

**Module: Introduction****Page: W0. Introduction**

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**W0.1****Introduction****Please give a general description and introduction to your organization**

Johnson Matthey is a leader in sustainable technologies. We focus on clean air, clean energy and low carbon technologies and are experts in the application and recycling of precious metals.

Johnson Matthey is a global speciality chemicals company. We have operations in over 30 countries and employ around 13,000 people worldwide.

Johnson Matthey's principal activities are the manufacture of autocatalysts, heavy duty diesel catalysts and pollution control systems, catalysts and components for fuel cells, batteries for electric vehicles, catalysts and technologies for chemical processes, fine chemicals, chemical catalysts and active pharmaceutical ingredients and the marketing, refining, and fabrication of precious metals.

Johnson Matthey has continued to develop its technology for almost 200 years, demonstrating the company's ability to maintain world leadership by adapting constantly to rapidly changing customer needs. Rigorous in its own environmental policies, many of Johnson Matthey's products have a major beneficial impact on the environment and enhance the quality of life for millions of people around the world.

We invest in R&D to develop high technology products that enhance the quality of life for millions of people around the world.

Johnson Matthey is focused on developing products that deliver sustainability benefits to our customers and to society. Today, some 88% of the group's sales represent products and services which provide sustainability benefits through their positive impact on the environment, resource efficiency or our health.

Our latest (2015) annual integrated report can be found at : <http://www.matthey.com/documents/pdfs/2014-15/annual-report/johnson-matthey-annual-report-2015.pdf>  
For more information about Johnson Matthey, see our corporate website : [www.matthey.com](http://www.matthey.com)

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**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 Apr 2016 - Fri 31 Mar 2017

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**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

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**W0.4****Exclusions**

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

No

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**W0.4a****Exclusions**

Please report the exclusions in the following table

Exclusion	Please explain why you have made the exclusion

**Further Information**

**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	Important	Important	We need good quality water to support our agricultural operations, growing agro-crops for our opiate manufacturing business. However, this business represents less than 10% of our sales revenues
Sufficient amounts of recycled, brackish and/or produced water available for use	Vital for operations	Important	All our manufacturing operations require a supply of clean water. In many cases we can, and do, use recycled water and perform the final purification step on site. All our strategic suppliers use water to perform their own mining or manufacturing operations to produce our raw materials; Some of our customers require large volumes of water for their manufacturing or processing operations using our products

**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**

<b>Water aspect</b>	<b>% of sites/facilities/operations</b>	<b>Please explain</b>
Water withdrawals- total volumes	76-100	All Johnson Matthey sites are required to report their total water withdrawals to JM Group annually, These data are typically collected from meter readings and then verified against water billing information.
Water withdrawals- volume by sources	76-100	All Johnson Matthey sites are required to identify their water sources when they report their total water withdrawals to JM Group annually, Sites chose from a drop down menu and select the type of water sources according to the definitions in question W1.2a
Water discharges- total volumes	76-100	All Johnson Matthey sites are required to report their total water discharges to JM Group annually, These data are typically collected from meter readings and then verified against billing information
Water discharges- volume by destination	76-100	All Johnson Matthey sites are required to identify the destination of their water discharges when they report to JM Group annually, These data are typically collected from meter readings and then verified against billing information. Sites chose from a drop down menu and select the type of water sources/discharge destination according to the definitions in question W1.2b.
Water discharges- volume by treatment method	1-25	We do not collect information on treatment methods beyond our own boundaries. 89% of all our wastewater discharged is sent to municipal treatment works, via public sewers.
Water discharge quality data- quality by standard effluent parameters	76-100	We use the chemical oxygen demand (COD) test to measure of water quality of discharged water at all JM sites and ensure it is within local legal limits. A year ago we stopped collating and reporting this information centrally, as local legislation affecting our sites globally is so diverse.
Water consumption- total volume	76-100	All Johnson Matthey sites are required to report their total water consumption to JM Group annually, with an explanation of where water is consumed on their site These data are typically collected from the difference between withdrawal and discharge meter information.
Facilities providing fully-functioning WASH services for all workers	Less than 1%	Many of our sites provide WASH facilities to our employees, but we do not collect data on this centrally.

