



# Water Risks in the Mining Sector People's Republic of China (“China”)<sup>1</sup>

*As of April 2016*

## 1. Overview of Chinese legal system

China’s legal system is defined as a soviet-inspired socialist legal system with Chinese characteristics. It derives from the civil law model and generally covers three different levels of laws:

1. **National laws**, which are issued by the National People’s Congress (NPC) and its standing committee;
2. **Administrative regulations on social and economic sectors**, including environmental protection, which are enacted by the State Council and its departments. These must be consistent with the laws adopted by the NPC; and
3. **Local decrees** enacted by local People’s Congresses and their standing committees.

In China, the State Council is the central government or chief administrative body in China. Below the State Council there are four levels of government: (1) the **provincial level** (provinces, autonomous regions, municipalities, and special administrative regions); (2) the **prefecture level** (municipal); (3) the **county level**; and (4) the **township level**. In addition, at a local government level there are also **villages**, which fall under townships. The authorities at or above the county level regulate mining, water, and environmental issues according to relevant laws and regulations.

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

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<sup>1</sup>This project was managed by CCSI Senior Legal Researcher, Sophie Thomashausen. Research was conducted by Suzhe Jia, an LLM candidate at Columbia Law School and JingJia Liang, a Masters of Sustainability graduate of Columbia University. Interviews were conducted with lawyers Jiangang Zhou, Yan Yu, Jianying Zhang, and Meng Li from the Beijing office of Grandall Law Firm in relation to the legal framework governing water use, and Yongming Wang, Chief Engineer and Jinwu Zhu, senior manager of Shangshe Coal Mining Co., Ltd. in Yangquan Shanxi Province, China in relation to mining procedures and compliance with environmental law requirements. Additional information was obtained from the Beijing Municipal Water Resources Bureau (+86-10-891650663).



## 2. Regulation of water use by mines in China

Water Quantity questions		
No	Question	Answer
1.	<b>Which authority is responsible for water allocation?</b>	The local/ provincial branch of the Ministry of Water Resources.
2.	<b>Water allocation process</b> - How is water granted to a mining concessionaire/ permit holder? Is there a water licensing/ permitting process? A water market?	<p>Water permits are filed with a local/provincial level representative of the Ministry of Water Resources. Both the drainage basin authorities and water administration authorities are under the administration of the Ministry of Water Resources.</p> <p>If the source of water in respect of which a permit is being obtained crosses a provincial boundary, the application will first be processed by a local water administration authority (45 working days) and, if approved, it will then be transferred to the relevant drainage basin authority for review and approval (20 working days).</p> <p>The administrative level (local or provincial) at which a water permit should be applied for and is approved, depends on the scale of water use. For copper and gold mining projects, water permits are generally granted at a provincial level, as copper and gold mining projects are approved at the provincial level in accordance with the Catalogue of Investment Projects Subject to Government Confirmation (2014).</p>
3.	<b>Scope of a water allocation permit/ license</b>	
	<b>(a) Requirements separate water permit</b> – is a separate water permit required? What is the process for obtaining the permit	Water permits are issued separately from mining permits; however, information regarding water use (i.e. expected water discharge) is required to complete the EIA required in the mine permitting process (see section 5 below).
	<b>(b) Time required to obtain a water permit</b> – how long does the process generally take?	Obtaining a water permit generally takes 50 – 70 working days to be approved, depending on whether it is just the applicable water administration authority or also the basin authority that must approve the application.



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			<ol style="list-style-type: none"> <li>1. The first step is for the water administration authority to decide whether it will accept the application (5 working days).</li> <li>2. Next, the water administration authority reviews the application (45 working days).</li> <li>3. If drainage basin authority approval is also required, the application will then be transferred to the relevant drainage basin authority after water administration authority approval has been granted.</li> </ol> <p><i>Note that once a mining company has obtained the relevant authority approvals to source water, it still has to wait until the water use facilities in relation to the relevant mine have been operational for 30 days before applying for and obtaining the official water use permit I.</i></p>
		<p><b>(c) Duration of water permit</b></p>	<p>Water use permits are generally issued for 5 years but may be issued for up to 10 years. The validity period of a mining permit is regulated in terms of the scale of the mining operation: <b>Large-scale operation</b>= validity of up to 30 years; <b>medium-scale</b> = up to 20 years; <b>small-scale</b>= up to 10 years.</p>
		<p><b>(d) process for permit renewal</b></p>	<p>Water permits can be renewed upon expiration. To do so, a mining company must file an application for renewal to the relevant local/provincial authority at least 45 days before the expiry of the permit. The authority will then make an analysis and decision as to whether to renew the permit.<sup>2</sup></p>
<p><b>4.</b></p>		<p><b>How does the process of securing a water permit 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)?</b></p>	<p>The processes for obtaining water permits and mining permits are generally separate and distinct and there is no law regulating the order of obtaining permits. However, in practice some local authorities require a mining permit to be obtained before a water permit can be applied for, whereas others require the converse.</p> <p>Note that an EIA must be submitted and approved</p>

<sup>2</sup> See, Article 25 of Water Use and Fees Regulation and Article 27 of the Water Use Permit Measures.



