# Module: Introduction

## Page: W0. Introduction

### W0.1

**Introduction**

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

Owens Corning was founded in 1938. Since then, the Company has continued to grow as a market-leading innovator of glass fiber technology. A Fortune® 500 company for 60 consecutive years, the company is committed to driving sustainability by delivering solutions, transforming markets, and enhancing lives. Owens Corning has earned its reputation as a market-leading innovator of glass-fiber technology by consistently providing new solutions that deliver a strong combination of quality and value to its customers across the world. Owens Corning is a world leader in composite and building materials systems, delivering a broad range of high-quality products and services. Our products range from glass fiber used to reinforce composite materials for transportation, electronics, marine, infrastructure, wind-energy and other high-performance markets to insulation and roofing for residential, commercial and industrial applications.

In the fourth quarter of 2014, Owens Corning announced organizational changes to streamline the Company's management structure and reduce costs. As a result of this action, the Building Materials Group organizational structure was eliminated. The new management structure contains three reporting segments: Composites, which includes our Reinforcements and Downstream businesses, Insulation and Roofing. Our Composites, Insulation and Roofing reportable segments accounted for approximately 36% , 32% and 32% of our total reportable segment net sales, respectively, in 2014 .

SUSTAINABILITY Owens Corning is committed to balancing economic growth with social progress and environmental stewardship as it delivers sustainable solutions to its building materials and composites customers around the world. Owens Corning is striving to be a net-positive company by reducing the environmental footprint from its operations while growing its handprint – or positive impacts the company causes or enables to happen. Owens Corning's ability to deliver on this commitment has earned the company membership on the Dow Jones Sustainability World Index and recognition as the Building Products Industry Group Leader by the RobecoSam 2014 Sustainability Yearbook.

SAFETY: Owens Corning's commitment to safety is unconditional. In its quest for an injury-free workplace, the company has a long history of improvement as evidenced by safety improvement in 10 of the past 12 years. Over this period, Owens Corning has reduced the number of injuries by more than 90 percent. The company had 88 percent fewer injuries than the average manufacturing company when measured against the rates published by the U.S. Department of Labor. The Company has been recognized by the National Safety Council with the 2014 Green Cross Medal Award.

Owens Corning reported sales of $5.3 billion in 2014 and employs approximately 15,000 people in 26 countries on five continents. Additional information is available at: www.owenscorning.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?**

Yes

**W0.4a**

**Exclusions**

**Please report the exclusions in the following table**

| Exclusion | Please explain why you have made the exclusion |
|---|---|
| Leased real estate, including warehouses and small offices are not included. Note: All manufacturing locations, major research and development sites and corporate headquarters are included in reporting. | These are very small users of water. They use water for sanitary purposes for a small number of employees. |

**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 | Direct- Sufficient quantity and quality of fresh water is necessary as many plants require a large quantity of water both for process and cooling purposes. Our 2020 water goal of 35% intensity reduction from 2010 puts focus on facilities with high water use. We drive to reduce water consumption and consider any potential water contaminations from use/disposal of product. Quality of freshwater is critical in many of our process. In most cases, we maintain a water quality above |

| Water quality and quantity | Direct use importance rating | Indirect use importance rating | Please explain |
|---|---|---|---|
| | | | specified minimum thresholds  Indirect use-  We conduct annual supplier assessment to determine the associated business risks related to water. Owens Corning has long list of suppliers. It is necessary to track water risk throughout the supply chain. Through these annual assessments, we track if our Tier 1 supplier base has established formal environmental goals for their operations, including reducing fresh water use. We need further analysis to determine the impact of water quality on suppliers' operations. |
| Sufficient amounts of recycled, brackish and/or produced water available for use | Important | Not very important | Direct- Treated recycled water must meet prescribed standards for different processes. Using recycled water reduces fresh water consumption. The percentage of water recycled for Owens Corning compared to total water withdrawn is approximately 3.5%, whereas total water re-circulated is as high as 3647%. Since the initiation of our first water goals in 2002 we have strategically looked for opportunities to increase water recycling and re-circulation. In our most water intensive businesses we have seen a substantive decrease in water withdrawal, even with an increase in production. Indirect- It is difficult to track use of recycled water in our supply chain, however we influence our suppliers to set environmental goals and improve their recycling standards to reduce fresh water consumption. Owens Corning recognizes and awards its high performing suppliers at its annual Supplier Recognition event. |