**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	44	Much lower	27% decrease due to increased water recycling within the plant.
Brackish surface water/seawater	0	Not applicable	We do not use any brackish water
Rainwater	0.3	About the same	We do not meter most of our rainwater collection. This number represents metering at 2 sites. (Last year the rainwater data was reported in the wrong units)
Groundwater - renewable	101	Higher	This is 8% higher than last year, due to acquisition of a new site in Scotland. It is still a very small proportion of our total water use
Groundwater - non-renewable	59	Lower	This is 20% lower than last year due to water efficiency projects at our site in India.
Produced/process water	0	Not applicable	We do not take process water from any other organisations
Municipal supply	2438	Higher	This has increased by 2.6% due to acquisitions of 2 new manufacturing sites.
Wastewater from another organization	0	Not applicable	We do not take wastewater from other companies
Total	2643	About the same	Our total water withdrawals have increased by 1%

#### 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	222	Lower	5% decrease due to water recycling project within the plant
Brackish surface water/seawater	10	This is our first year of measurement	This occurs at 1 site in the UK
Groundwater	1	This is our first year of measurement	This occurs at 1 site in India
Municipal/industrial wastewater treatment plant	1836	Much higher	This is a 26% increase due to improved metering of effluent discharge. The number is highly variable as it includes metering of rainwater runoff in a number of countries
Wastewater for another organization	0	Not applicable	We do not send wastewater to other organisations
Total	2070	Much higher	This is a 23% increase due to improved metering of effluent discharge. The number is highly variable as it includes metering of rainwater runoff in a number of countries

#### 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
573	Much lower	This is 38% lower than last year. This is primarily due to better metering of effluent, but is also highly variable due to the impact of inclusion of rainwater collection and discharge. Most of our genuine water consumption occurs in the production of steam for our CHP units. There is also some use of water for cooling of some of our manufacturing processes.

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**W1.3**

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

No

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**W1.3a**

Please provide the proportion of suppliers you request to report on their water use, risks and/or management and the proportion of your procurement spend this represents

Proportion of suppliers %	Total procurement spend %	Rationale for this coverage

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**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
Important but not an immediate business priority	We assess water risk with our strategic suppliers, alongside all other risks. We have not found it to be a priority in any case. We began our Sustainable Supplier Development program 4 years ago in one division of our business. Our first priority focussed on issues of higher immediate importance to our business - legal, ethical, Health & Safety & human rights issues. This year we have been expanding this program across all our businesses. We plan to expand the program to include environmental questions beyond legal compliance, at a later date.

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**W1.4**

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

No

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**W1.4a**

Please describe the detrimental impacts experienced by your organization related to water in the reporting year

Country	River basin	Impact driver	Impact	Description of impact	Length of impact	Overall financial impact	Response strategy	Description of response strategy
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**W1.4b**

Please choose the option below that best explains why you do not know if your organization experienced any detrimental impacts related to water in the reporting year and any plans you have to investigate this in the future

Primary reason	Future plans
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**Further Information**



**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 and some suppliers	Risks (including water risks) are assessed and prioritised based on both impact (financial and non-financial) and likelihood of them occurring using a 'five by five' reference scale i.e. five references for likelihood (ranging from rare i.e. 90% probability) and five references for impact based on financial and non-financial data. Each individual risk is considered, together with the effectiveness of current controls and the status and progression of mitigation actions and plans are monitored We have also undertaken an independent globalwaqter risk assessment of all our sites using the World Business Council for Sustainable Development's Global Water Tool in 2016. More information is given in W2.3

**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	1 to 3 years	Each Business Unit is required to present a three year plan for water usage at every facility under their financial control to the Chief Executive and his General management Committee as part of their annual budget review presentation.
Sporadically not defined	River basin	>6 years	A Ten year view of water is risk performed every 3-5 years: A review of Water Risk for all JM's operations is performed using external tools. In 2016 World Business Council for Sustainable Development's Global Water Tool version 1.3 was used.
Sporadically not defined	Business unit	1 to 3 years	This occurs during an on-site audit at least triannually for all strategic suppliers in ECT division (61% JM's business by sales), and sporadically in other divisions. ECT ask all suppliers to demonstrate they are "managing compliance, minimising environmental impact and driving continual improvement through the implementation of ISO 14001, or a comparable standard". We expect them to disclose which environmental issues are key for them, and many do choose water use as a material issue.

#### 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?**

We do not believe that water risks will have any substantive impact on the viability of our growth strategy over the next 10 years.

#### W2.4b

What is the main reason for not having evaluated how water risks could affect the success (viability, constraints) of your organization's growth strategy, and are there any plans in place to do so in the future?

