

CDP

CDP 2017 Water 2017 Information Request Freeport-McMoRan Inc.

Module: Introduction

Page: W0. Introduction

W0.1

Introduction

Please give a general description and introduction to your organization

Freeport-McMoRan Inc. (Freeport-McMoRan or the company) is a natural resource company with headquarters in Phoenix, Arizona. The company operates large long-lived geographically diverse assets with significant proven and probable reserves of copper, gold and molybdenum. We are the world's largest publicly traded copper producer.

The company's portfolio of metal assets includes the Grasberg minerals district in Indonesia, one of the world's largest copper and gold deposits, and significant mining operations in the Americas, including the large-scale Morenci minerals district in the United States and the Cerro Verde operation in Peru. Additional information about Freeport-McMoRan is available on our website at "fcx.com."

Our limited oil and gas assets in the Gulf of Mexico and offshore California are excluded from the boundary of this report. We sold our Tenke Fungurume mine site in the Democratic Republic of Congo in November 2016; this is the final year we will include this mine in our response. In May 2016, we sold a portion of our interest in our Morenci, Arizona mine site, reducing our ownership from 85 to 72 percent. For our mines where we have majority ownership, but less than 100 percent, we report the site's water usage on a 100 percent basis.

Our use of water is correlated to increases or decreases in site-specific mining production, which is generally related to global commodity prices and specific operating characteristics of our mines. Our current 5-year mine plans are expected to require increased total water use as a result of incremental expansions or increased ore processing at certain existing mines. As reported in Freeport-McMoRan's first quarter 2017 results presentation materials, our copper sales guidance is approximately 3.9 billion pounds for 2017 and 4.0 billion pounds in 2018. We maximize feasible water recycling rates within our growing copper production profile, including the 2015 expansion of our Morenci mine and 2016 commencement of expanded operations that tripled production at our Cerro Verde mine.

CAUTIONARY STATEMENT

This report contains forward-looking statements in which we discuss factors we believe may affect our performance in the future. Forward looking statements are all statements other than statements of historical facts, such as statements regarding projected production and sales volumes. We caution readers that our actual results may differ materially from those anticipated or projected in the forward-looking statements. Important factors that can cause our actual results to differ are described in Freeport-McMoRan's Annual Report on Form 10-K for the year ended December 31, 2016, filed with the Securities and Exchange Commission and available on our website at fcx.com.

W0.2

Reporting year

Please state the start and end date of the year for which you are reporting data

Period for which data is reported
Fri 01 Jan 2016 - Sat 31 Dec 2016

W0.3

Reporting boundary

Please indicate the category that describes the reporting boundary for companies, entities, or groups for which water-related impacts are reported

Companies, entities or groups over which financial control is exercised

W0.4

Exclusions

Are there any geographies, facilities or types of water inputs/outputs within this boundary which are not included in your disclosure?

Yes

W0.4a

Exclusions

Please report the exclusions in the following table

Exclusion	Please explain why you have made the exclusion
Oil and gas assets (business unit exclusion)	Our remaining oil and gas assets are excluded from this response boundary. While our oil and gas operations are excluded from the boundary of this report, we operate them in accordance with Freeport-McMoRan policies and governance structures. Operating in a highly-regulated industry in the U.S., our oil and gas operations maintain audited safety and environmental management systems and emergency response procedures.

Module: Current State

Page: W1. Context

W1.1

Please rate the importance (current and future) of water quality and water quantity to the success of your organization

Water quality and quantity	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Vital for operations	Neutral	Our mining operations require water for mining, ore processing and related support facilities. Most of our mining operations in North and South America are in arid regions. Continuous production at our mines is dependent on our ability to maintain our water rights and claims, and the continuing physical availability of water supplies.

Water quality and quantity	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of recycled, brackish and/or produced water available for use	Vital for operations	Neutral	In 2016, we used approximately 1,740,000 megaliters of water in our operating processes, of which approximately 80% was recycled water. The majority of our recycled water originates from reclaimed water capture at tailings storage facilities and leach pads. Our overall water use has remained relatively constant over the past five years, although 2016 water use increased as a result of reaching full operating capacity at the Cerro Verde copper mining operation following completion of a major expansion.

W1.2

For your total operations, please detail which of the following water aspects are regularly measured and monitored and provide an explanation as to why or why not

Water aspect	% of sites/facilities/operations	Please explain
Water withdrawals- total volumes	76-100	This data is collected and reported annually.
Water withdrawals- volume by sources	76-100	This data is collected and reported annually.
Water discharges- total volumes	76-100	This data is collected and reported annually. Most of the company mining operations are managed as zero-discharge facilities, so there are only a few facilities that actually discharge water.
Water discharges- volume by destination	76-100	This data is collected and reported annually.
Water discharges- volume by treatment method	76-100	This data is collected and reported annually.
Water discharge quality data- quality by standard effluent parameters	76-100	This data is collected and reported annually.
Water consumption- total volume	76-100	This data is collected and reported annually.

Water aspect	% of sites/facilities/operations	Please explain
Facilities providing fully-functioning WASH services for all workers	76-100	This data is collected and reported annually.

W1.2a

Water withdrawals: for the reporting year, please provide total water withdrawal data by source, across your operations

Source	Quantity (megaliters/year)	How does total water withdrawals for this source compare to the last reporting year?	Comment
Fresh surface water	121800	About the same	
Brackish surface water/seawater	0	Not applicable	
Rainwater	61300	About the same	
Groundwater - renewable	116000	About the same	
Groundwater - non-renewable	0	Not applicable	
Produced/process water	0	About the same	
Municipal supply	950	About the same	
Wastewater from another organization	29700	Much higher	In 2015, our Cerro Verde mine completed construction of a municipal wastewater treatment plant and began receiving treated wastewater. This volume increased significantly during 2016 with the completion of a major mine expansion that enabled Cerro Verde to triple its operating rate.
Total	329800	Higher	Minor increase in overall water withdrawals, primarily due to the Cerro Verde expansion that relies on sewage treatment effluent as one of its water sources.

W1.2b

Water discharges: for the reporting year, please provide total water discharge data by destination, across your operations

Destination	Quantity (megaliters/year)	How does total water discharged to this destination compare to the last reporting year?	Comment
Fresh surface water	121610	About the same	
Brackish surface water/seawater			
Groundwater			
Municipal/industrial wastewater treatment plant			
Wastewater for another organization			
Total	121610	About the same	

W1.2c

Water consumption: for the reporting year, please provide total water consumption data, across your operations

Consumption (megaliters/year)	How does this consumption figure compare to the last reporting year?	Comment
1738300	Higher	Minor increase in overall water use, primarily due to the completion of a major mine expansion at Cerro Verde and achievement of full operating capacity.

W1.3

Do you request your suppliers to report on their water use, risks and/or management?

