

Guidance for responding companies

Supply Chain Water Guidance 2017

CDP

respond@cdp.net

<http://www.cdp.net/>

Licensing of the CDP Questionnaires

The copyright to CDP's annual questionnaire/s is owned by CDP Worldwide, a registered charity number 1122330 and a company limited by guarantee, registered in England number 05013650. Any use of any part of the questionnaire, including the questions, must be licensed by CDP. Any unauthorized use is prohibited and CDP reserves the right to protect its copyright by all legal means necessary. Contact license@cdp.net for details.

Version Control

Version Nr.	Released	Revision Summary
1.0	February 2017	This version of the guidance has been prepared to allow companies to see the full format and requirements of the Supply Chain Water questionnaire

Contents

Introduction to Supply Chain Water Guidance	6
Introduction to this document	6
What has changed for 2017?	6
CDP’s Sector Approach – Reimagining Disclosure	7
Water reporting	7
Water reporting standards.....	7
CDP approach.....	9
Disclosing to CDP	12
Deadline for responses	12
Response changes	12
Water scoring	12
Assistance in responding	13
Providing feedback to CDP	14
Introduction Page.....	15
Introduction Module Guidance	19
W0. Introduction	19
Question Pathway	19
General Guidance	20
Specific question guidance for the Introduction	20
Current State Module Guidance	23
W1. Context	23
Question Pathway	23
General guidance	24
Specific question guidance	25
Risk Assessment Module Guidance	52
W2. Procedures and requirements	52
Question Pathway	52
General guidance	53
Specific question guidance	54
Implications Module Guidance	71
W3. Water risks	71
Question Pathway	71
General guidance	72

Specific question guidance	73
W4. Water opportunities.....	99
Question Pathway	99
General guidance	100
Specific question guidance	101
Facility Level Water Accounting Module Guidance	107
W5. Facility level water accounting	107
Question Pathway	107
General guidance	108
Specific question guidance	109
Response Module Guidance	123
W6. Government & strategy.....	123
Question Pathway	123
General guidance	124
Specific question guidance	125
W7. Compliance	133
Question Pathway	133
General guidance	134
Specific question guidance	134
W8. Targets and initiatives.....	138
Question Pathway	138
General guidance	139
Specific question guidance	139
Linkages and Trade-offs Module Guidance	146
W9. Linkages and trade-offs	146
Question Pathway	146
Specific question guidance	147
Sign off Module Guidance	151
W10. Sign off.....	151
Question Pathway	151
General guidance	152
Specific question guidance	152
Water Supply Chain Module Guidance	154
Introduction to this module	154
Question pathway	155
General Guidance	155
Specific Question Guidance.....	156



SW2: Collaborative Water Opportunities	159
Question pathway	159
General guidance	159
Specific question guidance	160
SW3: Product Water Intensity	163
Question pathway	163
General guidance	163
Specific question guidance	163
Appendix A:	166
Appendix B:	168
Appendix C:	172

Introduction to Supply Chain Water Guidance

Introduction to this document

This document should be read by anyone responding to CDP's 2017 Supply Chain information request, regardless of whether you have responded to CDP before. It contains important information about this year's disclosure process and key sources of information to assist in the preparation of your CDP Supply Chain response in 2017.

If you have not completed a CDP information request before or you would like more information on the CDP process more broadly, please see our [Guidance for First Time Responders](#).

This document has been prepared for companies responding to requests for information on water on behalf of CDP's supply chain members. [Separate guidance](#) has been prepared to assist companies responding to CDP's Climate Change questionnaire on behalf of Supply Chain members.

For instructions on how to complete the Introduction page and generate the Climate Change and Water information request for CDP Supply Chain in the ORS, there is guidance for this in this document.

Please note that all questions in the Climate Change Supply Chain module (SM) and the Water Supply Chain module (SW) are **not** scored.

What has changed for 2017?

Developments in corporate water stewardship and disclosure show that there is increasing convergence from diverse interests over how to frame and discuss water resource issues, while the harmonization of water terminology and standards for reporting are progressing. At a high-level, there is now general agreement on two broad points:

- 1) There are material and economic advantages to pursuing *water stewardship* for companies; and
- 2) The water disclosure process is often as beneficial to respondents as it is for analysts.

CDP's objective is to support, contribute to and reflect advanced corporate reporting practices that are transparent and incentivize better corporate water stewardship while promoting a comprehensive understanding of water risk. It is very important to CDP that our questionnaire is relevant and widely utilized. Consequently, CDP regularly reviews and appropriately updates its existing Supply Chain Water questionnaire so that its content best reflects current discussions and best practice on corporate water reporting.

Please note that CDP will be stabilizing the Supply Chain Water questionnaire, while there have been some changes to note in the Supply Chain module.

Our decision to stabilize the Supply Chain Water questionnaire arises from three main objectives:

1. To allow companies time to align their reporting processes and develop the maturity of their reporting without any further changes to this questionnaire
2. To calibrate our new scoring methodologies for water against comparable data to incentivize improved environmental performance
3. To facilitate comparable datasets for cross-year analysis for your customers

CDP's Sector Approach – Reimagining Disclosure

Following on from the success of the 2015 Paris agreement on climate change, which CDP helped 'We Mean Business' to deliver through our call to action program, CDP's 2016-2020 strategy is to build momentum from here to fulfil our mission to incorporate environmental stewardship into the economic system. We have listened to investors and our stakeholders, who want more sector specific information, and we will be implementing the recommendations of the Task Force on Climate-related Financial Disclosure (TCFD) to be finalized in July 2017 (see www.fsb-tcfd.org).

As part of this, CDP is evolving our climate, water and forests questionnaires to be more sector specific, implement TCFD recommendations, and optimize disclosure. We will focus initially on the high impact sectors in Energy, Transport, Materials and Agriculture in our new questionnaires and scoring methodology **ready for the 2018 disclosure cycle**.

Our goal is to make a step-change improvement in the benefits and process of disclosure for both reporters and users of data (investors, policy makers and supply chain members).

Water reporting

Water presents a unique set of measurement and reporting challenges on both local and global scales. First and foremost, **water management is a local or regional issue**. Challenges and opportunities depend on patterns of local precipitation, watersheds and aquifers, as well as the degree and nature of local use. Unlike a ton of carbon dioxide that will have the same impact whether emitted in Stockholm or Sydney, the geographical scale and location of water use is critical. A cubic meter of water used in Sydney has very different consequences from a cubic meter used in Stockholm. This creates complexities for businesses trying to understand and disclose meaningful corporate water indicators, as well as managing their water use and water risks.

Compounding this complexity, **the global nature of business and supply chains** mean that water use is linked across multiple geographies. Even when their own operations or assets are not affected, many businesses may be exposed to and significantly affected by changing patterns of water availability. For large companies with complex supply chains containing potentially thousands of suppliers, assessing water use and related product or supply chain issues can be highly complex.

The next challenge is deciding what to measure. Unlike measuring GHG emissions, which can be expressed in tons of CO₂-e, there is no adequate, all-encompassing unit of measurement for water. Factors that must be considered when measuring water include available volume, quality, and whether it is scarce or abundant in the region concerned.

Water reporting standards

Standards for water reporting are not yet as consistently established as those for GHG emissions. However, throughout this guidance, sources, methodologies and calculation tools are referenced to help companies answer the questions and report relevant information.

CDP’s Water Information Request draws on relevant reporting principles from the GHG Protocol, the GRI Sustainability Reporting Standards (GRI Standards) and existing water reporting guidance such as the CEO Water Mandate Corporate Water Disclosure Guidelines and Ceres Aqua Gauge¹.

The GHG Protocol

The GHG Protocol² outlines five principles to ensure a true and fair account of a company’s GHG emissions. CDP suggests that all of these principles be adopted for the purpose of water reporting. These principles are as follows:

1. **Relevance:** Ensure the water use inventory appropriately reflects actual water use and serves the decision-making needs of users – both internal and external to the company.
2. **Completeness:** Account for and report on all water activities within the chosen inventory boundary. Disclose and justify any specific exclusion(s).
3. **Consistency:** Use consistent methodologies to allow for meaningful comparisons of company’s use of water over time.
4. **Transparency:** Address all relevant issues in a factual and coherent manner, based on a clear audit trail. Disclose any relevant assumptions and make appropriate references to the accounting and calculation methodologies and data sources used. Transparently document any changes to the data, inventory boundary, methods, or any other relevant factors in the time series.
5. **Accuracy:** Ensure the quantification of water use is sufficiently accurate to enable users to make decisions with reasonable assurance as to the integrity of the reported information.

Information is considered relevant if it contains the detail that users, both internal and external to the company, need for their decision-making. When considering what to disclose, please identify and report information that is likely to be of use and benefit to the audience requesting it (in this case the investment community).

Alignment with GRI Standards

To assist companies with their responses, CDP and GRI have jointly produced a guide to the linkages between our 2017 water questionnaire and the GRI Standards. Linkages include GRI 303: Water, GRI 306: Effluents and Waste, GRI 308: Supplier Environmental Assessment, GRI 102: General Disclosures and GRI 103: Management Approach.

For example, certain questions in the company-wide (W1) and facility level water accounting sections (W5) of the CDP questionnaire correspond to the GRI Standards as below:

CDP question number(s)	GRI G4 Indicator
W1.2, W1.2a, W5.1, W5.1a,	GRI 303 Water: Disclosure 303-1 GRI 306 Effluents and Waste: Disclosure 306-1

¹ To view a copy of CERES Aqua Gauge please visit: <http://www.ceres.org/issues/resources/reports/aqua-gauge/view>

² For more information, please see “[The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard \(Revised Edition\)](#)”, (GHG Protocol), developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD).

For more information on the GRI indicators that align with CDP reporting, please consult the document "[Linking GRI and CDP. How are the GRI Sustainability Reporting Standards and CDP's 2017 water questions aligned](#)".

CDP approach

CDP has constructed its water questionnaire to flow in a logical manner from start to finish so it can add value as an educational tool for companies (in conjunction with our [Water Reporting Roadmap](#)) assisting them to progress their maturity in both water management and corporate water reporting.

CDP believes that establishing standards and improving disclosure must develop in parallel. CDP works closely with the CEO Water Mandate³, the World Resources Institute (WRI), WWF, World Business Council for Sustainable Development (WBCSD), the Global Reporting Initiative and similar organizations and we strongly support the development of effective standards. This is an area where we particularly wish to engage stakeholders and help accelerate movement towards a standard which companies are comfortable reporting against and through which investors can gain meaningful information.

Since 2015, CDP has invited companies to break down their globally reported water accounting figures by river basin where relevant. This decision was taken to primarily serve our investor community which has a growing need for more granular water data. Reporting at the basin level is also in line with evolving standards whose focus is on the local water impact. Basin level reporting also represents corporate best practice. An organization will not have a comprehensive understanding of its risk exposure unless it is able to identify what river basin the risk is in and thus take account of local basin context and conditions.

Alignment with CEO Water Mandate Corporate Water Disclosure Guidelines

In 2014 and 2015 CDP updated the structure and content of its water questionnaire to align with the CEO Water Mandate Corporate Water Disclosure Guidelines as much as possible in order to standardize corporate water reporting (see diagram on page 12).

There are some differences which are explained briefly below:

- **Context** – though both the Guidelines and CDP have a “Context” section, in the Guidelines this refers more to the state of river basins: water stress and other water challenges, while in the CDP water questionnaire, the context refers to the importance of water to a business and their value chain. The context information referred to within the Guidelines is introduced in a later stage in our questionnaire within the W3 Water Risks section where companies can report the water risks/challenges they face and provide a more detailed explanation of the state of the river basin within which they operate or their suppliers operate.
- **Compliance** – In the Guidelines, “Compliance” is listed under “Current State”, but in the questionnaire is listed under “Response”. CDP’s reason for choosing the Response section is because this information acts as an indication of governance performance (as well as providing information on the current state of a company’s performance on water management). We also ask companies to filter the compliance data they report using a financial impact lens as this is of most value to the investors requesting this information. This financial lens helps to reduce the reporting burden for companies; some sectors e.g. Utilities may have hundreds of incidents to report including self-enforcement orders, though these may not all have equal value for investors.

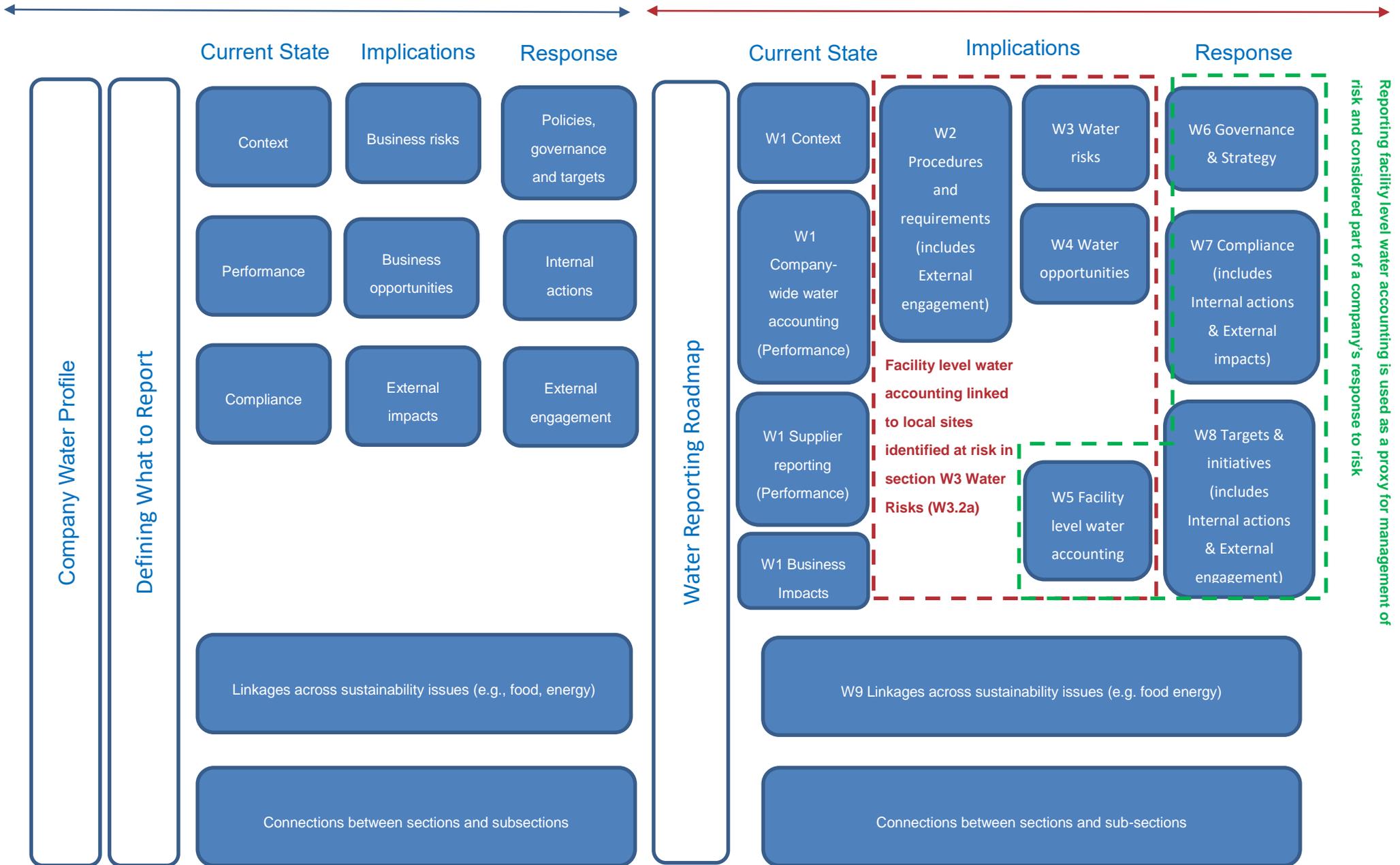
³ To view a copy of the CEO Water Mandate Corporate Water Disclosure Guidelines please visit: www.ceowatermandate.org/disclosure

- **External impacts** – the Guidelines tend to talk about impacts as the effects of the business on communities and ecosystems, whereas CDP refers to impacts as the effects of water challenges on the business i.e. “business impacts”, although some external impact information is captured through the compliance section where companies can describe their compliance incidents in more detail and their impacts on the local environment. CDP chooses to put the “W1 Impacts” section under “Current State” as investors tend to view this information as past trend information upon which to judge a company’s potential future performance. As section W3 Water risks looks at forward looking information, we keep the two sections separate.
- **Facility level water accounting** – while company-wide accounting is under “Current state”, CDP has created a separate water accounting section for facilities at risk *only*, not all facilities. This section was created for investors who wish to understand the operational exposure and the maturity of a company’s response for facilities facing substantive risk from water (as supported by Ceres 2015 report “[An Investor Handbook for Water Risk Integration](#)”). The facility water accounting data is taken as a proxy for managing water at these risky river basin locations and is meant to be combined with the risk data given in W3 Water risks (using river basin information to connect data points) and compared to the response data given in W6 Governance & strategy, W7 Compliance and W8 Targets and initiatives to provide an overview of a company’s risk from and response to water challenges. For this reason, it is kept as a separate section from “Current State” company-wide water accounting.
While investors are interested in water accounting data for facilities at risk, company feedback in 2015 requested that a separate company-wide water accounting section be created (in “Current state”) to allow companies who do not have any substantive water risk - and therefore would not respond to W5 Facility level water accounting questions - to demonstrate their ability to provide water accounting data and their ability and maturity in managing water. This is why CDP has two separate water accounting sections.

CDP hopes that with further funding we may be able to align more closely to the CEO Water Mandate reporting framework as necessary and incorporate more metrics from the CEO Water Mandate Corporate Water Disclosure Guidelines as appropriate as investor and company understanding on this important environmental and business issue grows.

CEO Water Mandate Corporate Water Disclosure Framework

CDP Water Questionnaire Layout



Disclosing to CDP

Deadline for responses

The opening and closing dates for responses differ depending on the information request you are responding to.

The request for information on behalf of investors will be issued in February 2017 and the closing date for submissions is June 29 2017.

The request for information on behalf of CDP's supply chain members will be issued in April 2017 and the closing date for submissions is July 31 2017.

If you are responding to both requests, you can begin your response as soon as the modules become available, but you must submit your investor response in advance of submitting your response to supply chain members.

Please note that the CDP supply chain request, sent to supplier companies on behalf of CDP Supply Chain members, is composed of the same questionnaire as the investor request, plus an additional supply chain module of specific customer focused questions. This means that an organization's disclosure for investors will also partially count towards its submission to the CDP supply chain program.

Please answer the questions comprehensively while considering the relevance of the information you provide. Answers should:

- Be as specific as possible to your company;
- Be short and direct. These are preferred over long responses that may contain information that is not relevant to the question. Information is considered relevant if it provides detail that users, internal and external to your company, need for decision-making; and
- Consider what will be of benefit to the audience requesting information.

A partial response is more valuable than no response: if you do not have all of the information requested, please respond with what information you have available. Please refer to CDP's [Water Reporting Roadmap](#) for guidance on how to progress from a basic response to complete disclosure.

Response changes

Amendments to responses submitted prior to the deadline

For companies responding to the request for information from investors, responses submitted prior to the disclosure deadline of June 29 may be amended by the company and resubmitted by this date. For companies also completing the supply chain water module, this module can be resubmitted up to the July 31 deadline. If you need to make amendments to your submitted response prior to the above deadlines, please email respond@cdp.net.

Amendments to responses after the response deadline

Amendments to responses after the above deadline can be made only by CDP staff and may incur an administration fee. CDP will not accept amendments to all questions. Therefore, if you discover an error in your response after the above deadlines, please contact CDP (email respond@cdp.net) to investigate whether it is possible to amend the error.

Please note that these changes may not be reflected in the CDP annual reports and that CDP reserves the right to use the information already submitted.

Water scoring

In 2014, CDP worked with a wide range of stakeholders to test and refine a water scoring methodology. CDP implemented the methodology fully across all respondents in the 2015 disclosure cycle. An overview of CDP

scoring and the water scoring methodology are available on our website: www.cdp.net/en/guidance/guidance-for-companies.

CDP and other organizations write and publish reports that include an overview of CDP responses. Some of these reports will include a scoring of responses for the comprehensiveness of the companies' disclosure and on performance factors. Companies agree that their response will not be eligible for scoring unless it is submitted in the format prescribed by CDP.

Only the top-scoring companies that have made their response public will be eligible for recognition as leaders based on these scoring approaches.

If a company makes a non-public response, the response may be scored on request and that score may be published. Please contact your local CDP office (see www.cdp.net/en/info/contact) if you want to find out if your response will be scored.

Companies that are not automatically selected for scoring or miss the deadline can choose to request an On-Demand score for a fee. Please email scorefeedback@cdp.net for more information.

Assistance in responding

Additional to the guidance listed at the beginning of this document, there are a number of other sources of assistance for companies when preparing their response to CDP. Full details are available at <https://www.cdproject.net/guidance>; some of the main resources are briefly described below.

Internet Explorer

CDP understands there are a number of internet browsers available to organizations to use when responding to the Online Response System. However, when responding to the Online Response System, please ensure that you are responding in Internet Explorer as it maximizes the performance of the system and guarantees the safe disclosure of your response.

Water Reporting Roadmap

A [Water Reporting Roadmap](#) has been prepared to assist companies with progressing their disclosure.

Workshops and webinars

CDP runs a series of workshops and has webinars available on the website to assist companies with responding to investors. Please visit the Water page on the CDP website for upcoming events at <https://www.cdp.net/en/water/>

CDP Reporter Services Water Membership

Reporter Services Membership is designed to empower your organization to build internal expertise around environmental reporting. It will save you time and help you manage water effectively and improve business performance, providing on-going support for your journey through compliance to operational efficiency and ultimately to strategic advantage. The package includes:

- A dedicated account manager to personally guide you through the disclosure process and scoring methodology, answer your technical questions regarding disclosure, and support your use of the CDP data to ensure you get the full value from the membership. This includes a gap analysis on your response to highlight areas for improvement against CDP's guidance and scoring methodology.
- Enhanced and unlimited access to CDP data – the world's largest source of primary corporate data. This enables fast and effective benchmarking and analysis to identify best practice in reporting and performance from your peers and other leaders.
- Series of expert webinars and events with exclusive networking and marketing/profile opportunities.
- Questionnaire check prior to submission to ensure your response is as complete as it can be.

For more information and to see which other companies are already benefitting from this membership please visit our [web page](#) or [email the team](#) to schedule a presentation to really understand how this can make a significant difference to your environmental performance.

CDP Water Consultancy Partnerships

CDP is driving a market for water services that until recently was limited in both scope and scale. CDP accredited water consultancy partners will continue to support companies looking to engage with and improve their water management. Partners are subject to strict selection criteria and once approved are able to work closely with companies to provide expertise on critical topics including: water accounting, water risk assessment, the development of water strategies and development and implementation of corporate water stewardship plans.

To find out more about these partnerships visit CDP's [Accredited Solutions webpage](#).

Spell Check

The CDP Online Response System (ORS) works best with Internet Explorer (IE). IE10 and IE11 both have built-in spell checking. Earlier versions of IE don't have spell check built in, but there are third party add-ons to do this for you. You can use your favorite search engine to search for a third party add on for spell checking.

Contact us

If you are not able to resolve your query using any of the resources listed above, please contact us at respond@cdproject.net.

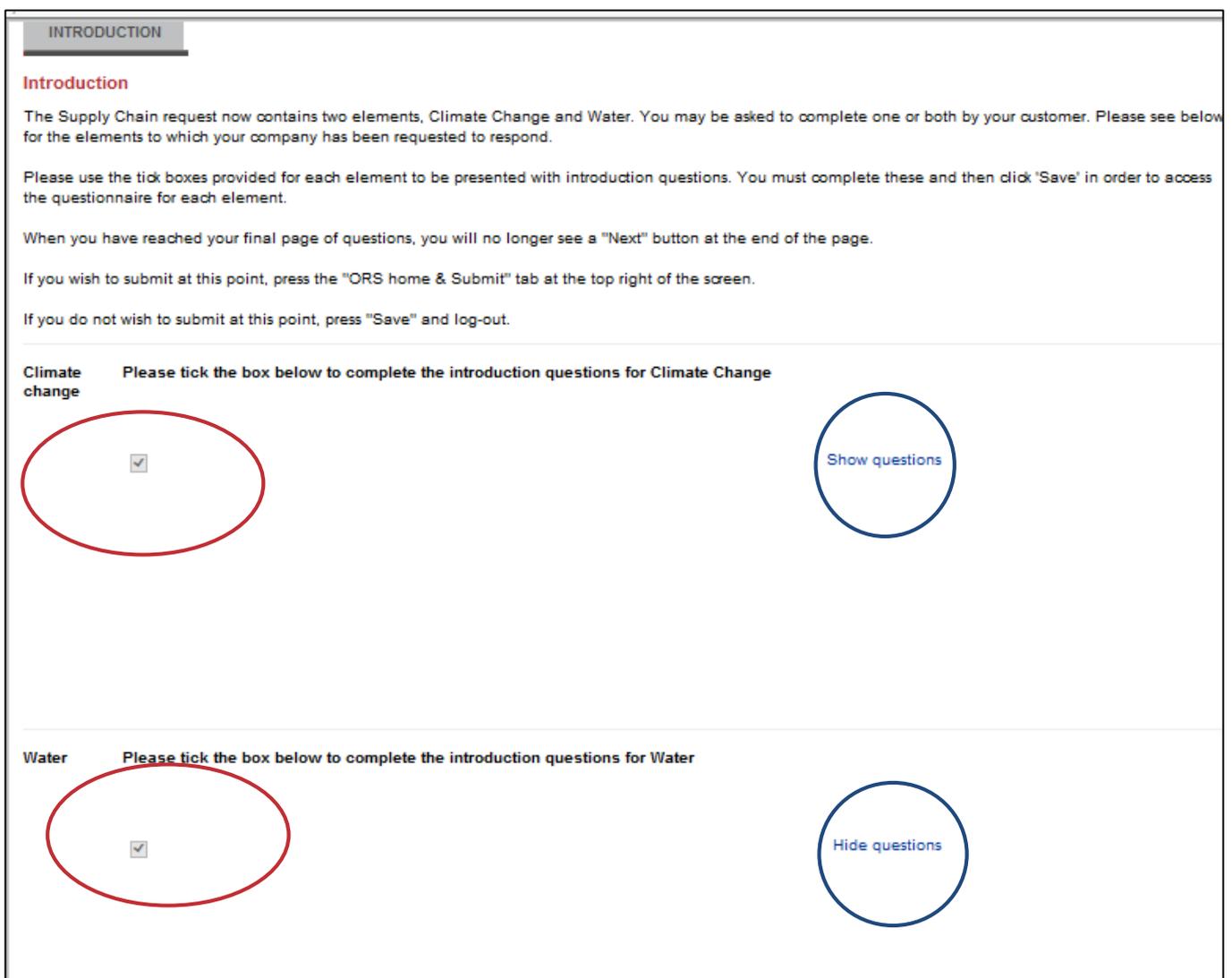
Providing feedback to CDP

The opportunity to provide routine feedback to CDP on the content of our questionnaires and supporting documents is available through our [online feedback form](#). [Click here](#) or request a link from respond@cdproject.net.

