits and provides summary reports to EPA. Monitoring frequency can vary from one mining operation to another. Typically operational hard-rock mines have monthly, quarterly and annual monitoring and reporting requirements.



4. Enforcement/ Regulatory actions

General questions		
No	Topic	Answer
1.	Enforcement actions available to the government/ public authorities/ citizens take for breach of any of the relevant laws/ regulations	<p>The following enforcement actions can be taken for breaches of water allocation or environmental legislation:</p> <ul style="list-style-type: none"> - Administrative actions undertaken by administrative State/federal bodies; - Prosecutorial actions undertaken by prosecutors; - Civil suits undertaken by citizens, also in the form of class actions, for the violation of statutes or common law.
2.	Bodies responsible for regulatory enforcement and associated procedures	<p>The relevant authority for water quantity issues is DNR, which can terminate an authorization/permit in case of noncompliance. Criminal violations are deferred to the State of Alaska's Department of Law.</p> <p>The DNR is also authorized by law to enter, inspect, and examine any mining operations including the on-site machinery at all reasonable times in a reasonable manner. The manager of each mine must furnish the means necessary for entry, inspection, examination, inquiry, and exit (AS 27.20.021).</p> <p>The relevant authorities for water quality issues are ADEC, the Department of Fish and Game, and the Army Corps of Engineers depending on the permit to enforce. Permits usually provide for the relevant authority to have access to the site and undertake compliance controls.</p>
3.	Is there an online database of penalties/fines related to water use in the mining sector	No.
4.	What is the procedure for bringing a case?	<p>1. Section 402 and 404 permits 1.1 Criminal, Civil and Administrative Procedures</p> <p>The relevant regional office of EPA's Criminal Investigation Division, namely office 10, 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. The Administrator can bring civil enforcement actions before the relevant federal judge, whereas administrative sanctions are imposed at agency's level and may undergo a review proceeding in case they are challenged.</p>



1.2 Citizens' suits

Citizens may bring a suit against any person alleged to be in violation of water-related permits,⁷ immediately for violations of NPDES or toxic effluents standards,⁸ and in general after 60 days from the date the plaintiff gives notice of an alleged violation to the EPA, the State, and the alleged violator.⁹ Nonetheless, any such action is barred if the Administrator or State "has commenced and is diligently prosecuting a civil or criminal action."¹⁰

1.3 CERCLA actions

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 designate (3) ways in which sites may be placed on the list, as explained [here](#):

- (1)** The release scores sufficiently high pursuant to the Hazard Ranking System described in appendix A to CERCLA.
- (2)** A state (not including Indian tribes) has designated a release as its highest priority. States may make only one such designation; or
- (3)** The release satisfies all of the following criteria:
 - (i)** The Agency for Toxic Substances and Disease Registry has issued a health advisory that recommends dissociation of individuals from the release;
 - (ii)** EPA determines that the release poses a significant threat to public health; and
 - (iii)** EPA anticipates that it will be more cost-effective to use its remedial authority than to use removal authority to respond to the release.

2. State permits

The DNR may cancel the water quantity permit and impose sanctions, also criminal, relating to the violation of those permits. In addition, ADEC may impose sanctions for the violation of water quality permits, namely the APDES and state water discharge permits.

⁷ Federal Water Pollution Control Act (Clean Water Act), 33 U.S.C. § 505 (2012).

⁸ Clean Water Act § 505 (b).

⁹ Clean Water Act § 505 (b) (A).

¹⁰ Clean Water Act § 505 (b) (B).