No

W1.3b

Please choose the option that best explains why you do not request your suppliers to report on their water use, risks and/or management

Primary reason	Please explain
Other:	Mining is at the base of the manufacturing value chain and therefore we directly evaluate water use, risk and management as a core component of our own business. We have reviewed public disclosures of our key suppliers and from that review we have not identified any water-related risks that could materially impact our business. Supply chain exposure to water-related risks may include changes in precipitation patterns/sea levels/storm intensities, water shortages and new or modified regulations. Severe weather events in recent years have had short-term impacts on transportation systems that impact getting operational supplies to our mines as well as getting our concentrates and cathodes to our customers.

W1.4

Has your organization experienced any detrimental impacts related to water in the reporting year?

No

Further Information

Water quantities displayed in W.1.2a, W.1.2.b, and W.1.2.c are rounded to the nearest 100 megaliters for all quantities above 1,000 megaliters and to the nearest 10 megaliters for all volumes below 1,000 megaliters.

Module: Risk Assessment

Page: W2. Procedures and Requirements

W2.1

Does your organization undertake a water-related risk assessment?

Water risks are assessed

W2.2

Please select the options that best describe your procedures with regard to assessing water risks

Risk assessment procedure	Coverage	Scale	Please explain
Comprehensive company-wide risk assessment	Direct operations and supply chain	All facilities	Water is integrated into a comprehensive, company-wide risk assessment process incorporating both direct operations and our value chain (upstream supplier and downstream consumer influences). The company relies on its Sustainable Development (SD) Risk Register process to assess risks in our value chain, including water issues as applicable. Freeport-McMoRan takes both a current and long-term view on securing water supplies that address changing water use patterns and changing risks and opportunities for future sources of water.

W2.3

Please state how frequently you undertake water risk assessments, at what geographical scale and how far into the future you consider risks for each assessment

Frequency	Geographic scale	How far into the future are risks considered?	Comment
Annually	Facility	>6 years	Our SD Risk Register process facilitates identification of key risks and opportunities. Certainty of water supplies and efficient management are identified as sustainability focus areas for our business and outlined in our 2016 Working Toward Sustainability Development Report (www.fcx.com).
Annually	Facility	>6 years	Water risks are included in Freeport-McMoRan's operational risk factors that are outlined in its annual report on Form 10-K.
Annually	Facility	>6 years	Mining operations in arid regions use hydrologic modelling analysis to evaluate long-term water supply availability and regional water supply risks; we also use operational-based models to understand water use, identify recycling opportunities, identify operational losses such as evaporation, and develop management practices that maximize efficient use of water. This is an ongoing process.

W2.4

Have you evaluated how water risks could affect the success (viability, constraints) of your organization's growth strategy?

Yes, evaluated over the next 10 years

W2.4a

Please explain how your organization evaluated the effects of water risks on the success (viability, constraints) of your organization's growth strategy?

Project planning and our project life-cycles can span decades. We consider early and effective management with stakeholders critical for creating mutually beneficial opportunities and reducing sustainability risks to our plans. The Freeport-McMoRan SD Risk Register program is an ongoing program designed for operations and the corporate office to identify key sustainability-related risks or opportunities at any given time.

W2.5

Please state the methods used to assess water risks

Method	Please explain how these methods are used in your risk assessment
Internal company knowledge	Our SD Risk Register process assists in prioritizing safety, environmental, social, economic and value chain challenges and opportunities. As our operations identify and track key actions and milestones toward reducing sustainability-related risks, this process enhances decision making regarding operational planning and resource allocation. In addition, our Freeport-McMoRan SD Leadership Team maintains a standing agenda item on water topics as part of its meetings. This includes updates on multiple actions taken to mitigate future water supply risks. The SD Leadership team is sponsored by our Executive Vice President and Chief Administrative Officer and is led by our Vice President Environmental Services and Sustainable Development. The team includes our Chief Operating Officer, our business unit presidents and senior personnel from the safety, supply chain, human resources, sales, compliance, security and land and water functions. Accordingly, we seek strategic partnerships with host governments, communities and development partners to ensure the viability of our projects while delivering meaningful benefits. We explore opportunities with stakeholders as we continue to make long-term investments in water supply projects to support our operating and growth plans.

W2.6

Which of the following contextual issues are always factored into your organization's water risk assessments?

Issues	Choose option	Please explain
Current water availability and quality parameters at a local level	Relevant, included	Our SD Risk Register process assists in prioritizing safety, environmental, social, economic and value chain challenges and opportunities. Under this process, local cross-functional management teams utilize a matrix of consequence categories ranging from community or environmental impacts to reputational impacts. As our operations identify and track key actions and milestones toward reducing sustainability-related risks, this process enhances decision making regarding operational planning and

Issues	Choose option	Please explain
		resource allocation. In addition, our Freeport-McMoRan SD Leadership Team maintains a standing agenda item on water topics as part of its meetings. This includes updates on multiple actions taken to mitigate future water supply risks.
Current water regulatory frameworks and tariffs at a local level	Relevant, included	See explanation above regarding the SD Risk Register process.
Current stakeholder conflicts concerning water resources at a local level	Relevant, included	See explanation above regarding the SD Risk Register process.
Current implications of water on your key commodities/raw materials	Relevant, included	See explanation above regarding the SD) Risk Register process.
Current status of ecosystems and habitats at a local level	Relevant, included	See explanation above regarding the SD Risk Register process.
Current river basin management plans	Relevant, included	See explanation above regarding the SD Risk Register process.
Current access to fully-functioning WASH services for all employees	Relevant, included	See explanation above regarding the SD Risk Register process.
Estimates of future changes in water availability at a local level	Relevant, included	Although the potential physical impacts of climate change on our operations are highly uncertain, operations in arid regions conduct annual scenario planning to evaluate hypothetical reductions in total water availability and hypothetical extreme precipitation events, either of which could temporarily impact mine production.
Estimates of future potential regulatory changes at a local level	Relevant, included	See explanation above regarding the SD Risk Register process. Although each of our mining operations currently has access to sufficient water supplies to support current operational demands, some supplies are subject to unresolved claims by others through ongoing legal proceedings. We cannot predict the potential outcome of pending or future proceedings with respect to water rights. We are taking action to mitigate related future risks.
Estimates of future potential stakeholder conflicts at a local level	Relevant, included	See explanation above regarding the SD Risk Register process. Although each of our mining operations currently has access to sufficient water supplies to support current operational demands, some supplies are subject to unresolved claims by others through ongoing legal proceedings. We cannot predict the potential outcome of pending or future proceedings with respect to water rights. We are taking action to mitigate related future risks. We consider early and effective engagement with local stakeholders critical for creating mutually beneficial opportunities and reducing sustainability risks, including those related to water.
Estimates of future implications of water on your key commodities/raw materials	Relevant, included	See explanation above regarding the SD Risk Register process.