For the 2018 disclosure cycle, CDP will hold its annual consultation in the middle of 2017.

Introduction Page

The CDP Supply Chain Request contains two elements: Climate Change and Water. You may be asked to complete one or both by your customer. When you enter the Online Response System (ORS), you will be presented with the elements that your customer has requested you to complete. The image below shows how the two element options are presented in the ORS.



INTRODUCTION

Introduction

The Supply Chain request now contains two elements, Climate Change and Water. You may be asked to complete one or both by your customer. Please see below for the elements to which your company has been requested to respond.

Please use the tick boxes provided for each element to be presented with introduction questions. You must complete these and then click 'Save' in order to access the questionnaire for each element.

When you have reached your final page of questions, you will no longer see a "Next" button at the end of the page.

If you wish to submit at this point, press the "ORS home & Submit" tab at the top right of the screen.

If you do not wish to submit at this point, press "Save" and log-out.

Climate change Please tick the box below to complete the introduction questions for Climate Change

[Show questions](#)

Water Please tick the box below to complete the introduction questions for Water

[Hide questions](#)

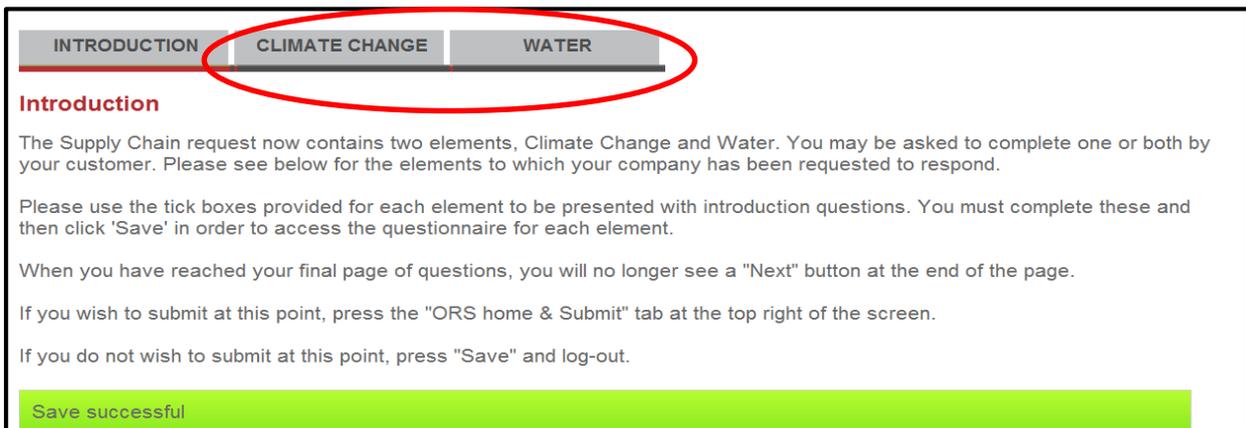
Please tick the boxes provided to be presented with introduction questions for each element. Once ticked, this box cannot be un-ticked and will be grayed out. This will inform your customer that it is your intention to respond to this request. Please note if you have been requested to respond to both Climate Change and Water, you must tick each separately to demonstrate your intention to respond to both.

Once presented with the introduction questions, you must complete these and click 'Save' in order to access the Questionnaire for each request, Climate Change and/or Water. To facilitate data entry, you can hide and re-display the introduction questions by clicking the blue links – circled in blue above.

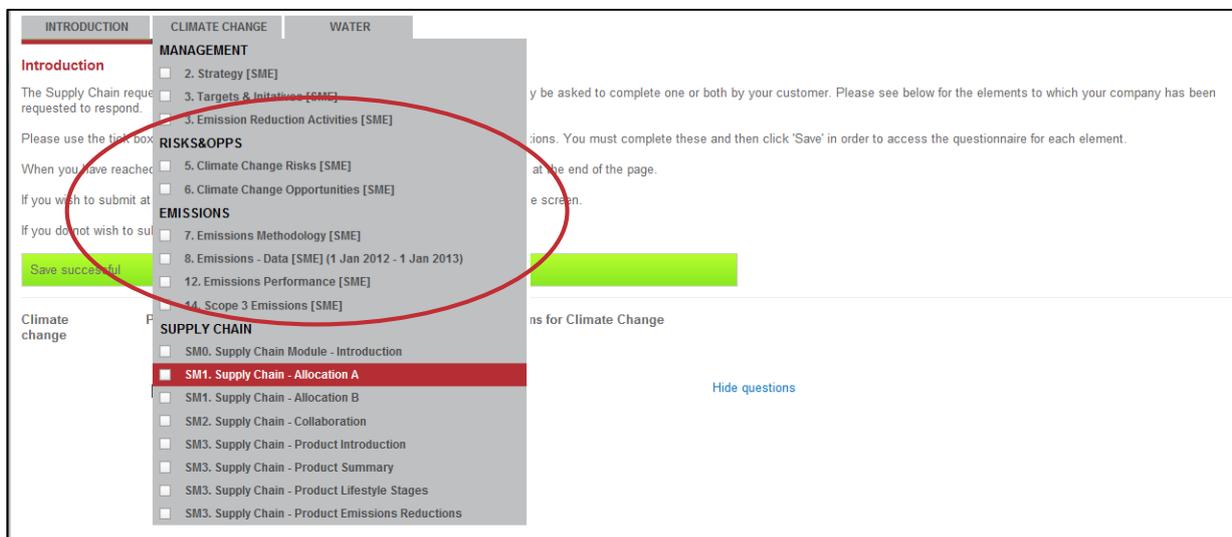
If you have **not** already responded to the Information Request on Climate Change or Water:

1. Complete the introduction questions, then Click 'Save'. Guidance for completing the introduction questions is provided in the next section of this document for both Climate Change and Water.

Once the introduction questions have been saved, a top level menu for Climate Change and/or Water will appear, depending on what your customer has requested. This can be viewed in the image directly below. Please hover over these menus in the ORS to see the question pages for both the Climate Change and/or Water Questionnaires. Click on each page to complete the questions. For further guidance on how to complete these core questions, please refer to the Guidance documents for responding to [Climate Change](#) and [Water](#).



2. If you have selected the [SME version of the Climate Change Questionnaire](#), please note that this is only available for the Climate Change Supply Chain Request. There is no SME version for the Water Questionnaire.
3. For each element you are asked to respond to, you will also be presented with a Supply Chain Module with additional questions to complete. Guidance on how to complete the Supply Chain Module questions is provided in this document. The image below displays how the SME questions are displayed in the ORS.



If you **have already** responded to the Information Request on Climate Change or Water:

1. Once the boxes have been ticked for each element, the introduction questions will appear but will be populated with your responses from your Information Request. This will happen for both Climate Change and Water introduction questions.

CC0.1 Introduction

Please give a general description and Introduction to your organization.

beatae reginae, quantum millario uno proximum erat. Hoc illa audiens, Jussit famulis fanum igni comburi, unversaque multitudo cum gladiis et fustibus vel omni fremitu diabolico conabantur defendere, sancta veroil regina immobilis perseverans, et Christum in pectore gestans, equum quem sedebat inantea non movit, antequam et fanum perureretur, et ipsa orante Inter se popull pacem firmarent

CC0.2 Reporting Year

Please state the start and end date of the year for which you are reporting data.
 The current reporting year is the latest/most recent 12-month period for which data is reported. Enter the dates of this year first. We request data for more than one reporting period for some emission accounting questions. Please provide data for the three years prior to the current reporting year if you have not provided this information before, or if this is the first time you have answered CDP information request. (This does not apply if you have been offered and selected the option of answering the shorter questionnaire). If you are going to provide additional years of data, please give the dates of those reporting periods here. Work backwards from the most recent reporting year.
 Please enter dates in following format: day/month/year (in full i.e. 2001).

Enter Periods that will be disclosed

From	To
01/04/2013	02/04/2014

Add Row(s)

CC0.3 Country list configuration

Please select the countries for which you will be supplying data. This selection will be carried forward to assist you in completing your response.

Select country

Australia ▼

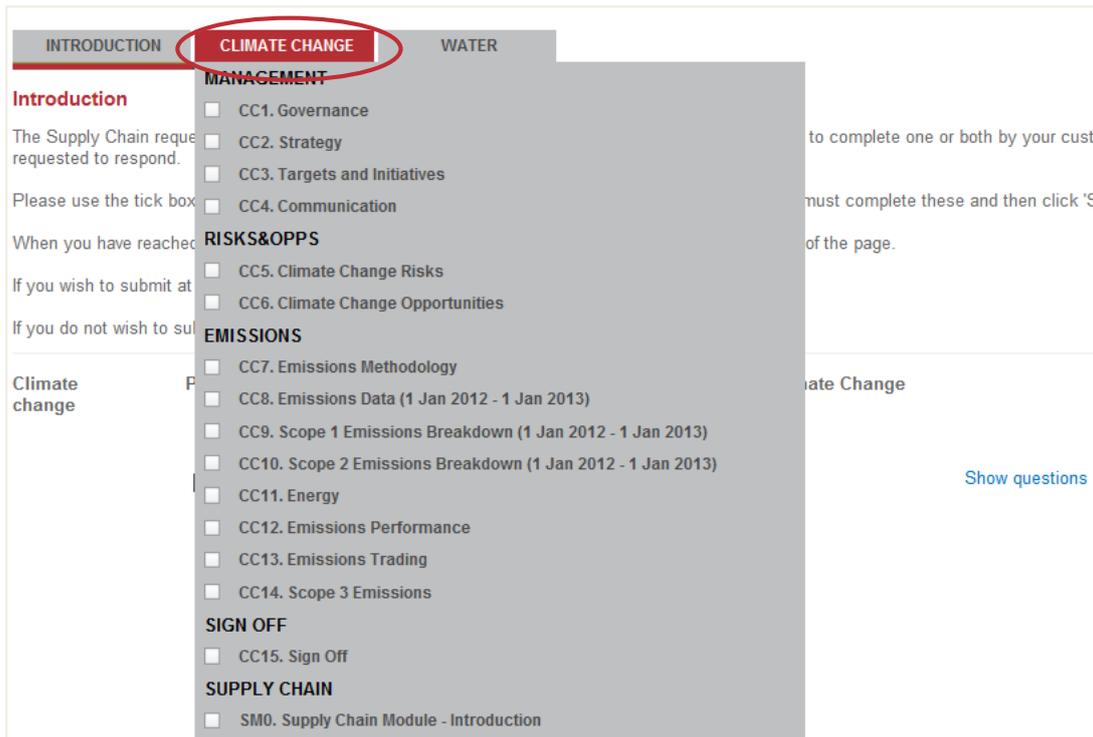
Add Row(s)

CC0.4 Currency selection

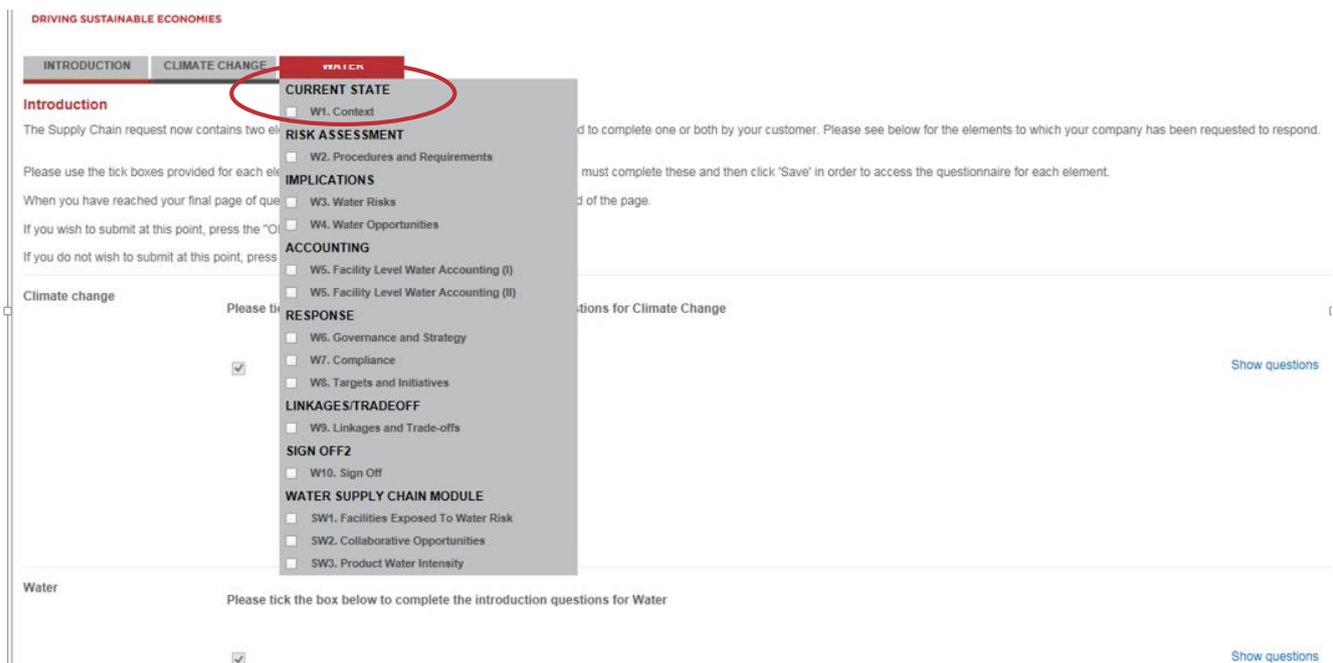
Please select the currency in which you would like to submit your response. All financial information contained in the response should be in this currency.

AUD (\$) ▼

2. You must click 'Save' to generate the remainder of the questionnaires.
3. If you have been requested to respond to the Climate Change Supply Chain Request, a navigation menu for Climate Change will appear at the top of the page. Please hover over this menu and you will be presented with the Supply Chain Module for Climate Change. Click on this page to complete the questions. For further guidance on how to complete the Supply Chain Module questions, please refer to the Guidance later in this document.



- If you have been requested to respond to the Water Supply Chain Request, a navigation menu for water will appear at the top of the page. Please hover over this menu and you will be presented the Supply Chain Module for Water. Click on this page to complete the questions. For further guidance on how to complete the Water Supply Chain Module questions, please refer to the Guidance later in this document.

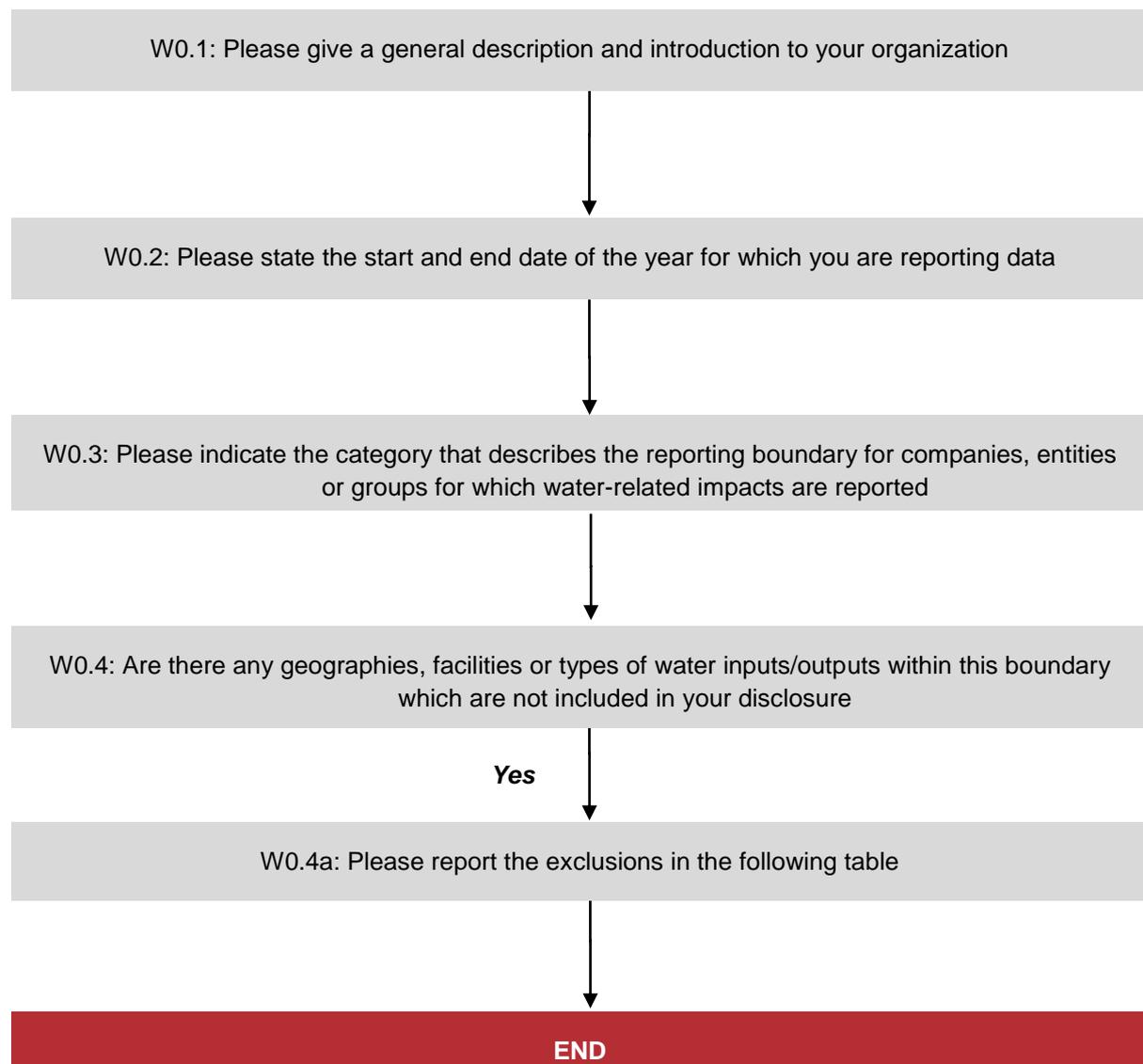


Introduction Module Guidance

W0. Introduction

Question Pathway

The following questions are shown on the Introduction page.



General Guidance

The introduction page must be filled out and saved before the questionnaire modules will appear. Once the introduction page is saved you will be able to navigate between pages of the questionnaire using the navigation bar. You may also return to the introduction page at any time to update information.

Key changes from 2016

- No questions on this page have been changed.

Pre-population of responses for 2017

If you responded to water last year you can automatically populate the following questions with last year's response by clicking the "copy from last year" button at the bottom of the relevant page in the ORS. You can then modify last year's response as needed. You must click "copy from last year" before completing any fields on each page of the ORS where this function has been enabled.

- The copy from last year function has been provided for questions W0.1, W0.3, W0.4 and W0.4a.

Please always remember to review your pre-populated selections to make sure they are still appropriate for 2017. This is particularly important if new data points have been added to questions or if dropdown lists may have been updated. Regarding the latter, if you selected 'Other' to provide a different category from the dropdown list in 2016, you may find that your category has now been included in the 2017 dropdown list. We request that companies use the categories provided for selection as much as possible as this greatly assists investors with data analysis.

Specific question guidance for the Introduction

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

In the text box provided, please enter a brief introduction to your company, including types of business activities. This is optional. This is a free text field; all entries should be less than 4,500 characters.

W0.2 Please state the start and end date of the year for which you are reporting data.

You are requested to respond to this question in the table provided in the ORS, reproduced below.

Reporting year	
From: [DD/MM/YYYY]	To: [DD/MM/YYYY]

In the table provided, please enter the start and end dates of your reporting year in the following format: **day/month/year in full e.g. 31/12/2016**. You must enter a reporting year before proceeding to the full information request. This reporting year should be applied to your answers for the entire questionnaire.

When answering subsequent questions, you may not have data for the entirety of this reporting year. In such a case, you may:

- Extrapolate your data to cover the entire reporting year. This potential source of inaccuracy can be logged in the comments section of the relevant question; or
- Leave survey questions that request annual/annualized data blank.

W0.3 Please indicate the category that describes the reporting boundary for companies, entities or groups for which water-related impacts are reported.

You are requested to respond to this question in the table provided in the ORS, reproduced below.

Reporting boundary
<p>[Select from]:</p> <ul style="list-style-type: none"> • Companies, entities or groups over which financial control is exercised • Companies, entities or groups over which operational control is exercised • Companies, entities or groups in which an equity share is held • Other, please specify

From the drop down list, please choose the relevant response or select “Other” to provide a text entry. This question asks you to define the **organizational boundary** (i.e. the group, companies, businesses or organizations) for which you are supplying data. These may be organized by financial control, operational control, equity share or another measure and sets the ways the companies are identified for inclusion within the reporting boundary. The way figures are calculated for corporate level reporting from more granular data at facility/company level is known as the “consolidation approach”. Unless stated otherwise, the information you provide throughout the information request should be presented as “consolidated” results covering all of the companies, entities, or businesses within your reporting boundary.

For more detailed guidance on determining reporting boundaries, particularly where joint ventures or complex operational structures are concerned, please refer to *Appendix A: Reporting Boundary Definitions* at the end of this document. These definitions are drawn directly from Chapter 3 of the GHG Protocol. Although this protocol refers to GHG emissions reporting, the general definitions may be applied to water reporting.

References in the information request to “your company” are to the company, companies, businesses, organizations or groups within your organizational boundary. Please consistently apply this organizational boundary when responding to questions unless you are specifically asked for data about another category of activities.

W0.4 Are there any geographies, facilities or types of water inputs/outputs within this boundary which are not included in your disclosure?

Please select from:

- Yes
- No

The GHG Protocol comments on the reporting of exclusions and notes that an “acknowledgement should be made in the report each year in order to enhance transparency; otherwise new users of the report in the two or three years after the change may make incorrect assumptions *about the performance* of the company.” You may exclude sources of water activities in a particular geography, along a line of business activities, from small facilities for which it is difficult to gather data or by selected water inputs/outputs. This is provided the principles of relevance and transparency are still attended for. In other cases, CDP might not ask you for full detailed information, e.g. in the facility level water accounting section we will ask you to provide data only for the facilities where significant water risk has been identified. However, it is expected that the water risk assessment has been applied comprehensively to all organizations within the boundary and if that is not the case, a suitable

disclosure should be made. Companies are encouraged to refer to *Appendix A: Reporting Boundary Definitions* at the end of this document when determining exclusions. Any exclusion(s) must be clearly identified in question W0.4a.

W0.4a Please report the exclusions in the following table

This question only appears if you select “Yes” in response to question W0.4.

You are requested to respond to this question in the table provided in the ORS, reproduced below.

Exclusion	Please explain why you have made the exclusion
Text box with up to 2,400 characters	Text box with up to 2,400 characters

In the table provided, please identify and explain each geographical location, activity, facility or type of water input/output that is excluded from your disclosure. Each of these columns is a free text field; all entries should be less than 2,400 characters. If you have more than one exclusion, please add more rows using the ‘add row’ function to the bottom right.

Elements of your business may be excluded for a number of reasons:

- A geographical location may be excluded if there is low water usage or data limitations which makes reporting infeasible for operations in that country or region;
- An activity (e.g. a product line, type of business process, or type of supplier) may be excluded due to limited data or reporting feasibility;
- A facility may be excluded due to recent mergers, acquisitions and divestitures, outsourcing and in-sourcing of activities. Smaller facilities for which it is not currently possible to track water use may also be considered for exclusion; and
- Some organizations may not yet have the capacity to track all types of water inputs and outputs. For example, a company may use rainwater at some facilities but not track the quantity or quality of this source in which case the source may be considered for exclusion.

For all exclusions, please clearly explain why the geographical location, activity, facility, or type of water input/output is not included in your disclosure. Please note that CDP seeks comprehensive, representative data on water use and water impacts on behalf of participating investors. In addition, please note that the rationale for excluding sources must be consistent with the guidelines in *Appendix A: Reporting Boundary Definitions* at the end of this document.