Main reason	Current plans	Timeframe until evaluation	Comment

**W2.5**

Please state the methods used to assess water risks

Method	Please explain how these methods are used in your risk assessment
WBCSD Global Water Tool WRI water stress definition	In 2016 we used the World Business Council for Sustainable Development's Global Water Tool version 1.3, to identify which Johnson Matthey sites are located in areas of extremely high baseline water stress as defined by the World Resources Institute (WRI) model and those that are located in areas of extreme water scarcity as defined by their annual renewable water supply per head of population. The analysis of risk took into account a facility's employee numbers and total water withdrawals. 64 of the company's largest facilities, including 100% of its manufacturing sites, which represents 99+% of the company's total freshwater consumption were included in the assessment.

**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	Risk assessment is ongoing at a local site level. Each site has a locally based EHS manager responsible for tracking local issues with water availability and quality and will report any significant issues to the CSR Compliance Committee on an ad hoc basis.
Current water regulatory frameworks and tariffs at a local level	Relevant, included	Risk assessment is ongoing at a local site level. Each site has a locally based EHS manager responsible for tracking national / local regulatory matters and will report any significant issues to the CSR Compliance Committee on an ad hoc basis.
Current stakeholder conflicts concerning water resources at a local level	Not relevant, included	Risk assessment is ongoing at a local site level. Each site has a locally based EHS manager responsible for tracking local issues with water availability and quality and will engage local stakeholders if appropriate. He/she will report any significant issues to the local site manager on an ad hoc basis. We do not have any sites where we are involved in stakeholder conflicts at the moment.
Current implications of water on your key commodities/raw materials	Relevant, included	Strategic suppliers are identified as those who supply us with an ingredient critical to the functional performance of our products, and one not readily available from alternative sources and/or derived from natural resources in conflict-prone regions of the world, All strategic suppliers have a dedicated supply chain manager responsible for monitoring and discussing all risks relevant to maintaining security of supply, including water risks.
Current status of ecosystems and habitats at a local level	Relevant, included	All sites, as part of their ISO 14001 registration must include an assessment of biodiversity. This has also been assessed using the World Business Council of Sustainable Development's Global Water Tool version 3.1.
Current river basin management plans	Not relevant, explanation provided	Johnson Matthey does not extract water directly from any river basins. In general Johnson Matthey does not use large quantities of water for any of its operations.
Current access to fully-functioning WASH services for all employees	Relevant, included	These are factored in for any site where they are provided and have a substantive impact on local water usage.
Estimates of future changes in water availability at a local level	Relevant, included	Each site has a locally based EHS manager responsible for tracking local issues with water availability and quality and will report any significant future issues to the CSR Compliance Committee on an ad hoc basis. They feed information into the three year plan of water usage, presented by each Business Unit to the Senior management of JM on an annual basis.
Estimates of future potential regulatory changes at a local level	Relevant, included	Each site has a locally based EHS manager responsible for tracking local issues with water availability and quality and will report any significant future issues to the CSR Compliance Committee on an ad hoc basis. They feed information into the three year plan of water usage, presented by each Business Unit to the Senior management of JM on an annual basis.
Estimates of future potential stakeholder conflicts at a local level	Relevant, included	Each site has a locally based EHS manager responsible for tracking local issues with water availability and quality and will report any significant future issues to local management team and the CSR Compliance Committee on an ad hoc basis. They feed information into the three year plan of water usage, presented by each Business Unit to the Senior management of JM on an annual basis.

Issues	Choose option	Please explain
Estimates of future implications of water on your key commodities/raw materials	Relevant, included	Strategic suppliers are identified as those who supply us with an ingredient critical to the functional performance of our products, and one not readily available from alternative sources and/or derived from natural resources in conflict-prone regions of the world. All strategic suppliers have a dedicated supply chain manager responsible for monitoring and discussing all risks relevant to maintaining security of supply, including water risks. We released a global supplier manual in 2013, which is applicable to all our suppliers in ECT Division (54% JM's business by sales). We ask all suppliers to demonstrate they are "managing compliance, minimising environmental impact and driving continual improvement through the implementation of ISO 14001, or a comparable standard". We expect them to disclose which environmental issues are key for them, and many do choose water use as a material issue.
Estimates of future potential changes in the status of ecosystems and habitats at a local level	Not relevant, explanation provided	Johnson Matthey's operations do not have substantive impact on any local ecosystems and habitats.
Scenario analysis of availability of sufficient quantity and quality of water relevant for your operations at a local level	Not relevant, explanation provided	We do not believe that we face a substantial risk of being unable to source sufficient quantities of water to supply our operations at any of our existing facilities.
Scenario analysis of regulatory and/or tariff changes at a local level	Not relevant, explanation provided	Our expenditure on water and water-related taxes is not significant component of our total operational spend at any facility.
Scenario analysis of stakeholder conflicts concerning water resources at a local level	Not evaluated	
Scenario analysis of implications of water on your key commodities/raw materials	Not evaluated	
Scenario analysis of potential changes in the status of ecosystems and habitats at a local level	Not evaluated	
Other	Not evaluated	