Issues	Choose option	Please explain
Estimates of future potential changes in the status of ecosystems and habitats at a local level	Relevant, included	See explanation above regarding the SD Risk Register process. The process includes an assessment of potential risks or opportunities associated with biodiversity.
Scenario analysis of availability of sufficient quantity and quality of water relevant for your operations at a local level	Relevant, included	See explanation above regarding the SD Risk Register process. Although the potential physical impacts of climate change on our operations are highly uncertain, operations in arid regions conduct annual scenario planning to evaluate hypothetical reductions in total water availability and hypothetical extreme precipitation events, either of which could temporarily impact mine production.
Scenario analysis of regulatory and/or tariff changes at a local level	Relevant, included	See explanation above regarding the SD Risk Register process. Although each of our mining operations currently has access to sufficient water supplies to support current operational demands, some supplies are subject to unresolved claims by others through ongoing legal proceedings. We cannot predict the potential outcome of pending or future proceedings with respect to water rights. We are taking action to mitigate related future risks.
Scenario analysis of stakeholder conflicts concerning water resources at a local level	Relevant, included	See explanation above regarding the SD Risk Register process. Although each of our mining operations currently has access to sufficient water supplies to support current operational demands, some supplies are subject to unresolved claims by others through ongoing legal proceedings. We cannot predict the potential outcome of pending or future proceedings with respect to water rights. We consider early and effective engagement with local stakeholders critical for creating mutually beneficial opportunities and reducing sustainability risks, including those related to water. This includes stakeholder mapping and engagement strategies implemented as part of our 5-year community plans.
Scenario analysis of implications of water on your key commodities/raw materials	Relevant, included	See explanation above regarding the SD Risk Register process.
Scenario analysis of potential changes in the status of ecosystems and habitats at a local level	Relevant, included	Operating mines have developed biodiversity management plans and land management plans to incorporate biodiversity related considerations and incorporate site-specific planning processes to minimize adverse impacts to biodiversity where possible.
Other		

W2.7

Which of the following stakeholders are always factored into your organization's water risk assessments?

Stakeholder	Choose option	Please explain
Customers	Relevant, included	Certain customers at various downstream layers of the value chain request information concerning water use and management, including at specific operations. This engagement helps inform our assessment of water related risks.
Employees	Relevant, included	The SD Risk Register process described above takes into consideration our employees. In addition, our employees conduct and maintain our assessments and resulting actions with respect to water.
Investors	Relevant, included	Our corporate SD department engages frequently with the socially responsible investment community, including dialogue on our water programs and projects. Viewpoints and suggestions are considered on an ongoing basis including directly into our Sustainable Development Risk Register process as well as our GRI G4 materiality prioritization process. The feedback we receive is important to continually inform and improve our reporting on sustainability programs, including our work with respect to water.
Local communities	Relevant, included	Communities are often primary stakeholders whose input we evaluate in our SD Risk Register process at the local level. For example, our Cerro Verde operation completed construction of a wastewater treatment plant for Arequipa, Peru as part of its large-scale expansion, and obtained authorization to reuse an annual average of one cubic meter per second of the treated water. Through local stakeholder engagement, the outcome has been a "win-win" for the local community, regional government and Cerro Verde. The company has also supported multiple projects to sustain and improve the Gila, San Francisco and Blue River River watersheds in Arizona by improving infrastructure and increasing community education and engagement around water conservation.
NGOs	Relevant, included	The SD Risk Register process described above takes into consideration the views of NGOs and the work of certain NGOs with respect to water issues.
Other water users at a local level	Relevant, included	The SD Risk Register process described above is designed to evaluate views and plans of any stakeholder group, as applicable, including other municipal and agricultural water users.
Regulators		The SD Risk Register process takes into account the water laws and regulations that are applicable to the development and preservation of sustainable water supplies for our mine operations. As part of this effort and where applicable, we interact with local, state and federal regulatory agencies along with tribal governments as key stakeholders whose input and views we evaluate through our SD Risk Register process. In some cases, we participate in stakeholder groups led by these agencies or governments.
River basin management authorities		Where applicable, river basin management authorities are key stakeholders, in the same manner as regulatory agencies and tribal governments, whose input and views we evaluate through our the SD Risk Register process. In some cases, we participate in stakeholder groups led by river basin management authorities.
Statutory special interest groups at a local level	Relevant, included	Local and regional stakeholders are often primary stakeholders whose input and views we evaluate in our SD Risk Register process at the local operating level. We monitor actions of others that create either risk to our operation or future water supplies.
Suppliers	Relevant, included	The SD Risk Register process assists in prioritizing safety, environmental, social, economic and value chain challenges and opportunities. Through this process, we monitor the potential for risks in the value chain (upstream supplier and downstream customer influences), including water-related risks if applicable.

Stakeholder	Choose option	Please explain
Water utilities at a local level	Relevant, included	The SD Risk Register process described above takes into consideration the views of water utilities and suppliers with respect to water issues.
Other		

Module: Implications

Page: W3. Water Risks

W3.1

Is your organization exposed to water risks, either current and/or future, that could generate a substantive change in your business, operations, revenue or expenditure?

Yes, direct operations only

W3.2

Please provide details as to how your organization defines substantive change in your business, operations, revenue or expenditure from water risk

A substantive risk could include, but may not be limited to, a curtailment or disruption of mine production, prevention of mine expansion opportunities, increased capital expenditure and operational maintenance costs associated with development of alternate and renewable water supplies, or increased capital expenditures and increased operating costs associated with water quality programs and technologies.

Please see additional information in the Risk Factors section of our 2016 Form 10-K.

W3.2a

Please provide the number of facilities* per river basin exposed to water risks that could generate a substantive change in your business, operations, revenue or expenditure; and the proportion of company-wide facilities this represents

Country	River basin	Number of facilities exposed to water risk	Proportion of company-wide facilities that this represents (%)	Comment
United States of America	Colorado River (Pacific Ocean)	9	61-70	Based on percentage of the Freeport-McMoRan's active mine operations globally.
Chile	Other: Ascotan salt flat drainage basin	1	6-10	Based on percentage of the Freeport-McMoRan's active mine operations globally.
Peru	Other: Chili River	1	6-10	Based on percentage of the Freeport-McMoRan's active mine operations globally.
Indonesia	Other: Ajkwa	1	6-10	Based on percentage of the Freeport-McMoRan's active mine operations globally.