W0.4a Sample Response – for guidance only

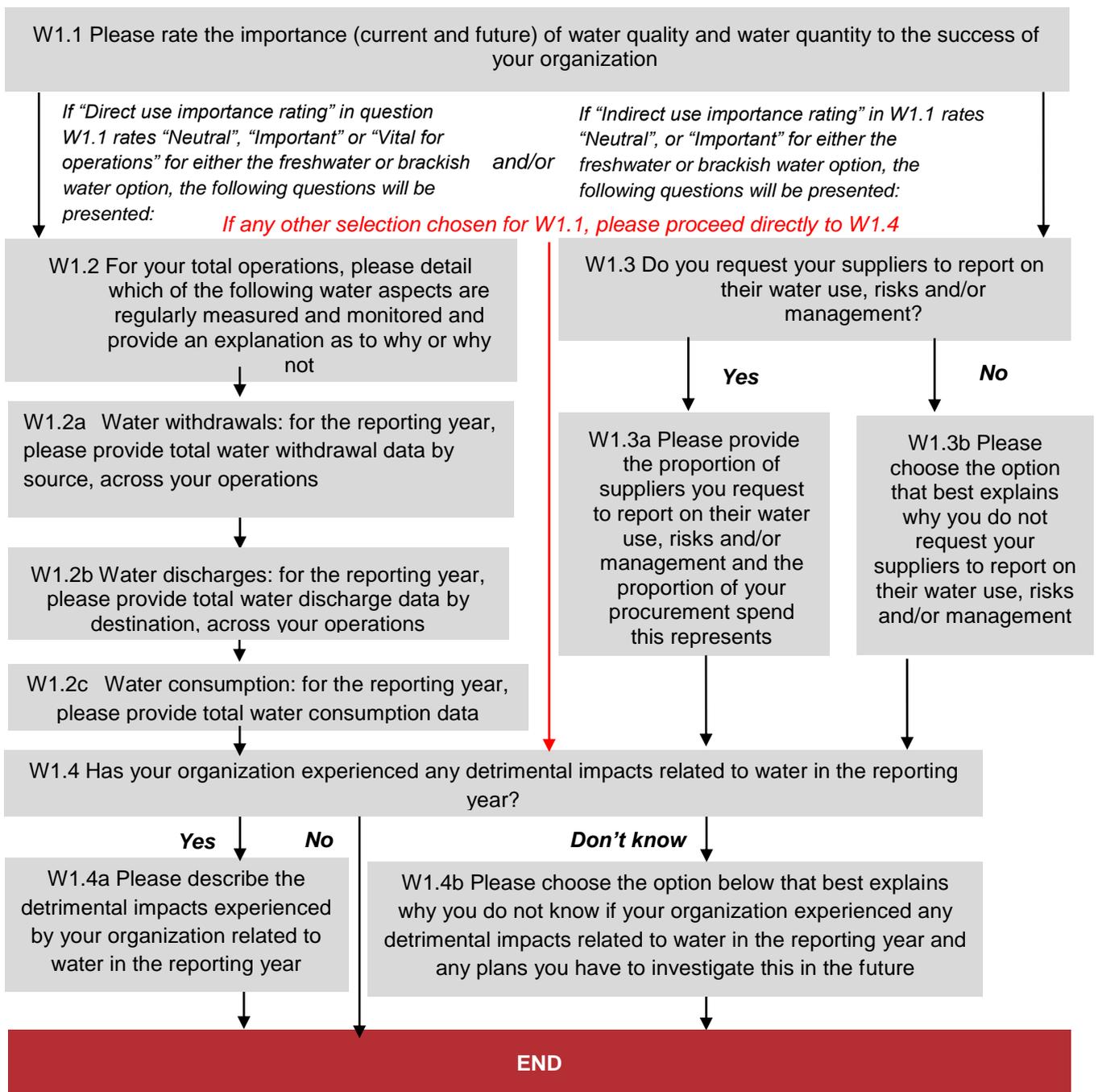
Exclusion	Please explain why you have made the exclusion
Distribution Centers	Our company has not yet implemented a system to track the water impact in its distribution centers. We expect this to be a small fraction of our total water consumption and provide little exposure to water risk. This will be incorporated from 2016.
Offices	Small leased office spaces (fewer than 50 employees) where water is provided through the lease and is managed by our landlord.

Current State Module Guidance

W1. Context

Question Pathway

The following questions are shown on the current state page.



General guidance

Similar to the structure of the CEO Water Mandate's Corporate Water Disclosure Guidelines, CDP has chosen to start our disclosure request with a section that asks organizations to provide information as to the current state in which they operate. The questions establish the context of your organization's water trends and conditions, and highlight those that are important to both your organization and its stakeholders.

This section is broken down as follows:

- Question W1.1 asks how your organization values **the importance of water** quality and quantity to both its current and future business;
- Question W1.2 asks for company-wide **water accounting** information;
- Question W1.3 asks whether your organization requests **supplier information** related to water;
- The section concludes with question W1.4 which asks about any **detrimental business impacts related** to water your organization has experienced during the reporting year. Here we generally refer to the effects of water challenges on businesses as "impacts". Note that the Corporate Water Disclosure Guidelines refer to "impacts" generally as the effects of the business on ecosystems and communities".

To ensure that a water risk assessment is robust it is important to first understand how water is valued and used across an organization and supply chain and how it may have been impacted by water in the past. This will help provide insight into the future water risks a company may be potentially exposed to, the potential solutions available to mitigate these water risks and which stakeholders and contextual issues to consider in a risk assessment.

Maturity of corporate water reporting

Please note that CDP recognizes the fact that the maturity of the water disclosure practice is often directly related to the maturity of your organization's water management policies and practice. In understanding organizations will be at different levels of maturity and thus not all able to provide the same level of detail, the company-wide water accounting questions include both 'basic' questions (W1.2) that CDP expects all organizations to be able to answer as well as 'advanced' questions (W1.2a, W1.2b and W1.2c) for companies with more mature disclosure practices.

Scale of corporate water reporting

Organizations that are more advanced and are able to report information at a more granular level e.g. river basin/sub-basin *and* facility level, should do so as providing this information is currently deemed to be best practice. Investors are using the ability of an organization to report at these levels as a proxy for sound risk management. Organizations that are unable to report at river basin/sub-basin and facility level and instead provide more basic information e.g. country or regional (intra-country or multiple countries) level imply that they do not have a full understanding of the risk at a local operational level and the water resource management of their operating locations.

Key changes from 2016

- W1.4a – column 3 heading has been amended for consistency of terminology. The information requested is unchanged.

Pre-population of responses for 2017

If you responded to water last year you can automatically populate the following questions with last year's response by clicking the "copy from last year" button at the bottom of the relevant page in the ORS. You can then modify last year's response as needed. You must click "copy from last year" before completing any fields on each page of the ORS where this function has been enabled.

- The copy from last year function has been provided for questions W1.1, W1.3, W1.3a, W1.3b, W1.4, W1.4a and W1.4b.

Please always remember to review your pre-populated selections to make sure they are still appropriate for 2017. This is particularly important if new data points have been added to questions or if dropdown lists may have been updated. Regarding the latter, if you selected 'Other' to provide a different category from the dropdown list in 2016, you may find that your category has now been included in the 2017 dropdown list. We request that companies use the categories provided for selection as much as possible as this greatly assists investors with data analysis.

Specific question guidance

W1. Context

W1.1 Please rate the importance (current and future) of water quality and water quantity to the success of your business

You are requested to respond to this question in the table provided in the ORS, reproduced below.

Water quality and quantity	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	[Select from]: <ul style="list-style-type: none"> ▪ Not important at all ▪ Not very important ▪ Neutral ▪ Important ▪ Vital for operations ▪ Have not evaluated 	[Select from]: <ul style="list-style-type: none"> ▪ Not important at all ▪ Not very important ▪ Neutral ▪ Important ▪ Have not evaluated 	[open text: 1000 characters max]
Sufficient amounts of recycled, brackish and / or produced water available for use	[Select from]: <ul style="list-style-type: none"> ▪ Not important at all ▪ Not very important ▪ Neutral ▪ Important ▪ Vital for operations ▪ Have not evaluated 	[Select from]: <ul style="list-style-type: none"> ▪ Not important at all ▪ Not very important ▪ Neutral ▪ Important ▪ Have not evaluated 	[open text: 1000 characters max]

Please complete this table in the ORS by selecting the importance rating your organization places on both the quality and quantity of water used in your direct and indirect operations. This question aims to assess whether the amount of water used and its quality is important to your organization. It does not ask specifically about water availability, as that may impact an organization irrespective of quality or quantity required

Please note: W1.1 is a leading question, prompting linked sets of questions to appear depending on the response given. If question W1.1 is amended after subsequent linked

questions are completed, then these related data will also be erased. Please ensure that you re-enter the data for the linked questions also, if appropriate.

Guidance on responding to each of the columns is provided below:

- **Water quality and quantity**

This static table field specifies the type of water source we would like responding companies to consider in both their direct and indirect water use.

- See *Box 1: Defining water quality, quantity and water availability* for details on the definition CDP uses for water quality, water quantity and water availability.
- Definitions of freshwater, brackish water/seawater and produced water are given later in this chapter under question level guidance for question W1.2a
- *Recycled water:*
According to GRI – G4’s explanation of Indicator EN10, recycled or reused water is defined as “*an act of processing used water/wastewater through another cycle before discharge to final treatment and/or discharge to the environment*”. It specifies three general types of water recycling/reuse practices:
 - Wastewater recycled back in the same process or higher use of recycled water in the process cycle;
 - Wastewater recycled/re-used in a different process, but within the same facility; and
 - Wastewater re-used at another of the reporting organization’s facilities.

In accordance with Indicator EN10, this can include water that was treated prior to re-use and water that was not treated prior to reuse. It can also include collected rainwater and wastewater generated by household processes such as washing dishes, laundry, and bathing (grey water).

- **Importance rating**

- Please use the drop down menu provided to select how important water quality and quantity are to your organization or for use across your value chain. Direct water use includes all water that is used within your organization (as defined by organizational boundary) whilst indirect water use includes all water use that takes place within your value chain and outside your direct control. Please see *Appendix B: Disclosure glossary* for CDP’s definition of “direct” and “indirect” water use.
- Examples of the importance ratings can be found in *Box 2: Examples of importance ratings for direct and indirect water use*
- Please take into account Health and Safety regulations that might be applicable to your organization when determining the overall importance of having access to fresh water within an office setting. For example, in the United Kingdom, The Workplace Health, Safety and Welfare Regulations (1992), Regulation 22 requires all employers to provide an adequate supply of wholesome drinking water to all employees⁴.

- **Please explain**

⁴ Please see the Workplace health, safety and welfare guide for more information: <http://www.hse.gov.uk/pubns/indg244.pdf>

- Please use this open text box to provide additional details as to why your organization has determined this importance rating for water quality and quantity for both freshwater and non-freshwater options.
- Please state the primary use of water for both direct and indirect parts of the value chain for both freshwater and non-freshwater options.
- This column is a free text field; all entries should be fewer than 1000 characters.

Box 1: Defining water quality, water quantity and water availability

For the purpose of this questionnaire, CDP has adopted the definitions below from the CEO Water Mandate's Corporate Water Disclosure Guidelines.

Water quality: refers to the physical, chemical, biological and organoleptic (taste-related) properties of water.

Water quantity: refers to the physical amount of water used, expressed in terms of volume or mass.

Water availability: is defined as the natural runoff (through groundwater and rivers) minus the flow of water that is required to sustain freshwater and estuarine ecosystems and the human livelihoods and well-being that depend on these ecosystems. Water availability typically varies within the year and also from year to year. Water availability might be reduced by decreases in both the water quantity and quality of water resources (Adapted from [CEO Water Mandate Corporate Water Disclosure Guidelines](#)).

Box 2: Examples of importance ratings for direct and indirect water use

For the purpose of this questionnaire, CDP has provided examples below based on previous CDP responses and anonymous examples provided from the WWF-DEG Water Risk Filter who also use these terms in their Company Risk Profile. CDP recognizes that the importance ratings will be subjective depending on each company, so general examples are provided as a guide to assist companies and to guide investors for comparability purposes rather than act as rigid definitions.

Vital for operations: If the current water supply is not sufficient in terms of quantity and quality in locations of direct operation, future production could be compromised, affecting output and finances at the corporate level.

Important: access to sufficient volumes and good quality water is required in direct or indirect, operations, those these operations may not be water intensive and/or diversification of supply chain could mediate risk.

Neutral: water quality can be poor as long enough water is available.

Not very important: water is not a key component of operations directly or indirectly but a local issue e.g. drought or poor water quality, or localized flooding may impact on local operations or supply chain. However, this would not affect the business overall.

Not important at all: water is not a key component of operations directly or indirectly and water quantities in particular are of less concern.

Have not evaluated: have not evaluated how much water or the quality of water required for operations and/or value chain.

W1. Company-wide water accounting

Questions W1.2/a/b/c will be presented only if "Direct use importance rating" in question W1.1 rates "Neutral", "Important" or "Vital for operations", for either the freshwater or brackish water option:

The specific guidance for each question below will provide you with relevant information on water withdrawals and discharges and sources to help you answer the questions. Questions are predominantly based on recommendations from the [CEO Water Mandate Corporate Water Disclosure Guidelines](#) and consultation with external CDP stakeholders.

For further assistance, please note that the GRI Standards are aligned with this question as follows:

CDP question number(s)	GRI G4 Indicator
W1.2, W1.2a, W1.2b	<p>GRI 303 Water: Disclosure 303-1 - Water withdrawal by source</p> <p>GRI 306: Effluents and Waste: Disclosure 306-1</p>

Box 3: Reporting company-wide water accounting information & water scoring

Please ensure when responding to these water accounting questions that cells are only intentionally left blank if you have no data to disclose. Blank cells are interpreted as non-disclosure i.e. information is not available due to lack of measurement or choosing not to disclose, and are therefore awarded no points by the scoring methodology. Values of zero imply a measurement has been made, and the value is zero, or the item cannot be measured since it is not relevant to the company.

For example, a value of zero consumption reported indicates that no water is incorporated into products or waste products or lost by evaporation from the company. A blank consumption value indicates the company has not calculated this value, or chooses not to disclose it to CDP.

If you have disclosed data within a table question, please read the question level guidance closely for directions on how to fill out the rest of the table correctly to ensure that points are not lost through error.

Data accuracy: CDP recognizes that there may be uncertainty linked to water accounting information that could impact on data accuracy. Uncertainty can arise from data gaps, assumptions, metering/measurement constraints including equipment accuracy, data management, etc. However, the emphasis should be placed on reporting transparently and providing an explanation why reported data cannot be validated by expanding on the uncertainty in your data in the “please explain” or “comment” explanation columns provided in the water accounting questions.

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

You are requested to respond to this question in the table provided in the ORS, reproduced below.

Water aspect	% of sites/facilities/operations	Please explain
Water withdrawals – total volumes	<p>[Select from]:</p> <ul style="list-style-type: none"> • Less than 1% • 1-25 • 26-50 • 51-75 • 76-100 	[open text: 1000 characters max]
Water withdrawals – volume by sources		
Water discharges – total volumes		

Water discharges – volume by destination		
Water discharges – volume by treatment method		
Water discharge quality data – quality by standard effluent parameters		
Water consumption – total volume		
Facilities providing fully-functioning WASH services to all workers		

Please complete the table provided by completing the second and third column with information about your organization.

Please note that CDP is asking for company-wide information in response to this question. The term “total operations” referred to in question W1.2 indicates the boundary chosen for reporting in question W0.3. If water accounting information cannot be provided for total operations within your reporting boundary, then please explain why not in the ‘Please explain’ column of question W1.2 and reference any exclusions reported in question W0.4a.

Guidance on responding to each of the columns is provided below:

- **% of facilities**
 - Please select the appropriate proportion of your organization’s facilities that are regularly measured and monitored for each of the defined aspects.
 - For example, company A has 100 facilities across its total operations and regularly measures and monitors total volumes of water withdrawals for 50% (50 facilities), so they would select “26-50”.

- **Please explain**
 - Please use the open text box to provide details as to why your organization has chosen to measure and monitor this proportion of your total operations for each of the various water aspects. Please also explain why there may be exclusions from the data reported.
 - This column is a free text field; all entries should be fewer than 1000 characters.
 - **SCORING:** Please include some explanation in the “Please explain” column if you have completed the second column “% of facilities”. **This instruction is for automated scoring purposes.** See *Box 3: Reporting company-wide water accounting information & water scoring* for further information on how to complete table questions and avoid unnecessary scoring errors.

For further information when answering these questions, you may want to refer to the GRI Standards and the latest CDP/GRI linkages guide: [“Linking GRI and CDP. How are the GRI Sustainability Reporting Standards and CDP’s 2017 water questions aligned?”](#).

Definitions for each type of water use are included below. Due to the correlation on water accounting between CDP’s water questionnaire and the GRI Standards, the CDP definitions primarily align with GRI water definitions. In cases where GRI does not specifically define a type of water use, CDP has aligned itself with definitions provided by the CEO Water Mandate, Ceres Aqua Gauge or other relevant water definitions.

- **Water withdrawals – total volumes**

- GRI defines total water withdrawals in Disclosure 303-1 as: “The sum of all water drawn into the boundaries of the organization from all sources (including surface water, ground water, rainwater, and municipal water supply) for any use over the course of the reporting year.”
- Please note that cooling water (freshwater or sea water) can often be withdrawn in large quantities and returned in similar volumes to its original source with negligible losses or variation in quality. You should report this in question W1.2a.

- **Water withdrawals – volume by source**

- Volume by source refers to the proportion companies are able to track to different types of water withdrawal source e.g. freshwater, brackish surface water/ seawater, produced/process water, and a breakdown of groundwater by renewable and non-renewable sources. This is to help get a picture of whether they know the potential impact they may be having on their local environment.

- **Water discharge – total volumes**

- GRI defines water discharge in Disclosure 303-1 as: “The sum of water effluents discharged over the course of the reporting year to subsurface waters, surface waters, sewers that lead to rivers, oceans, lakes, wetlands, treatment facilities, and ground water either through:
 - A defined discharge point (point source discharge)
 - Over land in a dispersed or undefined manner (non-point source discharge)
 - Wastewater removed from the organization via truck.

Discharge of collected rainwater and domestic sewage is not regarded as water discharge ”.

Please note that in the mining industry precipitation/rainwater volumes may constitute a principal input of water at site level and excluding rainwater would not be a true reflection of their site water balance. Companies in this sector may wish to include rainwater/runoff drawn into the boundaries of their operations as a water discharge in question W1.2b. If so please indicate this in the “Please explain” column for question W1.2b also.

- If wastewater comes from domestic sources but is pre-dominantly generated from sector business activities e.g. healthcare residential properties, this should be reported.

- **Water discharge – volumes by destination**

- Volume by destination refers to the proportion companies are able to track to different types of discharge destination e.g. freshwater, brackish surface water/ seawater, groundwater, municipal/industrial wastewater treatment plant or wastewater for another organization. This is to help get a picture of whether they know the potential impact they may be having on their local environment.

- **Water discharge – volumes by treatment method**

- Volume by treatment method refers to primary, secondary or tertiary treatment or pre-treatment/technology types etc. This refers to the degree of treatment before being returned to the environment. Different industries will have different requirements to meet compliance standards or a company may have an internal standard they adhere to (all of this can be stated in the “Please explain” column if you wish to elaborate).

- **Water discharge quality data – quality by standard effluent parameters**

- GRI Disclosure 306-1 states that companies should “Report the total volume of planned and unplanned water discharges by:
 - Destination
 - Quality of the water including treatment method
 - Whether it was reused by another organization;

*Organizations that discharge effluents or process water report water quality in terms of total volumes of effluent using **standard effluent parameters** such as Biological Oxygen Demand (BOD) or Total Suspended Solids (TSS). The specific choice of quality parameters will vary depending on the organization’s products, services, and operations. The selection of parameters is to be consistent with those used in the organization’s sector. Water quality metrics may vary depending on national or regional regulations.”*

- **Water consumption**

- CDP recognizes that the term ‘water consumption’ is not consistently defined or used. For the purpose of this questionnaire, CDP uses Ceres’s definition of water consumption, an “amount of water that is used but not returned to its original source”. This includes water that has evaporated, transpired, has been incorporated into products, crops or waste, consumed by man or livestock or otherwise removed from the local source.

Facilities providing fully-functioning WASH services for all workers

- CDP recognizes the term ‘WASH’ as being access to water supply, adequate sanitation and hygiene as used by the [World Health Organization](#).
- For the purposes of this questionnaire, ‘providing fully functioning WASH services for all workers’ would include providing clean water for drinking, cooking and cleaning purposes, adequate facilities for excreta purposes, solid waste management and drainage, and hygiene information and education (adapted from [Oxfam website](#)). The [Guide to Business and Human Rights \(2014\)](#) published by the UK Equality and Human Rights Commission states that a business can respect the right to a safe environment for employees by ‘ensuring access to clean toilet facilities and drinking water’ amongst other criteria.
- This question aligns with performance disclosure metrics recommended by the CEO Water Mandate Corporate Water Disclosure Guidelines.
- For further information on how to implement WASH in the workplace please visit the WBCSD webpage for [Business Action for safe water, sanitation and hygiene](#).

Box 4: Respecting the human rights to water and sanitation (Taken from [CEO Water Mandate Corporate Water Disclosure Guidelines](#))

In 2011, the United Nations Human Rights Council endorsed a set of [Guiding Principles on Business and Human Rights](#). The Guiding Principles establish an authoritative global reference point on how companies should seek to ensure respect for human rights throughout their operations - both in their own activities and through their business relationships. Respecting rights means focusing on risks to people, rather than risks to the business. To put this into practice, companies need to implement due diligence to identify actual and potential impacts on human rights and to prevent, mitigate, and remediate them.

When a company considers how to report on its efforts to respect human rights to water and sanitation, relevant information may include:

- Descriptions of the company’s policies and processes that address human rights risks and impacts on the rights to water and sanitation specifically
- Explanations of the company’s key business relationships and how the company addresses risks to human rights to water and sanitation arising from these relationships
- Information on any severe impacts on the rights to water and sanitation with which the business has been involved and how they have been addressed, as well as any lessons learned

For example, a company might look to implement WASH services at the workplace to ensure adequate sanitation while also extending such expectations to other actors within its value chain. Or a company may need to collaborate with others in the basin to reduce their collective water use when withdrawals limit the water availability for local communities in a way that impacts their right to water.

W1.2a Water withdrawals: for the reporting year, please provide total water withdrawal data by source, across your operations

You are requested to respond to this question in the table provided in the ORS, reproduced below.

Source	Quantity (megaliters/year)	How does total water withdrawals for this source compare to the last reporting year?	Comment
Fresh surface water	[numeric]	[Select from]: <ul style="list-style-type: none"> • Much lower • Lower • About the same • Higher • Much higher • This is our first year of measurement • Not applicable 	[open text: 1000 characters max]
Brackish surface water/seawater			
Rainwater			
Groundwater – renewable			
Groundwater – non-renewable			
Produced/process water			
Municipal supply			
Wastewater from another organization			
Total	[numeric]		

Guidance on responding to each of the columns in question W1.2a is provided below. For further information when answering these questions, it may be helpful to refer to the [GRI Environmental Standards 303 and 306](#).

GRI states in Disclosure 303-1 that “*Total water use can also indicate the level of risk posed by disruptions to water supplies or increases in the cost of water. Clean freshwater is becoming increasingly scarce, and can impact production processes that rely on large volumes of water. In regions where water sources are highly restricted, the organization’s water consumption patterns can also influence relations with other stakeholders.*”

Note on withdrawal source definitions: CDP builds on the GRI Disclosure 303-1 when defining withdrawal sources for reporting purposes, splitting sources into quality categories including fresh and brackish surface water and renewable and non-renewable groundwater. This distinction is to help companies to demonstrate their potential risk exposure from different water sources. For example, a utility company may use large volumes of surface water for cooling purposes but the water quality may not be fresh. Companies should report this information by selecting ‘Brackish surface water/seawater’, to demonstrate to investors that they are not dependent on potentially scarce fresh surface water sources and therefore their risk exposure is likely to be less than if they were dependent on freshwater resources.

Sources

- **Fresh surface water**
 - Surface water is naturally occurring water on the Earth's surface in ice sheets, ice caps, glaciers, icebergs, bogs, ponds, lakes, rivers and streams. (Fresh water underground is called groundwater and oceans are not freshwater). Fresh water sources are generally characterized by having low concentrations of dissolved salts (below 1,000 mg/l) and other total dissolved solids.
- **Rainwater**
 - If a company is managing rainwater, either to harvest and use, or to prevent flooding for example, they should try to estimate and disclose it as withdrawal from the hydrological system. This helps companies better understand their water dependency and risks.
- **Groundwater (renewable)**
 - Water in soil beneath the soil surface, usually under conditions where the pressure in the water is greater than the atmospheric pressure, and the soil voids are substantially filled with the water. Renewable groundwater sources can be replenished relatively quickly and are usually located at shallow depths.
- **Groundwater (non-renewable or fossil)**
 - Water in soil beneath the soil surface, usually under conditions where the pressure in the water is greater than the atmospheric pressure, and the soil voids are substantially filled with the water. Non-renewable groundwater is generally located at deeper depths and cannot be replenished easily or is replenished over very long periods of time. They are sometimes referred to as “fossil” groundwater sources.
- **Municipal water**
 - Water provided by a municipality or other public provider.
- **Produced/process water**
 - Water which, during extraction or processing, comes into direct contact with or results from the production or use of any raw material (e.g. crude oil or a by-product from sugar cane crushing), intermediate product, finished product, by-product, or waste

product. **Please note this category should NOT be confused with recycled water.**

- **Wastewater from another organization**
 - Ceres Aqua Gauge defines wastewater as “Water that is of no further immediate value to the purpose for which it was used or in the pursuit of which it was produced because of its quality, quantity or time of occurrence.”
 - Cooling water is not considered to be wastewater.
- **Brackish surface water/Seawater**
 - Brackish water is water in which the concentration of salts is relatively high (over 10,000 mg/l). Seawater has a typical concentration of salts above 35,000 mg/l.
- **Total water withdrawals across your operations broken down by source**
 - Question W1.2a corresponds to GRI Disclosure 303-1. Information on your company’s water withdrawals may be collected from several sources. According to GRI, it can be drawn “from water meters, water bills, calculations derived from other available water data or (if neither water meters nor bills or reference data exist) the organization’s own estimates.” Please provide data from these sources.
 - Please report the water volumes in megaliters per year (1 megaliter = 1 million liters or 1000 m³). This column will accept numbers up to 999999999999. Please report this to a maximum accuracy of two decimal places. Your reporting year is the time period you stated in response to question W0.2 in the introduction module.
 - Please add up the total withdrawal volumes for your organization’s sources (in megaliters) and put the total volume in the second column adjacent to ‘Total’.
 - **SCORING:** For any water source listed that is not used by your organization, please insert ‘zero’ into the cell in the column titled ‘Quantity’. It is not possible to state ‘N/A’ due to restrictions in the ORS. If you wish to distinguish between a quantity of zero or negligible value and a water source that is not relevant, please do so in the comment box. **This instruction is for automated scoring purposes.** See *Box 3: Reporting company-wide water accounting information & Water scoring* for further information on how to complete table questions and avoid unnecessary scoring errors.
- **How does total water withdrawals for this source compare to the last reporting year?**
 - Please select from the drop down menu if the total water withdrawals for each source were: “Much higher, Higher, About the same, Lower, Much lower”, than the last reporting year. If this is the first year you are have measured water withdrawal data, please select ‘This is our first year of measurement and provide explanation in the next column.
 - **Please note that CDP does not define the thresholds for the “Much higher, Higher, About the same, Lower, Much lower” categories in this column.** CDP sends our water questionnaire to many different industries with huge variations in water volume use therefore it would difficult to set thresholds for these categories that would be meaningful for each company.