## 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 | 100% of sites are monitored for withdrawal data by total volume through a combination of municipal and Owens Corning meters in place |
| Water withdrawals- volume by sources | 76-100 | 100% of sites are monitored for withdrawal data by sources:  • Municipal water- utility bills • Onsite wells- estimated and/or pump meters • Water purchased from commercial third party- invoices • Surface water bodies- pump meters • Storm water- pump meters and estimations based on the |

| Water aspect | % of sites/facilities/operations | Please explain |
|---|---|---|
| | | collection methods |
| Water discharges- total volumes | 76-100 | 100% of sites are monitored for discharge data by total volume through discharge meters, calculations and estimation. |
| Water discharges- volume by destination | 76-100 | 100% of sites are monitored for discharge data by destination • Water discharges to a municipality (standalone facility) - sewer bills • Water discharges to a municipality (Multi-tenant building)- estimate of sanitary sewer discharge based on total sewer discharge for building and number of tenants in building • Water discharges to an offsite surface water body- an estimate of process water discharged |
| Water discharges- volume by treatment method | 76-100 | 100% of sites are monitored for discharge data by treatment method based on estimations and methodology used for treatment |
| Water discharge quality data- quality by standard effluent parameters | 76-100 | 100% of sites are monitored for water discharge quality data – quality by standard effluent parameters through sampling and laboratory analysis |
| Water consumption- total volume | 76-100 | 100% of sites are monitored for water consumption by total volume. Owens Corning has considered water consumption to be same as water withdrawal. |
| Facilities providing fully-functioning WASH services for all workers | 76-100 | 100% of sites providing fully-functioning WASH services to all workers |

**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 | 626 | Lower | Reduced the use of freshwater and increased rainwater usage. |
| Brackish surface water/seawater | 0 | Not applicable | N/A |

| Source | Quantity (megaliters/year) | How does total water withdrawals for this source compare to the last reporting year? | Comment |
|---|---|---|---|
| Rainwater | 65 | Much higher | By utilizing more rainwater in our processes we have reduced our dependency on fresh water. |
| Groundwater - renewable | 3672 | Lower | |
| Groundwater - non-renewable | 0 | Not applicable | N/A |
| Produced/process water | 0 | Not applicable | N/A |
| Municipal supply | 5574 | Much lower | Focus on water efficiency and expanding the use of recycled water decreases our use of municipal water. |
| Wastewater from another organization | 0 | Not applicable | N/A |
| Total | 9937 | Lower | Focus on water efficiency decreased overall water use by 4%. |

**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 | 1346 | Much lower | By recycling water in our processes we have reduced our overall water discharged to surface water. |
| Brackish surface water/seawater | 0 | Not applicable | |
| Groundwater | 0 | Not applicable | |
| Municipal treatment plant | 3798 | Much lower | By recycling water in our processes we have reduced our overall water discharged. |

| Destination | Quantity (megaliters/year) | How does total water discharged to this destination compare to the last reporting year? | Comment |
|---|---|---|---|
| Total | 5145 | Much lower | |

**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 |
|---|---|---|
| 9937 | Lower | Our focus on water efficiency, recycled and re-circulated water have decreased our overall water consumption. (Consumption and withdrawal are considered the same) |

**W1.3**

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

Yes

**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 |
|---|---|---|
| 1-25 | 76-100 | The key criteria used to characterize supplier risk includes single sourcing, level of difficulty in switching to alternative supplier, economic and business stability of supplier organization, country of operation, sustainability footprint of the supplier organization, and safety related issues reported by the supplier organization and willingness to adhere to our Supplier Code of Conduct. The Supplier Segmentation process, implemented for the top 80% spend, analyzed risk and impact. Companies were asked to provide an annual self assessment. The segmentation analysis is used to prioritize efforts of engagement and active management of suppliers. In 2014, we updated our supplier segmentation process to deploy a more transparent and detailed assessment of suppliers that should be “actively managed”. The supplier list as generated from the spend analysis is subjected to a ranking process by each commodity leader who rates the supplier various criticality and risk based questions. The suppliers are then weighted and scored on impact and risk resulting in 4 quadrant segmentation. The results reflected that 59% of manufacturers, 34% of service providers and 7% of distributors were measuring water use and had set reduction goals. We utilize these assessments to award our suppliers for their outstanding environmental performance. |