W3.2b

For each river basin mentioned in W3.2a, please provide the proportion of the company's total financial value that could be affected by water risks

Country	River basin	Financial reporting metric	Proportion of chosen metric that could be affected	Comment
United States of America	Colorado River (Pacific Ocean)	% global production capacity	31-40	Measured as a percentage of copper equivalent global production
Chile	Other: Ascotan salt flat drainage basin	% global production capacity	1-5	Measured as a percentage of copper equivalent global production

Country	River basin	Financial reporting metric	Proportion of chosen metric that could be affected	Comment
Peru	Other: Chili River	% global production capacity	21-30	Measured as a percentage of copper equivalent global production
Indonesia	Other: Ajkwa	% global production capacity	21-30	Measured as a percentage of copper equivalent global production

W3.2c

Please list the inherent water risks that could generate a substantive change in your business, operations, revenue or expenditure, the potential impact to your direct operations and the strategies to mitigate them

Country	United States of America
River basin	Colorado River (Pacific Ocean)
Risk driver	Regulatory-Regulatory uncertainty
Potential impact	Other: see description of impact
Description of potential impact	In the arid western U.S. water rights are often contested, and disputes are generally time-consuming, expensive and not necessarily dispositive unless they resolve both actual and potential claims. The loss of a water right or a continued use of a currently available water supply, or the inability to expand our water resources could materially and adversely affect our mining operations by increasing costs, forcing us to curtail operations, prevent expansions or forcing premature closures.
Timeframe	Unknown
Likelihood	Unknown
Magnitude of potential financial impact	Unknown
Response Strategy	Other: see details of strategy
Costs of response strategy	Unknown
Details of strategy and costs	In response to the business continuity risk, our company continues to explore opportunities to augment existing water supplies and to complete water right settlement agreements that secure existing water supplies. Mining sites in arid regions also maintain hydrologic and operational-based models to better understand water use, identify recycling opportunities, identify losses within the operation, and develop management practices that maximize efficient water use. The company also remains an active participant in ongoing water rights adjudication proceedings and in litigation over federal reserved water rights claims, both of which are currently ongoing in Arizona.

Country	United States of America
River basin	Colorado River (Pacific Ocean)
Risk driver	Physical-Increased water scarcity
Potential impact	Other: see description of impact
Description of potential impact	Our operations in the western U.S. require long-term and reliable quantities of water. The loss of a water right or a continued use of a currently available water supply, or the inability to expand our water resources could materially and adversely affect our mining operations by increasing costs, forcing us to curtail operations, prevent expansions or forcing premature closures.
Timeframe	Unknown
Likelihood	Unknown
Magnitude of potential financial impact	Unknown
Response Strategy	Other: see details of strategy
Costs of response strategy	Unknown
Details of strategy and costs	In response to the business continuity risk, our company continues to explore opportunities to augment existing water supplies. Mining sites in arid regions also maintain hydrologic and operational-based models to better understand water use, identify recycling opportunities, identify losses within the operation, and develop management practices that maximize efficient water use.

Country	United States of America
River basin	Colorado River (Pacific Ocean)
Risk driver	Regulatory-Statutory water withdrawal limits/changes to water allocation
Potential impact	Other: see description of impact
Description of potential impact	In the arid western U.S. water rights are often contested, and disputes are generally time-consuming, expensive and not necessarily dispositive unless they resolve both actual and potential claims. The loss of a water right or a continued use of a currently available water supply, or the inability to expand our water resources could materially and adversely affect our mining operations by increasing costs, forcing us to curtail operations, prevent expansions or forcing premature closures.
Timeframe	Unknown
Likelihood	Unknown
Magnitude of potential financial impact	Unknown
Response Strategy	Other: see details of strategy
Costs of response strategy	Unknown
Details of strategy and costs	In response to the business continuity risk, our company continues to explore opportunities to augment existing water supplies and to complete water right settlement agreements that secure existing water supplies. Mining sites in arid regions also maintain hydrologic and operational-based models to better understand water use, identify recycling opportunities, identify losses within the operation, and develop management practices that maximize efficient water use.

Country	United States of America
River basin	Colorado River (Pacific Ocean)
Risk driver	Physical-Flooding
Potential impact	Other: see description of impact
Description of potential impact	Potential short-term interruptions to business operations and potential safety hazard.
Timeframe	Unknown
Likelihood	Unknown
Magnitude of potential financial impact	Unknown
Response Strategy	Other: see details of strategy
Costs of response strategy	Unknown
Details of strategy and costs	While overall rainfall events can be infrequent and short-term in nature, large volumes of water can accumulate from isolated heavy rainfall events. Business interruption can also stem from higher intensity, short duration storms. These isolated events can produce negative, but generally non-material, effects on mining and production rates. Evaporation and other water management activities have been developed to varying degrees at these sites to help reduce the volume of captured stormwater.

Country	United States of America
River basin	Other: Arizona tributaries to Colorado River (Pacific Ocean)
Risk driver	Reputational-Litigation
Potential impact	Other: see description of impact
Description of potential impact	In the arid western U.S. water rights are often contested, and disputes are generally time-consuming, expensive and not necessarily dispositive unless they resolve both actual and potential claims. The loss of a water right or a continued use of a currently available water supply, or the inability to expand our water resources could materially and adversely affect our mining operations by increasing costs, forcing us to curtail operations, prevent expansions or forcing premature closures.
Timeframe	Unknown
Likelihood	Unknown
Magnitude of potential financial impact	Unknown
Response Strategy	
Costs of response strategy	Unknown
Details of strategy and costs	In Arizona, we are a participant in one active general stream adjudication in which, for over 40 years, the Arizona courts have been attempting to quantify and prioritize surface water claims for the state's largest river system, which affect our operating mines at Morenci, Safford, Sierrita and Miami. Litigation results could be material to the company as described in our 2016 Form 10-K, Part I. Item 3 (Legal Proceedings), page 53-55.

Country	Chile
River basin	Other: Ascotan salt flat drainage basin
Risk driver	Physical-Increased water scarcity
Potential impact	Other: see description of impact
Description of potential impact	Curtailed mine production and prevention of mine expansion opportunities, increased capital expenditures and operational maintenance costs associated with development of alternative, renewable water supplies.
Timeframe	Unknown
Likelihood	Unknown
Magnitude of potential financial impact	Unknown
Response Strategy	Other: see details of strategy
Costs of response strategy	High
Details of strategy and costs	El Abra has sufficient water rights to support current operations, but a change to the project, such as increased production or mill processing, would require additional water beyond our current groundwater pumping. In response, El Abra is studying the feasibility of constructing a seawater desalination plant to support possible increased sulfide ore production or mill processing.

Country	Chile
River basin	Other: Ascotan salt flat drainage basin
Risk driver	Regulatory-Regulatory uncertainty
Potential impact	Other: see description of impact
Description of potential impact	The loss of a water right or a continued use of a currently available water supply, or the inability to expand our water resources could materially and adversely affect our mining operations by increasing costs, forcing us to curtail operations, prevent expansions or forcing premature closures.
Timeframe	Unknown
Likelihood	Unknown
Magnitude of potential financial impact	Unknown
Response Strategy	Other: see details of strategy
Costs of response strategy	High
Details of strategy and costs	Our El Abra operation, near Calama, Chile is conducting studies to assess the feasibility of constructing a desalination plant to treat seawater for potential use for sulfide ore production or mill processing.

