Module: Introduction

Page: W0. Introduction

W0.1

Introduction

Please give a general description and introduction to your organization.

Merck is a global health care leader that is working to help the world be well. We deliver innovative health care solutions through our prescription medicines, vaccines, biologic therapies and animal health products, which we market directly and through our joint ventures.

Through innovative research, ground breaking partnerships and smarter processes, we are working to advance our performance in four priority areas: Access to Health, Environmental Sustainability, Employees, and Ethics & Transparency. With a focus on these priority areas across our entire organization, we are committed to leading the future of healthcare.

At Merck, our core values are driven by a desire to improve life, achieve scientific excellence, operate with the highest standards of integrity, expand access to our products and employ a diverse workforce that values collaboration.

Our corporate responsibility approach is aligned with the company's mission and values and articulates how we see our responsibilities in the areas of access to health, ethical and transparent business practices, environmentally sustainable operations, scientific advancement, employee wellness, and value creation for our shareholders.

In short, corporate responsibility at Merck is a daily commitment and a simple promise that is embedded in our business and informs all of our individual actions.

Merck reported total sales of $42.2 billion during 2014 with 70,000 employees worldwide as of December 31, 2014. Further information is available at www.merck.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
Wed 01 Jan 2014 - Wed 31 Dec 2014

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 operational 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?

No

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	Vital for operations		Fresh, clean, high-quality water is vital to the manufacture of our pharmaceutical and biological products.
Sufficient amounts of recycled, brackish and/or produced water available for use	Important		Recycled (cooling) water is used as a primary means for heat removal for many of our manufacturing processes and serves an important role in our operations.

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	Merck collects water use, consumption and discharge data for all of our global manufacturing and R&D sites plus our US headquarters. Regional and country sales offices report water use and discharge data based on square footage information.
Water withdrawals- volume by sources	76-100	Merck collects water use, consumption and discharge data for all of our global manufacturing and R&D sites plus our US headquarters. Regional and country sales offices report water use and discharge data based on square footage information.
Water discharges- total volumes	76-100	Merck collects water use, consumption and discharge data for all of our global manufacturing and R&D sites plus our US headquarters. Regional and country sales offices report water use and discharge data based on square footage information.
Water discharges- volume by destination	76-100	Merck collects water use, consumption and discharge data for all of our global manufacturing and R&D sites plus our US headquarters. Regional and country sales offices report water use and discharge data based on square footage information.
Water discharges- volume by treatment method	76-100	Merck collects water use, consumption and discharge data for all of our global manufacturing and R&D sites plus our US headquarters. Regional and country sales offices report water use and discharge data based on square footage information.
Water discharge quality data- quality by standard effluent parameters	76-100	Merck collects water use, consumption and discharge data for all of our global manufacturing and R&D sites plus our US headquarters. Regional and country sales offices report water use and discharge data based on square footage information. Merck collects water discharge quality data for Nitrogen, Phosphorous and COD.
Water consumption- total volume	76-100	Merck collects water use, consumption and discharge data for all of our global manufacturing and R&D sites plus our US headquarters. Regional and country sales offices report water use and discharge data based on square footage information.
Facilities providing fully-functioning WASH services for all workers	76-100	Merck facilities provide fully-functioning WASH services to all workers. Currently, Merck does not collect specific data to measure this.

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	6096.9	About the same	
Brackish surface water/seawater	0		
Rainwater	0		
Groundwater - renewable	13028.5	About the same	
Groundwater - non-renewable	0		
Produced/process water	0		
Municipal supply	7951.1	About the same	
Wastewater from another organization	0		
Total	27076.5	About the same	

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	15532.7	About the same	
Brackish surface water/seawater	0		
Groundwater	0		
Municipal treatment plant	7242.5	About the same	
Total	22775.1	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
5085	About the same	

W1.3

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

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

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

W1.4

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

No

W1.4a

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

Country	River basin	Impact indicator	Impact	Description of impact	Length of impact	Overall financial impact	Response strategy	Description of response strategy

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

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
Water risk assessment undertaken independently of other risk assessments	Direct operations	All facilities	

W2.3

Please state how frequently you undertake water risk assessments, 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	3 to 6 years	
Annually	Business unit	3 to 6 years	

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 5 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?

Merck uses an Enterprise Risk Management (ERM) process whereby risks are identified by the facilities, corporate functions and business operations. The risks are assessed both quantitatively and qualitatively. Prioritization is based on potential impact and likelihood of occurrence. In this manner, the company's risks are brought together across all operations and the highest risks move forward and re identified in our Annual Report (Form 10-K), section 1.A. Risk Factors.