## 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 |
|---|---|---|---|
| Comprehensive company-wide risk assessment | Direct operations and supply chain | All facilities and some suppliers | We use the WRI Water Risk Atlas Aqueduct Tool to conduct a detailed water risk assessment and stress mapping for direct operations and supply chain. Geographical water risk was measured based on local-level water risk indicators in addition to physical water availability. We have surveyed our sites and used the WRI Aqueduct Water Risk Mapping Tool to screen our sites and suppliers for high baseline water supply stress, future projections of water supply stress changes (year 2025), frequency of drought, and upstream water quality in combination with our own knowledge of our facilities in high stress areas or where supply issues may arise. The top 80% of our supplier spend is analyzed for risk and impact. They were asked to provide an annual self assessment. In 2014, we updated our supplier segmentation process to deploy a more transparent and detailed assessment of suppliers that should be “actively managed”. The supplier list as generated from the spend analysis is subjected to a ranking process by each commodity leader who rates the supplier various criticality and risk based questions. The suppliers are then weighted and scored on impact and risk resulting in 4 quadrant segmentation. |

## 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 | River basin | >6 years | In line with our water management policy, Owens Corning has streamlined the process of water risk management. We continuously monitor water risks and opportunities on annual basis. |

**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?**

Owens Corning is highly dependent on water for majority of its manufacturing processes. Prevailing water scarcity in a region might result in shut down of operations. Limited water availability and increased water costs could impact our business expansion plans.

To evaluate the effects of water risks, we have conducted a risk assessment using the WRI Aqueduct tool for all of our locations. We have also conducted life cycle assessments of our products to identify the amount of water embodied in each product. We also evaluate significant changes in processes, products, costs of water, and other utility requirements and environmental footprints for each facility. To mitigate these impacts, we have undertaken water conservation initiatives across water stressed and non-stressed facilities.

In 2013, one of our US plants identified as having an elevated overall water risk was also scheduled for increased production. In order to offset impacts the plant began planning to implement water projects. In 2014 it mapped its water system and created a process flow diagram. The plant also used this information to determine where to install flow meters and collected flow rate information throughout the system. This was used to evaluate water reduction projects that will be implemented in 2015. Phase one will reuse RO water and water from one cooling system as make-up water in a second cooling system. Phase two will reuse sanitary drain water in other process areas.

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 |
|---|---|
| Life Cycle Assessment<br>WBCSD Global Water Tool<br>WRI Aqueduct | Since 2012, when we partnered with World Resources Institute to test the improved WRI Aqueduct Risk Map Tool we have used it to evaluate the baseline water risk of all our facilities. Out of the 89 facilities assessed 9 facilities (9.6 percent of the total) were found to be in water stressed regions. We also use the WBCSD Global Water Tool to confirm water stress areas and identify future water stress. Our Life Cycle Assessments identify the amount of water used during production, use, and end of life for our products. This knowledge helps us identify potential water risks in our supply chain and processes. We also evaluate all critical and collaborative suppliers through the WRI Aqueduct tool. This established that 9 percent of that supplier base resides in water stressed regions. Using the overall risk level scored by the Aqueduct Tool we include any site with a risk level of 3 or higher, determined by their river basin, in our list of high risk/high stress areas. Based on the current Aqueduct Tool available Santa Clara's overall risk dropped to 2.99. Since our cutoff is 3, it is not included in our total of 9 plants. However, since it was listed as a critical focus plant last year, is located in California, and its risk could likely rise above a 3 next year, we will continue to focus on reductions at the site. We would rather track and report on our progress consistently at the same plants than switch our focus annually. |