Country	Chile
River basin	Other: Ascotan salt flat drainage basin
Risk driver	Regulatory-Statutory water withdrawal limits/changes to water allocation
Potential impact	Other: see description of impact
Description of potential impact	The loss of a water right or a continued use of a currently available water supply, or the inability to expand our water resources could materially and adversely affect our mining operations by increasing costs, forcing us to curtail operations, prevent expansions or forcing premature closures.
Timeframe	Unknown
Likelihood	Unknown
Magnitude of potential financial impact	Unknown
Response Strategy	Other: see details of strategy
Costs of response strategy	High
Details of strategy and costs	Our El Abra operation, near Calama, Chile is conducting studies to assess the feasibility of constructing a desalination plant to treat seawater for potential use for sulfide ore production or mill processing.

Country	Peru
River basin	Other: Chili River
Risk driver	Physical-Increased water scarcity
Potential impact	Other: see description of impact
Description of potential impact	Water for our Cerro Verde operations comes from renewable sources through a series of storage reservoirs on the Chili River watershed that collect water primarily from seasonal precipitation.
Timeframe	Unknown
Likelihood	Unlikely
Magnitude of potential financial impact	Unknown
Response Strategy	Other: see details of strategy
Costs of response strategy	Response strategy has been funded and implemented
Details of strategy and costs	Cerro Verde has achieved full capacity operating rates for its recent major expansion of copper mining operations, located near Arequipa - Peru's second largest city. With a lack of adequate wastewater treatment infrastructure in the city, Cerro Verde financed the design and construction of one of the most advanced wastewater collection systems and treatment plants (WWTP) in the country through a public/private partnership. The WWTP is designed to treat approximately 90% of Arequipa's domestic sewage and industrial discharges that previously reported directly into the Rio Chili. Cerro Verde now will use an annual average of 1 cubic meter per second of the treated wastewater from the WWTP to support its expanding ore processing operation and the remaining water will be discharged back into the Rio Chili for downstream uses.

Country	Indonesia
River basin	Other: Ajkwa
Risk driver	Physical-Flooding
Potential impact	Other: see description of impact
Description of potential impact	Potential interruptions to business operations and potential safety hazard.
Timeframe	Unknown
Likelihood	Unknown
Magnitude of potential financial impact	Unknown
Response Strategy	Other: see details of strategy
Costs of response strategy	Unknown
Details of strategy and costs	The Grasberg Mine is located in steep, mountainous terrain that experiences average annual rainfall of approximately 200 inches, leading to periodic mudslides.

W3.2f

Please choose the option that best explains why you do not consider your organization to be exposed to water risks in your supply chain that could generate a substantive change in your business, operations, revenue or expenditure

Primary reason	Please explain
Risks exist, but no substantive impact anticipated	Mining is at the base of the value chain and therefore we directly evaluate water use, risk and management as a core component of our own business. We have reviewed public disclosures of our key suppliers and from that we have not identified any water-related risks that could materially impact our business. Supply chain exposure to water-related risks may include changes in precipitation patterns, sea levels, storm patterns, storm intensities, water shortages, and new or modified regulations.

Page: W4. Water Opportunities

W4.1

Does water present strategic, operational or market opportunities that substantively benefit/have the potential to benefit your organization?

Yes

W4.1a

Please describe the opportunities water presents to your organization and your strategies to realize them

Country or region	Opportunity	Strategy to realize opportunity	Estimated timeframe	Comment
Peru	Climate change adaptation Improved community relations Improved water efficiency Social licence to operate	Construction of a local wastewater treatment plant to supplement existing water supplies for operations while benefitting the local community of Arequipa, Peru.	Current-up to 1 year	In 2015, our Cerro Verde operation, as part of a large-scale mine expansion, completed construction of a wastewater treatment plant for the city of Arequipa, Peru. This plant improves regional water quality, reduces waterborne illnesses and enhances the value of local agricultural products while providing water for this operational expansion. Cerro Verde also funded the development of an expandable water treatment facility which now provides local residents 24-hour access to potable water.
United States of America	Climate change adaptation Improved community relations Improved water efficiency Social licence	During 2016, Freeport-McMoRan stored about 16,600 acre-feet (20,500 megaliters) of renewable surface water supplies at Groundwater Savings Facilities (GSFs) within Arizona for the purpose of accruing Long-Term Storage Credits that can later be withdrawn to support existing operations or potential future mine expansions at many of our Arizona operations. Through this effort, Freeport-McMoRan arranges to have a	Current-up to 1 year	Recharge is a means of storing excess renewable water supplies so that they may be used in the future. Artificial recharge and the use of GSFs is an increasingly important tool in the management of Arizona's water supplies. Storing water underground to ensure an adequate supply for the purpose of satisfying current and future needs is both practical and cost-effective in our desert environment. This exercise also results in

Country or region	Opportunity	Strategy to realize opportunity	Estimated timeframe	Comment
	to operate Other: Water supply augmentation	renewable surface water allocation (Central Arizona Project water), which is secured under long-term leases with Tribal entities, delivered as "in-lieu" water to a recipient within the GSFs who then agree to replace their own groundwater pumping with the in lieu water, thus creating a groundwater savings.		reducing current groundwater demands in the state while encouraging the development of beneficial partnerships between various entities across the diverse water use sectors in Arizona.
United States of America	Improved community relations Regulatory changes Social licence to operate Other: Regulatory certainty	During 2015, Freeport-McMoRan completed a water rights settlement agreement with the Hualapai Tribe along with other federal and state parties. This settlement secures legal rights to over 70 percent of the make-up water supplies that support Freeport's Bagdad operations.	Current-up to 1 year	In December 2015, the U.S. Secretary of Interior Sally Jewel issued a Record of Decision that finalized the Bill Williams Water Rights Settlement Act of 2014 (Act). The Act provided for a settlement of water rights disputes between the Hualapai Tribe (Tribe), the United States (acting on behalf of the Tribe), Freeport's Bagdad operation, and the State of Arizona's Game and Fish Department in the Bill Williams River watershed in Arizona. The settlement provides the Tribe with the means to purchase future water supplies to Tribal members. Additionally, the settlement provided for the transfer of a portion of Freeport's Planet Ranch property and water rights to support the Multi-Species Conservation Program (MSCP). The MSCP is a multi-state mitigation program that sets aside lands for species and habitat conservation to offset water and power operations in the Lower Colorado River Basin. The settlement further provides each party with protection against future water rights disputes and litigation. Finally, the settlement secures Freeport's water rights for over 70% of Bagdad's make-up water supplies. The company is now entering a second phase settlement with the various regulatory agencies to obtain legal certainty for the remaining 30% of Bagdad's make-up water supplies.
United States of America	Climate change adaptation Improved community relations Improved water	During 2015, Freeport-McMoRan entered into an agreement with farmers in southern Arizona to build a pipeline to bring renewable Colorado River water to farm fields in close proximity to the Company's Sierrita mine operation.	Current-up to 1 year	During 2016, the company has begun design and construction of a water pipeline in partnership with farmers in southern Arizona that will bring renewable Colorado River water to farm fields reducing the farmers' dependence on groundwater, while at the same time

Country or region	Opportunity	Strategy to realize opportunity	Estimated timeframe	Comment
	efficiency Other: Water supply augmentation			providing the company with future renewable water supply credits.