**W2.7**

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

Stakeholder	Choose option	Please explain
Customers	Not relevant, explanation provided	Our customers do not need to use water to utilise our products in the vast majority of cases. Most of our products are components for the automotive industry and are assembled into vehicles.
Employees	Relevant, included	JM employees are made aware of water-based issues as part of their awareness training on broader sustainability issues. Each site has targets for reduction in water consumption.
Investors	Not relevant, explanation provided	We have not received any requests or comments from Investors about our water risks. We would include them if we received any specific, relevant requests to do so.
Local communities	Not relevant, explanation provided	We are not a significant water user in any of the communities where we operate.
NGOs	Not relevant, explanation provided	We have not received any requests or comments from NGOs about our water risks. We would include them if we did any specific, relevant requests to do so.
Other water users at a local level	Not relevant, explanation provided	Johnson Matthey is not a significant user of local water suppliers in any region where it operates. It therefore, does not materiality impact on the water supplies to other local water users..
Regulators	Relevant, included	A review to identify all relevant regulations both present and upcoming are always included in our risk assessments.
River basin management authorities	Not relevant, explanation provided	We do not withdraw water directly from any river basins.
Statutory special interest groups at a local level	Not relevant, explanation provided	Johnson Matthey is not a substantial user of local water suppliers in any region where it operates. Therefore, it has not been asked to engage with any social interest groups at local level. We would always engage, on request.
Suppliers	Relevant, included	Built into strategic supplier assessments and also Life Cycle Analysis studies. We plan to use the World Business Council of Sustainable Development's Global Water Tool version 3.1. to begin to independently assess the long term water risks of our strategic suppliers over the next year.
Water utilities at a local level	Relevant, included	Price and availability of municipal water at a local level is included in all site risk assessments.
Other	Not evaluated	

Please choose the option that best explains why your organisation does not undertake a water-related risk assessment

Primary reason	Please explain
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**Further Information**

**Module: Implications**

**Page: W3. Water Risks**

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**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, supply chain only

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**W3.2**

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

Risks (including water risks) are assessed and prioritised based on both impact (financial and non-financial) and likelihood of them occurring using a 'five by five' reference scale i.e. five references for likelihood (ranging from rare i.e. 90% probability) and five references for impact based on financial and non-financial data. Each individual risk is considered, together with the effectiveness of current controls and the status and progression of mitigation actions and plans are monitored.

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**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
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**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
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**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	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
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**W3.2d**

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

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
South Africa	SOUTH AFRICAN WATER MANAGEMENT AREAS (WMAs)	Physical-Increased water stress Regulatory-Increased difficulty in obtaining withdrawals/operations permit Regulatory-Lack of transparency of water rights Reputational-Inadequate access to water, sanitation and hygiene	Supply chain disruption	Virgin precious metals from South African mining companies are a strategic raw material for Johnson Matthey. If mining operations were disrupted due to lack of water, it would have an	1-3 years	Unlikely	High	Engagement with suppliers	0	Part of "Business as Usual" in assessing the reliability of any one of our strategic suppliers.

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
				impact on our ability to procure raw materials for our own manufacturing processes						
Australia	Other: Tasmania	Physical-Climate change Physical-Drought	Supply chain disruption	A principle raw material for Johnson Matthey's Pharmaceutical API business is raw poppy straw. 60% of the world's licensed supply has historically been grown in Tasmania. Changing weather patterns are increasing the risk of crop failure for our suppliers.	1-3 years	Probable	Low	Infrastructure investment Re-siting of facilities Supplier diversification	Johnson Matthey does not own the agricultural land so capital costs in managing this risk are relatively low. Capital investment in additional storage and processing plants for raw poppy straw was £10-20m in 2014.	In 2009 we took a strategic decision to improve our security of supply and reduce our dependence on the weather in one geographical region by taking over the task of growing the majority our own poppy straw. We assessed a large number of new countries for their