## 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 | As Owens Corning manufacturing processes require water of a certain quantity and quality this is an essential part of our water risk assessments. |
| Current water regulatory frameworks and tariffs at a local level | Relevant, included | Regulatory requirements regarding water are tracked by the Corporate Law Department and Business Unit environmental experts and also handled at the plant level with Business Unit and Corporate Law Department oversight. |
| Current stakeholder conflicts concerning water resources at a local level | Relevant, included | Stakeholder engagement is necessary to mitigate any future conflicts or possible damage to brand value. We have an association with Member of Council of Great Lakes Industries for applying water stewardship initiatives in the Great Lakes Basin. We proactively engage with local stakeholders during new builds and on an as needed basis. |
| Current implications of water on your key commodities/raw materials | Not evaluated | Owens Corning conducts detailed life cycle assessments for its building material product line, which also enables the derivation of the virtual content of water in products. Risk assessment results are overlapped with virtual water content to estimate the impact on water intensive products and associated increase or decrease in revenue. |
| Current status of ecosystems and habitats at a local level | Relevant, included | We conduct annual evaluations of all our facilities to determine proximity to sites listed as ecologically sensitive or of significant importance related to biodiversity. |
| Current river basin management plans | Relevant, included for some facilities/suppliers | Our France facilities are involved in techno-economic analysis with relation to the European Water Framework Directive. |
| Current access to fully-functioning WASH services for all employees | Relevant, included | To improve health and hygiene of all employees, it is critical for Owens Corning to provide fully functioning WASH services. |
| Estimates of future changes in water availability at a local level | Relevant, included | Based on baseline water stress index value from WRI Aqueduct tool, we estimate current and future water availability at local levels. |
| Estimates of future potential regulatory changes at a local level | Relevant, included | Major legislative proposals affecting facilities are tracked by our legal department and local leadership using publically accessible information combined with individual plant knowledge. |
| Estimates of future potential stakeholder conflicts at a local level | Relevant, included | Plants are expected to monitor and take action on local stakeholder concerns. To ensure good relations with stakeholders, their conflicts and interests are discussed during semi-annual meetings with the Chief Sustainability Officer to evaluate sustainability performance of the company. |
| Estimates of future implications of water on your key commodities/raw materials | Relevant, not yet included | Water availability is critical for our manufacturing processes therefore results of our LCA analyses are used to determine future water needs. |
| Estimates of future potential changes in the status of ecosystems and habitats at a local level | Relevant, included | An annual biodiversity assessment is completed by each plant and at a corporate level to evaluate if any facilities are located near rare, threatened or endangered species, sensitive habitats, or IUCN Red List species, which would be affected by Owens Corning operations. |
| Scenario analysis of availability of | Relevant, included | Baseline water index value is overlapped with the company’s projected water demand |

| Issues | Choose option | Please explain |
|---|---|---|
| sufficient quantity and quality of water relevant for your operations at a local level | | based on operational changes. Water management plans are developed to optimize water efficiency at facilities in water stressed regions and with high water demand. |
| Scenario analysis of regulatory and/or tariff changes at a local level | Relevant, included | Potential regulatory changes are incorporated into facility level risk analysis for all locations and cost data is tracked. Based on the estimated consequences of legislative changes, desired actions are incorporated into water management strategy. |
| Scenario analysis of stakeholder conflicts concerning water resources at a local level | Relevant, included | Through our plant leaders and site EHS leaders Owens Corning is committed to establishing relationships with stakeholders, including community members and neighbors. Through these interactions we have developed site based processes to engage our local communities. |
| Scenario analysis of implications of water on your key commodities/raw materials | Relevant, included | Scenario analysis is done for all facilities using risk maps for drought, upstream water quality, and future supply stress. |
| Scenario analysis of potential changes in the status of ecosystems and habitats at a local level | Relevant, included | Owens Corning evaluates and monitors the changes in ecological surroundings through biodiversity assessments. Such assessments help Owens Corning to determine its future actions such as avoiding expanding operations into ecologically reserved areas. |
| 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 for some facilities/suppliers | Owens Corning's risk assessment approach mainly focuses on direct operations and suppliers, where the majority of our water consumption occurs. Within our composites business, as we are an input material provider, Owens Corning has worked with several customers to assist them with LCA’s to determine water use/risk. |
| Employees | Relevant, included | We provide training to employees to improve water efficiency within the facilities. In facilities with high water risk additional training is provided. |
| Investors | Relevant, included | We are reporting our water risks in Dow Jones Sustainability Index, GRI report and CDP submissions. |