From a water perspective, corporate environmental group uses the World Resources Institute (WRI) Water Aqueduct Risk Atlas tool, a regulatory surveillance process and internal knowledge to identify both facility specific and corporate level risks. These risks are included as part of the company's ERM process.

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
Internal company knowledge WRI Aqueduct Other: Regulatory surveillance process	

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	Quantity of water used at each manufacturing site is reported annually. Most of our production sites get their water supply from local municipal / private water companies.

Issues	Choose option	Please explain
Current water regulatory frameworks and tariffs at a local level	Relevant, included	Merck considers compliance with all regulations a foundational aspect of doing business. Continued compliance with these regulations is monitored through our regulatory surveillance and internal audit programs as well as self-assessment by site management.
Current stakeholder conflicts concerning water resources at a local level	Relevant, included	Existing or potential stakeholder issues are considered when performing facility level risk assessments.
Current implications of water on your key commodities/raw materials	Relevant, included for some facilities/suppliers	The impact of water related risk on company's operation and supply chain is considered as part of overall assessment and impact of climate change. Facility based supplier water risk assessment has not been included.
Current status of ecosystems and habitats at a local level	Relevant, included	Existing or potential issues related to protected habitat and/or endangered species are considered when performing facility level risk assessments.
Current river basin management plans	Relevant, included for some facilities/suppliers	Existing or potential risks at the river basin level are evaluated at some of our facilities.
Current access to fully-functioning WASH services for all employees	Relevant, included	Merck considers access to water supply, adequate sanitation and hygiene when performing facility level risk assessments.
Estimates of future changes in water availability at a local level	Relevant, included for some facilities/suppliers	Merck operates in stable areas where significant change to water availability is not expected over the evaluation period (5 years). However, we do consider access to water and overall water risk integral to our capital investment decisions for water and waste water infrastructure.
Estimates of future potential regulatory changes at a local level	Relevant, included	Merck tracks and monitors regulatory developments and includes them in facility level risk assessments.
Estimates of future potential stakeholder conflicts at a local level	Relevant, included	Existing or potential stakeholder issues are considered when performing facility level risk assessments.
Estimates of future implications of water on your key commodities/raw materials	Relevant, included for some facilities/suppliers	The impact of water related risk on company's operation and supply chain is considered as part of overall assessment and impact of climate change. Facility based supplier water risk assessment has not been included.
Estimates of future potential changes in the status of ecosystems and habitats at a local level	Relevant, included	Existing or potential issues related to protected habitat and/or endangered species are considered when performing facility level risk assessments.
Scenario analysis of availability of sufficient quantity and quality of water relevant for your operations at a local level	Not evaluated	
Scenario analysis of regulatory and/or tariff changes at a local level	Not evaluated	
Scenario analysis of stakeholder conflicts concerning water resources at a local level	Not evaluated	

Issues	Choose option	Please explain
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	Relevant, included	Impact to customers is a core consideration of Merck's risk assessment process. Water risk is indirectly captured via patient access to medicines and our ability to reliably supply our customers.
Employees	Relevant, included	Employees are considered in Merck's risk assessment process via employee health and safety.
Investors	Relevant, included	Investor impact is considered in Merck's risk assessment process. Water risk is indirectly captured via patient access to medicines and our ability to reliably supply our customers; both of which, directly impact company revenue.
Local communities	Relevant, included	Local community issues are considered when performing facility level risk assessments.
NGOs	Not evaluated	
Other water users at a local level	Not evaluated	
Regulators	Relevant, included	Merck considers compliance with all local regulations a foundational aspect of doing business. Continued compliance with these regulations is monitored through our internal audit program as well as self-assessment by site management.
River basin management authorities	Relevant, not yet included	
Statutory special interest groups at a local level	Not relevant, included	Merck does not operate in areas governed by statutory special interest groups.

Stakeholder	Choose option	Please explain
Suppliers	Relevant, included for some facilities/suppliers	The impact of water related risk on company's operation and supply chain is considered as part of overall assessment and impact of climate change. Facility based supplier water risk assessment has not been included.
Water utilities/suppliers at a local level	Relevant, included	We evaluate water supply and wastewater treatment capacity and capability of local municipalities and service providers servicing our sites as part of facility risk assessment.
Other	Not evaluated	

W2.8

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

Primary reason	Please explain

Further Information

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

From a corporate perspective in the Annual report (form 10-K), Merck defines "substantial" as risks that could materially adversely impact the Company's business, financial condition, results of operations or prospects. Risks that rise to this level are captured and discussed in our 10-K in section 1.A, Risk Factors. For more information see http://www.merck.com/investors/

At the facility / supply chain level, "substantial" would be any impact that could disrupt, delay or inhibit the supply of our product to the patients.