		<p>In relation to the wastewater disposal permits, three types of action (administrative, civil and criminal) are possible. Normally they are in order of administrative, civil and (if applicable and with demonstrated intent) criminal. Administrative actions may be a corrective action for return to compliance. Civil actions may include corrective action as well as financial penalties, and criminal action can result in the corrective action, penalties and incarceration of responsible parties. It is preferable to start at the lowest levels of compliance and enforcement and increase the level of action commensurate with the response (or lack of) from the defendant and seriousness of the violation.</p> <p>3. Nuisance actions at common law</p> <p>A public nuisance action may be brought by the relevant state authority for an unreasonable interference with a right to the general public.</p> <p>A private nuisance action is brought by a private person for the non-trespassory invasion of his/her interest in the private use and enjoyment of land.</p> <p>AS § 09.45.230, as set forth in the Alaska Code of Civil Procedure, allows private individuals to recoup damages in case of environmental degradation if certain requirements are met.</p>
4	<p>Who has standing to bring a case?</p>	<p>Standing mainly concerns citizen actions, either under statute or common law:</p> <p>1) Citizens' suit under the CWA</p> <p>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 is within the zone of interest protected by the statute (Comer v. Murphy Oil, 2013).</p> <p>Citizens often sue through environmental NGOs. 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 (private nuisance action)</p> <p>According to the <i>Second Restatement of Torts</i> § 822, plaintiffs of a private nuisance action need to show a substantial harm and prove that interference</p>



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		<p>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.</p> <p>In case of actions to be brought in Alaska courts connected to water waste discharge (AS § 09.45.230 (a)), an action would be barred “where the emission or discharge was expressly authorized by and is not in violation of a term or condition of (1) a statute or regulation; or (2) a license, permit, or order that is issued after public hearing by the state or federal government and subject to (i) continuing compliance monitoring; (ii) periodic review by the issuing agency; or (iii) renewal on a periodic basis; or (3) a court order or judgment.</p>
5.	Statute of limitations	<p>The CWA does not provide a statute of limitations for either citizens’ or government’s 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).¹¹ .</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. No specific information was found on Alaska common law. 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>

¹¹ Sections 106-7 of CERCLA.



ANNEXURES

A. Relevant Legislation (policies, laws, and regulations) governing water use and discharge in the mining sector in Alaska¹²

No.	Name of Legislation	Brief description of how it applies
Article 8 Natural Resources (Section XIV)	Alaska State Constitution	All surface and subsurface waters reserved to the people for common use, other than mineral and medicinal waters, are subject to the doctrine of prior appropriation. Preferences among beneficial uses, concurrent or otherwise, are set as prescribed by law (Article 8.13, Water Rights).
AS § 38.05.185 ff.	Alaska Land Act (Mining Rights)	Under Alaska’s mining law, a mining claim grants the exclusive right to the locatable minerals in the ground. Locatable minerals are a variety of uncommon minerals, which divide into precious metals, such as gold, and base metals, such as copper. Mining claims on state land can be acquired by discovery, location, and recording (AS § 38.05.195). ¹³ Water rights are addressed separately to land rights.
AS § 46.03.100 (West's Alaska Statutes Annotated)	Waste management and disposal authorization	Legislation governing the issuance of the NPDES, which is administered at a state level in Alaska. The relevant authority is the Alaska Department of Environmental Conservation (DEC). ¹⁴ The DEC’s prior authorization is required for constructing, modifying, or operating treatment works, or for taking any action that results in the

¹² 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.

¹³ The holder of each mining claim, leasehold location, prospecting site, and mining lease, including a mining lease, shall pay, in advance, rental for the right to continue to hold the mining claim, leasehold location, prospecting site, and mining lease. A Production Royalty and Mining License Tax is also due (AS § 38.05.135).

¹⁴ DEC started administering wastewater and discharge permitting and compliance program for Alaska on October 31, 2012, after the passage of Senate Bill (SB 110) and EPA’s final approval in October 2008, under State primacy. EPA’s decision to delegate the NPDES program was unsuccessfully challenged in *Akiak Native Community v US EPA*, 625 F3d 1162 (9th Cir 2010).