| Stakeholder | Choose option | Please explain |
|---|---|---|
| | | Many of our investors use these reports and rankings as a tool to determine continued investment in Owens Corning. |
| Local communities | Relevant, included | Through our plant leaders and site EHS leaders Owens Corning is committed to establishing relationships with stakeholders, including community members and neighbors. Through these interactions we have developed site based processes to engage our local communities. |
| NGOs | Relevant, included | Through materiality and our day to day business Owens Corning is committed to understanding topics raised by NGOs as well as partnering with these stakeholders where relevant. |
| Other water users at a local level | Relevant, included | Given that water is essential to our processes, it is in our best interest and our responsibility to ensure water systems are maintained in our areas of operation. |
| Regulators | Relevant, included | All our facilities must comply with national, state and local regulations and permits regarding water withdrawals and wastewater discharges. Through our plant leaders and site EHS leaders Owens Corning is committed to establishing relationships with regulators. |
| River basin management authorities | Relevant, included for some facilities/suppliers | Our plants in France are participating in technological and economic analysis on their waste water as part of the European Water Framework Directive. |
| Statutory special interest groups at a local level | Relevant, included | We have an association with Member of Council of Great Lakes Industries for applying water stewardship initiatives in the Great Lakes Basin. |
| Suppliers | Relevant, included | The Supplier Segmentation process, implemented for the top 80% spend, analyzed risk and impact and companies were asked to provide an annual self assessment via a survey. The segmentation analysis is used by commodity leaders to prioritize their efforts of engagement and active management of suppliers. The results, as gathered from the 2014 supplier assessments, reflected that 59% of manufacturers, 34% of service providers and 7% of distributors were measuring water use and had set reduction goals. We also utilize these assessments to award our suppliers for their outstanding environmental performance. All our suppliers identified as critical and collaborative are annually analyzed for water risk using the WRI Aqueduct Tool. |
| Water utilities/suppliers at a local level | Relevant, included | Supplier risk assessment also includes local water utilities/suppliers that are critical to our operations. |
| Other | | |

## 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**

Operations at a few plants require significant quantity of water. Therefore, water related risks have the potential to cause substantial change in direct business operations. Depending on severity and the likelihood of water challenges derived from the watershed/basin, it might impact local business units as well as revenue or expenditure at global level.

### 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 |
|---|---|---|---|---|
| India | Krishna | 1 | Less than 1% | |
| China | Yongding He | 2 | Less than 1% | Represents both plants in the basin. |
| China | Huang He (Yellow River) | 1 | Less than 1% | |
| Singapore | Other: Kallang | 1 | Less than 1% | |
| Mexico | Balsas | 1 | 1-5 | |
| Mexico | Colorado River (Pacific Ocean) | 1 | Less than 1% | |
| United States of America | Mississippi River | 1 | Less than 1% | |
| United States of America | Other: Los Angeles | 1 | Less than 1% | |

**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 |
|---|---|---|---|---|
| India | Krishna | % cost of goods sold | Less than 1% | |
| China | Yongding He | % cost of goods sold | Less than 1% | Represents both plants in the |