It is recommended that a company responding to this question define their own thresholds for each category and make a note of these so that each year their reporting is consistent based on these thresholds applied and an investor can track their water use across different years. An explanation of these thresholds can be provided in the “Comment” column.

- **SCORING:** For any water source listed that is not used by your organization, please select 'Not applicable' for the cell in the column titled "How does total water withdrawals for this source compare to the last reporting year?" **This instruction is for automated scoring purposes.** See *Box 3: Reporting company-wide water accounting information & Water scoring* for further information on how to complete table questions and avoid unnecessary scoring errors.
- **Comment**
 - Please use this field to explain further detail on your selections for the second and third column if required or desired.
 - If there is a level of uncertainty in the "Total" withdrawal figure or if it is an estimated figure, companies should explain this in the "Comment" field. CDP expects withdrawals, discharges and consumption from questions W1.2a, W1.2b and W1.2c to balance (approximately; +/- 5%) so if there is a good reason why this cannot happen, it should be explained in the "Comment" field.
 - This column is a free text field; all entries should be less than 1000 characters.

W1.2a Sample Response – for guidance only

Source	Quantity (megaliters/year)	How does total water withdrawals for this source compare to the last reporting year?	Comment
Fresh surface water	1440.50	About the same	This is for our two inland production sites for chocolate products next to the River Severn.
Brackish surface water/seawater	122444.00	About the same	This water is used for thermo-electric production. These sites are coastal.
Rainwater	56	Much Higher	Our rainwater harvesting has more than doubled in 2016. Several of our facilities have on-site rainwater / storm-water harvesting. However, only sites in India, and Mexico use this for on-site purposes. The increase in use was due to increased awareness in at these high water risk locations as well as taking advantage of un-seasonally high rainfall at our

			operating locations in Mexico.
Groundwater - renewable	16000	Higher	The volume of water has increased due to increased production at a number of our iron ore producing sites and a high proportion of entrained water in our ore.
Groundwater – non-renewable	4000	About the same	We withdraw this from a deeper aquifer to blend with desalinated water for our products where industry standards require a high quality of water and local surface freshwater resources are unreliable during the course of the year due to the arid climate.
Produced/process water	10	Much Lower	Produced water (or formation water) is a by-product brought to the surface with natural gas as part of the gas production process. This water is separated from the gas and condensate and is generally discharged to sea. In 2015, we sold our North Sea gas asset, Tomahawk, which has led to a significant reduction in produced water volumes.
Municipal supply	17.02	Lower	We use municipal water for domestic purposes only – we rolled out water saving schemes at our UK sites in partnership with our local water providers. This has helped to reduce our water bills for municipal supply.
Wastewater from another organization	41	Higher	Voltcom uses reclaimed water provided by local water districts for landscape irrigation.

			Total usage in 2014 was slightly higher from 35 megaliters in 2013.
Total	144008.00	Higher	Water use increased in line with production increases. The uncertainty range of this figure is +/- 5% due to limitations in measurements of rainwater and water withdrawals in our China operations, which are estimated figures.

W1.2b Water discharges: for the reporting year, please provide total water discharge data by destination, across your operations

You are requested to respond to this question in the table provided in the ORS, reproduced below.

Destination	Quantity (megaliters/year)	How does total water discharged to this destination compare to the last reporting year?	Comment
Fresh surface water	[numeric]	[Select from]: <ul style="list-style-type: none"> • Much lower • Lower • About the same • Higher • Much higher • This is our first year of measurement • Not applicable 	[open text: 1000 characters max]
Brackish surface water/seawater			
Groundwater			
Municipal/industrial treatment plant			
Wastewater for another organization			
Total	[numeric]		

For all data points, please report water volumes in megaliters per year for your reporting year (1ML = million liters or 1000 m³). The numeric columns will accept numbers up to 999999999999. Please report this volume up to two decimal places. (Your reporting year is the time period you stated in response to question W0.2 in the Introduction module.)

Guidance on responding to each of the columns is provided below. For further information when answering these questions, you may want to refer to [GRI Disclosure 306-1](#). Search for water indicators in the section titled “Indicator Sort Search”.

- **Destination**
 - **Fresh surface water**

Surface water is naturally occurring water on the Earth’s surface in ice sheets, ice caps, glaciers, icebergs, bogs, ponds, lakes, rivers and streams. (Fresh water underground is called groundwater and oceans are not freshwater). Fresh water sources are generally characterized by having low concentrations of dissolved salts (below 1,000 mg/l) and other total dissolved solids.
 - **Brackish surface water/Seawater**
 - Brackish water is water in which the concentration of salts is relatively high (over 10,000 mg/l). Seawater has a typical concentration of salts above 35,000 mg/l.
 - **(Discharge to) Groundwater**
 - The discharge of water underground via soil to water beneath the soil surface or directly to a water bearing layer of rock (aquifer) by human activity or natural activity.
 - Examples of discharges to groundwater include disposal of sewage, trade effluent and surface water (run-off from urban areas). This can be achieved through various methods such as dug or constructed spreading basins, soakaways, swales or injection wells.
 - **Municipal/industrial wastewater treatment plant**
 - A third party facility for the treatment of municipal or industrial wastewater. The treatment can be primary, secondary or tertiary.
 - Note that waste water treated on site should be recorded according to its ultimate destination; for example, groundwater, as this is where any potential risks for the company lie.
 - **Wastewater for another organization**
 - Wastewater that is reused by another organization than yours. Please note that this other organization must be outside the reporting boundary given in question W0.2 to qualify as “another organization”. If it is within your reporting boundary, then the final discharge destination outside of the reporting boundary should be stated instead.
 - **Total water discharged across your operations broken down by source**
 - According to GRI’s explanation of Disclosure 306-1, water discharges are defined as “water effluents discharged over the course of the reporting year to subsurface waters, surface waters, sewers that lead to rivers, oceans, lakes, wetlands, treatment facilities, and ground water either through:
 - A defined discharge point (point source discharge)
 - Over land in a dispersed or undefined manner (non-point source discharge)
 - Wastewater removed from the organization via truck.
Discharge of collected rainwater and domestic sewage is not regarded as water discharge.”
 - Please note that in the mining industry precipitation/rainwater volumes may constitute a principal input of water at site level and excluding rainwater would not be a true reflection of their site water balance. Companies in this sector (and others to which this is relevant) many wish to include rainwater/runoff drawn into the boundaries of their operations as a water discharge in question W1.2b for these reasons and explain this in the “Comment” column provided.

- Please report the water volumes in megaliters per year (1 megaliter = 1 million liters or 1000 m³). This column will accept numbers up to 999999999999. Please report this to a maximum accuracy of two decimal places. Your reporting year is the time period you stated in response to question W0.2 in the introduction module.
 - Please add up the total discharge volumes for your organization's discharge destinations (in megaliters) and put the total volume in the second column adjacent to "Total".
 - If reporting zero discharges please refer to *Box_5: Reporting "zero discharges"*.
 - **SCORING:** For any water destination listed that is not used by your organization, please insert 'zero' into the cell in the column titled 'Quantity'. It is not possible to state 'N/A' due to restrictions in the ORS. If you wish to distinguish between a quantity of zero or negligible value and a water destination that is not relevant, please do so in the comment box. **This instruction is for automated scoring purposes.** See *Box 3: Reporting company-wide water accounting information & Water scoring* for further information on how to complete table questions and avoid unnecessary scoring errors.
- **How does total water discharged to this destination compare to the last reporting year?**
 - Please select from the drop down menu if the total water discharges for each destination were: "Much higher, Higher, About the same, Lower, Much lower", than the last reporting year. If this is the first year you have measured water discharge data, please select 'This is our first year of measurement' and provide explanation in the next column.
 - **Please note that CDP does not define the thresholds for the "Much higher, Higher, About the same, Lower, Much lower" categories in this column.** CDP sends our water questionnaire to many different industries with huge variations in water use therefore it would be difficult to set thresholds for these categories that would be meaningful for each company.

It is recommended that a company responding to this question define their own thresholds for each category and make a note of these so that each year their reporting is consistent based on these thresholds applied and an investor can track their water use across different years. An explanation of these thresholds can be provided in the "Comment" column.
 - **SCORING:** For any water discharge destination listed that is not used by your organization, please select 'Not applicable' into the cell in the column titled "How does total water discharged to this destination compare to the last reporting year?" **This instruction is for automated scoring purposes.** See *Box 3: Reporting company-wide water accounting information & Water scoring* for further information on how to complete table questions and avoid unnecessary scoring errors.
- **Comment**
 - Please use this field to explain further detail on your selections for the second and third column if required or desired.
 - If there is a level of uncertainty in the "Total" discharge figure or if it is an estimated figure, companies should explain this in the "Comment" field. CDP expects that the withdrawals, discharges and consumption from questions W1.2a, W1.2b and W1.2c

will balance (approximately +/- 5%) so if there is a good reason why this cannot happen, it should be explained in the “Comment” field.

- This column is a free text field; all entries should be less than 1000 characters.

Box 5: Reporting “zero discharges” and “zero consumption”

Typical examples that might qualify for reporting “zero discharges” might include:

1. A closed water circuit or zero liquid effluent discharge complex is in operation e.g. a facility/facilities do not discharge water as all water is re-used by the operation(s) during processing/production. In this case, please remember to report any discharged water that exceeds site storage capacity e.g. excessive rainfall as a separate discharge.
2. Where a facility is a wastewater treatment plant which, following industry best practice, keeps treated water in evaporation tanks so that the treated water evaporates completely and the remaining residue is disposed of as solid waste. In this case, please remember to report the evaporated volume as consumption in questions W1.2c and W5.3.
3. If your company has a zero discharge permit, please consider any discharges that may exist outside this permit and may still be relevant to CDP’s definition of discharges.
4. If reporting “zero consumption” please remember to check your discharge volumes. Scorers will check that discharge and withdrawals volumes balance (approximately) unless there is a relevant explanation as to why not.
5. If reporting “zero discharges” please provide a brief explanation of why the figure is zero, to give data users confidence that the calculation is accurate. For example “this facility uses a closed loop water recycling system”.

When reporting to CDP please remember to read the guidance for defining a discharge in question W1.2 and W5.2 before deciding whether your discharges can be reported as “zero”. If your company definition of discharges/outputs only partially matches CDP’s then please still report the other outputs of water as discharges in CDP’s water questionnaire. For example, a company may define discharges as the water outputs discharged from a site boundary that were used or treated in operations. However, rainwater/run-off that enters the site/facility boundary and is captured (though possibly not used in operations) could also be counted as an output or discharge if returned to the local water environment via a dedicated discharge destination e.g. river or groundwater via soakaway/filtration pond.

Please note that for mining companies using the [Water Accounting Framework for the Mineral Industry](#) from the Minerals Council of Australia, CDP’s water accounting categories and definitions for withdrawal sources and discharge destinations aligns with definitions for the source and destination categories used in this framework.

W1.2c Water consumption: for the reporting year, please provide total water consumption data, across your operations

You are requested to respond to this question in the table provided in the ORS, reproduced below.

Consumption (megaliters/year)	How does this compare to the last reporting year?	Comment
[numeric]	[Select from]: <ul style="list-style-type: none"> • Much lower • Lower • About the same • Higher 	[open text: 1000 characters max]

	<ul style="list-style-type: none"> • Much higher • This is our first year of measurement 	
--	--	--

Please report water volumes in megaliters per year for your reporting year (1ML = million liters or 1000 m³). Please report this volume up to two decimal places. Your reporting year is the time period you stated in response to question W0.2 in the Introduction module.

Guidance on responding to each of the columns is provided below. For further information when answering these questions, you may want to refer to [GRI Disclosure 306-1](#).

- **Consumption (megaliters/year)**
 - Please report the total water consumption for each facility up to two decimal places. This column will accept numbers up to 999999999999.
 - Ceres Aqua Gauge recognizes that the term “water consumption” is not consistently defined or used. For the purpose of this questionnaire, CDP uses Ceres’s definition of water consumption as an “amount of water that is used but not returned to its original source.” This includes water that has evaporated, transpired, has been incorporated into products, crops or waste, consumed by man or livestock or otherwise removed from the local source.

- **How does this compare to the last reporting year?**
 - Please select from the drop down menu if the total consumption for the specified facility was; “Much higher, Higher, About the same, Lower or Much lower”, than the last reporting year. If this is the first year you are have calculated water withdrawal data, please select ‘This is our first year of estimation’ and indicate as such in the following column.
 - **Please note that CDP does not define the thresholds for the “Much higher, Higher, About the same, Lower, Much lower” categories in this column.** CDP sends our water questionnaire to many different industries with huge variations in water use therefore it would be difficult to set thresholds for these categories that would be meaningful for each company.

It is recommended that a company responding to this question define their own thresholds for each category and make a note of these so that each year their reporting is consistent based on these thresholds applied and an investor can track their water use across different years. An explanation of these thresholds can be provided in the “Comment” column.
 - If reporting zero consumption, please refer to *Box_5: Reporting “zero discharges”*

- **Comment**
 - Please use this field to explain further detail on your selections for the second and third column if required or desired.
 - If there is a level of uncertainty in the “Total” consumption figure or if it is an estimated figure, companies should explain this in the “Comment” field. CDP expects that the withdrawals, discharges and consumption from questions W1.2a, W1.2b and W1.2c will balance (approximately +/- 5%) so if there is a good reason why this cannot happen, it should be explained in the “Comment” field.
 - This column is a free text field; all entries should be less than 1000 characters.

W1. Supplier reporting

The following question W1.3/a/b will be presented only if “Indirect use importance rating” in W1.1 rates “Neutral” or “Important” for either the freshwater or brackish water option:

W1.3 Do you request your suppliers to report on their water use, risks and/or management?

- Yes
- No

Please select “Yes” or “No”. A supplier is an entity that supplies inputs for production.

Please note that this question is asking if you request supplier information in some form.

Supplier data incorporated into HSE audits, a supplier code of conduct or indirect reporting through third party consultants are considered supplier reporting if your company is requesting information related to water use, risks and/or management. For further guidance and examples of supplier reporting on water use, risks and/or management, please refer to the CEO Water Mandate [corporate water disclosure guidelines](#) and WWF’s [case study from the Western Cape, South Africa](#).

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

This question only appears if you answer “Yes” to question W1.3.

You are requested to respond to this question in the table provided in the ORS, reproduced below.

Proportion of suppliers %	Total procurement spend %	Rationale for this coverage
[Select from]: <ul style="list-style-type: none"> • Less than 1% • 1-25 • 26-50 • 51-75 • 76-100 	[Select from]: <ul style="list-style-type: none"> • Less than 1% • 1-25 • 26-50 • 51-75 • 76-100 	[open text: 1500 characters max]

Guidance on responding to each of the columns is provided below:

- **Proportion of suppliers %**
 - Please select the proportion of your suppliers that you request to report on their water use, risks and management. Please note that this question is asking for a proportion of all suppliers.
- **Total procurement spend %**
 - Please select the proportion of your procurement spend represented by the suppliers you request to report on their water use, risks and management. For example many people refer to the 80/20 rule, whereby 80% of your procurement spend is captured by 20% of your suppliers. However it is **not** assumed that the proportion of procurement reported denotes the level of risk to your supply chain.

- **Rationale for this coverage**
 - Please use the open text box to provide any further details required to explain why your suppliers are requested to report on their water use, risks and management. Please also use this space to provide details as to how your suppliers are identified (i.e. proportion of revenue generated, geographic location, etc.). You can write up to 1500 characters.

W1.3a Sample Response – for guidance only

Proportion of suppliers %	Total procurement spend %	Rationale for this coverage
51-75	51-75	As an auto manufacturing organization with global operations in Mexico and India as well as the United States, a significant proportion of our supply chain are located in these regions for ease of supply. These regions are currently, or could potentially, be impacted by physical risks such as water scarcity or regulatory risks including local tariffs. So we require all Tier 1 and Tier 2 suppliers with a reliance on water operating in these water stressed regions, to report on both direct and indirect use of water, the water availability of the region, and water-related potential risks in order to maintain key supplier status within our procurement strategy. We have a supplier education program which includes training on risk management including water risks and helps suppliers to understand their exposure to these types of risks. The information is then used to inform our in-house education program that also provides assistance to our suppliers in mediating these risks using customer-supplier collaboration. Ultimately we have found this collaboration has helped us to maintain our level of production across the value chain even in the face of environmental issues like local water scarcity.

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

This question only appears if you answer “No” to question W1.3.

You are requested to respond to this question in the table provided in the ORS, reproduced below.

Primary reason	Please explain
[Select from]: <ul style="list-style-type: none"> ▪ Assessed risk but no substantive risk found ▪ Decentralized business structure ▪ Important but not an immediate business priority ▪ Judged to be unimportant ▪ Lack of internal resources ▪ No instruction from management ▪ Reporting implementation in progress ▪ Traceability/tracking issues ▪ Other, please specify 	[open text: 1500 characters max]

Guidance on responding to each of the columns is provided below:

- Please select from the drop down menu the **primary reason** that explains why your organization does not request its suppliers to report on their water use, risks and management.
- Please use the open text box in the 'Please explain' column to provide further details, specific to your organization, sector or business that qualifies the primary reason provided.
- This latter column is a free text field; all entries should be less than 1500 characters.

W1. Business impacts

W1.4 Has your organization experienced any detrimental impacts related to water in the reporting year?

- Yes
- No
- Don't know

Please respond "Yes", "No" or "Don't know" to this question. Detrimental impacts on business from water use are most commonly financial impacts but may also include any other impacts, such as policy engagement or brand image. For examples of financial detrimental impacts see *Box 6: Examples of detrimental business impacts from water use.*

Box 6: Examples of detrimental business impacts from water use.

Financial impacts associated with physical risks may include increased costs related to company operations, such as quantifiable disruptions to scheduled production, increased energy or water prices due to increased water stress or scarcity, and costs to repair damaged infrastructure.

Changes to regulation can result in increased compliance costs related to a higher price of water, a higher cost of production due to new standards, product standards decreasing demand for current products and requiring development of new products, regulation of water discharge, payment of fines and investment in new technology to meet more stringent standards.

Other financial impacts could include loss of market share or revenue due to changing customer behavior or reputational strain.

Risks facing your suppliers may also have financial implications for your company. They may include increased costs of inputs purchased by your company or a decline in productivity due to disruption of inputs. These may affect your cost of production and your company's financial stability in water scarce regions.

N.B. Here we generally refer to the effects of water challenges on businesses as "impacts". Note that the CEO Water Mandate's Corporate Water Disclosure Guidelines refer to "impacts" generally as the effects of the business on ecosystems and communities

W1.4a Please describe the detrimental impacts experienced by your organization related to water in the reporting year

This question only appears if you select “Yes” in response to question W1.4.

You are requested to respond to this question in the table provided in the ORS, reproduced below. A sample answer is provided below.

Country	River basin	Impact driver	Impact	Description of impact	Length of impact	Overall financial impact	Response strategy	Description of response strategy
[Country drop down list]	[River basin drop down list] Not known Other, please specify	[Select all that apply]: Physical: <ul style="list-style-type: none"> • Climate change • Declining water quality • Dependency on hydropower • Drought • Ecosystem vulnerability • Flooding • Inadequate infrastructure • Increased water scarcity • Increased water stress • Pollution of water source • Rationing of municipal water supply • Seasonal supply variability/inter annual variability Regulatory: <ul style="list-style-type: none"> • Changed product standards • Higher water prices • Increased difficulty in obtaining withdrawals/operations permit • Lack of transparency of water rights • Limited or no river basin/catchment management • Mandatory water efficiency, conservation, recycling or process standards • Poor coordination between regulatory bodies 	[Select from]: <ul style="list-style-type: none"> • Brand damage • Constraint to growth • Closure of operations • Decrease in shareholder value • Delays in permitting • Employee health and well-being • Higher operating costs • Fines/ penalties • Litigation • Loss of license to operate • Disruption to sales • Plant/production disruption leading to reduced output • Property damage • Reduced demand for product • Reduction in revenue • Supply chain disruption • Transport disruption • Water supply disruption Other, please specify	[open text: 1500 characters max]	[open text: 500 characters max]	[open text: 500 characters max]	[Select all that apply]: <ul style="list-style-type: none"> • Alignment of public policy positions with water stewardship goals • Cost increase management through regulated tariff-setting process • Develop flood emergency plans • Engagement with community • Engagement with customers • Engagement with public policy makers • Engagement with other stakeholders in the river basin • Engagement with suppliers • Establish site-specific targets • Infrastructure investment • Infrastructure maintenance • Greater due diligence • Increased capital expenditure 	[open text: 1500 characters max]

		<ul style="list-style-type: none"> • Poor enforcement of water regulation • Regulation of discharge quality/volumes leading to higher compliance costs • Regulatory uncertainty • Statutory water withdrawal limits/changes to water allocation • Unclear and/or unstable regulations on water allocation and wastewater discharge. <p>Reputational:</p> <ul style="list-style-type: none"> • Changes in consumer behavior • Community opposition • Cultural and religious values • Inadequate access to water, sanitation and hygiene • Litigation • Negative media coverage <p>Other, please specify</p>					<ul style="list-style-type: none"> • Increased investment in new technology • New products, markets • River basin restoration • Re-siting of facilities • Promote best practice and awareness • Supplier diversification • Strengthen links with local community • Tighter supplier performance standards • Water management incentives <p>Other, please specify</p>	
Add Row								

Please describe any detrimental impacts on your business during the reporting year. Per river basin, it is not possible to choose more than one impact on your business. **Please select the *primary* impact.**

For each impact, it is possible to choose multiple drivers within the river basin, and also multiple response strategies.

For additional river basins, you can add rows to this table by using the **'Add Row'** button.

Guidance on responding to each of the columns is provided below:

- **Country**
 - In the first column, please select from the drop down menu the country where your organization experienced the detrimental impact related to water.
- **River basin**
 - Please select the appropriate river basin from the drop down menu provided. If you do not see the basin required, please select “Other, please specify” and write in the correct river basin using the text box provided. If you do not know the river basin in which your facility resides, the following tools have the functionality to map the river basin locations of facilities:
 - The Water Footprint Network (WFN) [Water Footprint Assessment Tool](#);
 - The Water Risk Filter <http://waterriskfilter.panda.org/> developed by WWF and DEG;
 - The [WRI Aqueduct Water Risk Atlas Tool](#); and
 - The [WBCSD Global Water Tool](#)
 - CEO Water Mandate’s [Interactive Database of the World’s River Basins](#).

You might want to put a sub-basin of a bigger river basin identified in the drop-down menu. Please feel free to do it by using the “Other, please specify” and inputting your value and the main basin, e.g. “Putumayo, Amazon”. Finally for companies withdrawing water from large confined **aquifers** that may not discharge to the river basin they are located in e.g. Ogallala aquifer in the United States, please select ‘Other’ and type in the name of the local aquifer source. However please also ensure that the correct country name is selected in the ‘Country’ column adjacent.

- Please note that the dropdown list of river basins aligns with the CEO Water Mandate’s [Interactive Database of the World’s River Basins](#). For companies operating in South Africa, the list also includes the nine new Water Management Areas for South Africa, as proposed in the South African revised National Water Resources Strategy (NWRS2). See *Appendix C: River basin list and South African Water Management Areas (WMAs)*.
- **Impact driver**
 - CDP has provided a substantial list of impact drivers for responding companies to choose from. They are separated into three main groups: physical, regulatory, and reputational. Please note that these drivers need to relate the river basins listed in column one. **It is possible to choose multiple drivers for each impact in a river basin.** For more guidance on differentiating between drivers, please see Box 16: Description of risk drivers.
- **Impact**
 - CDP has included a comprehensive list of potential impacts your organization could face as a result of the impact driver. Please select the *primary* impact your organization felt as a result of water in the reporting year. If none of the available options are suitable to your organization, please select “Other, please specify” and a text box will be available for you to complete.

- **Description of impact**
 - Please use this open text box to provide any additional comments required to explain how the impact was detrimental to your organization. If you are able to provide quantitative data, please do so. **Please include details as to the length of time during which your business was impacted.** For example, severe drought was experienced for five months of the reporting year. This field will accept a maximum of 1500 characters. Please note that this maximum includes spaces.

- **Length of impact**
 - Please indicate the length of time the detrimental impact affected your organization during the reporting year. A numerical figure is desirable e.g. 6 months. If you do not know the length of impact, please state that length of time is unknown. If the impact is ongoing for example due to closure of operations please state that the impact is ongoing. This is an open text field with a maximum of 500 characters. Please note that this maximum includes spaces.

- **Overall financial impact**
 - Please use this open text box to provide details on the financial impact your organization suffered as a result of this impact. We are looking for a numerical figure that includes the total cost to your company, which includes both a figure and a currency in your response. If you do not know the financial impact, please write “Impact not quantified financially”. This field will accept a maximum of 500 characters. Please note that this maximum includes spaces.