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
										<p>suitability to grow poppies sustainably, taking into account the possibility of future climate change, and selected an alternative geographical region in the northern hemisphere with a natural source which can provide water to 120,000 hectares of good arable land. Our first crop was successfully harvested in June 2014. We also enlarged</p>

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
										<p>our storage facilities for poppy straw in 2014 in order to mitigate the risk of partial crop failure affecting production of APIs. We aim to keep excess stock in storage in future. We employ local weather/soil experts to monitor moisture levels in the soils during the growing season. We are incentivising our farmers with commercial contracts</p>

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
										that encourage them to maintain yields and plan for adverse weather e.g. by using irrigation systems
Portugal	Other: Sado e Mira	Physical-Drought	Supply chain disruption	A principle raw material for Johnson Matthey's Pharmaceutical API business is raw poppy straw. Changing weather patterns are increasing the risk of crop failure for our suppliers. Prolonged drought in the region could cause water shortages in	4-6 years	Unlikely	Medium	Infrastructure investment Re-siting of facilities Supplier diversification	Johnson Matthey does not own the agricultural land so capital costs in managing this risk are relatively low. Capital investment in additional storage and processing plants	In 2009 we took a strategic decision to improve our security of supply and reduce our dependence on the weather in one geographical region by taking over the task of growing the majority our own poppy straw. We now grow

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
				the reservoirs in the longer term,					for raw poppy straw was £10-20m in 2014.	poppies in two countries in the Northern hemisphere as well as accessing supplies in the Southern Hemisphere (Tasmania). We also enlarged our storage facilities for poppy straw in 2014 in order to mitigate the risk of partial crop failure affecting production of APIs. We aim to keep excess stock in storage in future. We employ

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
										local weather/soil experts to monitor moisture levels in the soils during the growing season. We are incentivising our farmers with commercial contracts that encourage them to maintain yields and plan for adverse weather e.g. by using irrigation systems

W3.2e

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

Primary reason	Please explain
Risks exist, but no substantive impact anticipated	We have ~ 60 manufacturing sites distributed globally. Business Continuity plans exist for all sites. >90% of our sites are supplied by main water connection in their local areas. The WBCSD water risk assessment identified 4 sites that are in regions of extreme water scarcity and using close to the available amount of renewable water per head of population - 1 each in UK, USA, China & India. Of these only the site in India can be considered to be in a region where the municipal water network isn't stable. At this site we use water from municipal supply, and have high rates of water recycling on the plant. Sudden loss of water supply at this or one of our other plants would not adversely affect global profits. It would be managed by transferring production to existing Johnson Matthey facilities elsewhere in the world.

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
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W3.2g

Please choose the option that best explains why you do not know if your organization is exposed to water risks that could generate a substantive change in your business operations, revenue or expenditure and discuss any future plans you have to assess this

Primary reason	Future plans
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**Further Information**

**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
Other: We are targeting sales globally, in all regions where we operate . Early sales have mainly been in Asia.	Competitive advantage Increased brand value Increased shareholder value Innovation R&D Sales of new products/services	Johnson Matthey Water Technologies was formed in 2012 as a business unit, and is housed in our New Business Development Division. We are also making targeted acquisitions to enhance our technology strengths in this area. In 2016 we acquired 2 small businesses specialising in water purification technology: MIOx Corporation for £15m and Finex for £6m.	4-6 years	We invested just under £21million in other new opportunities, the most advanced being our Water Technologies business. As part of our strategy in this area, in April 2016 we completed the purchase of MIOX Corporation and in May 2016 we acquired Finex, both of which enable us to broaden our technology and commercial capabilities in this market. Water purification is one of our new business areas where we believe there is an attractive and growing market for high value technologies, developed using our chemistry and applications expertise. We anticipate that in 2017 the Water Technologies business will deliver sales

Country or region	Opportunity	Strategy to realize opportunity	Estimated timeframe	Comment
				of around £15 million and, excluding integration costs, make a small operating loss.
Company-wide	Competitive advantage Cost savings Increased shareholder value Improved water efficiency	As part of Johnson Matthey's Ten-year sustainability Strategy we have a company target to halve the amount of water we use per unit sales.	1-3 years	One of our key sustainability 2017 targets is to halve our water withdrawals over ten years, by 2017 when compared to our baseline year of 2007 : 2007 baseline 1.4 m3 / £M sales (excluding precious metals) 2016-17 performance 0.74 m3/ £M sales (excluding precious metals) 2017 target 0.7 m3 / £M sales (excluding precious metals) We achieved 96% of this challenging target on schedule.