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		<p>before a mining permit can be issued and must contain information about how the mining project is expected to impact surface and ground water (see section 5 below).</p> <p>An EIA is also required to be submitted as one of the supporting materials to obtain the water permit and the pollutant discharge permit.</p>
<p><b>5.</b></p>	<p><b>Tariffs for water use</b></p> <p>Do mines have to pay for water usage? If yes, who sets the tariffs?</p>	<p>Yes.</p> <p><b>Who sets the tariffs:</b> Responsibility to set water tariffs rests with the relevant water administration authority. Where a water source spans provincial boundaries and/or was subject to the approval of a drainage basin authority, the water tariff will be levied by the water administrative department of the people's government of the province, autonomous region, or municipality directly under the Central Government in which the water source is located.</p> <p><b>Rate:</b> The rate of the water tariff is calculated on the basis of the water tariffs of the locality of the water source and the actual amount of water required.</p> <p>In practice, the law is not always enforced. For example, according to one of our interviewees, some mining companies pay water tariffs that are below the level by law or regulation.</p>
<p><b>6.</b></p>	<p><b>Requirements for recycling water</b></p>	<p>Recycling requirements are set out in law (see section 5 on water discharge regulations below)</p> <p>China's Cleaner Production Promotion Act (2002) requires the continuous application of measures for design improvement to enhance water conservation and to increase the level of water reuse and recycling.</p> <p>Chinese legislation also provides some incentives to conserve water by allowing a mining company to re-assign the water it has not used to the relevant water authority and thereby avoid having to pay a water tariff in respect of the conserved water.</p>



<p>7.</p>	<p><b>What right, 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?</b></p>	<p>Permits are issued based on a systematic assessment of water resources, with the intention that the permitted volume should be no greater than the sustainable resource.</p> <p>The total permitted amount of water permitted to be withdrawn from a river basin must not exceed the utilizable amount of water resources in the river basin as approved by the state. The total permitted amount of water abstraction in an administrative jurisdiction must not exceed the amount of water abstraction approved at the next upper level.<sup>3</sup></p> <p>The relevant water authority may adjust water allocations set out in a water permit in certain circumstances, including: (1) the implementation of a new national or regional water master plan which requires adjustments to be made to existing water allocations; (2) applications for a water permit for already-allocated water from prospective investors; and (3) water shortages caused by a drought, or other emergency, which may require the relevant authority to curtail water allocations.<sup>4</sup></p> <p><b>Compensation for adjustments to water permits:</b> There is no specific regulation providing for compensation. The tariff charged will be adjusted accordingly.</p>
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<sup>3</sup> See, Article 4 of the Water Use Permit Measures.

<sup>4</sup> China Europe Water Platform, Technical Research on Integrated Permitting of Water Resource, November 2013, page 110.



### 3. Regulation of water quality and waste water discharge in China

Water Quality questions		
No	Topic	Answer
1.	<p><b>Requirements for a permit for mine waste discharge</b></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>A pollutant discharge permit is required. The environment protection authorities at or above county level are responsible for granting pollutant discharge permits.<sup>5</sup></p> <p>Generally, the standard of water that mining operations are allowed to discharge is regulated in Table 3 (project constructed by Dec. 31, 1997) and Table 5 (project constructed after Jan 1, 1998) in the Integrated Waste Water Discharge Standard (GB 8978-1996):</p> <p>Non-ferrous mining (other than coal)— water reuse efficiency should reach more than 75%. For coal mining water reuse efficiency must reach 90%. Detailed rules with regard to copper and coal are set in separate standards.</p>
2.	<p><b>Other licensing/permitting processes that cover water quality/discharge?</b></p>	<p>Yes – the water use permit and a mining permit.</p> <p><b>Mining permit</b> - An EIA, which covers water quality issues, must accompany an application for a mining permit. It must be approved by the relevant environmental authority before a mining license can be issued. The relevant environmental mining authority has 60 days to approve the EIA.</p> <p><b>Water permit:</b> In an application for a water use permit, a mining company must specify, among others, (i) the location for the discharge of water; (ii) the main pollutants contained in the water that it expects to discharge; and (iii) the waste water treatment processes it proposes to implement.</p>

<sup>5</sup> Article 20 of the Water Pollution Prevention and Control Law.



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		<p>Where a water permit requires approval from a drainage basin authority, the water administration authority must include its opinion on the volume of both water use and water quality of water discharge in the application to be reviewed by the drainage basin authority.</p> <p>An environmental impact assessment (“EIA”) is also one of the supporting documents that must be submitted in an application for a water use permit, and must include a water resource analysis report that covers water use and wastewater discharge, a flood control evaluation and an evaluation of soil and water conservation measures.</p>
<p><b>3.</b></p>	<p><b>Nexus with environmental impact assessments/ statements</b></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>A mining company must submit an "EIA document" to the MEP or its local counterparts before commencing construction of a mining project</p> <p>According to Article 16 of the EIA Law, there are three types of "EIA documents" depending on the environmental impact of a project: (i) where the potential impact is "significant", the mining company must prepare <b>an Environmental Impact Report</b> containing a comprehensive assessment of the resulting environmental impact; (ii) where the potential impact is "light", the mining company must fill out an <b>Environmental Impact Report Form</b> containing an analysis or special assessment of certain aspects of the resulting environmental impact; and (iii) where the potential impact is "very light", the mining company may simply file an <b>Environmental Impact Registration Form</b> , and assembly of an EIA is not required.</p> <p>Monitoring and follow-up assessment is compulsory for approval.</p> <p>As mining projects are likely to cause major environmental impacts, mining companies must submit an Environmental Impact Report for approval from the relevant environmental authority before a mining license can be issued. This usually takes around 60 days.</p>