- **Response strategy**
 - Please select from the drop down menu the response strategy that most closely describes how your organization expects to mitigate the identified risk. You may select multiple response strategies if your organization chooses to implement more than one. If there is not an appropriate response strategy for your organization, please select “Other, please specify” and a text box will be provided so that you can write in your own response.
 - For those who indicated that they would be interested in having their public response data transferred to the Water Action Hub (W10.2), the following strategies align well with the Water Action Hub Action Areas. However, we ask that you provide specifics for the strategy in the “Description of response” column.
 - Alignment with public policy positions with water stewardship goals
 - Cost increase management through regulated tariff-setting process
 - Develop flood emergency plans
 - Engagement with community
 - Engagement with customers
 - Engagement with public policy makers
 - Engagement with other stakeholders in the river basin
 - Engagement with suppliers
 - Infrastructure investment
 - Infrastructure maintenance
 - River basin restoration
 - Strengthen links with the local community

- **Description of response strategy**

- Please use this open text box to provide any additional details on your organization's response strategy plus an explanation of how you calculated and rated the cost of your response strategy. If you are able to provide a numerical value for the costs, including the currency, please do so here. You may also include here secondary response strategies for the identified risk if necessary. Please include information on the following three facets on the strategy in regards to preventing either financial or operational impacts:

- The timeframe expected for the response strategy to be implemented;
- How effective the response is; and
- The feasibility of success in preventing either financial or operational impacts.

You can write up to 1,500 characters in response. This maximum includes spaces.

- For those who have indicated that they would be interested in having their public response data transferred to the Water Action Hub in W10.2, we ask that you provide as much information about your response, particularly local projects, as possible including:
 - Who else is involved in the engagement (such as names of organizations or government offices) or who you would like to work with (government agencies, other companies, NGOs, etc.)
 - What the project seeks to accomplish including expected benefits of the engagement for the watershed beyond the company
 - When the project started and if it has concluded or if it is continuing
 - If possible, the specific location of the project.

W1.4a Sample Response – for guidance only

Country	River basin	Impact driver	Impact	Description of impact	Length of impact	Overall financial impact	Response strategy	Description of response strategy
India	Ganges	Reputational: Community opposition	Delays in permitting	Community concerns over our proposal to construct a new dam have led to the delay of the project.	10-12 months	The increased delays and legal costs have had strong financial impacts for the business. The financial impact due to delays is approximately EUR 4 million.	Engagement with public policy makers	We aim to continue to improve our relationship with the local community by conducting a series of vigorous water management assessments as well as strengthening environmental performance. We are creating local partnerships with local and national organizations who promote sustainable water management.
Chile	Santiago	Physical: Pollution of water supply	Fines/penalties	A spill of approximately 4,000 to 5,000 liters of concentrated sulphuric acid occurred from our operations.	3-4 months	Received a penalty of US\$16,000 for breach of Environment Protection Act Part 3 A.	Increased investment in new technology	We plan to research and invest in new shipping container technology in all regions of operation. We have already invested US\$ 3 million over the next five years to mitigate this risk of spills occurring in future.
Chile	Santiago	Reputational: Reputational damage	Brand Image	A spill of approximately 4,000 to 5,000 liters of concentrated sulphuric acid occurred from our operations.	Ongoing	Reputational damage not quantified.	Increased investment in new technology	We plan to research and invest in new shipping container technology in all regions of operation. We have already invested US\$ 3 million over the next five years to mitigate this risk of spills occurring in future.

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

This question only appears if you select “Don’t know” in response to question W1.4.

You are requested to respond to this question in the table provided in the ORS, reproduced below.

Primary reason	Future plans
[Select from]: <ul style="list-style-type: none"> • Detrimental impacts related to water are not recorded at the corporate level • No instruction from management to assess this • Other, please specify 	[open text: 1500 characters max]

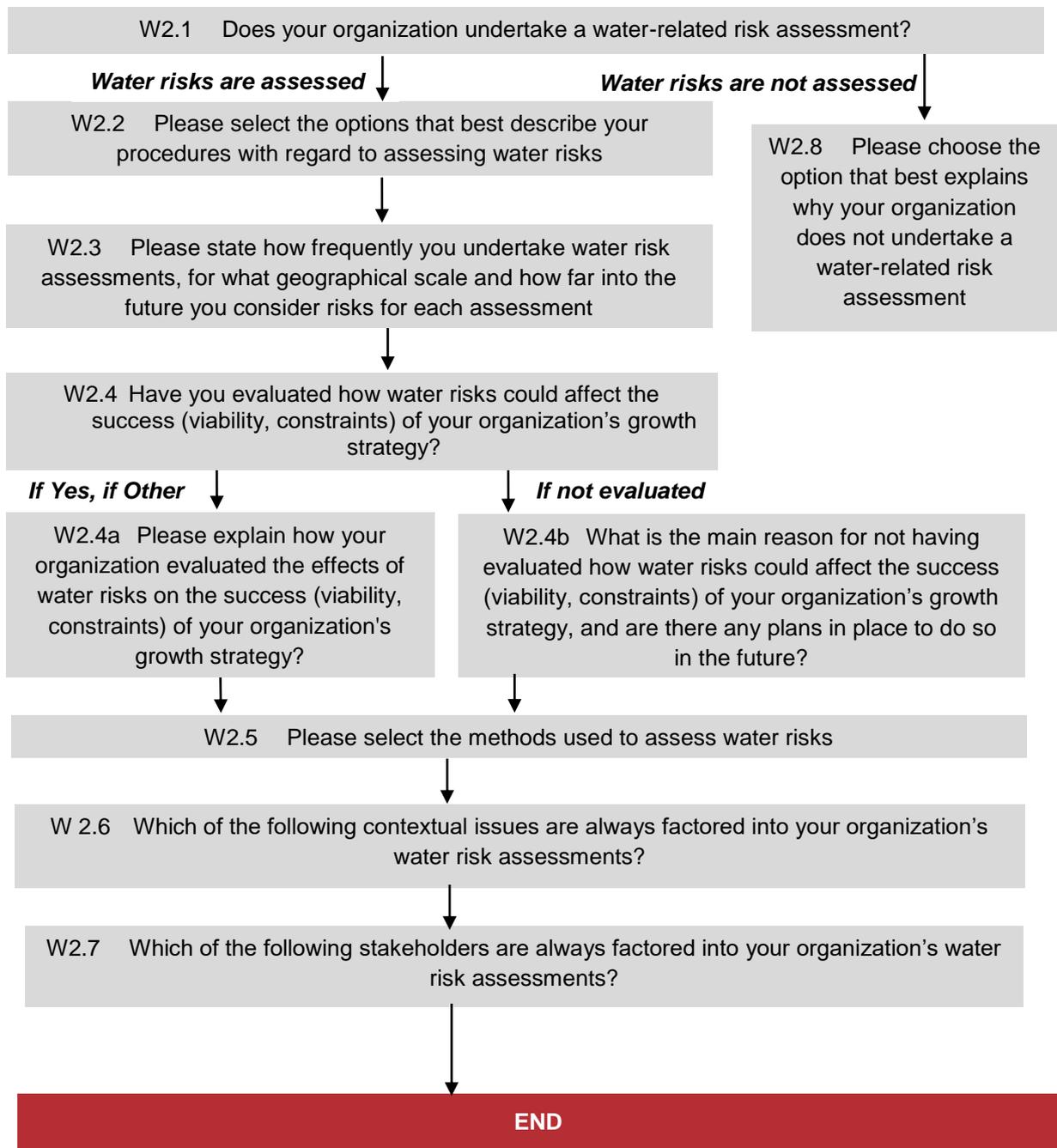
Please select the primary reason why your organization does not know if it has experienced any detrimental impacts related to water during the reporting year. In the ‘Future plans’ column, please use the open text field to provide details as to any future plans your organization has to explore this issue. This latter column is a free text field; all entries should be less than 1500 characters.

Risk Assessment Module Guidance

W2. Procedures and requirements

Question Pathway

The following questions are shown on the risk assessment page.



General guidance

Section two of CDP's water information request asks companies to provide details on their company-wide risk assessment procedures and requirements.

CDP is incorporating a water risk assessment into the annual questionnaire as it has become apparent that water risk can no longer be managed through past data sets. According to Ceres' Aqua Gauge, metrics such as variations in average frequency, duration and intensity of droughts and flooding may no longer be reliable. As a result of our changing climate and rapid changes in both land and water use, models that incorporate data which allows future water projections and risk assessment approaches are now required.

Water risk assessments are also used by organizations as they try to determine whether water is a material reporting topic. The CEO Water Mandate suggests organizations assess:

1. The general exposure of their industry sector to water risks and likelihood they may create adverse water impacts; and
2. The risk exposure and likelihood of creating adverse impacts in the specific basins in which they operate.

Different sectors are typically exposed to varying degrees of water risk. Please review the [CEO Water Mandate: Corporate Water Disclosure Guidelines](#) for further guidance for your particular sector.

CDP's water risk assessment module is split into three broad sections:

1. The first collects information on the structure of your organization's water risk assessment;
2. The second section asks if organizations have used their water risk assessments to evaluate how water may affect the success of their growth strategy;
3. The final section asks for details as to which stakeholders and contexts are included in your organization's assessment and which tools are used to assess water risks and how they are used.

It is important for responding organizations to understand how the different modules in this year's water information request are linked. CDP encourages all responding companies to undertake holistic and robust water risk assessments to fully understand potential water risks and opportunities. Please remember that a comprehensive response is always requested and a partial answer is preferable to no answer at all.

For more information about water risk assessment, please see [Guidance notes 1.6](#) in Ceres Aqua Gauge: Risk Assessment, or [WWF's water risk tool](#).

Key changes from 2016

W2.7 column one – a drop down option was reworded for clarity but information requested remains the same.

Pre-population of responses for 2017

If you responded to water last year you can automatically populate the following questions with last year's response by clicking the "copy from last year" button at the bottom of the relevant page in the ORS. You can then modify last year's response as needed. You must click "copy from last year" before completing any fields on each page of the ORS where this function has been enabled.

• The copy from last year function has been provided for questions W2.1, W2.2, W2.3, W2.4, W2.4a, W2.4b, W2.5, W2.6, W2.7 and W2.8.

Note: W2.7 row 11 will not pre-populate due to the row heading change.

Please always remember to review your pre-populated selections to make sure they are still appropriate for 2017. This is particularly important if new data points have been added to questions or if dropdown lists may have been updated. Regarding the latter, if you selected 'Other' to provide a different category from the dropdown list in 2016, you may find that your category has now been included in the 2017 dropdown list. We request that companies use the pre-selected categories as much as possible as this greatly assists investors with data analysis.

Specific question guidance

W2. Procedures and requirements

W2.1 Does your organization undertake a water-related risk assessment?

- Water risks are assessed
- Water risks are not assessed

If "Water risks are assessed", you will be required to answer questions W2.2-W2.7. If you select "Water risks are not assessed" you will proceed to question W2.8.

If your organization does not currently incorporate a water risk assessment into its core business procedures, please go directly to question W2.8 and use this space to provide insight as to why not, whether your organization has any future plans to undertake a water risk assessment and the likely timescale until they are implemented.

W2.2 Please select the options that best describe your procedures with regard to assessing water risks

You are requested to respond to this question in the table provided in the ORS, reproduced below.

Risk assessment procedure	Coverage	Scale	Please explain
[Select from]: <ul style="list-style-type: none"> • Comprehensive company-wide risk assessment • Water risk assessment undertaken independently of other risk assessments 	[Select from]: <ul style="list-style-type: none"> • Direct operations and supply chain • Direct operations • Supply chain 	[Select from]: <ul style="list-style-type: none"> • All facilities and suppliers • All facilities and some suppliers • Some facilities and all suppliers • Some facilities and some suppliers • All facilities • Some facilities • All suppliers • Some suppliers 	[open text: 1500 characters max]

Please select from the drop down menus the options that most accurately describe how your organization assessed water risk for the reporting year.

- **Risk assessment procedure**
Indicate whether your organization's water risk assessment is company wide or if water risk assessments are undertaken independently.

- **Coverage**
Indicate if your organization’s water risk assessment incorporates your direct operations and/or your supply chain.
- **Scale**
Indicate if your water risk assessment incorporates all or only some of your direct operation facilities; and likewise if it incorporates all or only some of your suppliers.

Note, that if the initial stages of your company-wide risk assessment evaluates ALL your suppliers and in so doing concludes that some will be excluded from subsequent, more thorough risk assessments, you should select an "all suppliers" option in the drop down of the Scale column, and provide an explanation in the “Explain” column.

- **Please explain:** Please use the open text field provided in the fourth column ‘Please explain’ to include any additional information, specific to your organization that provides further insight on the following:
 - Why you have chosen this procedure, and
 - Why you have chosen this level of coverage and scale.
 - Whether you apply any risk assessment process standards and which ones, e.g. ISO31000

You may use up to 1500 characters for this open text field.

Please remember that this question is not a supplier reporting question, it is a broader water risk assessment procedure question. Companies are not expected to know all the operating locations of their suppliers e.g. if they buy cotton off the open market, they should assess the main growing regions to see if they are exposed to water risks or if a company’s main product uses silicon chips that come via multiple sources and suppliers, assess the main geographic production hubs. This will allow a company to better understand their supply chain risks.

W2.3 Please state how frequently you undertake water risk assessments, at what geographical scale and how far into the future you consider risks for each assessment

You are requested to respond to this question in the table provided in the ORS, reproduced below.

Frequency	Geographic scale	How far into the future are risks considered?	Comment
[Select from]: <ul style="list-style-type: none"> • Six-monthly or more frequently • Annually • Every two years • Sporadically not defined • Never 	[Select from]: <ul style="list-style-type: none"> • Country • Region • River basin • Business unit • Facility 	[Select from]: <ul style="list-style-type: none"> • Up to 1 year • 1 to 3 years • 3 to 6 years • > 6 years • Unknown 	[open text: 500 characters max]
Add Row			

If you have multiple risk assessments at different geographical scales, you can enter them into the table by adding more rows using the 'Add Row' button to the bottom right.

Guidance on responding to each of the columns is provided below:

- **Frequency**
 - Please choose from the dropdown menu to describe the frequency with which your organization undertakes a water risk assessment (e.g. annually).
- **Geographic scale**
 - Please choose the geographic scale associated with the frequency and risk methodology. This is the scale at which you usually collect, aggregate and analyse data on risk. Organizations can use the add row function if they have completed the methodology at different scales e.g. at a country level and a basin level. Please refer to *Box 7: Geographic scale* and *Box 8: Examples of methods used to characterize water risk* for guidance if required.
- **Timeframe**
 - Please choose from the dropdown menu to describe what timeframe you analyze for when undertaking a water risk assessment (e.g. the following one to three years). **Please note that this is not referring to how frequently you undertake a risk assessment (this is requested in the 'Frequency' column), but rather looks at how far into the future your risk assessment considers.**
- **Comment**
 - You may provide a brief explanation as to why your organization feels the frequency, geographic scale and timeframe is appropriate to your business. You can write up to a maximum of 500 characters per row. This maximum includes spaces.

Box 7: Geographic scale

Water presents local issues which need to be understood and managed at a local level; typically at river basin, or at least a country level, rather than the corporate level. Investors are increasingly interested in this type of granularity when it comes to assessing the water risk within their portfolios.

A 'River basin' column has been added to several questions in this questionnaire to encourage companies to report data at a more granular level where possible.

Organizations that are more advanced and are able to report information at the granular level, e.g. river basin/sub-basin *and* facility level, should do so as providing this information is currently deemed to be best practice. River basin level risk assessment is particularly relevant to a water stewardship approach to securing water resources as collaboration with other basin users and external stakeholders is central to understanding and managing risk. Investors are using the ability of an organization to report at these levels as a proxy for sound risk management

Organizations that are unable to report at river basin/sub-basin and facility level and instead provide more basic information e.g. country or regional (intra-country or multiple countries) level imply that they do not have a full understanding of the risk at a local operational level and the water resource management of their operating locations.

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 1 year
- Yes, evaluated over the next 5 years

- Yes, evaluated over the next 10 years
- Not evaluated
- Other

N.B. This question is linked to question W2.3. Before choosing your timeframe for this question, please consult Box 8: Consistent response throughout the questionnaire below for guidance.

Please use the drop down menu to select the time frame for which your organization has evaluated how water quality and quantity is currently affecting, or could potentially affect the success of your organization’s growth strategy.

Box 8: Consistent response throughout the questionnaire

CDP encourages a comprehensive and consistent response through the questionnaire.

The questionnaire has been structured so the different sections support information requested in previous sections.

For example, in question W2.4 above, an organization can disclose the fact they have evaluated the impact of water risks over the next ten years to their growth strategy. In question W2.3 CDP asks about the timeframe covered during an organization’s risk assessment. These two answers should be consistent with each other, meaning that if an organization’s risk assessment only covers five years, the organization should not answer here that their water impacts have been evaluated over the next ten years. CDP expects a consistent response from all responding organizations.

W2.4a Please explain how your organization evaluated the effects of water risks on the success (viability, constraints) of your organization’s growth strategy? [open text with 2,400 characters max]

This question only appears if you select “Yes” or “Other” in response to question W2.4

Please use the open text box to provide details relevant to your organization as to what process and procedures were followed to evaluate how water risk impacts your organization’s growth strategy. Please note that this explanation should entail how the results of your risk assessment contribute to your organization’s growth strategy, including what changed or did not change in the growth strategy and an example of the risks identified. If you selected ‘Other’ in question W2.4, please use this text box to provide further details.

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?

This question only appears if you select “Not evaluated” in response to question W2.4. If substantive risks are identified, you will have the opportunity to disclose these in section 3: Implications.

You are requested to respond to this question in the table provided in the ORS, reproduced below.

Main reason	Current plans	Timeframe until evaluation	Comment
[Select from]: <ul style="list-style-type: none"> ▪ Judged to be unimportant ▪ No instruction from management ▪ Lack of internal resources 	[Select from]: <ul style="list-style-type: none"> • Yes • No 	[Select from]: <ul style="list-style-type: none"> • Next reporting period 	[open text: 1500 characters max]

<ul style="list-style-type: none"> ▪ Evaluation underway ▪ Important but not an immediate business priority ▪ Other, please specify 		<ul style="list-style-type: none"> • Next 24-36 months • Other, please specify 	
--	--	--	--

Guidance on responding to each of the columns is provided below:

- **Main reason**
 - Please select the primary reason as to why your organization has not evaluated how water quality and quantity impacts its growth strategy. If the drop down menu options are not appropriate for your organization, please select “Other, please specify” and complete the text box provided.

- **Current plans**
 - Please select from the drop down menu to indicate if your organization has any plans to evaluate how water risks could impact its success and growth. Please select ‘Yes’ only if your organization has already developed plans or has agreed to a future evaluation. Otherwise, please select ‘No’ even if your organization is looking to evaluate water at some point in the future, but this evaluation did not start within the reporting year.

- **Timeframe until evaluation**
 - Please select from the drop down menu the timeframe until your organization’s next evaluation. If your organization has no plans to evaluate the impact of water quality and quantity, please select “Other, please specify” and a text box is provided where you can indicate ‘no plans.’

- **Comment**
 - Please use the open text box provided to provide any further details as to whether your organization has plans to evaluate the impact of water quality and quantity on its growth strategy. If you have no plans, please provide a comment here detailing why not. You may use up to 1500 characters. This maximum includes the use of spaces.

W2.5 Please select the methods used to assess water risks

You are requested to respond to this question in the table provided in the ORS, reproduced below.

Method	Please explain how these methods are used in your risk assessment
<ul style="list-style-type: none"> • CEO Water Mandate’s ‘Understanding Key Water Stewardship Terms’ • FAO/AQUASTAT • Ecolab Water Risk Monetizer • GEMI Local Water Tool • Global Water Tool for Cement Sector • Global Water Tool for Power Utilities • Internal company knowledge • IPIECA Global Water Tool for Oil & Gas • Life Cycle Assessment • Maplecroft Global Water Security Risk Index • Regional government databases 	<p>[open text: 3000 characters max]</p>

<ul style="list-style-type: none"> • UNEP Vital Water Graphics • Water Footprint Network • WBCSD Global Water Tool • WRI water stress definition • WRI Aqueduct • WWF-DEG Water Risk Filter • Other, please specify 	
--	--

From the drop down menu in the first column, please select the method(s) that your company uses to assess water risks. Please note that you can select more than one option. Examples of methods are provided in *Box 9: Examples of methods used to characterize water risk*. In the column “Please explain how these methods are used in your risk assessment” you should explain why the methods you selected were chosen, how they are integrated or used together, and their operational scope, i.e. whether they relate to direct operations or supply chain, or only part of the company’s operations.

You may also select “Other, please specify” to enter another method. Please provide relevant details (including the name) of the methods and tools in the open text box that is available.

Box 9: Examples of methods used to characterize water risk

A variety of mapping tools and definitions are available to identify regions subject to water stress and other water risk including; WRI’s Aqueduct Global Water Risk Mapping Tool, the WBCSD Global Water Tool, CEO Water Mandate’s [‘Understanding Key Water Stewardship Terms’](#), UN FAO/AQUASTAT, UNEP Vital Water Graphics, or the WWF-DEG Water Risk Filter. Many national and regional water authorities will also have suitable map databases and environmental assessments available. Internal company knowledge is also considered a vital tool in determining current or potential regions subject to water risk such as water stress with respect to a company’s operations.

Examples of free and downloadable water risk tools are listed below:

The [Water Risk Filter](#) developed by WWF and DEG can assist responding organizations to assess and quantify their water risks. The tool identifies the company’s relationship with water and quantifies the potential risks arising from that relationship. The results are displayed on a portfolio level, individual facility level and on a large set of water map overlays, offering a good basis for decision making. The results of the Water Risk Filter answers most of the risk questions of the water questionnaire and may assist for other questions.

The WWF-DEG [water risk filter](#) also has an associated Knowledge Base which provides useful information on collective action ([CEO Water Mandate’s Water Action Hub](#)) in river basins for shared risks, and on how to develop a water stewardship strategy plus links to a facility level certification scheme for water stewardship ([Alliance for Water Stewardship](#)).

The [WRI Aqueduct Water Risk Atlas Tool](#) is a customizable global map, based on 12 indicators of physical, regulatory, and reputational risk. In a user-friendly way, companies can now evaluate how water stress, flood occurrence, access to water, drought, and other issues may affect operations. Additionally, the global map can be tailored specifically for nine water-intense industry sectors including Oil & Gas, Agriculture and Chemicals.

The [WBCSD Global Water Tool](#) can assist companies in estimating the proportion of their own operations located in water-stressed regions. This tool allows companies to identify facilities in

water stressed river basins and country locations, identify how many employees live in countries that lack access to improved water and sanitation, and to identify suppliers in water-stressed river basins. Please note that this tool provides an assessment of water stress related to water resource availability and does not consider risks associated with water quality and discharges. Access to the tool and additional information is available from the WBCSD website.

Each of these tools plus the Water Footprint Network’s (WFN) [Water Footprint Assessment Tool](#) has the functionality to map the river basin locations of facilities. (Please note that the WFN tool is not a water risk assessment tool, however it can play a vital role in understanding impacts which can then be translated into risks).

W2.6 Which of the following contextual issues are always factored into your organization’s water risk assessments?

You are requested to respond to this question in the table provided in the ORS, reproduced below. A sample is included below for your reference on page 58 with company-specific examples.

Issues	Choose option	Please explain
Current water availability and quality parameters at a local level	[Select from]: <ul style="list-style-type: none"> • Relevant, included • Relevant, not yet included • Not relevant, included • Not relevant, explanation provided • Not evaluated 	[open text: 2000 characters max]
Current water regulatory frameworks and tariffs at a local level		
Current stakeholder conflicts concerning water resources at a local level		
Current implications of water on your key commodities/raw materials		
Current status of ecosystems and habitats at a local level		
Current river basin management plans		
Current access to fully-functioning WASH services for all employees		
Estimates of future changes in water availability at a local level		
Estimates of future potential regulatory changes at a local level		
Estimates of future potential stakeholder conflicts at a local level		
Estimates of future implications of water on your key commodities/raw materials		
Estimates of future potential changes in the status of ecosystems and habitats at a local level		

Scenario analysis of availability of sufficient quantity and quality of water relevant for your operations at a local level		
Scenario analysis of regulatory and or tariff changes at a local level		
Scenario analysis of stakeholder conflicts concerning water resources at a local level		
Scenario analysis of implications of water on your key commodities/raw materials		
Scenario analysis of potential changes in the status of ecosystems and habitats at a local level		
Other		

This table has a static first column and requires responding organizations to select from the second column the relevance of the stated issue. Please note that this question is aligned with the Dow Jones Sustainability Index.

Guidance on responding to each of the columns is provided below:

- **Issues**

- Each box within the table identifies a contextual issue that could be incorporated into your organization’s water risk assessment. Please complete the table with as much data as possible for each of the contextual issues in the table. If a contextual issue you assess is not available in this table, please fill in the ‘Other’ row, including information about the issue in the ‘please explain’ column.
- Three types of issue are listed: current, estimate and scenario. A contextual issue remains “current” until there is a projected or “estimated” future change to data for that contextual issue. If other variables are introduced into the assessment (e.g. business growth with respect to climate change) using either current or estimated data, this then becomes a scenario analysis. Please see the sample response below for this question for examples of each stage for different contextual issues that could be factored into a water risk assessment.

- **Choose option**

- Please select from the drop down menu the option that most accurately represents your organization. If “Relevant, included” is selected, CDP expects that means that the identified issue is always factored into your organization’s water risk assessment throughout the entire organization and is utilized for both direct operations and supply chain. Further explanations of these options are provided in *Box 10: Determining relevance in risk assessments*.
- [Note that some companies may have assessed an issue as not relevant for their water risk assessment, but they nevertheless continue to include it the assessment process. This may be for a number of reasons: such as completeness or to facilitate future consideration.](#)

- **Please explain**

- Please use the open text box to provide further details as to the identified issue. For those organizations that have included the issue, please provide context as to why you include this information (why is it important to your business) and how you assess this contextual issue and how that information is used internally for decision-

making. For those organizations that have said the issue is not relevant, please provide explanation as to why that is the case. This is an open text field with 2000 characters maximum. This maximum includes spaces.