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 total operations this represents

Country	River basin	Number of facilites	Proportion of total operations exposed to risk within river basin (%)	Comment
Belgium	Other: Scheldt River Basin	1	1-5	
Brazil	Parana	1	1-5	
Mexico	Panuco	1	1-5	
Puerto Rico	Other: GHAASbasin 1835	1	1-5	
Indonesia	Brantas	1	1-5	
Singapore	Other: Singapore	2	6-10	
United States of America	Susquehanna River	1	1-5	
United States of America	Potomac River	1	1-5	
United States of America	Hudson River	2	1-5	

W3.2b

Please provide the proportion of financial value that could be affected at river basin level associated with the facilities listed in W3.2a

Country	River basin	Financial reporting metric	Proportion of chosen metric that could be affected within the river basin	Comment
Belgium	Other: Schelde	% global production capacity	1-5	
Brazil	Parana	% global production capacity	1-5	
Mexico	Panuco	% global production capacity	1-5	
Puerto Rico	Other: GHAASbasin	% global production capacity	1-5	
Indonesia	Brantas	% global production capacity	1-5	
Singapore	Other: Singapore	% global production capacity	6-10	
United States of America	Susquehanna River	% global production capacity	1-5	
United States of America	Potomac River	% global production capacity	1-5	
United States of America	Hudson River	Other: R&D Hub & Corprate Headquarters.		

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 impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
Belgium	Other: Schelde	Physical-Projected water stress	Higher operating costs	Higher cost of water and associated impact with mandated water use reductions into the permitting process	4-6 years	Probable	Low	Infrastructure investment	Low	Investment in infrastructure to increase recycle/reuse of grey water in non-potable applications.
Brazil	Parana	Physical-Ecosystem vulnerability	Loss of license to operate	Operating permits would not be granted by local authorities	4-6 years	Probable	Medium	Infrastructure investment	Low	Work with local authorities and invest in wastewater infrastructure to meet internal and external effluent discharge standards.
Mexico	Panuco	Physical-Increased water stress	Higher operating costs	Higher cost of water associated impact with mandated water use reductions into the permitting process	4-6 years	Highly probable	Low	Infrastructure investment	Low	Investment in infrastructure to increase recycle/reuse of grey water in non-potable applications at the request of the regulators.
Puerto Rico	Other: GHAASbasin	Physical-Increased water stress	Higher operating costs	Higher cost of water associated	4-6 years	Probable	Low	Infrastructure investment		Investment in infrastructure to increase

Country	River basin	Risk driver	Potential impact	Description of impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
				impact with mandated water use reductions into the permitting process						recycle/reuse of grey water in non-potable applications
Singapore	Other: Singapore	Regulatory-Regulation of discharge quality/volumes leading to higher compliance costs	Loss of license to operate	Operating permits would not be granted by local authorities	4-6 years	Probable	Medium	Infrastructure investment	Low-medium	Work with local authorities and invest in wastewater infrastructure to meet internal and external effluent discharge standards.
United States of America	Susquehanna River	Physical-Flooding	Supply chain disruption	Flood would cause property damage and shut-down operations for a period of time.	4-6 years	Probable	Medium	Other: Management Planning	Low - medium	Our site management and emergency services groups address, plan for, and react to immediate physical risks caused by flooding.
United States of America	Potomac River		Supply chain disruption	Flood would cause property damage and	4-6 years	Probable	Medium	Other: Management Planning	Low - medium	Our site management and emergency

Country	River basin	Risk driver	Potential impact	Description of impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
				shut-down operations for a period of time						services groups address, plan for, and react to immediate physical risks caused by flooding.
United States of America	Hudson River	Physical-Increased water stress	Higher operating costs	Higher cost of water supply	4-6 years	Probable	Low	Infrastructure investment	Low	Investment in infrastructure to increase recycle/reuse of grey water in non-potable applications

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 impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs

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

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
Other: Considered, but not at a facility/basin level	Merck does consider climate change and water a risk to our external supply chain (supply chain disruption), but we have not evaluated this at a facility or river basin level.