4.	<b>Are there regulations regarding the storage of tailings/ waste water by mines?</b>	<p>Restrictions on the storage of waste water or other wastes are provided for in the Water Pollution Prevention and Control Law, as well as a number of recent administrative rulings and technical guidelines outlined below.</p> <p>Note that tailings are also considered solid waste for the purposes of the Law on the Prevention and Control of Environment Pollution Caused by Solid Wastes (2015). As such, they are subject to the section of enforcement and sanctions of this law and the Administrative Rules on the Prevention and Control of Environment Pollution by Tailings.</p> <p>The <b>Administrative Rules on the Prevention and Control of Environment Pollution by Tailings</b> set out the how tailings should be managed, how they should be monitored and the enforcement process for non-compliance with the aim of preventing and controlling pollution from tailings.<sup>6</sup></p> <p>In April 2015, the MEP issued a standard “HJ 740—2015: Technical guideline for environmental risk assessment of tailings ponds”. In May, 2015 the MEP issued the “Tailing Ponds Environmental Emergency Response Plan Guidelines” (No. [2015]48) which provides guidance on how to make a special contingency plan for environmental emergencies relating to tailings pond spillages and failures.<sup>7</sup></p>
5.	<b>Acid mine drainage regulations?</b>	No. Acid Mine Drainage (AMD) is not covered by any regulations in China.
7.	<b>Any specific regulation of waste for copper and/or gold mining?</b>	There is a separate standard for waste disposal for copper mining.

<sup>6</sup> Article 7 of the Rule provides that companies which produce tailings must develop a pollution prevention plan and establish a liability system. In turn, Article 5 provides that companies that recycle tailings can be accorded preferential treatment the State. The production of tailings must be registered with the local EPC (Article. 8).

<sup>7</sup> Other relevant standards include: (1) Article 19 of the Mine Safety Law of the PRC (2009), which provides that mining companies must take preventive measures against dangers that may arise by using mechanical and electrical equipment, soil tips, mine tips, dams and lagoons, as well as from disused mine pits; (2) the “Provisions on the Supervision and Administration of Tailing Ponds Safety” (2015 Revision); (3) Safety Technical Regulations AQ 2006-2005 for the Tailings ponds; and (4) Technical Regulations GB51108-2015 for the Tailing Pond Safety Monitoring. No information on the content of these additional measures was found.





## 4. Monitoring

General questions		
No	Question	Answer
1.	<b>Who monitors a mining operation's water quality to ensure compliance with legislation? And how often does such monitoring occur?</b>	<p>Water quality compliance monitoring is conducted by both the water resource and environmental protection administrations at the county level or above (Article 25 &amp; 26 of WCCPL).</p> <p>The MEP sets the water quality monitoring standards and norms at a national level. China has established a water quality classification system based on the purpose of use and protection target, following Environmental Quality Standard GB3838-2002. Based upon this classification, water quality is being monitored on a regular basis at hundreds of monitoring stations through national and provincial-run water monitoring centers. <sup>8</sup></p>

<sup>8</sup> World Bank, China Water Quality Management – Policy and Institutional Considerations, 2006.



## 5. Regulation of water issues related to post-mine closure

Post-mine closure questions		
No	Question	Answer
1.	<b>Requirements for closure</b>	<p>A mining company must submit a mine closure application as well as the geological report on mine closure for approval to the relevant administrative authority (MLR and its local counterpart) that issued the original mining permit one year prior to the completion of mining activities (Article 33 of the Rules of Mineral Resources).</p> <p>Mining companies, with the approval documents on mine closure and the proof documents supplied by the relevant departments for proving the completion of the work, apply to the original licensing authorities for the deregistration of the mining permit. Gold mining companies must begin the deregistration process with the National Development and Reform Commission (“NDRC”) when the gold being mined is exhausted, and return the Gold Mining Permit to the NDRC.</p>
	<b>(a) Closure plan: What are the requirements for a closure plan?? Who approves it, if anybody?</b>	<p>According to Article 12 of <b>the Provision for the Protection of the Geological Environment of Mines</b>, a mining right applicant shall make a plan for the protection, control and restoration of the mine’s geological environment, and must apply to the relevant MLR or its local counterpart for approval.</p> <p>The closure plan must include: (1) basic information on the mine; (2) the current status of the geologic environment of the mine; (3) an analysis and evaluation of the impact on the geologic environment as a result of the exploitation of the mine (including an evaluation of the geologic disaster risks); (4) the proposed measures to be taken to protect, control and restore of the geologic environment of the mine; (5) a plan on the surveillance of the geologic environment of the mine; (6) a budgetary estimate of the operating funds for projects on the protection, control and restoration of the geologic environment of the mine; and (7) a commitment to depositing a security for the protection, control and restoration of geologic environment of the mine.</p>



		<b>(b) Bond requirements</b>	<p>Bond payments for mine site rehabilitation are required to obtain a mining license in China (Article 17 of the Provisions on the Protection of the Geologic Environment of Mines).</p> <p>A company holding a mining license must pay a security deposit for the treatment and restoration of the mine’s geological environment, based on the relevant state provisions. The deposit and interest will be refunded if the mining company has fulfilled its obligations in this respect and has passed an inspection organized by the relevant MLR.</p>
		<b>(c) Water quality/ Tailings dam requirements</b>	<p>Mining companies are required to close their site in a manner that ensures that tailings and other mining solid wastes do not harm the environment.<sup>9</sup></p> <p>Post-mine closure, a mining company is no longer liable to water contamination.</p>
<b>2.</b>	<b>Post-mine closure monitoring requirements</b> – Are there any requirements for a mine to monitor the site post-closure?		<p>Once a mining company has obtained approval to cease its mining operations, it must undertake remedial measures to fulfill the requirements of water and soil conservation, land reclamation and environmental protection set out in the mine closure report, or pay in full the fees for cost of land reclamation and environmental protection.</p> <p>According to the PRC Bankruptcy law, a mining company has no obligation to monitor the site post – closure since the handover to the local government.</p>
<b>3.</b>	<b>Liability period</b> - For how long, if at all, is a mine liable for water contamination after a mine has closed?		<p>Since the closure of mine, the mining operator will no longer be liable to water contamination.</p>

<sup>9</sup> Article 26 of Prevention and Control of Solid Waste Law.