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		disposal or discharge of solid or liquid waste material, heated process, or cooling water into the waters or onto the land of the state. Mining activities are accordingly require such authorization.
18 AAC 15.120 (Alaska Administrative Code)	Department of Environmental Conservation Administrative Procedures relating to the Adoption of NPDES permits	The regulation outlines the relevant administrative procedures the DEC must follow to issue NPDES permits on the same basis as the EPA. Any reports or other information filed with the EPA in accordance with the NPDES permit must be contemporaneously filed with the DEC.
AS 46.15	Alaska Water Use Act	The statute governing the appropriation of water by way of a Temporary Water Use Authorization, a Water Right, or a Certificate in Alaska.
11 AAC 93.040 (Alaska Administrative Code)	Application for a water right regulation	A provision that stipulates that no water can be appropriated and used in the absence of a permit to appropriate, a certificate of appropriation, or a temporary water use authorization.
AS § 27.21.010 (West's Alaska Statutes Annotated)	Alaska Surface Coal Mining Control and Reclamation Act	Alaska assumed exclusive jurisdiction over the regulation of surface coal mining and reclamation operations in the state under the Surface Mining Control and Reclamation Act of 1977.
AS § 27.19.010 (West's Alaska Statutes Annotated)	Reclamation plan	Relevant regulation on reclamation plans. A miner may not engage in a mining operation until the commissioner, namely the Department of Natural Resources, has approved a reclamation plan for the mining operation. The plan also concerns water issues.
AS § 09.45.230	Private nuisance law	Private nuisance law, as set forth in Alaska Code of Civil Procedure, allows private individuals to recoup damages in case of environmental degradation if certain requirements are met.



B. List of Relevant Ministries/ Departments/ Agencies/ Authorities involved in the Regulation of Water in the Mining Sector

No.	Name (In English and local language)	Brief description of its role
	EPA Regional office 10 (Pacific Northwest)	EPA retains oversight on the State of Alaska’s NPDES permitting and enforcement authorities. The monthly reporting required of permittees is uploaded in a database of reports, which are available to EPA.
	U.S. Army Corps of Engineers (USACE)	The USACE administers discharge permits under Section 404 of the Clean Water Act. The Alaska District of the U.S. Army Corps of Engineers is based in Anchorage, Alaska.
	Department of Environmental Conservation (“DEC”)	The DEC administers the Alaska Pollutant Discharge Elimination System (APDES) General Permit on behalf of EPA.
	Department of Fish and Game (ADF&G) - Division of Habitat	The ADF&G issues the Fish Habitat Permit if mining operations entails using, diverting, obstructing, polluting, or changing the natural flow or bed of a specified river, lake, or stream, or using wheeled, tracked, or excavating equipment or logdrugging equipment in the bed of a specified river, lake, or stream.
	Department of Natural Resources (DNR)	The DNR is the lead agency for all matters relating to the exploration, development, and management of mining. It issues the permit for water appropriation. It also issues the permit or certificate for diverting, impounding, or withdrawing a significant amount of water for beneficial use from a surface or ground water source. A Memorandum of Agreement (MOA) is typically required by the state to reimburse the cost of permitting for large mine projects. An MOA provides the means for the state to dedicate experienced staff to the permitting efforts. This assures that key personnel from the various agencies are devoted to specific projects. These agreements are renewed



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		<p>annually. DNR acts as the centralized accounting function for the MOA.</p>
	<p><u>Water Resources Board</u> (WRB)</p>	<p>The Water Resources Board is composed of seven members having a general knowledge of the use and requirements for use of the water of the state and the conservation and protection of it. The commissioner of environmental conservation or a designee shall serve as an additional, ex officio member serving without a vote.</p>
	<p><u>Bureau of Land Management, Alaska Office</u> (BLM)</p>	<p>The BLM Alaska minerals program has responsibilities and adjudicative duties associated with federal mining claims, mineral surveys and patents, validation of title evidence, review of mineral validity reports, service of federal minerals contest actions, guidance for surface use management and use and occupancy under the mining laws; processing mineral lease applications, mineral materials, solid minerals prospecting permits, bonding documentation, preparation and service of decisions, notices and other legal documents.</p>
	<p><u>Office of Project Management and Permitting</u> (OPMP)</p>	<p>It belongs to DNR and coordinates the permitting of large mine projects in the state. OPMP assigns a project manager to serve as a primary contact for a large mine project. The manager manages the permitting activities of the state team assigned to work on the project.</p>
	<p><u>Large Mine Permitting Team</u> (LMPT)</p>	<p>Interagency team for coordinating all State agency permitting for large hardrock mining projects in Alaska. It belongs to OPMP and is coordinated by the DNR.</p> <p>The Team coordinates the timing and completion of the various permits, by reviewing all the complex technical documents. It coordinates stakeholder involvement and provides a primary point of contact for the public. If the requirement for an Environmental Assessment (EA) or an Environmental Impact Statement (EIS) is triggered, the team endeavours to dovetail the state’s permitting process with the EIS process.</p>



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