- **SCORING:** Please always provide an explanation for the option chosen for each contextual issue. **This instruction is for automated scoring purposes.** See *Box 3: Reporting company-wide water accounting information & water scoring* for further information on how to complete table questions and avoid unnecessary scoring errors.

Box 10: Determining relevance in risk assessments

The following definition of relevance is adapted from the GHG Protocol Corporate Standard.

A relevant issue in a water risk assessment is an issue internal staff in an organization need to incorporate into their decision making. Companies should use the principle of relevance when determining whether to exclude any issues from their water risk assessment. Companies should also use the principle of relevance as a guide when selecting which issues to be included in a risk assessment. Companies should collect data of sufficient quality to ensure that the issue is relevant (i.e. it appropriately reflects the risks the organization is exposed to) and should not exclude any issues from the risk assessment that would compromise the relevance of the reported issue.

You are also advised to consult the CEO Water Mandate Corporate Water Disclosure Guidelines for the section on [Defining What to Report](#) for guidance on how to identify relevant water-related topics for your organization.

W2.6 Sample Response – for guidance only

Issues	Choose option	Please provide a brief explanation
Current water availability and quality parameters at a local level	Relevant, included	Water is a raw material in Tetra's final products; water availability and quality is monitored by both Global Sustainability, EHS and our Global Quality Organization. Additionally we use the Aqueduct and GEMI tool to assess this issue.
Current water regulatory frameworks and tariffs at a local level	Not relevant, included	Currently there are no specific regulations for plastic boxes at our European manufacturing operations at the local level. We adhere to industry best practice and all national regulations instead, including those related to water.
Current stakeholder conflicts concerning water resources at a local level	Relevant, included	Given that the Limpopo basin which hosts most of our operations provides a number of local communities and agri-business with their livelihoods, it is essential that we deliver strong water stewardship for the sustainability of the water system and community or this will impact on our social license to operate as well as potentially impact on our long-term access to water requirements. As part of our risk assessment, we are identifying local stakeholders using local NGOs as consultants and recording this information in our in-house tracking Enterprise Risk Management system. We plan to consult with stakeholders and present our risk assessment for their information and input before deciding any necessary actions for ourselves and actions in collaboration with the local stakeholders.
Current implications of water on your key commodities/raw materials	Not relevant, included	Current water quantity and quality meet our current demands without materially impacting the producing river basins in all locations where we operate. With the predicted rapid growth of our organization compounded by the increase in frequency and intensity of droughts globally, this could potentially change and have severe impacts on our key commodities for snack manufacture (oats, cocoa) at some point in the future.
Current status of ecosystems and habitats at a local level	Relevant, included	Whilst many of the impacts of ecosystem destruction are still unknown or not immediately, it is essential for good water stewardship to incorporate the impacts on the local water dependent eco-systems into our risk assessments. To mitigate this risk, we employ a number of environmental scientists to ensure no ecosystem local to our operations is adversely impacted by our operations in line with our Global Biodiversity Commitment. This assessment includes accessing regional government databases held by organizations such as English Nature, as well as conducting site surveys, and tracking this information in our Environmental Risk Management system.
Current river basin management plans	Relevant, included	Maintaining and growing our business is dependent on securing our water permits for withdrawals and discharges at our power generation facilities so we factor current river basin management plans into our risk assessments to ensure we are understanding any potential limitations or opportunities that may arise in

		relation to these plans. We use WRI Aqueduct and WWF- Water Risk Filter to help us identify basins at risk before undergoing a more local analysis at facility level.
Current access to fully-functioning WASH services for all employees	Relevant, included	We include this in our workplace assessments at every operating location to ensure the health and safety of all our employees, and also as part of our corporate responsibility to respect and ensure implementation of the human right to water and sanitation. This is the baseline expectation of the UN Guiding Principles for Business and Human Rights . We also use the WBCSD implementation guide for Business Action for safe water, sanitation and hygiene to help us understand our risks and possible actions, in addition to health and safety assessment KPIs which are included in our Corporate Risk Management process
Estimates of future changes in water availability at a local level	Relevant, included	The Yellow river basin in which we operate our main production facility is predicted by WRI Aqueduct to become more stressed following a number of internal and external factors including our predicted future growth, local community population increases and more intense droughts. As such we have set targets to reduce our water intensity by 50% by 2017 and decrease our total water withdrawal by 20% through the installation of new technology.
Estimates of future potential regulatory changes at a local level	Relevant, included	We have used WRI Aqueduct, WWF Water Risk Filter and WBCSD Global Water Tool to cross reference results to identify the river basins where we are most exposed to risk from water and create a high priority list. As the river basin, where 20% of our operations are located, is predicted to become more stressed than the others, it is expected that local legislation will reflect the growing need for strong water management with increased limits on water withdrawal. We are preparing for this by engaging with local policy makers and stakeholders about the best management plan for the region.
Estimates of future potential stakeholder conflicts at a local level	Relevant, included	It is predicted that as water scarcity increases in the water stressed southeast of England (using WRI Aqueduct), so too will be the potential for stakeholder conflict. We are mitigating this risk by beginning a process of dialogue with local stakeholders in Oxfordshire where our operations are based using local consultants to facilitate the process.
Estimates of future implications of water on your key commodities/raw materials	Relevant, included	Our distilleries in Texas require certain levels of both direct and indirect water so that we remain a successful organization. Using WRI Aqueduct, we forecast that a decrease in the availability of water locally – our barley suppliers are also local to our operations - has the potential to severely impact our organization; as such we need to carefully manage existing resources sustainably.
Estimates of future potential changes in the status of ecosystems and habitats at a local level	Relevant, included	Estimation of changes to the status of ecosystems have been completed, both through internal processes such as contributing to our corporate-wide business strategy, and externally, by conforming to local environmental assessment regulations. Several of our power generation facilities have potentially large impacts on aquatic ecosystems due to discharges of cooling water into watercourses. With future rises in temperature predicted because of climate change, negative impacts of thermal load such as fish kill events may be exacerbated. We have incorporated

		NOAA data on predicted future temperature increases into our biodiversity risk assessments at these sites and are assessing possible alternative management solutions for cooling water to deploy during hot weather.
Scenario analysis of availability of sufficient quantity and quality of water relevant for your operations at a local level	Relevant, included	Water is a raw material in our final products; sites that have currently or historically been challenged with water quality and availability in New Mexico and California have completed different types of scenario analysis using historic company knowledge and trend data from government databases in statistical models and we have put contingency plans in place to protect the business. Changes in population distribution and domestic water use are predicted to interact with water availability changes in these regions, by considering different levels of these variables we have been able to develop a range of different future risk profiles and identify that stakeholder conflict poses a bigger risk than water availability under certain conditions.
Scenario analysis of regulatory and or tariff changes at a local level	Relevant, not included	We have secure tenure of water use in Ireland and Scotland as we have government permits for water withdrawal. This means future regulatory changes would not affect pricing for existing operations for the next 30 years. Our BDS for capital project development specifies life-of-mine assessment of water demand, water supply, and water related environmental risk, and risk control strategies.
Scenario analysis of stakeholder conflicts concerning water resources at a local level	Relevant, included	Our Enterprise Risk Management System tracks/monitors existing stakeholder conflicts, estimates future potential conflicts and discusses scenario analysis related to water and stakeholder conflicts. We completed an assessment of operating mine sites using the Basin Related Risk portion of the WWF Water Risk Filter to determine where there is high potential for stakeholder conflicts around water.
Scenario analysis of implications of water on your key commodities/raw materials	Relevant, included.	Our global procurement team estimates future implications of water on key agricultural commodities/raw materials in-house using statistical analysis and government research. Water related factors are combined with other sources of risk in price and volatility risk analysis of these commodities. Forward looking costs have been estimated for selected materials and will be input to selected business output scenarios to advise decision making.
Scenario analysis of potential changes in the status of ecosystems and habitats at a local level	Relevant, not yet included	Our Safety and Environmental Assurance Centre (SEAC) team is developing tools to estimate biodiversity and ecosystem services' risks and impacts that may be associated with agricultural material choices and their spatial distribution on the landscape. This work is currently focused on assessment of larger-scale material use rather than production and impacts at the very local level, and includes specific metrics on water availability and impacts

W2.7 Which of the following stakeholders are always factored into your organization’s water risk assessments?

You are requested to respond to this question in the table provided in the ORS, reproduced below.

Stakeholder	Choose option	Please explain
Customers	[Select from]: <ul style="list-style-type: none"> • Relevant, included • Relevant, not yet included • Not relevant, included • Not relevant, explanation provided • Not evaluated 	[open text: 2000 characters max]
Employees		
Investors		
Local communities		
NGOs		
Other water users at a local level		
Regulators		
River basin management authorities		
Statutory special interest groups at a local level		
Suppliers		
Water utilities at a local level		
Other		

This table has a static first column which identifies different stakeholders and requires responding organizations to select from the second column the relevance of the stated stakeholder. Guidance on responding to each of the columns is provided below:

- **Stakeholder**
 - Each box within the table identifies a particular stakeholder that could be incorporated into your organization’s water risk assessment. Please complete the table with as much data as possible for each stakeholder in the table. If your stakeholder is not available, please fill in the ‘Other’ row, including information about the issue in the ‘please explain’ column.
 - Note that you should chose the stakeholders which most accurately reflect the bodies you engage with and then provide a company specific explanation for each stakeholder. For example, you may engage with government agencies at a national level, or with regulators that are independent of government. There may not be a “River Basin Management Authority” but there may be an equivalent body [overseeing water resources in any of the river basins in which you operate](#), such as a State government office or a local Catchment Management Agency. [This may be different from or a part of the regulator](#) you normally engage with. If you select “not relevant for any row, please explain your answer.
 - Please note that the stakeholder “water utilities at a local level” includes municipal, industrial or private water suppliers. This may also include a water utility which treats municipal or industrial wastewater (if the latter is relevant to your company). Although the provision of water might be considered part of a company’s supply chain, CDP has separated this stakeholder out from the broader term “suppliers”. This is due to the important nature of this particular supplier in the context of a water risk

assessment. This table requires a specific explanation regarding the inclusion of this stakeholder in the company's risk assessment.

- **Choose 'relevance' option**
 - Please select from the drop down menu the option that most accurately represents your organization and explain. If "Relevant, included" is selected, CDP expects that means that the identified issue is always factored into your organization's water risk assessment throughout the entire organization and is utilized for both direct operations and supply chain.
 - Further explanations of these options are provided *in Box 10: Determining relevance in risk assessments*.

- **Please explain**
 - Please use the open text box to provide details as to how the identified stakeholder are considered as part of your risk assessment. Please provide context as to why you engage with this stakeholder and details of how, for example, public meetings, supplier reporting or training, facilitation through other organizations and when e.g. pre-planning, scheduled engagement, ad-hoc as the need arises. For those organizations that have said the issue is not relevant, please provide an explanation as to why that is the case. For example, there may not be a river basin authority, or equivalent body, for the locations you operate in, or this may be the regulator in which case please explain that this is the case.
 - For those organizations that selected 'other', please use this text box to identify the stakeholder. This is an open text field with 2000 characters maximum. This maximum includes spaces.
 - **SCORING:** Please always provide an explanation for the option chosen for each stakeholder. **This instruction is for automated scoring purposes.** See *Box 3: Reporting company-wide water accounting information & Water scoring* for further information on how to complete table questions and avoid unnecessary scoring errors.
 -

W2.7 Sample Response – for guidance only

Stakeholder	Choose option	Please explain
Customers	Relevant, included	We assess the environmental performance of our products from farm to consumer and beyond using our internally developed Sustainable Design Tool, including the water footprint on a five year basis, to assess how water intensive our products are. The water used by consumers to prepare or consume our products is factored in when assessing the hotspots of our products. We engage with our customers through marketing surveys.
Employees	Relevant, included	Water restrictions due to municipal supply constraints could impact on our employee's output in our locations in Mexico. We strive to continually improve our water performance through training of all new employees and raising awareness and review this annually.

Investors	Relevant, included	We report water risks and responses in our integrated annual sustainability reporting pack that is sent to shareholders by our Investor Reporting team so our investors can assess their investment. This information is also provided to our CEO Jack White and CFO Mary Temple.
Local communities	Relevant, included	We have a particular responsibility toward our production sites' neighbors, and discuss current issues with them in Community Advisory panels, which meet quarterly, according to need. In our breweries, local communities and related water-issues are incorporated into site management and contingency plans and this is led by our site managers and human resources colleagues.
NGOs	Relevant, included	We conduct an annual materiality analysis based on the level of stakeholder concern regarding local water issues and level of potential impact on our business and engage with local NGO experts to facilitate stakeholder meetings to discuss possible solutions as a part of this annual process.
Other water users at a local level	Relevant, included	Our annual Water Resource Reviews help our facility staff to gain a greater understanding/sense of ownership about water challenges in their locality such as equity of supply in the Goring catchment during summer periods when hands-off flows are applied by the river catchment authorities. They also enabled us to identify 5 high priority areas within operations where water stewardship initiatives are needed and where engagement with other local water users (other business, domestic users, farmers) is necessary to inform our corporate risk assessments.
Regulators	Relevant, included	We continue to maintain a strong presence at multi-stakeholder initiatives linked to our industry and chaired by the industry regulator, the Minerals Council of Australia. These initiatives consider water policy and related challenges that may impact on our business and operating environments. Timely renewal of appropriate water permits is essential for us to operate our mines and thus regular engagement with regulators is key to mitigating this risk in all our operating locations. We respond to all consultations run by national regulators as they are held, and in Australia chaired the Australia Mining Association water sub-committee during 2015 which met twice with the regulator.
River basin management authorities	Relevant, included	Due to the majority of our business being situated in the UK we have regular contact with the UK river basin management authority, the Environment Agency, though in California

		in the United States, the equivalent organization varies by state so our operations staff engage with the California State Water Resources Control Board. Our meetings happen on an ad-hoc basis though an annual catch-up meeting is usually scheduled to maintain the relationship outside of critical situations (e.g. surface water drought) and keep parties informed on both sides.
Statutory special interest groups at a local level	Relevant, included	We work closely with the Texas State Soil and Water Conservation Board to align our water targets to complement their work in our local catchment of Kintacky River, including water efficiency so that more water is returned to the local catchment for environmental flows. This helps our company reputation in our local market. We meet on an ad-hoc basis as projects require.
Suppliers	Relevant, included	Through our entire supply chain, we are committed to engage with suppliers to promote water conservation practices through our supplier training programs which are run biannually, and on an ongoing basis through the water component of our Supplier Scorecard. Twelve suppliers in water stressed areas have signed up to our "Water conservation collaboration" pilot initiative to implement water efficiency targets and the results will inform our supply chain risk assessment.
Water utilities at a local level	Relevant, included	We have an Environmental Target Setting Program, designed to further optimize energy and water consumption. Water experts together with water suppliers go on-site annually to identify further improvement opportunities. In 2015, we identified 610 projects expected to deliver energy savings of about 2 million GJ and 2.6 million m3 of water. Our collaboration with local water utilities has enhanced our understanding of possible risk factors associated with supply of water and drainage to our facilities as well as risk mitigation opportunities.

W2.8 Please choose the option that best explains why your organization does not undertake a water-related risk assessment

This question only appears if you select "Water risks are not assessed" in response to question [W2.1](#).

You are requested to respond to this question in the table provided in the ORS, reproduced below.

Primary reason	Please explain
<ul style="list-style-type: none"> ▪ Judged to be unimportant ▪ No instruction from management ▪ Important but not an immediate business priority 	[open text: 1500 characters max]

<ul style="list-style-type: none"> ▪ Water risk assessment in progress ▪ Lack of internal resources <p>Other, please specify</p>	
--	--

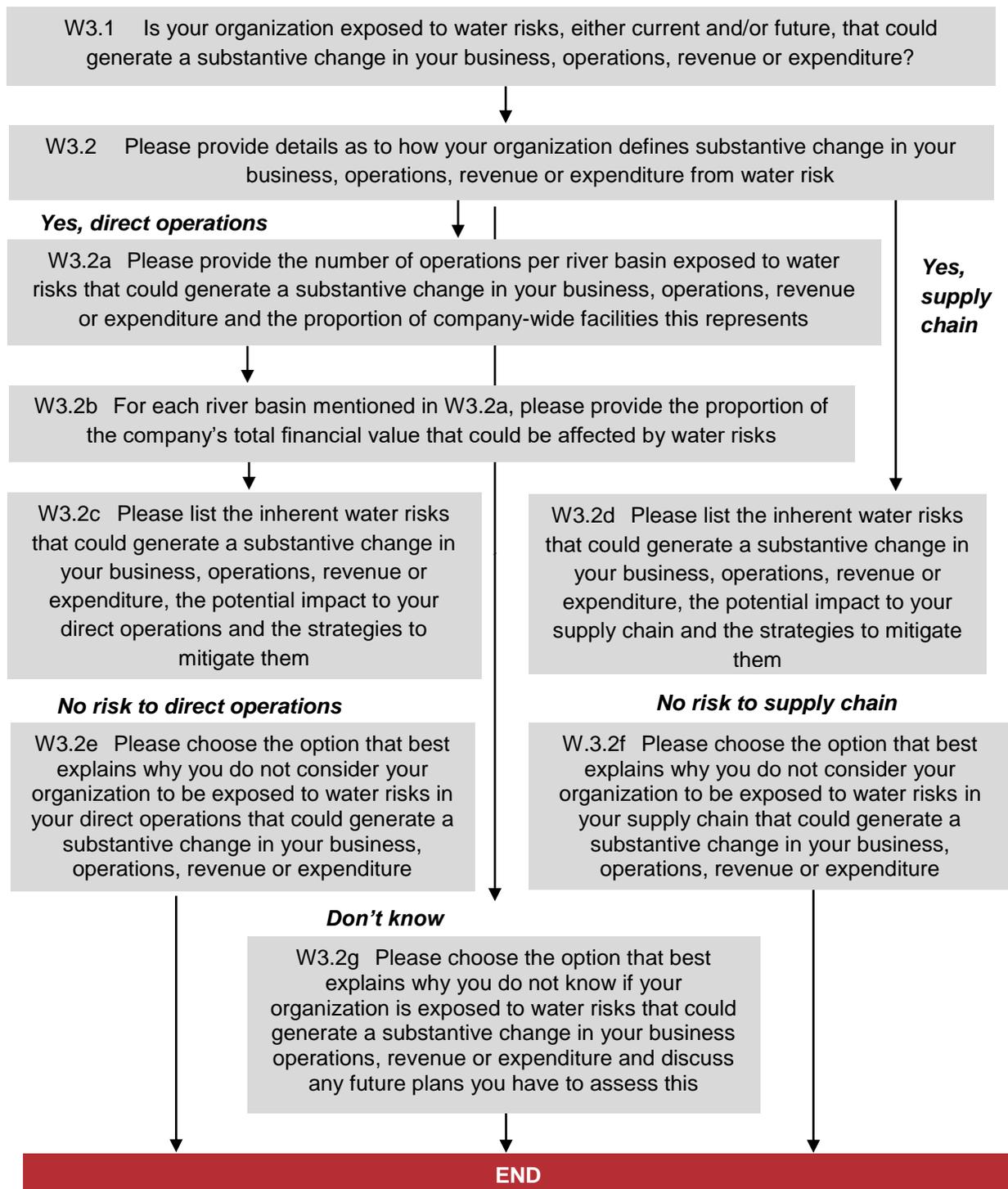
Please select the primary reason why your organization does not undertake a water-related risk assessment. In the “Please explain” column, please use the open text field to provide details as to why and if your organization has any future plans to explore this issue, plus details of any risk assessment process currently underway, if relevant. This latter column is a free text field; all entries should be less than 1500 characters..

Implications Module Guidance

W3. Water risks

Question Pathway

The following questions are shown on the Implications page.



General guidance

The third section of the questionnaire focuses on the potential risks and opportunities as a result of water, to both your company and your stakeholders.

It is broken down into two subsections:

- *Water risks* – what are the physical, regulatory and reputational risks that your organization is exposed to, in direct and indirect operations, where are they and what impacts do they have?
- *Water opportunities* – how do global water trends and challenges create opportunities for your organization to improve its business?

Corporate reporting on risks can be challenging as it requires organizations to provide statements about their prospective condition. Some organizations, such as accountancy firms and their governing bodies, have published guidance on how to prepare statements that contain information about future projections.

Before answering the questions covering risk, you may wish to consult with the financial, legal and/or compliance departments for advice on your organization's general approach to the provision of statements and information of the risks to your direct operations and supply chains.

It is suggested, due to the structure of the questionnaire, that you complete this module after you have completed the second module of this questionnaire *Risk assessment: Procedures and requirements* as an organization will only be aware of substantive risk to their direct operations and/or supply chain once a comprehensive risk assessment is complete.

Key changes from 2016

- W3.2a: Question wording has been slightly edited and column 4 header has been edited for clarity. However, the information required remains the same as 2016.
- W3.2b: Question wording and column 4 header have been edited for clarity. However, the information required remains the same as 2016.
- W3.2c and d column 5 header: the column header has been edited for clarity. However, the information required remains the same as 2016.

Pre-population of responses for 2017

If you responded to water last year you can automatically populate the following questions with last year's response by clicking the "copy from last year" button at the bottom of the relevant page in the ORS. You can then modify last year's response as needed. You must click "copy from last year" before completing any fields on each page of the ORS where this function has been enabled.

- The copy from last year function has been provided for questions W3.1, W3.2, W3.2a-g.

Please always remember to review your pre-populated selections to make sure they are still appropriate for 2017. This is particularly important if new data points have been added to questions or if dropdown lists may have been updated. Regarding the latter, if you selected 'Other' to provide a different category from the dropdown list in 2016, you may find that your category has now been included in the 2017 dropdown list. We request that companies use the pre-selected categories as much as possible as this greatly assists investors with data analysis.

Specific question guidance

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?

[Select from]:

- Yes, direct operations and supply chain
- Yes, direct operations only
- Yes, supply chain only
- No
- Don't know

Please select the most relevant option from the dropdown provided. Please note that your selection will load the appropriate follow up questions in W3.2a – W3.2g. All responding organizations will be asked to answer question W3.2.

Please note: W3.1 is a leading question, prompting linked sets of follow up questions to appear depending on the response given. If question W3.1 is amended after subsequent follow up questions are completed, then these related data will also be erased. Please ensure that you re-enter the data for the follow up questions also, as appropriate.

For more information on the definition of water risk, clarity on water risk for business and the difference between your direct operations and your supply chain, please refer to *Box 11: Defining water risk and water risk for business*.

Box 11: Defining water risk and water risk for business

The definitions used in this Guidance reflect those established by the CEO Water Mandate to provide clarity and share understanding across a number of key definitional issues. CDP will continue to update the terminology and associated definitions as they become more clearly defined. CDP will continue to update the terminology and associated definitions as they become more clearly defined.

Water risk: The possibility of an entity experiencing a water-related challenge (e.g., water scarcity, water stress, flooding, infrastructure decay, drought). The extent of risk is a function of the likelihood of a specific challenge occurring and the severity of the challenge's impact. The severity of impact itself depends on the intensity of the challenge, as well as the vulnerability of the actor.

Water risk is felt differently by every sector of society and the organizations within them and thus is defined and interpreted differently (even when they experience the same degree of water-related challenges). That notwithstanding, many water-related challenges create risk for many different sectors and organizations simultaneously. This reality underpins the notion of what some refer to as "shared water risk," which suggests that different sectors of society have a common interest in understanding and addressing shared water-related challenges. However, some contest the appropriateness of this term on the basis that risk is felt uniquely and separately by individual entities and is typically not shared, per se.

Water risk for business: The ways in which water-related challenges potentially undermine business viability. It is commonly categorized into three interrelated types:

Physical. Having too little water, too much water, water that is unfit for use, or inaccessible water

Regulatory. Changing, ineffective, or poorly implemented public water policy and/or regulations

Reputational. Stakeholder perceptions that a company does not conduct business in a sustainable or responsible fashion with respect to water

Water risk for businesses is also sometimes divided into two categories that shed light on the source of that risk and therefore what types of mitigation responses will be most appropriate:

Risk due to company operations, products, and services. A measure of the severity and likelihood of water-related challenges derived from how a company or organization, and the suppliers from which it sources goods, operate and how its products and services affect communities and ecosystems.

Risk due to basin conditions. A measure of the severity and likelihood of water-related challenges derived from the basin context in which a company or organization and/or its suppliers from which it sources goods operate, which cannot be addressed through changes in its operations or its suppliers and requires engagement outside the fence.

Adapted from CEO Water Mandate: [Understanding Key Water Stewardship Terms](#) (2015)

In question W3.1, you were asked to separately identify whether your operations and/or supply chain are subject to water risk.

- **Direct operations:** Your organization's operations include anything your company does itself for the purpose of producing goods and services and maintaining the functionality of the business. This covers any internal supply chains between your organization's business units. For example, a business unit within your company that supplies components to another business unit within your company would be considered part of your organization's own operations.
- **Supply chain:** Your organization's supply chain is comprised of all external inputs to your operations, including materials, components, consumable inputs, and services. The scope of your supply chain may extend to multiple levels of supply, e.g. component suppliers and the suppliers of raw materials used to produce those components.

W3.2 Please provide details as to how your organization defines substantive change in your business, operations, revenue or expenditure from water risk [open text with 2,400 characters max]

Please use the open text box to describe in detail how your organization defines substantive change in your business, operations, revenue or expenditure from water risk. Please include details of any qualitative or quantitative metrics used and an indication as to how often these metrics are reviewed and updated. **Metrics may represent assessment of substantive water risk related to both direct operations and/or supply chain.**

Please note that we are not requesting which risk factors may substantively affect business – this information is requested in question W3.2c and W3.2d – but we are asking you to describe and/or quantify what substantive change might look like for your business e.g. closure of two strategic facilities, a reduction of 10% in projected revenue, an unexpected prolonged drop in consumer interest over a busy shopping period etc.