## 6. Enforcement/ Regulatory Actions

General questions		
No	Topic	Answer
1.	<b>Enforcement actions: What actions, if any, can government/ public authorities/ citizens take for breach of any of the relevant laws/ regulations</b>	<p>(a) For violation of a water use permit, the competent department of MWR at the county level or above or the relevant drainage basin authority may take actions which include administrative fines, order, sanctions. The EPA can also fine mining companies in certain cases, including using more water than allowed under their issued permit.</p> <p>(b) For environmental violations, the Environmental Protection Authority has the authority to require a mining company to limit its operations or cease operations altogether. It can also arrest mine operators in certain cases, including but not limited to the unlawful dumping of hazardous wastes.</p> <p>(c) If any crime is committed, mining company or individual will be subject to criminal liabilities.</p>
2.	<b>Which body is responsible for taking regulatory enforcement actions against mines? What is the procedure?</b>	See 1 above.
3.	<b>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?</b>	<p>Article 54 of the Environmental Protection Law requires environmental authorities at and above the county level to disclose information on environmental quality, environmental monitoring, environmental emergencies, environmental administrative licensing, environmental administrative punishment, and collection and use of pollutant discharge fees, among others.</p> <p>Local Environmental Protection Bureaus disclose the administrative fines/sanctions on its official website. For example, see Beijing's EPB page here: <a href="http://wsfw.bjepb.gov.cn/punishweb/punishinfo.aspx">http://wsfw.bjepb.gov.cn/punishweb/punishinfo.aspx</a>.</p>
4.	<b>Briefly outline the procedure for bringing a case and specify which court the case would be brought to.</b>	According to Chinese procedural laws, each case shall have two trials at most. A case would be brought to a local court in the trial of first instance, and litigants and their representatives then have the right to appeal the case to the next higher level court of second instance. Generally,



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		the judgment of the second trial is final and cannot be appealed.
5.	<b>Who has standing to bring a case?</b>	<ul style="list-style-type: none"><li>- Government agencies, e.g. Environmental Protection Bureau;</li><li>- Local people's procuratorates (prosecutors); and</li><li>- Environment protection groups, e.g. NGOs.</li></ul>
6.	<b>What is the relevant statute of limitations?</b>	Once a mine has ceased operations, the mining company will no longer be liable to water contamination.



## Annexures

### A. Relevant legislation (policies, laws, and regulations) governing water use and discharge in the mining sector in China

No.	Name of Legislation	Brief description of how it applies
<b>Mining</b>		
1.	<a href="#">Mineral Resource Law of the People’s Republic of China (2009)</a>  中华人民共和国矿产资源法 (the “ <b>Mineral Resource Law</b> ”)	This law regulates the approval and registration procedure of exploration and mining of mine resources.
2.	<a href="#">Implementation Rules of the Mineral Resources Law (1994)</a>  矿产资源法实施细则	This administrative regulation details the procedures for obtaining a mining permit approval and registering a mine exploration zone.
3.	<a href="#">Administrative Measures Concerning the Registration of Mineral Resources Exploitation (2014)</a>  矿产资源开采登记管理办法 (the “ <b>Mining Registration Procedure</b> ”)	An administrative regulation issued by the State Council that sets out the procedures and requirements for obtaining a mining permit.
4.	<a href="#">Provisions on the Administration of Obtaining Gold Mining Approval (2003)</a> 办理开采黄金矿产批准证书管理规定 (the “ <b>Provision on Gold Mining Approvals</b> ”)	Departmental rules of the National Development and Reform Commission on the approval procedures for gold mining, which is considered to be a restricted activity in China (see 24 below).
5.	<a href="#">Provisions on the Protection of the Geologic Environment of Mines (2016)</a>  矿山地质环境保护规定	Department rules issued by Ministry of Land and Resources to protect the geological environment of mining areas and minimize damage to the geological environment caused by the exploration for and exploitation of mineral resources.
<b>Water legislation</b>		
6.	<a href="#">Water Law of the People’s Republic of China</a> (the “ <b>Water Law</b> ”) (2002)	A law that provides the framework for the planning, development, allocation, conservation, and protection of water resources, the monitoring of water resources, and the enforcement of violations of the PRC Water Law.



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	中华人民共和国水法 (the “ <b>PRC Water Law</b> ”)	
7.	<a href="#">Water and Soil Conservation Law of China (2010)</a> 中华人民共和国水土保持法	The purpose of this law is formulated to prevent and control water and soil erosion, protect and ensure the reasonable utilization of water and soil resources, improve the ecological environment, and guarantee sustainable economic and social development.
8.	<a href="#">Water Pollution Prevention and Control Law of China (2008)</a> 中华人民共和国水污染防治法	This law was enacted for the purposes of preventing and controlling water pollution, protecting and improving the environment, safeguarding human health, and ensuring the effective utilization of water resources.
9.	<a href="#">Detailed Rules for the Implementation of the Water Pollution Prevention and Control Law of China (2000)</a> (the “ <b>Water Pollution Prevention and Control Rules</b> ”) 中华人民共和国水污染防治法实施细则	An administrative regulation for implementing the water pollution prevention and control law.
10.	<a href="#">Regulation on the Implementation of the Water and Soil Conservation Law of China (2011)</a> 中华人民共和国水土保持法实施条例	An administrative regulation for implementing the law on water and soil conservation.
11.	<a href="#">Regulation on the Administration of the License for Water Drawing and the Levy of Water Resource Fees (2006)</a> 取水许可和水资源费征收管理条例 (the “ <b>Water Use and Fees Regulation</b> ”)	An administrative regulation of the State Council regarding the permitting procedures for water rights allocations of underground and surface water, and tariffs for water usage.
12.	<a href="#">Measures for the Administration of Water Use Permit (2008)</a> 取水许可管理办法 (the “ <b>Water Use Permit Measure</b> ”)	A departmental regulation of the Ministry of Water Resources regarding the management and supervision of the water use system, and the application and approval procedure of water use permit.
13.	<a href="#">Notice of the State Council on Issuing the Action Plan for the Prevention and Treatment of Water Pollution (2015)</a> 国务院关于印发水污染防治行	The Action Plan for Prevention and Treatment of Water Pollution aims to reduce pollutants, improve the quality of drinking water, and promote water saving.