| Country | River basin | Financial reporting metric | Proportion of chosen metric that could be affected within the river basin | Comment |
|---|---|---|---|---|
| | | | | basin. |
| China | Huang He (Yellow River) | % cost of goods sold | Less than 1% | |
| Singapore | Other: Kallang | % cost of goods sold | Less than 1% | |
| Mexico | Balsas | % cost of goods sold | 1-5 | |
| Mexico | Colorado River (Pacific Ocean) | % cost of goods sold | Less than 1% | |
| United States of America | Mississippi River | % cost of goods sold | Less than 1% | |
| United States of America | Other: Los Angeles | % cost of goods sold | 1-5 | |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| India | Krishna | Physical-Declining water quality Physical-Flooding Physical-Increased | Plant/production disruption leading to reduced output | The most immediate water risk for this plant is flooding. Flooding would cause | Current-up to 1 year | Probable | Low | Develop flood emergency plans Other: Flood insurance | Less than $100,000 | We maintain flood insurance to ensure any infrastructure damage due to flooding is covered. Our |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | water stress Physical-Projected water stress Physical-Seasonal supply variability/Inter annual variability | | production delays, damage infrastructure, and puts our emlpoyees at risk. | | | | | | system is designed so that we can shift production to unaffected plants to avoid delays. |
| China | Yongding He | Physical-Drought Physical-Increased water scarcity Physical-Projected water scarcity Physical-Projected water stress Physical-Seasonal supply variability/Inter annual variability | Water supply disruption | The biggest water risk factor at these plants is a physical shortage of water. Seasonal variability leads to droughts and increased water scarcity. Water shortages could limit its availability for manufacturing usage. | >6 years | Probable | Medium-high | Establish site-specific targets Promote best practice and awareness | Less than $100,000 | We use our 2020 water goal to drive water efficiency and reductions with a focus on high users of water and sites in water stressed basins. Implementing metering throughout the system to make recommendations on future water savings initiatives. |
| China | Huang He (Yellow River) | Physical-Declining water quality | Water supply disruption | There are several water risks at this | >6 years | Probable | Medium-high | Develop flood emergency | Less than $100,000 | We maintain flood insurance to ensure any |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Physical-Drought<br>Physical-Flooding<br>Physical-Increased water scarcity<br>Physical-Projected water scarcity<br>Physical-Projected water stress | | site. The seasonal variability leads to droughts and increased water scarcity. Water shortages could limit its availability for manufacturing usage. The variability can also cause flooding which would cause production delays, damage infrastructure, and puts our emlpoyees at risk. Declining water quantity and quality are also a major risk that could disrupt production or increase costs. | | | | plans<br>Establish site-specific targets<br>Promote best practice and awareness<br>Other: Flood insurance | | infrastructure damage due to flooding is covered. Our system is designed so that we can shift production to unaffected plants to avoid delays. We use our 2020 water goal to drive water efficiency and reductions with a focus on high users of water and sites in water stressed basins. |
| Singapore | Other: | Physical- | Water supply | Declining | >6 years | Probable | Medium- | Establish | Less than | We use our 2020 |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| | Kallang | Declining water quality<br>Physical-Increased water scarcity | disruption | water quantity could disrupt our water supply which would cause production delays. Declining quality could increase our costs to treat water as we require high quality water in our processes. | | | high | site-specific targets<br>Promote best practice and awareness | $100,000 | water goal to drive water efficiency and reductions with a focus on high users of water and sites in water stressed basins. |
| Mexico | Balsas | Physical-Drought<br>Physical-Flooding<br>Physical-Increased water scarcity<br>Physical-Projected water stress<br>Physical-Seasonal supply variability/Inter annual variability | Water supply disruption | There are several water risks at this site. The seasonal variability leads to droughts and increased water scarcity. Water shortages could limit its availability for manufacturing usage. The variability can | >6 years | Probable | High | Develop flood emergency plans<br>Establish site-specific targets<br>Promote best practice and awareness<br>Other: Flood Insurance | Less than $100,000 | We maintain flood insurance to ensure any infrastructure damage due to flooding is covered. Our system is designed so that we can shift production to unaffected plants to avoid delays. We use our 2020 water goal to drive water efficiency and reductions with a |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | also cause flooding which would cause production delays, damage infrastructure, and puts our emlpoyees at risk. Declining water quantity and quality are also a major risk that could disrupt production or increase costs. | | | | | | focus on high users of water and sites in water stressed basins. In 2014 a significant amount of water was saved through a water recycling program. An additional project is under evaluation to increase the amount of water recycled. |
| Mexico | Colorado River (Pacific Ocean) | Physical-Declining water quality Physical-Increased water scarcity Physical-Seasonal supply variability/Inter annual variability | Water supply disruption | Declining water quantity could disrupt our water supply which would cause production delays. Declining quality could increase our costs to treat water as we require high quality water in our | >6 years | Probable | Low | Establish site-specific targets Promote best practice and awareness | Less than $100,000 | We use our 2020 water goal to drive water efficiency and reductions with a focus on high users of water and sites in water stressed basins. |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | processes. High annual variability increases difficulty in planning. | | | | | | |
| United States of America | Mississippi River | Physical-Declining water quality<br>Physical-Flooding<br>Physical-Increased water scarcity | Plant/production disruption leading to reduced output | Declining water quantity could disrupt our water supply which would cause production delays. Declining quality could increase our costs to treat water as we require high quality water in our processes. Flooding would cause production delays, damage infrastructure, and puts our emlpoyees at risk. | >6 years | Probable | Medium | Develop flood emergency plans<br>Establish site-specific targets<br>Promote best practice and awareness<br>Other: Flood Insurance | Less than $100,000 | We maintain flood insurance to ensure any infrastructure damage due to flooding is covered. Our system is designed so that we can shift production to unaffected plants to avoid delays. We use our 2020 water goal to drive water efficiency and reductions with a focus on high users of water and sites in water stressed basins. |
| United States of | Other: Los Angeles | Physical-Declining | Higher operating costs | Declining water quantity | 1-3 years | Probable | Low | Establish site- | Less than $100,000 | We use our 2020 water goal to |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| America | | water quality<br>Physical-Drought<br>Physical-Increased water scarcity | | could disrupt our water supply which would cause production delays. Increased price of water due to limited supply would increase our operating costs. Declining quality could increase our costs to treat water as we require high quality water in our processes. | | | | specific targets<br>Promote best practice and awareness | | drive water efficiency and reductions with a focus on high users of water and sites in water stressed basins. |