Please see *Box 12: Substantive change* for an explanation of substantive change and a sample response for question W3.2 for some qualitative and quantitative examples used to define substantive change.

Box 12: Substantive change

What constitutes a substantive change will vary between companies. For example, a 1% reduction in profits will have different effects on different companies depending on their respective profit margins. Companies are therefore asked to determine substantive in the way that they would use for their business decision-making. Factors to consider might include:

- (a) The proportion of business units affected;
- (b) The size of the impact on those business units, and
- (c) The potential for shareholder or customer concern.

A substantive risk of relatively high magnitude could occur because of a large change in one of these aspects, or small changes in all three combining to create a larger impact.

W3.2 Sample Response – for guidance only

EXAMPLE 1: Company A defines substantive change to their business to be when more than 10% of turnover of goods is impacted at the corporate level. This threshold is then applied to reporting supplier-related substantive water risks. For example, Company A's tire supply is disrupted for two weeks as a result of prolonged drought in China and this contributes to a reduction in turnover globally but it is **less** than 10% at the corporate level. Consequently this risk would not be reported in question W3.2d as an example of a water risk that could cause a substantive change to business, operations, revenue or expenditure as it did not exceed the threshold for substantive change to Company A's business at the corporate level. (It may have impacted locally, but we are only asking for corporate level substantive change)

EXAMPLE 2: Company B defines sites that could contribute to substantive change to their business by using a screening process as follows: 1) identify sites indicated "High" or "Extremely High" overall water risk using the WRI Aqueduct water risk tool then 2) cross check whether these sites are considered strategic and/or if they account for >2% of global production volume. If both criteria are satisfied, then the risks faced by these sites can contribute to a substantive change in business and would be reported in questions W3.2a-c.

W3.2a Please provide the number of facilities⁵ per river basin exposed to water risks that could generate a substantive change in your business, operations, revenue or expenditure; and the proportion of company-wide facilities this represents

You are requested to respond to this question in the table provided in the ORS, reproduced below. A sample answer is provided below. Please refer to *Box 13: Reporting facilities at risk for further guidance*.

This question only appears if you select "Yes, direct operations and supply chain" or "Yes, direct operations only" in response to question W3.1.

⁵ The term "facilities" may be used more broadly to describe other types of business operations as well as fixed buildings or factories. Please explain how you have defined "facility" in the comment column. Please see the 2017 water specific question guidance for question W3.2a for more information.

Country	River basin	Number of facilities exposed to water risk	Proportion of company-wide facilities that this represents (%)	Comment
[Country drop down list]	[Select from]: <ul style="list-style-type: none"> List of basins Not known Other, please specify	[numeric response]	[Select from]: <ul style="list-style-type: none"> Less than 1% 1-5 6-10 11-20 21-30 31-40 41-50 51-60 61-70 71-80 81-90 91-100 	[open text: 1000 characters max]
Add Row				

Please use the 'Add Row' button at the bottom right to include additional river basins within your response.

Please note that CDP is only asking for information on those river basins where the operations located are exposed to water risk that could generate a substantive change in your business, operations, revenue or expenditure.

Also note that question W5 requests water accounting data for the facilities referred to in W3.2a.

Box 13: Reporting facilities at risk

The term 'facilities' may be used more broadly to describe other types of business operations as well as fixed buildings or factories. For example, if your organization is in the extractive industries you might normally collate information by asset or business unit and may wish to define facility in this way.

Likewise, if you are in an industry like the hotel industry or construction industry where you may potentially have hundreds of hotels/sites you may wish to report facilities by aggregate, rather than individual buildings or sites. So to respond to question W3.2a, a hotel chain may wish to group hotels by grade, resort type etc. combining 20 hotels from within the same river basin into one 'facility' for example, and then assessing this aggregate 'facility' against their threshold for substantive change to business, rather than assessing each of the 20 hotels individually. If your organization does decide to aggregate for reporting purposes, then please state that this approach has been undertaken and please briefly describe the methodology for aggregation in the 'Comment' column in questions W3.2a and W3.2b. Then in *Section 5 – Facility level water accounting*, your organization would be expected to report the aggregated water accounting figures for each 'facility' listed in question W3.2a.

Note re the aggregation of data:

- Due to the local nature of water risks and impacts only facilities in the same river basins should be aggregated.
- Aggregation should only be considered as an option where the facility level data is not meaningful; for example, because water use in particular facilities is very small and therefore the associated risks and impacts are more material at the river basin level.

Guidance on responding to each of the columns is provided below:

- **Country**

- In the first column, please select from the drop down menu the country where the facilities exposed to water risk (that could generate a substantive change in your business, operations, revenue or expenditure), are located.

- **River basin**

- Please select the appropriate river basin from the drop down menu provided. If you do not see the basin required, please select “Other, please specify” and write in the correct river basin using the text box provided. If you do not know the river basin in which your facility resides, the following tools have the functionality to map the river basin locations of facilities:

- The Water Footprint Network (WFN) [Water Footprint Assessment Tool](#);
- The [Water Risk Filter](#) developed by WWF and DEG;
- The [WRI Aqueduct Water Risk Atlas Tool](#); and
- The [WBCSD Global Water Tool](#)
- CEO Water Mandate’s [Interactive Database of the World’s River Basins](#)

You might want to put a sub-basin of a bigger river basin identified in the drop-down menu. Please feel free to do it by using the “Other, please specify” and inputting your value and the main basin, e.g. “Putumayo, Amazon”. Finally for companies withdrawing water from large confined **aquifers** that may not discharge to the river basin they are located in e.g. Ogallala aquifer in the United States, please select ‘Other’ and type in the name of the local aquifer source. However, please also ensure that the correct country name is selected in the ‘Country’ column adjacent.

- Please note that the dropdown list of river basins aligns with the CEO Water Mandate’s [Interactive Database of the World’s River Basins](#). For companies operating in South Africa, the list also includes the nine new Water Management Areas for South Africa, as proposed in the South African revised National Water Resources Strategy (NWRs2). See *Appendix C: River basin list and South African Water Management Areas (WMAs)*.

- **Number of facilities exposed to water risk**

- Please provide a numeric response detailing the number of facilities located within the selected river basin. ‘Facilities’ is used by CDP as a broad term and may be construction sites, factories, assets or other grouping of operations. See Box 13: Reporting facilities at risk.

Please note we are not asking for the total number of facilities located within each river basin, but ONLY those facilities facing water risk that could generate a substantive change in your business, operations, revenue or expenditure should the risk associated with that river basin materialize. So while a business may have 10 facilities in one river basin exposed to water risk, but only three of those might lead to a substantive change to business at the corporate level, so it is only those three facilities that should be reported in W3.2a. For more information about what constitutes ‘substantive’ water risk, please see *Box 12: Substantive change*. For more information on reporting operations at risk, please see *Box13: Reporting facilities at risk*.

- **Proportion of company-wide facilities that this represents**

Please quantify the proportion of your organization’s total operations, in terms of numbers of facilities, exposed to water risk (within the specified basin). For example, the five facilities that are exposed to substantive water risk within one of the specified river basins reported compose 6-10% of your organization’s total facilities company-wide.

- **Comment**

- Please use the open text box provided to provide any further details you wish to add about these facilities. For example, why these facilities are at risk, whether these facilities grouped represent a particular business unit or even the water risk tools you used to decide that these facilities are exposed to substantive water risk. You may use up to 1000 characters. This maximum includes the use of spaces.

W3.2a Sample Response – for guidance only

Country	River basin	Number of facilities exposed to water risk	Proportion of company-wide facilities that this represents (%)	Comments
China	Xi Jiang	5	1-5	These facilities make up the biggest collection of facilities in our technology hardware business unit per one river basin. They are located in a region of frequent flood risk.
China	Yalu Jiang	2	1-5	These facilities are within a region of water stress. They specialise in producing an important component linked to our technology hardware business unit due to close links with suppliers of necessary raw materials. We sorted all our substantive risk sites for reporting in this basin using WRI’s Aqueduct.

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

You are requested to respond to this question in the table provided in the ORS, reproduced below. A sample answer is provided below.

This question only appears if you select “Yes, direct operations and supply chain” or “Yes, direct operations only” in response to question W3.1.

Country	River basin	Financial reporting metric	Proportion of chosen metric that could be affected	Comment
---------	-------------	----------------------------	--	---------

[Country drop down list]	<ul style="list-style-type: none"> • [Select from]: • List of basins • Not known • Other, please specify 	[Select from]: <ul style="list-style-type: none"> • % cost of goods sold • % global revenue • % global production capacity • % generation capacity • % global production volume • barrels of oil equivalent (BOE) • Other, please specify 	[Select from]: <ul style="list-style-type: none"> • Less than 1% • 1-5 • 6-10 • 11-20 • 21-30 • 31-40 • 41-50 • 51-60 • 61-70 • 71-80 • 81-90 • 91-100 	[open text: 1000 characters max]
Add Row				

Please use the Add Row' button to the bottom right to include additional river basins within your response. **Please note that CDP is only asking for information on those river basins that you selected in response to W3.2a.**

Guidance on responding to each of the columns is provided below:

- **Country**
 - In the first column, please select from the drop down menu the country where the facilities exposed to water risk (that could generate a substantive change in your business, operations, revenue or expenditure), are located.
- **River basin**
 - Please select the appropriate river basin from the drop down menu provided. If you do not see the basin required, please select “Other, please specify” and write in the correct river basin using the text box provided. If you do not know the river basin in which your facility resides, the following tools have the functionality to map the river basin locations of facilities:
 - The Water Footprint Network (WFN) [Water Footprint Assessment Tool](#);
 - The Water Risk Filter <http://waterriskfilter.panda.org/> developed by WWF and DEG;
 - The [WRI Aqueduct Water Risk Atlas Tool](#)
 - The [WBCSD Global Water Tool](#); and
 - CEO Water Mandate’s [Interactive Database of the World's River Basins](#)

You might want to put a sub-basin of a bigger river basin identified in the drop-down menu. Please feel free to do it by using the “Other, please specify” and inputting your value and the main basin, e.g. “Putumayo, Amazon”. Finally for companies withdrawing water from large confined **aquifers** that may not discharge to the river basin they are located in e.g. Ogallala aquifer in the United States, please select ‘Other’ and type in the name of the local aquifer source. However please also ensure that the correct country name is selected in the ‘Country’ column adjacent.

- Please note that the dropdown list of river basins aligns with the CEO Water Mandate’s [Interactive Database of the World's River Basins](#). For companies operating in South Africa, the list also includes the nine new Water Management

Areas for South Africa, as proposed in the South African revised National Water Resources Strategy (NWRS2). See [Appendix C: River basin list and South African Water Management Areas \(WMAs\)](#).

- **Reporting metric**
 - Please select a reporting metric appropriate to your organization. For example, for a Producer or Manufacturing organization, quantifying risk in terms of impact to cost of goods sold might be appropriate. An electricity provider may wish to choose global revenue or generation capacity. For those organizations that do not produce a product, a reporting metric such as the proportion of global revenue at risk or the proportion of global production capacity at risk might be more relevant. If a metric that is appropriate to your organization is not available, please select “Other, please specify” and a text box will be provided so that you can write in your own response.

- **Proportion of chosen metric that could be affected**
 - Please quantify the value at risk within the basins listed in W3.2a by choosing the proportion of your organization’s chosen financial reporting metric exposed to water risk. For example, the five facilities that are exposed to substantive water risk within a specified river basin reported in W3.2a equate to 6-10% of your organization’s global revenue. A worked example for W3.2b is provided below.

- **Comment**
 - Please use the open text box provided to provide any further details you wish to add about the potential value at risk in these river basins. You may use up to 1000 characters. This maximum includes the use of spaces.

W3.2b Sample Response – for guidance only

Country	River basin	Financial reporting metric	Proportion of chosen metric that could be affected	Comments
China	Xi Jiang	% costs of goods sold	6-10	As a semi-conductor company, in the event of a flood, we usually experience a two week minimum delay before we can get our distribution channels open again from this region
China	Yalu Jiang	% global production capacity	6-10	Annually this region experiences water rationing imposed by local government. It typically lasts up to 3 months in duration depending on summer rainfall. This slows our production rate and can impact on other parts of our business.

W3.2c Please list the inherent water risks that could generate a substantive change in your business, operations, revenue or expenditure, the potential impact to your direct operations and the strategies to mitigate them

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
[Select from]: [Country drop down list]	[Select from]: [list of basins] Not known Other, please specify	[Select all that apply]: Physical: <ul style="list-style-type: none"> •Climate change •Declining water quality •Dependency on hydropower •Drought •Ecosystem vulnerability •Flooding •Inadequate infrastructure •Increased water scarcity •Increased water stress •Pollution of water source •Projected water scarcity •Projected water stress •Rationing of municipal water supply •Seasonal supply variability/inter annual variability Regulatory: <ul style="list-style-type: none"> •Changed product standards •Higher water prices •Increased difficulty in obtaining withdrawals/operations permit •Lack of transparency of water rights •Limited or no river basin/catchment management •Mandatory water efficiency, conservation, recycling or process standards •Poor coordination between regulatory bodies •Poor enforcement of water regulation •Regulation of discharge quality/volumes leading to higher compliance costs •Regulatory uncertainty •Statutory water withdrawal limits/changes to water allocation •Unclear and/or unstable regulations on water allocation and wastewater discharge. Reputational: <ul style="list-style-type: none"> •Changes in consumer behavior •Community opposition •Cultural and religious values •Inadequate access to water, sanitation and hygiene •Litigation •Negative media coverage •Other, please specify 	[Select from]: <ul style="list-style-type: none"> • Brand damage • Constraint to growth • Closure of operations • Decrease in shareholder value • Delays in permitting • Employee health and well-being • Higher operating costs • Fines/ penalties • Litigation • Loss of license to operate • Disruption to sales • Plant/production disruption leading to reduced output • Property damage • Reduced demand for product • Reduction in revenue • Supply chain disruption • Transport disruption • Water supply disruption • Other, please specify 	[open text: 1500 characters max]	[Select from]: <ul style="list-style-type: none"> •Current -up to 1 year •1- 3 years •4- 6 years •>6 years •Unknown 	[Select from]: <ul style="list-style-type: none"> •Highly probable •Probable •Unlikely •Unknown 	[Select from]: <ul style="list-style-type: none"> •Low •Low-medium •Medium •Medium-high •High •Unknown 	[Select all that apply]: <ul style="list-style-type: none"> • Alignment of public policy positions with water stewardship goals • Cost increase management through regulated tariff-setting process • Develop flood emergency plans • Engagement with community • Engagement with customers • Engagement with public policy makers • Engagement with other stakeholders in the river basin • Engagement with suppliers • Establish site-specific targets • Infrastructure investment • Infrastructure maintenance • Greater due diligence • Increased capital expenditure • Increased investment in new technology • New products, markets • River basin restoration • Re-siting of facilities • Promote best practice and awareness • Supplier diversification • Strengthen links with local community • Tighter supplier performance standards • Use of risk transfer instruments • Water management incentives • Other, please specify • 	[open text: 500 characters max]	[open text: 2000 characters max]

This question only appears if you select “Yes, direct operations and supply chain” or “Yes, direct operations only” in response to question W3.1.

You are requested to respond to this question in the table provided in the ORS, reproduced above. A sample answer is provided below. If you have multiple risks to report, you can add rows into the table by using the ‘Add Row’ button to the bottom right.

Please note that CDP is ONLY asking for information on those river basins where you have facilities that are exposed to water risk that could generate a substantive change in your business, operations, revenue or expenditure of your direct operations. For risks to your supply chain, please see guidance for question W3.2d.

Single risk – multiple impacts and responses: CDP understands that organizations will likely face similar risks within multiple river basins. Please note that whilst the risk drivers might be the same for those river basins, it is likely that both the potential impact and response strategy will be different. Whilst there may be some situations in which a blanket response strategy is adequate, due to the local nature of river basins, a localized response should be considered.

Multiple risks - single impact: For river basins where multiple risks result in the same potential impact, it is possible to choose multiple risks for one river basin in the ORS. It is also possible to choose multiple response strategies in relation to potential impact on your business. It is not possible to choose more than one potential impact on your business per river basin.

Guidance on responding to each of the columns is provided below.

- **Country**
 - In the first column, please select from the drop down menu the country in which facilities exposed to water risk that could generate a substantive change in your business, operations, revenue or expenditure, are located.

- **River basin**
 - Please select the appropriate river basin from the drop down menu provided. If you do not see the basin required, please select “Other, please specify” and write in the correct river basin using the text box provided. If you do not know the river basin in which your facility resides, the following tools have the functionality to map the river basin locations of facilities:
 - The Water Footprint Network (WFN) [Water Footprint Assessment Tool](#);
 - The Water Risk Filter [developed by WWF and DEG](#);
 - The [WRI Aqueduct Water Risk Atlas Tool](#)
 - The [WBCSD Global Water Tool](#); and
 - CEO Water Mandate’s [Interactive Database of the World’s River Basins](#).

You might want to put a sub-basin of a bigger river basin identified in the drop-down menu. Please feel free to do it by using the “Other, please specify” and inputting your value and the main basin, e.g. “Putumayo, Amazon”. Finally for companies withdrawing water from large confined **aquifers** that may not discharge to the river basin they are located in e.g. Ogallala aquifer in the United States, please select ‘Other’ and type in the name of the local aquifer source. However please also ensure that the correct country name is selected in the ‘Country’ column adjacent.

- Please note that the dropdown list of river aligns with the CEO Water Mandate’s [Interactive Database of the World’s River Basins](#). For companies operating in South Africa, the list also includes the nine new Water Management Areas for South Africa, as proposed in the South African revised National Water Resources Strategy

(NWRS2). See *Appendix C: River basin list and South African Water Management Areas (WMAs)*.

- **Risk driver**
 - There is a comprehensive list of potential risk drivers that your organization might face. They are broadly grouped into three categories; physical risk drivers, regulatory risk drivers and reputational risk drivers. This list has been created using detailed analysis of previous CDP responses as well as guidance taken from the CEO Water Mandate. For more information about potential risk drivers, please see Box 16: Description of risk drivers below.

- **Potential impact**
 - Please select from the drop down menu the potential primary impact of the identified risk on your organization. The potential impact is the effect that the risk could have on your business. This could be through increased costs, decreased revenue or closure of operations. Impacts can be operational or financial and can affect your organization, your consumers or other stakeholders. If you cannot identify a potential impact that accurately describes the risk driver, please choose “Other, please specify” and a text box will appear to that you can write in your own impact. **If you have identified multiple impacts, please select the primary impact here and include secondary impacts in the next column: ‘Description of impact’.**

- **Description of impact**
 - Please use the open text box to include any additional details as to how the identified risk will impact your organization. N.B. Please also estimate how long the impact to your business may last. If you have multiple impacts from a risk driver, please include them here. Please use a maximum of 1500 characters in your answer. This maximum includes spaces.

- **Timeframe**
 - Please select from the drop down menu the timeframe as to when the risks are likely to materialize. It is acknowledged that long-term risks are likely to have a higher degree of uncertainty associated with them.

- **Likelihood**
 - Please select from the drop down menu the likelihood of the identified risk impacting your organization. The likelihood of the impact occurring, along with the magnitude are the building blocks of a risk/opportunity matrix – a common method of identifying and prioritizing risk and opportunities. The likelihood refers to the probability of the impact to your business occurring **within the timeframe provided, which in the case of an inherent risk might be similar to the probability of the risk event itself.** For example, if the risk relates to a piece of new legislation which has already been prepared in draft form, the likelihood of the impact associated with that risk occurring will be relatively high.

Box 14: Origin of likelihood terminology

The terms used to describe likelihood are taken from [the Intergovernmental Panel on Climate Change's \(IPCC\) 2007 report](#) and are consistent cross all CDP information requests. They are associated with probabilities, indicating the percentage of likelihood of the event occurring. It is not necessary for responding organizations to have calculated probabilities for the risks they are considering, however quantifying likelihood on a % basis can give an indication as to the meaning of the term.

The likelihood terms are: Virtually certain (greater than 99% probability); Very likely (greater than 90% probability); Likely (greater than 66% probability); More likely than not (greater than 50% probability); About as likely as not (between 33% and 66% probability); Unlikely (less than 33% probability); Very unlikely (less than 10%); Exceptionally unlikely (less than 1% probability); Unknown.

- **Magnitude of potential financial impact**
 - Please detail the expected financial impact of the identified risk. The magnitude of financial impact describes the extent to which the impact, if it occurred, would affect your business financially. Your response should consider the business as a whole and therefore the magnitude can reflect both the damage that can be caused and the exposure to that potential damage. The range will vary between organizations so please select an option that is appropriate to your business.
 - For example, two organizations may have identical facilities located on the coast in an area which is vulnerable to flooding. However, if company A relies on that facility for 90% of its production capacity and company B relies on it for only 40% of its production capacity, the magnitude of the potential financial impact will be much higher for company A. As it is not possible to accurately define terms for magnitude because of this variation, companies are asked to determine magnitude on a qualitative scale of 'High, Medium, Low and Unknown.' If the financial impact has not been assessed by your organization, please select 'Unknown'.

Box 15: Factors to consider with magnitude

When looking to determine the magnitude of potential financial impact please consider including

- (a) The proportion of business units affected;
- (b) The size of the impact on those business units, and (c) The potential for shareholder or customer concern.

An impact of a relatively high magnitude could occur because of a large effect in one of these aspects or small effects in all three combining to create a larger impact.

- **Response strategy**
 - Please select from the drop down menu the response strategy that most closely describes how your organization expects to mitigate the identified risk. You may select multiple response strategies if your organization chooses to implement more than one. If there is not an appropriate response strategy for your organization, please select "Other, please specify" and a text box will be provided so that you can write in your own response.
 - For those who indicated that they would be interested in having their public response data transferred to the Water Action Hub (W10.2), the following strategies align well with the Water Action Hub Action Areas, however we ask that you provide specifics for the strategy in the "Details of strategy and costs" column.

- Alignment with public policy positions with water stewardship goals
- Cost increase management through regulated tariff-setting process
- Develop flood emergency plans
- Engagement with community
- Engagement with customers
- Engagement with public policy makers
- Engagement with other stakeholders in the river basin
- Engagement with suppliers
- Infrastructure investment
- Infrastructure maintenance
- River basin restoration
- Strengthen links with the local community

- **Costs of response strategy**

- Please use this text field to provide information on the cost of your risk response actions. Where possible, please provide a numerical value for the financial description (open or closed ranges, or % relative to a stated or publicly available figure). If there are no costs to managing the risk, this should be made clear. Please use no more than 500 characters in your answer.

- **Details of strategy and costs**

- Please use this open text box to provide any additional details on your organization's response strategy plus an explanation of how you calculated and rated the cost of your response strategy. You may also include here secondary response strategies for the identified risk if necessary. Please include information on the following three facets on the strategy in regards to preventing either financial or operational impacts:
 - The timeframe expected for the response strategy to be implemented;
 - How effective the response is; and
 - The feasibility of success in preventing either financial or operational impacts.

You can write up to 2,000 characters in response. This maximum includes spaces.

- For those who have indicated that they would be interested in having their public response data transferred to the Water Action Hub in W10.2, we ask that you provide as much information about your response, particularly local projects, as possible including:
 - Who else is involved in the engagement (such as names of organizations or government offices) or who you would like to work with (government agencies, other companies, NGOs, etc.)
 - What the project seeks to accomplish including expected benefits of the engagement for the watershed beyond the company
 - When the project started and if it has concluded or if it is continuing
 - If possible, the specific location of the project

Please note that these criteria are not scored but are crucial to building a project for the Water Action Hub. If you do not provide this detail, the project may not be suitable to transfer to this platform.

Box 16: Description of risk drivers

This box provides more detail on the different types of risk drivers your organization might face. For the purpose of answering question 3.2c, please list the primary risk driver for each river basin. As there are likely to be multiple drivers for each basin, companies are encouraged to report on drivers which are able to cause the most substantive impact on their organization.

Any risk driver reported in W3.2c and d should make clear the water-related aspect of the risk.

Physical risks may arise from water stress or scarcity (too little water), flooding (too much water) or pollution (lower water quality). Disruption in water supply or decline in water quality can adversely affect operations where water is used for production, irrigation, material processing, cooling, washing and cleaning, and personal consumption. Physical risks can adversely affect production or cause damage to physical assets.

These definitions of water scarcity and water stress are adapted from the CEO Water Mandate. (See *Box 11: Defining water risk and water risk for business* for more information)

Water scarcity: refers to the volumetric abundance, or lack thereof, of freshwater resources. Scarcity is human driven; it is a function of the volume of human water consumption relative to the volume of water resources in a given area. As such, an arid region with very little water, but no human water consumption would not be considered scarce, but rather “arid.” Water scarcity is a physical, objective reality that can be measured consistently across regions and over time. Water scarcity reflects the physical abundance of freshwater rather than whether that water is suitable for use. For instance, a region may have abundant water resources (and thus not be considered water scarce), but have such severe pollution that those supplies are unfit for human or ecological uses.

Water stress: The ability, or lack thereof, to meet human and ecological demand for freshwater. Compared to scarcity, water stress is a more inclusive and broader concept. It considers several physical aspects related to water resources, including water availability, water quality, and the accessibility of water (i.e., whether people are able to make use of physically available water supplies), which is often a function of the sufficiency of infrastructure and the affordability of water, among other things. Both water consumption and water withdrawals provide useful information that offers insight into relative water stress. There are a variety of physical pressures related to water, such as flooding and drought that are not included in the notion of water stress. Water stress has subjective elements and is assessed differently depending on societal values. For example, societies may have different thresholds for what constitutes sufficiently clean drinking water or the appropriate level of environmental water requirements to be afforded to freshwater ecosystems, and thus assess stress differently.