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<b>Environmental legislation</b>		
14.	<p><a href="#"><u>Environmental Protection Law of China (2014)</u></a>            中华人民共和国环境保护法            (the “<b>Environmental Protection Law</b>”)</p>	The purpose of this law is to protect and improve the environment, prevent and control pollution and other public nuisances, safeguard public health, promote ecological civilization, and enhance sustainable economic and social development.
15.	<p><a href="#"><u>Law on Appraising of Environment Impact (2003)</u></a>            中华人民共和国环境影响评价法            (the “<b>EIA Law</b>”)</p>	This law provides for the assessment of the environmental impacts of investment projects.
16.	<p><a href="#"><u>Regulation on Environmental Impact Assessment of Planning (2009)</u></a>            规划环境影响评价条例</p>	The regulation is formulated to strengthen the environmental impact assessment process in accordance with the EIA Law.
17.	<p><a href="#"><u>Cleaner Production Promotion Law of China (2012)</u></a>            中华人民共和国清洁生产促进法</p>	This law is formulated to promote cleaner production, raise the efficiency of utilization of resources, minimize the generation of pollutants, protect and improve the environment, protect human health, and promote the sustainable development of the economy and society.
18.	<p><a href="#"><u>Circular Economy Promotion Law of China (2009)</u></a>            中华人民共和国循环经济促进法</p>	<p>The objective of this law is to promote the development of the circular economy, improving resource utilization efficiency, protecting and improving the environment and realizing sustainable development.</p> <p>Under the law, the government must conduct stringent monitoring of high water consumption and high-emission industries, including non-ferrous metal production.</p> <p>Industrial enterprises are required to use advanced or applicable water-saving technologies, techniques and equipment, develop and implement water-saving plans, strengthen water-saving management and exercise control over the use of water in the whole production process.</p> <p>They must also strengthen the quantitative management of water use, be equipped with and use acceptable water measurement instruments, and set up a water consumption statistics system and a water use status analysis system. Any newly built, rebuilt or enlarged non-ferrous metal mining</p>





		<p>project must have water-saving facilities, which shall be planned, built and put into use simultaneously with the main body of the project.</p> <p>The law also provides for tax preferences to be provided for industrial activities promoting the development of the circular economy, and use tax measures to encourage the import of water-saving technologies. The specific measures shall be formulated by the public finance department and the tax department under the State Council.<sup>10</sup></p>
19.	<p><a href="#">Regulations on the Administration and Use of Pollution Discharge Fee (2003)</a> 排污费征收使用管理条例</p>	<p>This regulation provides for the system of levying fees for pollutant discharge aiming to encourage enterprises to enhance management, comprehensively use resources, and control pollution and improve environment.</p>
20.	<p><a href="#">Law on the Prevention and Control of Environmental Pollution Caused by Solid Waste (2015)</a> 中华人民共和国固体废物污染环境防治法</p>	<p>A law enacted for the purpose of preventing and controlling environmental pollution by solid wastes, safeguarding human health, maintaining the ecological safety and promoting the sustainable development of economy and society.</p>
21.	<p><b>Measures for the Implementation by Competent Environmental Protection Departments of Limiting and Suspending Production for Remediation (2015)</b> 环境保护主管部门实施限制生产、停产整治办法</p>	<p>This regulation provides guidance for the environmental protection authorities as to when to take certain enforcement actions (limiting or suspending production) in relation to activities that pollute surrounding water courses, spillages, and leaks of pollutants (in breach of permitted water quality standards).</p>
22.	<p><a href="#">Measures for the Implementation of Sealing-up and Impounding by Competent Environmental Protection Departments (2015)</a> 环境保护主管部门实施查封、扣押办法</p>	<p>This regulation provides guidance for the environmental protection authorities as to when to take certain enforcement actions (shutting down/ sealing up operations or seizing property) in relation to the illegal discharges that result in serious pollution.</p>
<b>Environmental standards related to water quality and waste water standards</b>		
23.	<p><a href="#">Integrated Water Discharge Standard (GB 8978-1996)</a> 污水综合排放标准</p>	<p>A water discharge standard set by the National Technology and Supervision Bureau to control water pollution and protect water quality.</p>

<sup>10</sup> See China Water Risk website at: <http://chinawaterrisk.org/regulations/water-regulation/>.