Module: Accounting

Page: W5. Facility Level Water Accounting (I)

W5.1

Water withdrawals: for the reporting year, please complete the table below with water accounting data for all facilities included in your answer to W3.2a

Facility reference number	Country	River basin	Facility name	Total water withdrawals (megaliters/year) at this facility	How does the total water withdrawals at this facility compare to the last reporting year?	Please explain
Facility 1	United States of America	Colorado River (Pacific Ocean)	includes 9 active mine operations located in Arizona, Colorado and New Mexico	124200	About the same	

Facility reference number	Country	River basin	Facility name	Total water withdrawals (megaliters/year) at this facility	How does the total water withdrawals at this facility compare to the last reporting year?	Please explain
Facility 2	Indonesia	Other: Ajkwa	Grasberg mine	53300	Higher	Due to low precipitation and El Nino water conditions in 2015, the mine used higher densities in its mining process to conserve water. Higher precipitation volumes occurred in 2016.
Facility 3	Chile	Other: Ascotan salt flat drainage	El Abra mine	4900	Lower	Decreased water use resulting from reduced mine production in 2016 in response to market conditions.
Facility 4	Peru	Other: Chili	Cerro Verde mine	62200	Higher	Increased water use due to start up of mine expansion project.
Facility 5	Congo, Democratic Republic of the	Congo	Tenke Fungarume mine	27400	Higher	Increased water use due to mine expansion and additional dust control requirements.
Facility 6	Spain	Other: Odiel	Atlantic Copper smelter and refinery	54600	About the same	
Facility 7	Finland	Other: Perhonjoki	Kokkola	3200	About the same	
Facility 8	Netherlands	Rhine	Rotterdam	140	About the same	
Facility 9	United Kingdom	Other: Gipping	Stowmarket	10	About the same	

Further Information

Water quantities displayed in W5.1 are rounded to the nearest 100 megaliters for all quantities above 1,000 megaliters and to the nearest 10 megaliters for all volumes below 100 megaliters. Facility #1 additional notes - future increases may be offset to some degree with additional use of recycled water as opportunities for water efficiencies are available.

Page: W5. Facility Level Water Accounting (II)

W5.1a

Water withdrawals: for the reporting year, please provide withdrawal data, in megaliters per year, for the water sources used for all facilities reported in W5.1

Facility reference number	Fresh surface water	Brackish surface water/seawater	Rainwater	Groundwater (renewable)	Groundwater (non-renewable)	Produced/process water	Municipal water	Wastewater from another organization	Comment
Facility 1	24200	0	27600	69900	0	0	770	1700	
Facility 2	7000	0	21000	25300	0	0	0	0	Due to low precipitation and El Nino water conditions in 2015, the mine ran at higher than normal densities (% solids) to conserve water and maximize mill throughput and production. With higher precipitation in 2016 and increased storm water availability, the mill/concentrator ran at normal densities which increased groundwater use.
Facility 3	0	0	190	4700	0	0	0	0	Decreased groundwater use resulting from reduced mine production in 2016 in response to market conditions.

Facility reference number	Fresh surface water	Brackish surface water/seawater	Rainwater	Groundwater (renewable)	Groundwater (non-renewable)	Produced/process water	Municipal water	Wastewater from another organization	Comment
Facility 4	32900	0	240	1000	0	0	0	28100	Increased municipal wastewater use due to start up of mine expansion project.
Facility 5	10	0	12300	15100	0	0	0	0	Increased groundwater use due to mine expansion and additional dust control requirements.
Facility 6	54600	0	0	0	0	0	30	0	
Facility 7	3200	0	0	0	0	0	0	0	
Facility 8	0	0	0	0	0	0	140	0	
Facility 9	0	0	0	0	0	0	10	0	

W5.2

Water discharge: for the reporting year, please complete the table below with water accounting data for all facilities included in your answer to W3.2a

Facility reference number	Total water discharged (megaliters/year) at this facility	How does the total water discharged at this facility compare to the last reporting year?	Please explain
Facility 1	15000	About the same	
Facility 2	44600	About the same	
Facility 3	0	About the same	
Facility 4	0	About the same	

Facility reference number	Total water discharged (megaliters/year) at this facility	How does the total water discharged at this facility compare to the last reporting year?	Please explain
Facility 5	5300	Higher	Increased discharges for the Tenke Fungarume facility were due to expansion of mine operations and additional pit dewatering.
Facility 6	53200	About the same	
Facility 7	3500	About the same	Water discharges for the Kokkola facility were inadvertently omitted in the 2015 report and amounted to approximately 3,100 megaliters. Upon comparison, the 2015 and 2016 water discharges are about the same.
Facility 8	10	About the same	
Facility 9	0	About the same	

W5.2a

Water discharge: for the reporting year, please provide water discharge data, in megaliters per year, by destination for all facilities reported in W5.2

Facility reference number	Fresh surface water	Municipal/industrial wastewater treatment plant	Seawater	Groundwater	Wastewater for another organization	Comment
Facility 1	15000					
Facility 2	44600					
Facility 3	0					
Facility 4	0					
Facility 5	5300					
Facility 6	53200					
Facility 7	3500					
Facility 8	10					
Facility 9	0					

W5.3

Water consumption: for the reporting year, please provide water consumption data for all facilities reported in W3.2a

Facility reference number	Consumption (megaliters/year)	How does this compare to the last reporting year?	Please explain
Facility 1	793500	About the same	
Facility 2	153400	About the same	
Facility 3	104400	Lower	Decreased water use resulting from reduced mine production in 2016 in response to market conditions.
Facility 4	573700	Higher	Increased water use due to start up of mine expansion project.
Facility 5	36000	Higher	Increased water use due to mine expansion and additional dust control requirements.
Facility 6	57600	About the same	
Facility 7	16200	About the same	
Facility 8	3500	About the same	
Facility 9	10	About the same	

W5.4

For all facilities reported in W3.2a what proportion of their water accounting data has been externally verified?

Water aspect	% verification	What standard and methodology was used?
Water withdrawals- total volumes	Not verified	Our water data is aggregated to the Freeport-McMoRan level (company-wide) in our 2016 Working Toward Sustainable Development (WTSD) Report. The 2016 WTSD Report has been prepared according to the GRI G4 Core Option and assured by an independent third-party. The assurance statement for our 2016 WTSD Report can be found at www.fcx.com/sd .