## 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 |
|---|---|
| Risks exist, but no substantive impact anticipated | We evaluate water risk throughout our supply chain through our supplier survey and using the WRI Aqueduct Tool. Based on the results of our survey and these tools, at this time we do not anticipate substantive impacts associated with any water risks. Through our risk analysis, supplier survey, and relationships with suppliers we are confident in the ability of our suppliers to properly manage any water risks should they arise. |

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 |
|---|---|---|---|---|
| Company-wide | Cost savings Improved water | By increasing the recycling/recirculating ratio at plants Owens Corning has reduced its fresh water purchases resulting in financial benefits. | Current-up to 1 year | Lower costs for plant operations and less dependency on local or |

| Country or region | Opportunity | Strategy to realize opportunity | Estimated timeframe | Please explain |
|---|---|---|---|---|
| | efficiency | Our long term strategy is to use lessons learned from our US plants and expand water recycling to all plants possible. | | regional water sources by recirculating and recycling water |
| Company-wide | Innovation<br>Sales of new products/services | Our Composites Business is constantly evaluating new applications with product manufacturers. | Current-up to 1 year | Increase of water use in different applications to innovate new products |

## 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 | India | Krishna | Thimmapur | 109 | Much lower | Lower production and focus on water efficiency. |
| Facility 2 | China | Yongding He | Doudian | 167 | Much lower | Focus on water efficiency. |
| Facility 3 | China | Yongding He | Tian Jing | 61 | Much higher | Water leak in an underground pipe caused a water use increase prior to repair. |
| Facility 4 | China | Huang He (Yellow River) | Xian | 36 | Much higher | Much higher production levels increased water use. |
| Facility 5 | Singapore | Other: Kallang | Singapore | 2.35 | Much lower | Lower production and focus on water efficiency. |
| Facility 6 | Mexico | Balsas | Tlaxcala | 811 | Higher | Decreased production efficiency early in the year. |
| Facility 7 | Mexico | Colorado River (Pacific Ocean) | Mexicali | .14 | Lower | Focus on water efficiency. |
| Facility 8 | United States of America | Mississippi River | Rockford | 14 | Much higher | Decreased production efficiency. |
| Facility 9 | United States of America | Other: Los Angelos | Compton | 26 | Much lower | Focus on water efficiency. |

**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 | 0 | 109 | 0 | 0 | 0 | 0 | |
| Facility 2 | 0 | 0 | 0 | 167 | 0 | 0 | 0 | 0 | |
| Facility 3 | 0 | 0 | 0 | 0 | 0 | 0 | 61 | 0 | |
| Facility 4 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 0 | |
| Facility 5 | 0 | 0 | 0 | 0 | 0 | 0 | 2.35 | 0 | |
| Facility 6 | 0 | 0 | 0 | 811 | 0 | 0 | 0 | 0 | |
| Facility 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0.14 | 0 | |
| Facility 8 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | |
| Facility 9 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 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 |
|---|---|---|---|

**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 | 0 | 0 | 0 | All waste water is treated and used on site for irrigation or recycled. |
| Facility 2 | 118 | 0 | 0 | 0 | |
| Facility 3 | 0 | 8 | 0 | 0 | |
| Facility 4 | 0 | 13 | 0 | 0 | |
| Facility 5 | 0 | 2.4 | 0 | 0 | |
| Facility 6 | 568 | 0 | 0 | 0 | |
| Facility 7 | 0 | 0.14 | 0 | 0 | |
| Facility 8 | 0 | 14 | 0 | 0 | |
| Facility 9 | 0 | 17 | 0 | 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 the change if substantive |
|---|---|---|---|
| Facility 1 | 109 | Much lower | Water consumption considered the same as water withdrawal data. |
| Facility 2 | 167 | Much higher | Water consumption considered the same as water withdrawal data. |
| Facility 3 | 61 | Much lower | Water consumption considered the same as water withdrawal data. |
| Facility 4 | 36 | Much higher | Water consumption considered the same as water withdrawal data. |
| Facility 5 | 2.35 | Much lower | Water consumption considered the same as water withdrawal data. |
| Facility 6 | 811 | Higher | Water consumption considered the same as water withdrawal data. |
| Facility 7 | 0.14 | Lower | Water consumption considered the same as water withdrawal data. |
| Facility 8 | 14 | Much higher | Water consumption considered the same as water withdrawal data. |
| Facility 9 | 26 | Much lower | Water consumption considered the same as water withdrawal data. |