24.	<p><a href="#"><u>Environmental Quality Standards for Surface Water</u></a> (GB 3838-2002) 地表水环境质量标准</p>	<p>This standard applies to the implementation of the Environmental Protection Law and Law of Water Pollution Prevention and Control in relation to the control of water pollution and the protection of surface water resources including rivers, lakes and reservoirs within the territory of the PRC.</p>
25.	<p><a href="#"><u>Quality Standard for Ground Water</u></a> (GB/T14848-93) 地下水环境质量标准</p>	<p>This standard applies to the implementation of the Environmental Protection Law and Law of Water Pollution Prevention and Control in relation to the control of water pollution and the protection of underground water resources within the territory of the PRC.</p>
26.	<p><a href="#"><u>Emission Standard for Pollutants from Coal Industry</u></a> (GB 20426-2006) 煤炭工业污染物排放标准</p>	<p>The standard applies to pollution prevention and control in all coal mines, coal washing factories and their coal gangue dumping sites, storage, loading and unloading sites, and to environmental impact assessment of coal industry projects, design of environmental protection facilities, check upon their completion and pollution control and management after the facilities are put into operation.</p>
27.	<p><a href="#"><u>Emission standard of pollutants for copper, nickel, cobalt industry</u></a> (GB 25467 – 2010) 铜、镍、钴工业污染物排放标准</p>	<p>The standard applies to, among others, the management of waste water discharges, environmental impact assessments related to copper, nickel and cobalt mining projects, the design of waste water treatment facilities, and the monitoring of waste water discharges during mining operations.</p>
<b>Investment</b>		
28.	<p><a href="#"><u>The Catalogue of Investment Projects Subject to Government Verification (2014)</u></a>  (“Government Verification Catalogue”) 政府核准的投资项目目录 (2014)</p>	<p>This catalogue is used for project approval in China, which clarifies the approval authority for different sectors and industries. According to this catalogue, non-ferrous mining, including gold and copper mining projects are approved by the relevant provincial government.</p>
29.	<p><a href="#"><u>The Catalogue of Industries for Guiding Foreign Investment (2015)</u></a> (“Foreign Investment Guidance Catalogue”) 外商投资产业指导目录(2015)</p>	<p>This is a guiding document for foreign investors, which classified industries and investment projects into four categories (encouraged, permitted, restricted and prohibited), and stipulates the authorities that need to approve such project depending on the threshold of the total investment. The catalogue only lists the industries under the categories of encouraged, restricted and prohibited. Industries not in the list</p>



		are in the category of “permitted.”  Gold mining is in the restricted category. Copper mining is not in the list which means it is in permitted category for foreign investment.
30.	<a href="#"><u>Administrative Measures for the Administration of Foreign-invested Mineral Exploration Enterprise (2015)</u></a>  外商投资矿产勘查企业管理办法	This regulation sets out the process for forming a foreign-investment mineral exploration enterprise.

## B. List of relevant authorities involved in the regulation of water in the mining sector in China

No.	Name (In English and local language)	Brief description of its role
<b>Natural Resources</b>		
1.	<a href="#"><u>The Ministry of Land and Resources</u></a> (“MLR”) 中国国土资源部	The central government authority governing the land (incl. underground resources), planning, administration, protection and the rational utilization of such natural resources as land, minerals and marine resources in the PRC. MLR has the authority to grant land use and exploration right licenses, issues mining right permits approves transfers and leases of mining rights and review mining right fees and reserve evaluations.
2.	<a href="#"><u>National Development and Reform Commission</u></a> (“NDRC”) 国家发展和改革委员会	The NDRC is responsible for, among other things, the national development plan, economic operation, foreign investment, and key projects approval.  Gold mining project must be approved by the NDRC.
3.	<b>People’s Government at the county level and above</b> 县级以上人民政府	The People’s Government refers to the central government representatives at more local levels, e.g. Jiangxi Provincial Government, Nanchang Municipal Government, which are responsible for the planning for their territory (including the



		annual water use plan and 5-year economic growth plan), management and supervision.
<b>Environment</b>		
4.	<p><b><u>The Ministry of Environment Protection</u></b> (“MEP”) 中国环境保护部</p>	<p>The central government authority governing the protection of the environment in China. It is responsible for: the administration and supervision of environmental protection measures; policy formulation and regulations; plans and programs; and supervision regarding to environment protection at a national level. Environmental protection bureaus at the county level and above are responsible for environmental protection within their areas of jurisdiction. Local bureaus may set stricter local standards compared to the national standards.</p>
5.	<p><b><u>Appraisal Center for Environment and Engineering</u></b> (“ACEE”) 环境保护部环境工程评估中心</p>	<p>Affiliated to the Ministry of Environmental Protection (“MEP”), the ACEE is a major technical support institution in the field of environmental impact assessments (“EIAs”) for the Ministry of Environmental Protection.</p> <p>The ACEE is responsible for the technical review of EIAs submitted by companies, while the MEP is responsible for the administrative approval of EIAs. They do not conduct EIA themselves.</p>
<b>Water</b>		
6.	<p><b><u>The Ministry of Water Resources</u></b> (“MWR”) 中国水利部</p>	<p>The central government authority responsible for the administration and supervision of water use permitting system in the PRC. This is the main body governing the water use in China. Under MWR, there are agencies including Water Resource Bureaus operating at the provincial, municipal, and county level that are responsible for the administration and supervision of water use as well as Drainage Basin Authorities.</p>
7.	<p><b><u>Drainage Basin Authorities</u></b> 流域管理机关</p>	<p>The government authority under the Ministry of Water Resources that is responsible for the permitting process for water rights that cross provincial boundaries. There are 7 drainage basin authorities in China:</p> <ol style="list-style-type: none"> <li>1. Yangze River Water Resource Commission;</li> <li>2. Yellow River Water Resource Committee;</li> <li>3. Haihe River Water Resource Commission;</li> </ol>