#### W4.1b

Please choose the option that best explains why water does not present your organization with any opportunities that have the potential to provide substantive benefit

Primary reason	Please explain
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#### W4.1c

Please choose the option that best explains why you do not know if water presents your organization with any opportunities that have the potential to provide substantive benefit

Primary reason	Please explain
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**Further Information**

**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
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**Further Information**

**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
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**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
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**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
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**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
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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?
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**Further Information**

**Module: Response**

**Page: W6. Governance and Strategy**

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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	Scheduled-annual	Our board of directors & Chief Executive's General Management Committee (GMC) is ultimately responsible for Water strategy and is briefed annually by the Sustainability Director. The Group Policy & Compliance Committee (GPCC), a sub-committee of the GMC, has specific responsibility for the identification & monitoring of water risks. The Group Risk Register is reviewed 6-monthly by the GPCC. Every business unit is required to include water use targets in its annual budget presentation to the GMC and define the nature of projects to be undertaken to meet targets over a 3- year business cycle.

## 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
Introduction of water management KPIs	A 10-year water management KPI was introduced in 2007. To "halve to the use of water in our own operations per unit sales by 2017", against a 2007 baseline.
Water resource considerations are factored into location planning for new operations	Long-term water resource availability and usage is consider as part of the "due diligence process" for all acquisitions , any new manufacturing facilities and all plant expansion projects.

Influence of water on business strategy	Please explain
Publicly demonstrated our commitment to water	We made our commitment to our Water Reduction target public when our Sustainability 2017 strategy was launched in 2007. We report publically on progress towards this target in our annual report. In 2010 Water was announced as a key Global Driver for our Business Strategy. In 2012 we announced that we had established a Water Technologies Business Unit within our new Business Development Division to realise opportunities for our products and services in water purification.

**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	Changing precipitation patterns have increased risks in our supply chain for poppy straw, a key raw material for our API business. We have made plans to increase our storage of poppy straw from 2014 onwards in order to mitigate the risk of water-related partial crop failure affecting our production of APIs. This has involved a modest capital investment (< £50m) to enlarge our poppy straw processing and storage facilities.

**W6.2c**

**Please choose the option that best explains why your organization does not integrate water management into its business strategy and discuss any future plans to do so**

Primary reason	Please explain
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**W6.3**

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

No

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**W6.3a**

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

Content	Please explain why this content is included
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**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
0	2	There has not been any significant CAPEX expenditure projects implemented to reduce water usage. Across the company as a whole the purchasing of water from municipal authorities has increased by 2% in the last year.

**Further Information**

**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

**W7.1a**

Please describe the penalties, fines and/or enforcement orders for breaches of abstraction licenses, discharge consents or other water and wastewater related regulations and your plans for resolving them

Facility name	Incident	Incident description	Frequency of occurrence in reporting year	Financial impact	Currency	Incident resolution
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**W7.1b**

What proportion of your total facilities/operations are associated with the incidents listed in W7.1a?

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**W7.1c**

Please indicate the total financial impacts of all incidents reported in W7.1a as a proportion of total operating expenditure (OPEX) for the reporting year. Please also provide a comparison of this proportion compared to the previous reporting year

Impact as % of OPEX	Comparison to last year
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**Further Information**

**Page: W8. Targets and Initiatives**

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**W8.1**

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

Yes, targets only

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**W8.1a**

**Please complete the following table with information on company wide quantitative targets (ongoing or reached completion during the reporting period) and an indication of progress made**

Category of target	Motivation	Description of target	Quantitative unit of measurement	Base-line year	Target year	Proportion of target achieved, % value
Other: Reduction in water intensity of operations	Water stewardship	Half the use of water in our own operations relative to sales revenues (excluding pgms) by 2017 compared to 2006 baseline.	Other: % reduction in water withdrawals from all sources per unit sales revenue	2006	2017	96%

#### 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

#### W8.1c

Please explain why you do not have any water-related targets or goals and discuss any plans to develop these in the future

#### Further Information

**Module: Linkages/Tradeoff**

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

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**W9.1**

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

No

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**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

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**Further Information**

**Module: Sign Off**

**Page: Sign Off**

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**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
Robert MacLeod	Chief Executive Officer	Chief Executive Officer (CEO)

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**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.**

Yes

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**Further Information**

**CDP**