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

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	Please explain
Belgium	Improved water efficiency	Water reuse of grey water in scrubber and cooling towers.	Current-up to 1 year	Project funded as part of $100 million capital reserve fund for infrastructure improvements at our manufacturing facilities around the world to help Merck meet its water commitments and goals. Project will reduce fresh water demand by an estimated 11 million gallons per year and yield annual operating savings of approximately $125,000.
United States of America	Improved water efficiency	Reduce once-thru cooling water demand.	Current-up to 1 year	Project funded as part of $100 million capital reserve fund for infrastructure improvements at our manufacturing facilities around the world to help Merck meet its water commitments and goals. Project will reduce fresh water demand by an estimated 450 million gallons per year and yield annual operating savings of approximately $500,000.
United States of America	Improved water efficiency	Reduce once-thru cooling water demand and optimize wastewater treatment plant.	Current-up to 1 year	Project funded as part of $100 million capital reserve fund for infrastructure improvements at our manufacturing facilities around the world to help Merck meet its water commitments and goals. Project will

Country or region	Opportunity	Strategy to realize opportunity	Estimated timeframe	Please explain
				reduce fresh water demand by an estimated 600 million gallons per year and yield annual operating savings of approximately $430,000.
United States of America		Focus on Reverse Osmosis (RO) operations, sequencing of the Water for Injection (WIF) stills, and reduction in number of water softener regenerations.	1-3 years	Project will reduce fresh water demand by an estimated 7.8 million gallons per year and yield annual operating savings of approximately $190,000.

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

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

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 the change if substantive
Facility 1	Belgium	Other: Schelde	Heist	128.3	About the same	
Facility 2	Brazil	Parana	Campinas	65	Lower	The manufacturing facility uses batch processing which may have varied water demands based on process/product mix.
Facility 3	Mexico	Panuco	Xochimilco	47.4	Lower	The manufacturing facility uses batch processing which may have varied water demands based on process/product mix.
Facility 4	Puerto Rico	Other: GHAASbasin	Las Piedras	110	About the same	
Facility 5	Indonesia	Brantas	Pandaan	47	About the same	
Facility 6	Singapore	Other: Singapore	Singapore South	191	About the same	
Facility 7	Singapore	Other: Singapore	Singapore West	637.5	About the same	
Facility 8	United States of America	Susquehanna River	Cherokee	5021	About the same	
Facility 9	United States	Potomac River	Elkton	9780	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 the change if substantive
	of America					
Facility 10	United States of America	Hudson River	Kenilworth	596.9	Much lower	Manufacturing operations ceased in 4Q 2013
Facility 11	United States of America	Hudson River	Rahway	1441.3	About the same	

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
Facility 1	0	0	41.6	0	0	0	128.3	0	
Facility 2	48.3	0	0	3.3	0	0	13.4	0	
Facility 3	0	0	0	0	0	0	47.4	0	
Facility 4	0	0	6.2	40.6	0	0	70.0	0	
Facility 5	0	0	0	47.1	0	0	0	0	

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 6	0	0	0	0	0	0	191.0	0	
Facility 7	0	0	0	0	0	0	637.5	0	
Facility 8	4951.2	0	0	69.8	0	0	0	0	
Facility 9	9779.8	0	0	0	0	0	0	0	
Facility 10	0	0	0	238.6	0	0	358.3	0	
Facility 11	0	0	78.4	213.3	0	0	1228.1	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 the change if substantive
Facility 1	145.5	About the same	
Facility 2	35.8	About the same	
Facility 3	16.4	About the same	
Facility 4	62.6	About the same	
Facility 5	30.2	About the same	
Facility 6	55.1	About the same	
Facility 7	216.9	Higher	The manufacturing facility uses batch processing which may have varied water demands based on product/process mix.
Facility 8	5065.6	About the same	
Facility 9	8591	About the same	
Facility 10	613.1	Lower	Manufacturing operations were closed in 4Q 2013.