Water aspect	% verification	What standard and methodology was used?
Water withdrawals- volume by sources	Not verified	Our water data is aggregated to the Freeport-McMoRan level (company-wide) in our 2016 Working Toward Sustainable Development (WTSD) Report. The 2016 WTSD Report has been prepared according to the GRI G4 Core Option and assured by an independent third-party. The assurance statement for our 2016 WTSD Report can be found at www.fcx.com/sd .
Water discharges- total volumes	Not verified	Our water data is aggregated to the Freeport-McMoRan level (company-wide) in our 2016 Working Toward Sustainable Development (WTSD) Report. The 2016 WTSD Report has been prepared according to the GRI G4 Core Option and assured by an independent third-party. The assurance statement for our 2016 WTSD Report can be found at www.fcx.com/sd .
Water discharges- volume by destination	Not verified	Our water data is aggregated to the Freeport-McMoRan level (company-wide) in our 2016 Working Toward Sustainable Development (WTSD) Report. The 2016 WTSD Report has been prepared according to the GRI G4 Core Option and assured by an independent third-party. The assurance statement for our 2016 WTSD Report can be found at www.fcx.com/sd .
Water discharges- volume by treatment method	Not verified	Our water data is aggregated to the Freeport-McMoRan level (company-wide) in our 2016 Working Toward Sustainable Development (WTSD) Report. The 2016 WTSD Report has been prepared according to the GRI G4 Core Option and assured by an independent third-party. The assurance statement for our 2016 WTSD Report can be found at www.fcx.com/sd .
Water discharge quality data- quality by standard effluent parameters	Not verified	Our water data is aggregated to the Freeport-McMoRan level (company-wide) in our 2016 Working Toward Sustainable Development (WTSD) Report. The 2016 WTSD Report has been prepared according to the GRI G4 Core Option and assured by an independent third-party. The assurance statement for our 2016 WTSD Report can be found at www.fcx.com/sd .
Water consumption- total volume	Not verified	Our water data is aggregated to the Freeport-McMoRan level (company-wide) in our 2016 Working Toward Sustainable Development (WTSD) Report. The 2016 WTSD Report has been prepared according to the GRI G4 Core Option and assured by an independent third-party. The assurance statement for our 2016 WTSD Report can be found at www.fcx.com/sd .

Further Information

Water quantities displayed in W5.1a through W5.4 are rounded to the nearest 100 megaliters for all quantities above 1,000 megaliters and to the nearest 10 megaliters for all volumes below 1,000 megaliters.

Module: Response

Page: W6. Governance and Strategy

W6.1

Who has the highest level of direct responsibility for water within your organization and how frequently are they briefed?

Highest level of direct responsibility for water issues	Frequency of briefings on water issues	Comment
Board of individuals/Sub-set of the Board or other committee appointed by the Board	Other: Regular updates to the Board of Directors	The Freeport-McMoRan Board of Directors as a whole is responsible for risk oversight, with reviews of certain areas being conducted by the relevant board committees that report to the full Board. The Corporate Responsibility Committee assists the board in fulfilling its oversight responsibilities with respect to the management of risks associated with our environmental policy/implementation and sustainable development programs. The committee regularly reports to the full board.

W6.2

Is water management integrated into your business strategy?

Yes

W6.2a

Please choose the option(s) below that best explains how water has positively influenced your business strategy

Influence of water on business strategy	Please explain
Other: Community investments and partnerships	With local support, we are pleased to now have achieved full capacity operating rates at the major expansion of our Cerro Verde copper mining operation near Arequipa - Peru's second largest city. With a lack of adequate infrastructure in the city, Cerro Verde financed the design and construction of one of the most advanced wastewater collection systems and treatment plants (WWTP) in the country through a public private partnership. The WWTP is designed to treat approximately 90% of Arequipa's domestic sewage and industrial discharges that previously reported into the Rio Chili. Cerro Verde will now use an annual average of 1 cubic meter per second of treated wastewater from the WWTP to support additional ore processing and the remaining water will be discharged back into the Rio Chili for downstream uses.
Other: Community partnerships	Leases of unused water rights to other entities allows Freeport-McMoRan to protect its water rights from forfeiture or abandonment claims, while making water available to other entities. Several operations in both Arizona and New Mexico lease irrigated land with appurtenant water rights to local farmers and ranchers when this water is not required for current mine operations. These leases protect the company's water rights and also support the local communities in which we operate.
Other: Strategic water storage	In 2016, we stored about 16,600 acre-feet (20,500 megaliters) of renewable, surface water supplies at underground recharge facilities within Arizona, where the water will be "banked" for use in future years, to the extent needed to support existing operations as a drought backup supply or to support potential future mine expansions. Freeport-McMoRan continues to place a priority on securing additional renewable water supplies as they become available. These efforts reflect a strategic value that the company has placed on renewable water supply assets, which are considered priority at many of our mining facilities located in arid regions.
Other: Water right settlements	In December 2015, the U.S. Secretary of Interior Sally Jewel issued a Record of Decision that finalized the Bill Williams Water Rights Settlement Act of 2014 (Act). The Act provided for a settlement of water rights disputes between the Hualapai Tribe (Tribe), the United States (acting on behalf of the Tribe), Freeport's Bagdad operation, and the State of Arizona's Game and Fish Department in the Bill Williams River watershed in Arizona. The settlement provides the Tribe with the means to purchase future water supplies for Tribal members. Additionally, the settlement provided for the transfer of a portion of Freeport's Planet Ranch property and water rights to support the Multi-Species Conservation Program (MSCP). The MSCP is a multi-state mitigation program that sets aside lands for species and habitat conservation to offset water and power operations in the Lower Colorado River Basin. The settlement further provides each party with protection against future water rights disputes and litigation. Finally, the settlement secures Freeport's water rights for over 70% of Bagdad's make-up water supplies. The company is now working to secure a second phase settlement for the remaining portion of Bagdad's make-up water supplies.
Other: Water supply infrastructure development	During 2016, the company has begun design and construction of a water pipeline in partnership with farmers in southern Arizona that will bring renewable Colorado River water to farm fields reducing the farmers' dependence on groundwater, while at the same time providing the company with future renewable water supply credits.
Other: Regulatory cooperation	The company, in conjunction with the United States Bureau of Reclamation, completed an environmental study during 2016 that allows the company's Miami operation to schedule its first water exchange in 2017 that will result in the operation's long-term utilization of renewable surface water supplies.

W6.2b

Please choose the option(s) below that best explains how water has negatively influenced your business strategy

Influence of water on business strategy	Please explain
Increased capital expenditure	Acquisition of additional water rights and water resources, in response to identified physical and legal risks has and will likely require significant capital expenditures and other operating, maintenance and legal expenses. These costs are anticipated to increase over time as competition for water resources intensifies in arid regions.

W6.3

Does your organization have a water policy that sets out clear goals and guidelines for action?