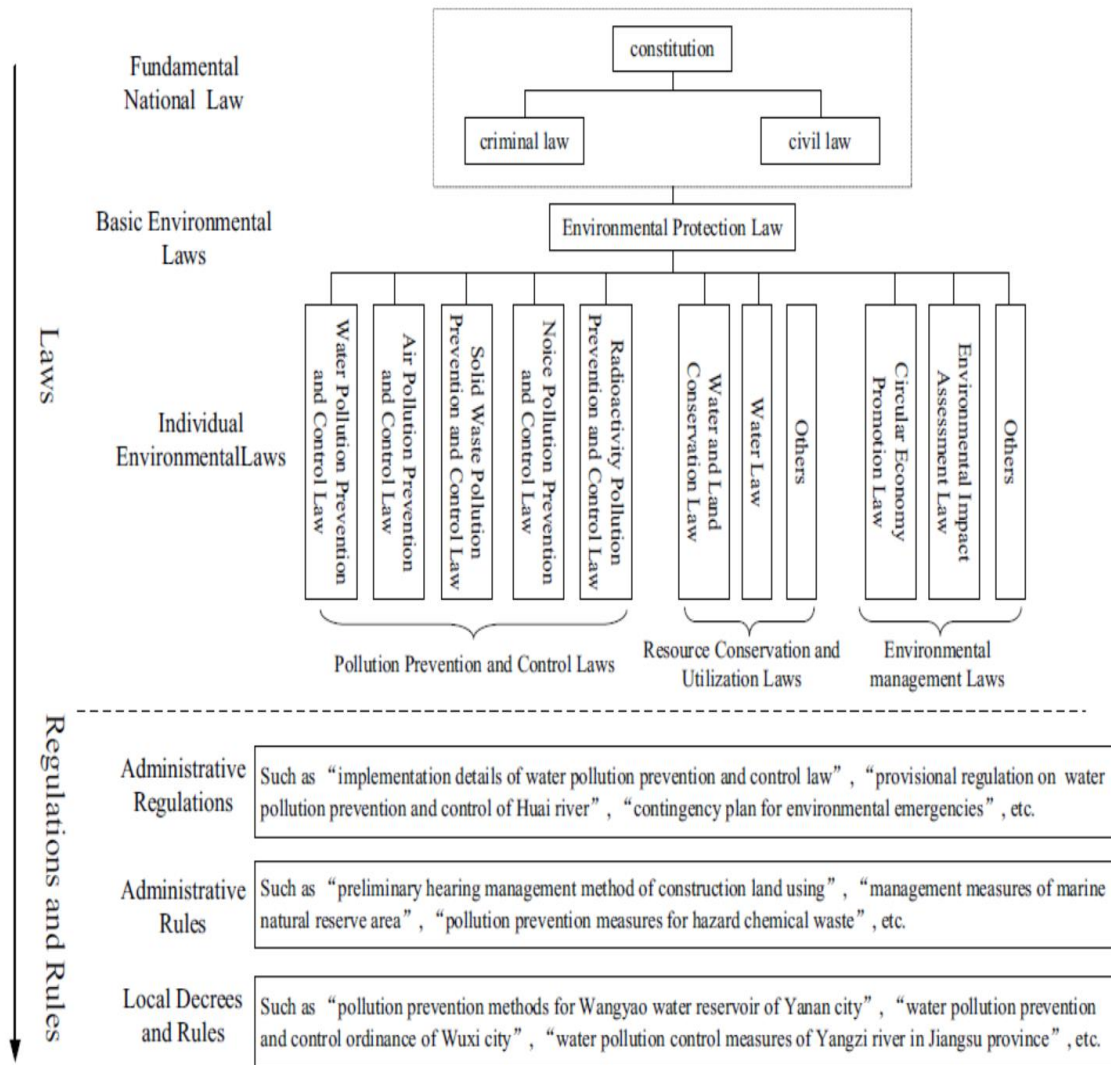
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		<ol style="list-style-type: none"><li>4. Huaihe River Water Resource Commission;</li><li>5. Pearl River Water Resource Commission;</li><li>6. Songliao Water Resource Commission; and</li><li>7. Taihu Drainage Basins Administration.</li></ol>
<b>Foreign Investment</b>		
<b>8.</b>	Ministry of Commerce ("MOFCOM") 中国商务部	The MOFCOM is involved whenever there is foreign participation in mining exploration and exploitation projects.



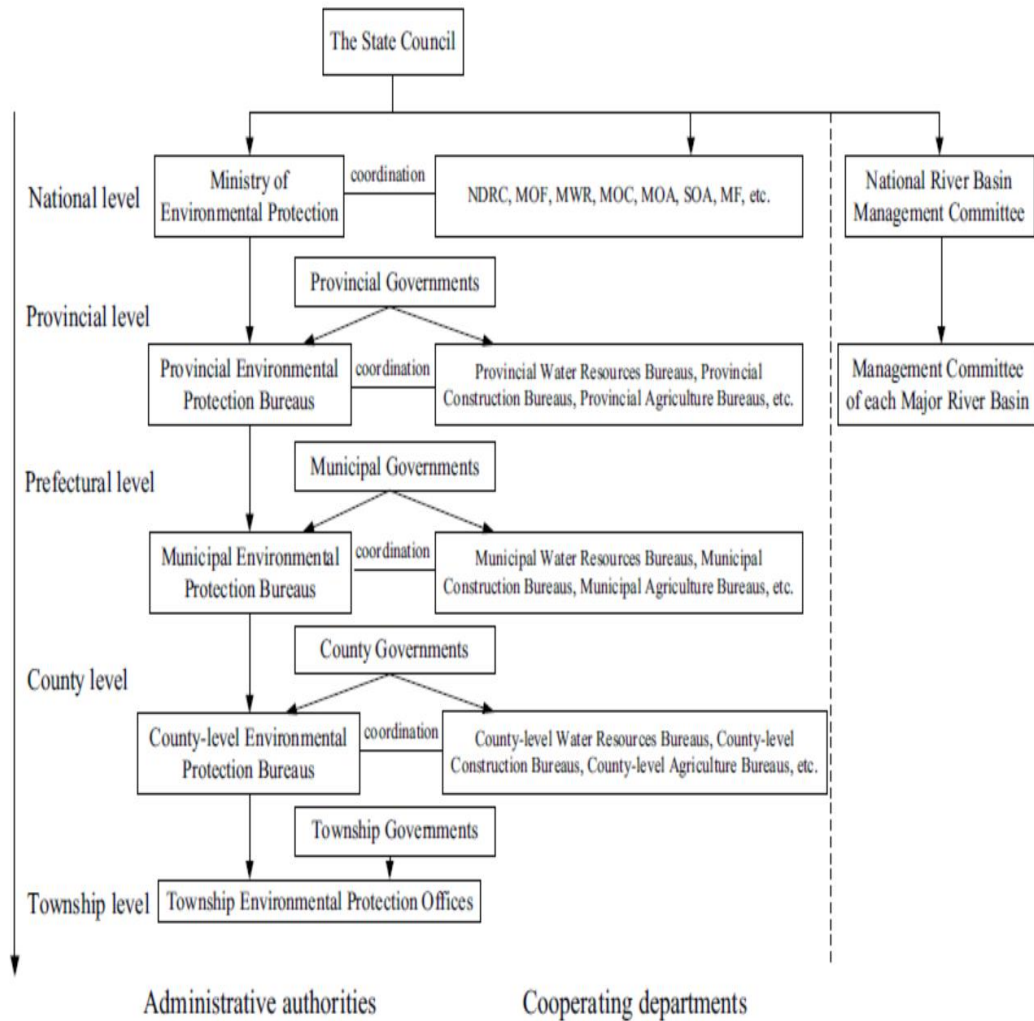
### C. Environmental Legal Framework in China