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 the change if substantive
Facility 11	1146.7	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 Treatment Plant	Seawater	Groundwater	Comment
Facility 1	0	145.5	0	0	
Facility 2	24.6	11.1	0	0	
Facility 3	0	16.4	0	0	
Facility 4	0	62.6	0	0	
Facility 5	30.2	0	0		
Facility 6	1.1	54.0	0	0	
Facility 7	1.8	215.1	0	0	
Facility 8	5037.9	27.7	0	0	
Facility 9	8591	0	0	0	
Facility 10	0.55	612.6	0	0	
Facility 11	0	1146.7			

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 the change if substantive
Facility 1	24.1	About the same	
Facility 2	34.3	About the same	
Facility 3	31.0	Lower	The manufacturing facility uses batch processing which may have varied water demands based on product/process mix.
Facility 4	54.1	About the same	
Facility 5	16.8	Higher	The manufacturing facility uses batch processing which may have varied water demands based on product/process mix.
Facility 6	132.7	Lower	The manufacturing facility uses batch processing which may have varied water demands based on product/process mix.
Facility 7	440.2	About the same	
Facility 8	60.4	About the same	
Facility 9	1188.8	About the same	
Facility 10	20.8	Much lower	Manufacturing operations shut down in 3Q 2013
Facility 11	373.1	Higher	Additional R&D space was added in 2014 which increased the load on cooling towers.

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	76-100	ISO 14064-3
Water withdrawals- volume by sources	76-100	ISO 14064.3
Water discharges- total volumes	1-25	ISO 14064.3

Water aspect	% verification	What standard and methodology was used?
Water discharges- volume by destination	Not verified	
Water discharges- volume by treatment method	Not verified	
Water discharge quality data- quality by standard effluent parameters	Not verified	
Water consumption- total volume	Not verified	

Further Information

Attachments

https://www.cdp.net/sites/2015/65/11765/Water 2015/Shared Documents/Attachments/Water2015/W5.FacilityLevelWaterAccounting(II)/Merck 2014 GHG and Water Assurance Review Letter 051815.pdf

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
Individual/Sub-set of the Board or	Scheduled-annual	The Executive Vice-President, Legal is directly responsible for Merck's water related goals. This

Highest level of direct responsibility for water issues	Frequency of briefings on water issues	Comment
other committee appointed by the Board		position is a direct report of the CEO/Chairman and one of twelve (12) Executive Committee members. Progress against goals is measured and reported at least annually.

W6.2

Is water management integrated into your business strategy?

Yes

W6.2a

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

Influence of water on business strategy	Please explain
Establishment of sustainability goals	Merck has established water use reduction goals as an integral part of our environmental sustainability strategy. The company included environmental sustainability as one of only four aspects in its corporate responsibility strategy, along with access to medicines, ethics and transparency and employees. The environmental strategy commits Merck to develop a supply chain of partners who share our values related to water and the environment.
Investment in staff/training	In 2013, Merck created the Environmental Sustainability Center of Excellence to focus on updating, strengthening and tracking progress towards Merck's corporate sustainability strategy. This work focused and consolidated the environmental sustainability segment of the corporate responsibility strategy that was developed by Merck leadership in 2010.
Other:	In 2011, Merck established a $100 million capital fund to invest in the company's water and wastewater infrastructure with the goal of reducing water demand, improving water quality, strengthening our compliance position, improving operational efficiency and addressing the discharge of active pharmaceutical compounds from our manufacturing plants. To date, over 50 projects have been

Influence of water on business strategy	Please explain
	chartered and $88 million committed.
Tighter operational performance standards	Merck has in place a Corporate Water Standard which establishes core requirements and expectations for our facilities with regard to water supply, discharge, storm water management, spill control and continuous improvement.

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

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

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
Publicly available	

W6.4

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

Water CAPEX (+/- % change)	Water OPEX (+/- % change)	Motivation for these changes
-19	0	Merck spent approximately $21 million in 2014 as part of an overall $100 million commitment to water infrastructure improvements. Merck's total capital expenditure in 2014 was $1,317 million. Operational expense related to water are negligible related to our total materials and production spending ($16,768 million) in 2014.

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

W7.1b

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

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

Further Information

Page: W8. Targets and Initiatives

W8.1

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

Yes, targets only

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
Absolute reduction of water withdrawals	Water stewardship	Reduce total water withdrawals by 15% in 2015 and 25% in 2020 from the 2009 baseline year.	Other: % reduction of water from all sources	2009	2020	81%

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

W9.1

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

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

Further Information

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
Danielle Menture	Vice President, Global Safety and the Environment	Environment/Sustainability manager

W10.2

Addressing water risks effectively, in many instances, requires collective action. CDP would like to support you in finding potential partners that are also working to tackle water challenges in the river basins you report against. Please select if your organization would like CDP to transfer your publicly disclosed risk and impact drivers and response strategy data from questions W1.4a, W3.2b, W3.2c, W4.1a and W8.1b to the United Nations Global Compact Water Action Hub.

Further Information

CDP 2015 Water 2015 Information Request