Yes

W6.3a

Please select the content that best describes your water policy (tick all that apply)

Content	Please explain why this content is included
Other: Company-wide qualitative goals	Water availability and regulation varies greatly among our operations. No singular policy standard that can effectively be applied for all circumstances. The company relies on its SD Risk Register process to develop appropriate responses after conducting detailed assessments of local conditions at each operation. We also maintain a global water management program designed to (1) support metal production by supplying required water to process operations; (2) minimize water supply and storage risks associated with operational,

Content	Please explain why this content is included
	<p>climatic, social, regulatory and environmental conditions; (3) minimize costs associated with the acquisition and distribution of water as much as possible; and (4) promote innovation and implement technologies that increase water use efficiency. Operational water teams, supported by corporate policy and technical experts, develop operation-specific goals by identifying and managing resources, communicating and coordinating with key stakeholders, monitoring, managing and analyzing water data, reporting and accounting for water use and consumption; and developing forecasting tools to support future conditions and closure. Operations in arid regions conduct annual scenario planning to evaluate hypothetical reductions in water availability and extreme precipitation events. Our water management includes development and continuous updating of hydrologic models and identifying actions to help operations address possible water shortages or surpluses.</p>

W6.4

How does your organization's water-related capital expenditure (CAPEX) and operating expenditure (OPEX) during the most recent reporting year compare to the previous reporting year?

Water CAPEX (+/- % change)	Water OPEX (+/- % change)	Motivation for these changes
		<p>Water-related CAPEX costs are episodic and based on the needs of the company at the time. It is also recognized that increased water scarcity and global water demand will influence future CAPEX costs. Water-related OPEX costs are generally consistent over time, although they can incrementally increase with each new water supply resource. For example, with the recent completion and startup of the Cerro Verde wastewater treatment plant, our water-related OPEX is projected to increase.</p>

Page: W7. Compliance

W7.1

Was your organization subject to any penalties, fines and/or enforcement orders for breaches of abstraction licenses, discharge consents or other water and wastewater related regulations in the reporting year?

No

Page: W8. Targets and Initiatives

W8.1

Do you have any company wide targets (quantitative) or goals (qualitative) related to water?

Yes, goals only

W8.1b

Please describe any company wide qualitative goals (ongoing or reached completion during the reporting period) and your progress in achieving these

Goal	Motivation	Description of goal	Progress
Other: Water supply management	Water stewardship	Operations are prioritized using the SD Risk Register process to implement a water management/conservation plan.	This is an ongoing and recurring process. To help with this continual effort, the company maintains a global water management program that includes improved metering, development and continuous updating of hydrologic and operational-based water models, identification of recycling opportunities, identification of operational losses such as evaporation, and development of management practices that maximize efficient water use.
Other: Water supply development	Water stewardship	The company is taking a long-term view on securing water supplies that address changing user patterns, climate issues, and changing opportunities for future sources of water.	During 2016, the company stored about 16,600 acre-feet (20,500 megaliters) of renewable surface water supplies at underground recharge facilities in Arizona for future use in support of existing mine operations as drought back-up supply or to support future mine expansions. The company has also applied for additional allocations of renewable surface water in Arizona (Central Arizona Project allocations) and has received a preliminary recommendation from the states water regulatory agency supporting a water allocation to Freeport. The federal environmental permitting review of this pending allocation remains in progress in 2017 as

Goal	Motivation	Description of goal	Progress
			it is pooled together with similar applications from other business entities into a singular environmental review process.

Module: Linkages/Tradeoff

Page: W9. Managing trade-offs between water and other environmental issues

W9.1

Has your organization identified any linkages or trade-offs between water and other environmental issues in its value chain?

Yes

W9.1a

Please describe the linkages or trade-offs and the related management policy or action

Environmental issues	Linkage or trade-off	Policy or action
<p>Freeport-McMoRan uses water in its various mining processes and recognizes that reduced water use decreases energy use, which thereby reduces our carbon footprint. At our operations, water is pumped to a process circuit, then recovered and re-circulated to conserve water. However pumping does consume power in the process.</p>	<p>Linkage</p>	<p>To the extent possible, Freeport-McMoRan concentrates water pumping in the off-peak hours to avoid adding additional demand to the power grid during peak consumption periods. Pumps are often powered by high efficiency motors to reduce energy consumption.</p>
<p>Freeport-McMoRan uses technological advances in its processes to reduce water and power consumption. In some cases, the use of renewable energy can offset higher consumptive uses of water that are typically supplied by conventional (coal-fired) energy sources. Freeport-McMoRan is actively working with electric utilities in the United States that are under a regulatory obligation to increase the percentage of renewable energy in their production portfolios.</p>	<p>Linkage</p>	<p>In 2010, our Bagdad, Arizona operation formed an alliance with Recurrent Energy to facilitate the construction of a 15.5 megawatt solar energy generation facility on property owned by Bagdad. Under the arrangement, Bagdad leases a portion of this land for the operation of a 75,000 solar panel system. The generated power is being sold to a regional electrical utility (Arizona Public Service) who then sells the renewable energy to the Bagdad operation under a separate power purchase agreement. Similarly, a 4.5 megawatt solar energy facility has been constructed at our presently discontinued operation in Ajo, Arizona. These projects are part of our efforts to identify opportunities for generating renewable energy on our mining-related properties and to assist power utilities to reduce water consumption for power generation.</p>
<p>In parts of the southwestern United States, some regulatory provisions encourage water right holders to maximize use of irrigation water rights even when not required to avoid risk of water right forfeiture or abandonment. Freeport-McMoRan owns certain irrigation water rights that are subject to this type of regulation. The unintended consequence is to penalize efficient irrigation water users that reduce their overall water footprint but jeopardize unused portions of their water rights.</p>	<p>Trade-off</p>	<p>Freeport-McMoRan has responded to this inadvertent trade-off by working with some of its lessees to either develop rotational field fallowing to ensure that all applicable water rights are used in a manner that preserves their long-term regulatory integrity and in other instances has placed currently inactive water rights into conservation plans that serve to protect and preserve the water rights for future uses.</p>

Module: Sign Off

Page: Sign Off

W10.1

Please provide the following information for the person that has signed off (approved) your CDP water response

Name	Job title	Corresponding job category
William Cobb	Vice President of Environmental Services and Sustainable Development	Other: Senior Manager/Officer

W10.2

Please indicate that your organization agrees for CDP to transfer your publicly disclosed data regarding your response strategies to the CEO Water Mandate Water Action Hub.

Note: Only your responses to W1.4a (response to impacts) and W3.2c&d (response to risks) will be shared and then reviewed as a potential collective action project for inclusion on the WAH website.

By selecting Yes, you agree that CDP may also share the email address of your registered CDP user with the CEO Water Mandate. This will allow the Hub administrator to alert your company if its response data includes a project of potential interest to other parties using water resources in the geographies in which you operate. The Hub will publish the project with the associated contact details. Your company will be provided with a secure log-in allowing it to amend the project profile and contact details.

No