**Source: *Water Pollution Control in China: Review of law, regulations and policies and their implementation*, edited by Xin Zhou, Institute for Global Environmental Strategies, 17 April 2009, page 9.**



### D. Environmental Administration System in China

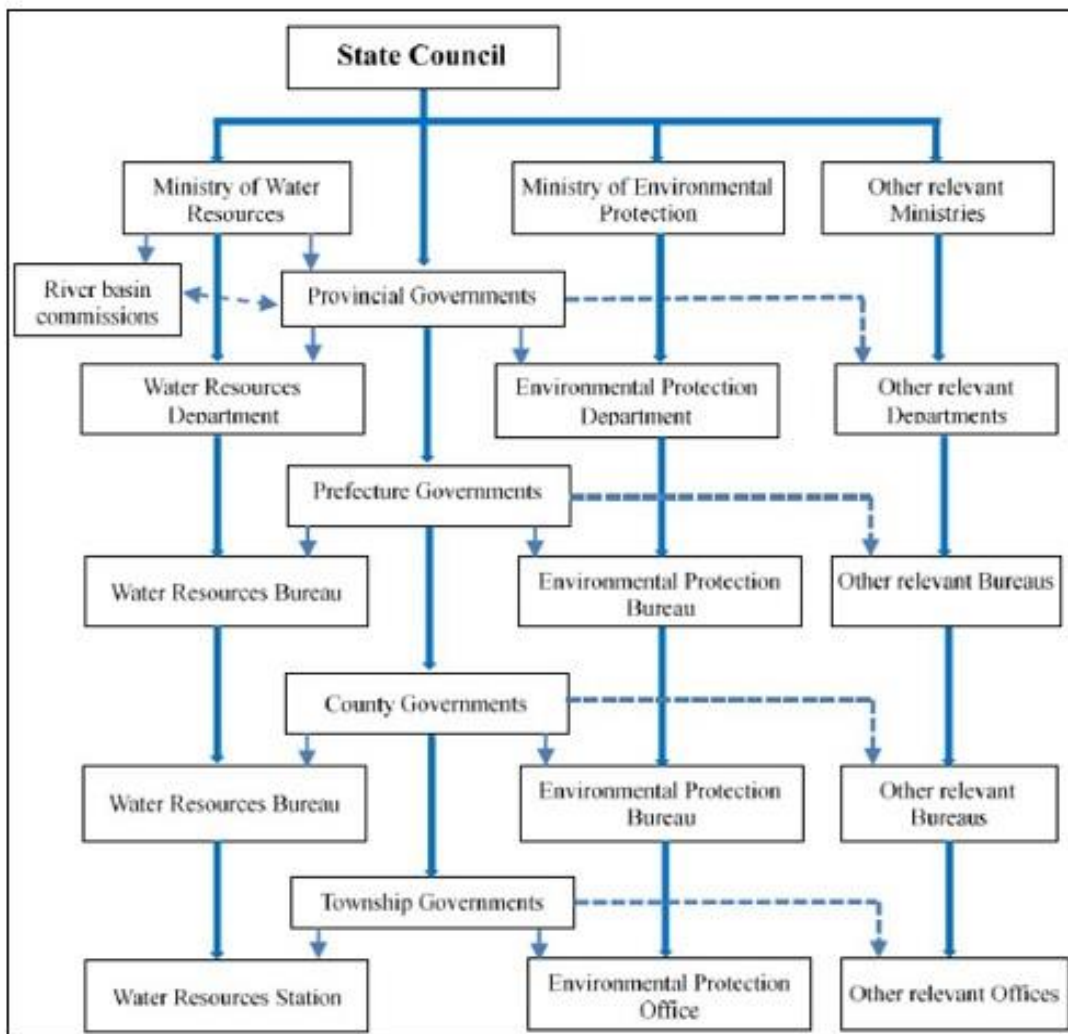


**Source: *Water Pollution Control in China: Review of law, regulations and policies and their implementation*, edited by Xin Zhou, Institute for Global Environmental Strategies, 17 April 2009, page 12.**



## E. Current Institutional Arrangement Related to Water Resources Management

### Current Institutional Arrangement Related to Water Resources Management



Source: CEWP Report "Technical Research on Integrated Permitting of Water Resources"