**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 | 26-50 | We appointed a third party consultant to verify & audit our water consumption & cost data. In 2014 they verified water withdrawal data for North American facilities. This was done by detailed review & analysis of municipal water usage, discharge volumes & CESS taxes applied by utilities. The information was supported by facility level water |

| Water aspect | % verification | What standard and methodology was used? |
|---|---|---|
| | | balancing studies. We also verify water use in the US & Canada through a third party invoice pay system that documents water purchases, unit costs & volumes. |
| Water withdrawals- volume by sources | Not verified | |
| Water discharges- total volumes | Not verified | |
| 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**

# 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 other committee appointed by the Board | Scheduled-annual | The complete Board of Directors monitors Owens Corning's progress against sustainability. Sustainability is embedded in the company from the products we make to the actions we drive within the communities we operate. In 2007 Owens Corning appointed Frank O'Brien-Bernini as the Chief Sustainability Officer (CSO). Mr. O'Brien-Bernini reports directly to the CEO with accountability for the Corporation's compliance with environmental, safety, health, and sustainability matters. Reporting directly to the CSO within Owens Corning is a sustainability organization with approximately 35 employees including of the Vice President of Environmental Health and Safety and Operations Sustainability. These employees are accountable for product and supply sustainability, building science, corporate toxicology, product stewardship, operations sustainability and Environmental Health and Safety. |

## 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 | Owens Corning is trying to achieve more efficient water consumption for direct operations and seeking the involvement of suppliers on |

| Influence of water on business strategy | Please explain |
|---|---|
| sustainability goals | effective water management. We set 2020 water consumption reduction targets against a 2010 baseline. The results of our materiality study identified water as significant to both stakeholders and Owens Corning. Continuing to monitor, report, and responsibly manage our water usage is an important part of meeting company and stakeholder expectations. |
| Other: Water stewardship initiatives | Promote a broad participation and interaction with the governmental, non-governmental organizations, academic and private industry representatives and other experts on the issue of use and management of water. |

**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 |
|---|---|
| No measurable influence | There are no such instances recorded where water has negatively impacted our business strategy significantly |

**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 |
|---|---|
| Company-wide | Water is a valuable resource that is becoming increasingly scarce in many geographic locations. When water scarcity increases, the cost of water usage also increases, impacting operating costs. Reduction of overall water usage therefore reduces the environmental footprint of Owens Corning and operating costs (as associated with water usage). In order to reduce overall water usage, Owens Corning must understand the water balance of plants, business units and corporation. To improve our environmental footprint, we must also understand nature (i.e., quality) of water discharged. Owens Corning has formally appointed water sustainability team which has been meeting for eight years with business unit representations that evaluate data, conduct water surveys and meet to discuss implementing water initiatives at facility level. This group tracks the locally implemented initiatives at plant level, record the best practices and circulate to the broader company via internal sharing means. This group reports progress up to the Chief Sustainability Officer. Screening data is evaluated. Owens Corning's 2020 sustainability goals include a 35% intensity reduction in water consumption. |

## 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 |
|---|---|---|
| -61 | +0.69 | There is a decrease in capital expenditure by 61%. Owens Corning invested significantly in water projects in 2012. Since then we have been continuously improving upon and upgrading our water systems to achieve water efficiency across the operations. Due to increase in scale of operations our operational expenditure has been increased slightly by 0.69%. |

**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 |
|---|---|---|---|---|---|---|
| Other: Reduction of water intensity | Cost savings | 35% reduction by 2020 compared to 2010 baseline year. | Other: % Reduction in water use intensity | 2010 | 2020 | 83% |

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?**

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 |
|---|---|---|
| Greenhouse gas emissions | Trade-off | Enhancement of water treatment initiatives within the organization has resulted in an increase in electricity consumption for some facilities which increases scope 2 emissions. Therefore, we are parallel investing in energy efficiency measures to optimize the impact of trade off. We are also increasing rainwater utilization for cooling purpose which requires minimal treatment. |

## 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 |
|---|---|---|
| Frank O'Brien-Bernini | Vice President and Chief Sustainability Officer | Other: Chief Sustainability Officer |

## 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.**

Yes

## Further Information

**CDP 2015 Water 2015 Information Request**