Note that weather events such as snow, or physical events such as high tide or earthquakes, are not a water risks in themselves but may cause water risks. If snow or earthquakes cause flooding, then it is the flooding that is the water risk and should be reported as such. However, snow, high tide and earthquakes could be considered water risks if they could cause predictable disruption to water supply or have groundwater impacts. For example, if heavy snow on property is common it could cause pollution release incidents when it melts if not managed properly.

Regulatory risks may arise from an expected or unexpected change or uncertainty, in law or regulation that may have direct or indirect impacts on a company. A change in law or regulation can increase the costs of operating a business, reduce the attractiveness of an investment, or change the competitive landscape in which a company operates. Water regulatory measures may include, among others, new water permit structures, rate changes to control withdrawals and discharge, redistribution of water to various users, and restrictions on pollutant types and levels.

Reputational risks may arise from impacts resulting from litigation, product risks due to changes in consumer behavior, and risks that may impact decisions made by investors, consumers and current/potential employees concerning a company.

Resources

For more information on water impacts, risks facing business and examples of adaptation in practice you may refer to the following sources:

- Intergovernmental Panel on Climate Change (2008), [“Climate Change and Water: IPCC Technical Paper VI”](#).
- World Business Council for Sustainable Development, Meridian Institute, World Resources Institute (2008), [“Corporate Ecosystem Services Review: Guidelines for Identifying Business Risks and Opportunities Arising from Ecosystem Change”](#).
- JPMorgan (2008), [“Watching Water: A Guide to Evaluating Corporate Risks in a Thirsty World”](#).
- Pacific Institute (2009), [“Water Scarcity and Climate Change: Growing Risks for Business and Investors”](#).
- World Wildlife Fund (WWF) (2009), [“Understanding Water Risks: A Primer on the Consequences of Water Scarcity for Government and Business”](#).

W3.2c Sample Response – for guidance only

Country	River basin	Risk driver	Potential impact	Description of potential impact	Time	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of response and costs
India	Sahayadri	Physical: Declining water quality	Closure of operations	The increased algae may affect our ability to pump water at our Pune based sites and use it for cooling purposes in our operations. This could lead to intermittent shutdowns while we clean the water intakes.	Current - up to 1 year	Probable	Low-medium	Infrastructure investment	EUR 100,000 approximately as a one-off investment though maintenance costs may decrease if monsoon rains are better next year	We invested EUR 100,000 in algae detection equipment in order to minimize impact on critical periods of water use. This includes the installation of cleaning grids and algae retention systems. We are currently implementing this system and it will be completed by March 2016.
Indonesia	Kapuas	Regulatory: Statutory water withdrawal limits/changes to water allocation	Constraint to growth	Municipal water supply is overstretched and new conditions of industrial water use are being drafted for potential future implementation. Water use limits may be imposed on water-intensive businesses like our paper mills; if these limits occur during peak production periods, reduced output could reduce revenue by up to US \$ 200,000 per day.	4-6 years	Highly probable	Medium	Comply with local legal requirements or company own internal standards, whichever is more stringent	Financial investment will depend on location and facility but this location has been flagged as a high priority by our Environmental Management System. Estimated US \$ 500,000 – 200,00 per site	We plan to research and implement a general water efficiency strategy for facilities in all water stressed locations by end 2016 with local conditions tailoring the implementation of this strategy. Cost estimate is based on previous implementation in 2 similar pulp facilities in Malaysia and Thailand, with installation of water recycling equipment and training local engineers as the key expenditure items.

Japan	Mogmai	Reputational: Changes in consumer behavior	Brand damage	When making beverage purchase decisions, consumers in the Japanese market have come to consider not only product quality and safety, but also producers' corporate efforts to conserve water resources and information disclosure practices. If consumers were to gain the mistaken impression that the group did not make efforts to conserve water resources, or if they felt that such efforts were insufficient, our brands would lose consumers' trust, leading to a situation where they would not support or select our products when making beverage purchase decisions.	>6 years	Unlikely	High	Engagement with stakeholders	Annual expenditure on information disclosure and water management activities amounts to approximately 20 million yen.	As well as disclosing information on the group's water management practices and environmental performance, we work to promote sustainable water management and conserve water resources with NGOs active at the local level like WWF-Japan so that all local water users and environmental eco-systems can access sufficient amounts of good quality water. We also donate to the Green Fund operated by the National Land Afforestation Promotion Organization to help improve local water quality by reducing soil erosion.
-------	--------	---	-----------------	--	----------	----------	------	------------------------------	---	---

W3.2d Please list the inherent water risks that could generate a substantive change in your business, operations, revenue or expenditure, the potential impact to your supply chain and the strategies to mitigate them

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
[Select from]: [Country drop down list]	[Select from]: [list of basins] Not known Other, please specify	[Select all that apply]: Physical: <ul style="list-style-type: none"> • Climate change • Declining water quality • Dependency on hydropower • Drought • Ecosystem vulnerability • Flooding • Inadequate infrastructure • Increased water scarcity • Increased water stress • Pollution of water source • Projected water scarcity • Projected water stress • Rationing of municipal water supply • Seasonal supply variability/inter annual variability Regulatory: <ul style="list-style-type: none"> • Changed product standards • Higher water prices • Increased difficulty in obtaining withdrawals/operations permit • Lack of transparency of water rights • Limited or no river basin/catchment management • Mandatory water efficiency, conservation, recycling or process standards • Poor coordination between regulatory bodies • Poor enforcement of water regulation • Regulation of discharge quality/volumes leading to higher compliance costs • Regulatory uncertainty • Statutory water withdrawal limits/changes to water allocation • Unclear and/or unstable regulations on water allocation and wastewater discharge. Reputational: <ul style="list-style-type: none"> • Changes in consumer behavior • Community opposition • Cultural and religious values • Inadequate access to water, sanitation and hygiene • Litigation • Negative media coverage • Other, please specify 	[Select from]: <ul style="list-style-type: none"> • Brand damage • Constraint to growth • Closure of operations • Decrease in shareholder value • Delays in permitting • Employee health and well-being • Higher operating costs • Fines/ penalties • Litigation • Loss of license to operate • Disruption to sales • Plant/production disruption leading to reduced output • Property damage • Reduced demand for product • Reduction in revenue • Supply chain disruption • Transport disruption • Water supply disruption • Other, please specify 	[open text: 1500 characters max]	[Select from]: <ul style="list-style-type: none"> • Current -up to 1 year • 1- 3 years • 4- 6 years • >6 years • Unknown 	[Select from]: <ul style="list-style-type: none"> • Highly probable • Probable • Unlikely • Unknown 	[Select from]: <ul style="list-style-type: none"> • Low • Low-medium • Medium • Medium-high • High • Unknown 	[Select all that apply]: <ul style="list-style-type: none"> • Alignment of public policy positions with water stewardship goals • Cost increase management through regulated tariff-setting process • Develop flood emergency plans • Engagement with community • Engagement with customers • Engagement with public policy makers • Engagement with other stakeholders in the river basin • Engagement with suppliers • Establish site-specific targets • Infrastructure investment • Infrastructure maintenance • Greater due diligence • Increased capital expenditure • Increased investment in new technology • New products, markets • River basin restoration • Re-siting of facilities • Promote best practice and awareness • Supplier diversification • Strengthen links with local community • Tighter supplier performance standards • Use of risk transfer instruments • Water management incentives • Other, please specify 	[open text: 500 characters max]	[open text: 2000 characters max]

This question only appears if you select “Yes, direct operations and supply chain” or “Yes, supply chain only” in response to question W3.1.

You are requested to respond to this question in the table provided in the ORS, reproduced above. A sample answer is provided below. If you have multiple risks to report, you can add rows into the table by using the ‘Add Row’ button to the bottom right.

Please note that CDP is ONLY asking for information on those river basins where your supply chain is exposed to water risk that could generate a substantive change in your business, operations, revenue or expenditure. For risks to your direct operations, please see guidance for question W3.2c. **For river basins where multiple risks result in the same potential impact, it is now possible to choose multiple risks for one river basin in the ORS. It is also possible to choose multiple response strategies in relation to potential impact on your business. It is not possible to choose more than one potential impact on your business per river basin.**

Guidance on responding to each of the columns is provided below:

- **Country**
 - In the first column, please select from the drop down menu the country in which you wish to report on.

- **River basin**
 - Please select the appropriate river basin from the drop down menu provided. If you do not see the basin required, please select “Other, please specify” and write in the correct river basin using the text box provided. If you do not know the river basin in which your facility resides, the following tools have the functionality to map the river basin locations of facilities:
 - The Water Footprint Network (WFN) [Water Footprint Assessment Tool](#);
 - The Water Risk Filter <http://waterriskfilter.panda.org/> developed by WWF and DEG;
 - The [WRI Aqueduct Water Risk Atlas Tool](#)
 - The [WBCSD Global Water Tool](#); and
 - CEO Water Mandate’s [Interactive Database of the World's River Basins](#)

You might want to put a sub-basin of a bigger river basin identified in the drop-down menu. Please feel free to do it by using the “Other, please specify” and inputting your value and the main basin, e.g. “Putumayo, Amazon”. Finally for companies withdrawing water from large confined **aquifers** that may not discharge to the river basin they are located in e.g. Ogallala aquifer in the United States, please select ‘Other’ and type in the name of the local aquifer source. However please also ensure that the correct country name is selected in the ‘Country’ column adjacent.

- Please note that the dropdown list of river basins aligns with the CEO Water Mandate’s [Interactive Database of the World's River Basins](#). For companies operating in South Africa, the list also includes the nine new Water Management Areas for South Africa, as proposed in the South African revised National Water Resources Strategy (NWRS2). See *Appendix C: River basin list and South African Water Management Areas (WMAs)*.

- **Risk driver**

There is a comprehensive list of potential risk drivers relevant to your organization's supply chain. They are broadly grouped into three categories; physical risk drivers, regulatory risk drivers and reputational risk drivers. This list has been created using detailed analysis of previous CDP response as well as guidance taken from the CEO Water Mandate. For more information about potential risk drivers, please see Box 16: [Description of risk drivers](#). For river basins where multiple risks result in the same potential impact and response strategy it is possible to choose multiple risks for one river basin.
- **Potential impact**
 - Please select from the drop down menu the potential primary impact of the identified risk. Impacts can be operational or financial and can affect your organization, your consumers or other stakeholders. If you cannot identify a potential impact that accurately describes the risk driver, please choose "Other, please specify" and a text box will appear to that you can write in your own impact. If you have identified multiple impacts, please select the primary impact here and include secondary impacts in the next column: 'Description of impact'.
- **Description of impact**
 - Please use the open text box to include any additional details as to how the identified risk will impact your organization. Alternatively, please include details as to secondary impacts. Please use a maximum of 1500 characters in your answer. This maximum includes spaces.
- **Timeframe**
 - Please select from the drop down menu the appropriate timeframe as to when the risks are likely to materialize. It is acknowledged that long-term risks are likely to have a higher degree of uncertainty associated with them.
- **Likelihood**
 - Please select from the drop down menu the likelihood of the identified risk impacting your organization. The likelihood of the impact occurring, along with the magnitude are the building blocks of a risk/opportunity matrix – a common method of identifying and prioritizing risk and opportunities. The likelihood refers to the probability of the impact to your business occurring **within the timeframe provided, which in the case of an inherent risk might be similar to the probability of the risk event itself**. For example, if the risk relates to a piece of new legislation which has already been prepared in draft form, the likelihood of the impact associated with that risk occurring will be relatively high. See *Box 14: Origin of likelihood terminology* for more information.
- **Magnitude of potential financial impact**
 - Please detail the expected financial impact of the identified risk. The magnitude of financial impact describes the extent to which the impact, if it occurred, would affect your business financially. Your response should consider the business as a whole and therefore the magnitude can reflect both the damage that can be caused and the exposure to that potential damage. The range will vary between organizations so please select an option that is appropriate to your business.
 - For example, two organizations may have identical facilities located on the coast in an area which is vulnerable to flooding. However if company A relies on that facility for 90% of its production capacity and company B relies on it for only 40% of its

production capacity, the magnitude of the potential financial impact will be much higher for company A. As it is not possible to accurately define terms for magnitude because of this variation, companies are asked to determine magnitude on a qualitative scale of 'High, Medium, Low and Unknown.' If the financial impact has not been assessed by your organization, please select 'Unknown'.

- **Response strategy**

- Please select from the drop down menu the response strategy that most closely describes how your organization expects to mitigate the identified risk. You may select multiple response strategies if your organization chooses to implement more than one. If there is not an appropriate response strategy for your organization, please select "Other, please specify" and a text box will be provided so that you can write in your own response.
- For those who indicated that they would be interested in having their public response data transferred to the Water Action Hub (W10.2), the following strategies align well with the Water Action Hub Action Areas, however we ask that you provide specifics for the strategy in the "Details of strategy and costs" column.
 - Alignment with public policy positions with water stewardship goals
 - Cost increase management through regulated tariff-setting process
 - Develop flood emergency plans
 - Engagement with community
 - Engagement with customers
 - Engagement with public policy makers
 - Engagement with other stakeholders in the river basin
 - Engagement with suppliers
 - Infrastructure investment
 - Infrastructure maintenance
 - River basin restoration
 - Strengthen links with the local community

- **Costs of response strategy**

- Please use this text field to provide information on the cost of your risk management actions. Where possible, please provide numerical financial descriptions (open or closed ranges or % relative to a stated or publicly available figure). If there are no costs to managing the risk, this should be made clear. Please use no more than 500 characters in your answer.

- **Details of strategy and costs**

- Please use this open text box to provide any additional details on your organization's response strategy plus an explanation of how you calculated and rated the cost of your response strategy. If you are able to provide a numerical value for the costs, including the currency, please do so here. You may also include here secondary response strategies for the identified risk if necessary. Please include information on the following three facets on the strategy in regards to preventing either financial or operational impacts:
 - The timeframe expected for the response strategy to be implemented;
 - How effective the response is; and
 - The feasibility of success in preventing either financial or operational impacts.

You can write up to 2,000 characters in response. This maximum includes spaces.

- For those who have indicated that they would be interested in having their public response data transferred to the Water Action Hub in W10.2, we ask that you provide as much information about your response, particularly local projects, as possible including:
 - Who else is involved in the engagement (such as names of organizations or government offices) or who you would like to work with (government agencies, other companies, NGOs, etc.)
 - What the project seeks to accomplish including expected benefits of the engagement for the watershed beyond the company
 - When the project started and if it has concluded or if it is continuing
 - If possible, the specific location of the project.

W3.2d Sample Response – for guidance only

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
USA	Upper Colorado	Physical: Increased water stress or scarcity	Supply chain disruption	Declining groundwater levels required for irrigation; key cotton suppliers are experiencing water restrictions due to prolonged regional droughts, reducing supplies for production facilities in these locations. This is currently causing disruption to our production capacity in the US.	Current - up to 1 year	Probable	Low	Supplier diversification	We evaluate supplier capacity continuously as part of our normal operating costs so moving suppliers does not impact our operating profits.	We operate a flexible global business model that allows us to diversify production to apparel suppliers in non-affected regions at short notice to mitigate or reduce this risk.
France	Seine	Physical: Declining water quality	Higher operating costs	There is a lack of wastewater treatment capacity in rural locations and pollution prevention regulations for manure and silage storage and disposal is poorly enforced. 21% of available surface water (nationally) is now unfit for	4-6 years	Probable	Medium	Investment in infrastructure	US \$ 2.5m	We have invested in the distribution of low-cost biogas digesters that help small-scale farmers store their manure and collect the manure's methane gas as energy for home cooking, lighting, and heating. Biogas production provides farmers with an economic incentive to manage their manure

				agriculture use. Local production costs for fragrance ingredients like lavender could rise between 5-10% over the next 5 years due to the reduced supply of water needed for agricultural input.						supplies more effectively, reducing water contamination in the process. We started this project in 2003 with the installation of 400 biogas pits across the district.
Australia	Murray Darling	Statutory water withdrawal limits/changes to water allocation	Supply chain disruption	Following increasing salinity issues with the Murray Darling Basin, the Federal Government has introduced a policy to limit certain levels of withdrawal within the basin. Currently, a number of our significant suppliers are located within the region and it is estimated that 27% of our dairy products supply chain for Australia is at risk following this proposed legislation.	>6 years	Highly Probable	Medium-high	Engagement with public policy makers	Up to AUS\$15m	We have developed a strategy that encompasses two different facets. The first of these is our engagement with local policy-makers governing this river basin. As our organization supports the idea of stronger water stewardship in the region, we are working with policy makers to ensure legislation reflects this. Secondly we are investing AUS\$15million in more water efficient technology and education for dairy farmers we work with to supply our supermarkets.

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

This question only appears if you select “No” in response to question W3.1 or if “Direct operations” is not selected in question W3.1.

You are requested to respond to this question in the table provided in the ORS, reproduced below.

Primary reason	Please explain
<ul style="list-style-type: none"> • Risks exist, but no substantive impact anticipated • Other, please specify • Evaluation in progress • Not yet evaluated 	[open text: 1500 characters max]

In the first column, please select from the drop down menu the primary reason why your organization is not exposed to water risks that have the potential to generate a substantive change in your business operation, revenue or expenditure (current or future).

In the ‘Please explain’ column, please provide details as to why there are no water risks to your organization, or give details of an evaluation currently in progress. This is a free text field and all entries should be a maximum of 1500 characters. This maximum includes spaces.

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

This question only appears if you select “No” in response to question W3.1 or if “Supply chain” is not selected in question W3.1.

You are requested to respond to this question in the table provided in the ORS, reproduced below.

Primary reason	Please explain
<ul style="list-style-type: none"> • Risks exist, but no substantive impact anticipated • Other, please specify • Evaluation in progress • Not yet evaluated • Judged to be unimportant 	[open text: 1500 characters max]

In the first column, please select from the drop down menu the primary reason why your supply chain is not exposed to water risks that could generate a substantive change in your business, operations, revenue or expenditure.

In the “Please explain” column, please provide details to explain why there are no water risks that have the potential to generate a substantive change in your business operation, revenue or expenditure, or give details of an evaluation currently in progress. This is a free text field and all entries should be a maximum of 1500 characters. This maximum includes spaces.

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

This question only appears if you select “Don’t know” in response to question W3.1.

You are requested to respond to this question in the table provided in the ORS, reproduced below.

Primary reason	Future plans
<ul style="list-style-type: none"> • Environmental risk assessments are incomplete at this time • No instruction from management • Other, please specify 	[open text: 1500 characters max]

You will be asked to answer this question only if you have answered “Don’t know” to question W3.1, indicating that you do not know if your company is exposed to water risks that have the potential to generate a substantive change in your business operation, revenue or expenditure (current or future).

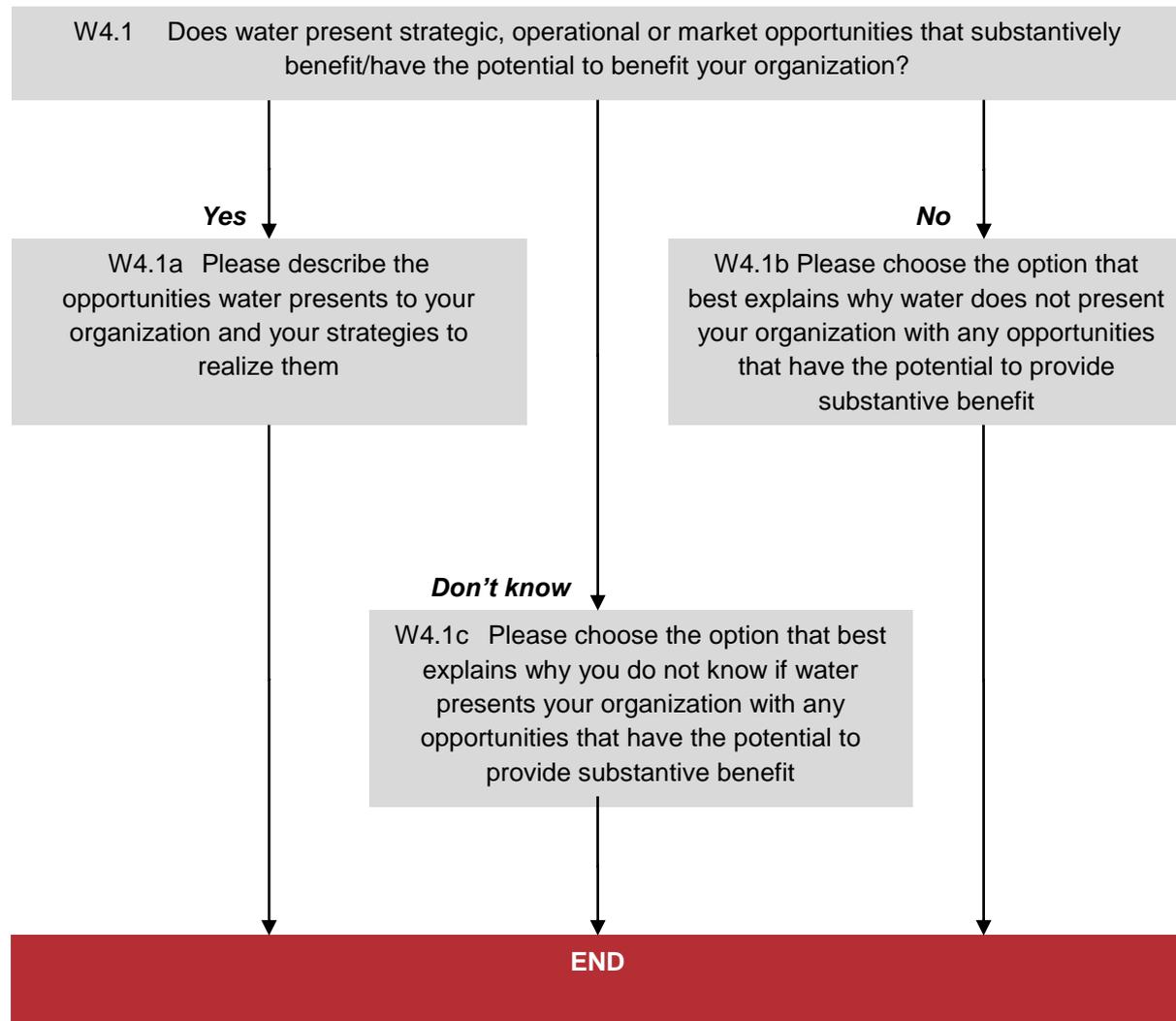
In the first column, please select from the drop down menu the primary reason why your organization does not know if your company is exposed to water risk.

In the “Future plans” column, please use the open text box to explain why your company is not able to identify its exposure and whether you have plans to explore this issue. If a risk assessment is underway but incomplete, please include details of it, including the risk assessment method, its scope, time horizon and when it will be completed. This is a free text field and all entries should be a maximum of 1500 characters. This maximum includes spaces.

W4. Water opportunities

Question Pathway

The following questions are shown on the water opportunities page.



General guidance

This module allows companies to disclose any strategic opportunities water presents to their business.

If you do not think that water offers any operational or market opportunities that substantively benefit your business, you will be asked to explain why not. Similarly, if you do not know if water offers any substantive benefit to your business, you will be given the opportunity to explain why you do not know.

Specific methodologies and guidelines are not referenced for these questions. However, information on impacts to business, water opportunities and water-energy linkages and strategic approaches to joint management of these resources can be found in the following documents:

- Intergovernmental Panel on Climate Change (2008), "[Climate Change and Water: IPCC Technical Paper VI](#)"
- Pacific Institute and the United Nations Global Compact (2009), "[Climate Change and the Global Water Crisis: What Businesses Need to Know and Do](#)"
- World Business Council for Sustainable Development (2009), "[Water, Energy and Climate Change: A Contribution from the Business Community](#)"
- [CEO Water Mandate Corporate Water Disclosure Guidelines](#) (2015) Chapter 5 Detailed disclosure

Key changes from 2016

- There are no changes to this section.

Pre-population of responses for 2017

If you responded to water last year you can automatically populate the following questions with last year's response by clicking the "copy from last year" button at the bottom of the relevant page in the ORS. You can then modify last year's response as needed. You must click "copy from last year" before completing any fields on each page of the ORS where this function has been enabled.

- The copy from last year function has been provided for questions W4.1, W4.1a, W4.1b and W4.1c.

Please always remember to review your pre-populated selections to make sure they are still appropriate for 2017. This is particularly important if new data points have been added to questions or if dropdown lists may have been updated. Regarding the latter, if you selected 'Other' to provide a different category from the dropdown list in 2016, you may find that your category has now been included in the 2017 dropdown list. We request that companies use the pre-selected categories as much as possible as this greatly assists investors with data analysis.

Specific question guidance

W4. Water opportunities

W4.1 Does water present strategic, operational or market opportunities that substantively benefit/have the potential to benefit your organization?

[Select from]:

- Yes
- No
- Don't know

Please select “Yes”, “No”, or “Don't know”. Please note that this question asks you about opportunities that substantively benefit or have the potential to benefit your business.

Opportunities may be current or anticipated. Answer “Yes” even if you are already taking action to pursue an opportunity. The definition of water opportunities is provided in *Box 17: Water opportunities*.

Box 17: Water opportunities

Changes in water availability and climatic conditions related to water may provide commercial opportunities to some companies. These opportunities may include; increased operational efficiency, cost-reducing processes and/or supply chain re-design, the creation of new markets for water products, improved finance and/or risk management procedures, enhanced reputation and the ability to influence government policy. Not all companies will be presented with opportunities. It may be beneficial to review how changes that have already taken place have affected your company's business in the last ten years to begin determining whether further changes are likely to benefit your company in coming years.

Opportunities may be presented by the following changes and factors:

Physical changes such as changing rainfall patterns may increase the demand for flood defenses and storm-water systems in some areas. Your organization may provide goods and services that enable others to adapt to physical changes.

Regulatory changes in water policy and standards may present opportunities for your company if it is better suited than its competitors to meet regulation and/or is able to help others to do so by supplying relevant products or is eligible for government subsidies.

Other factors relating to water may also present opportunities for your company, such as changes in consumer attitudes or improved brand image due to your company's water actions.

For more information on water opportunities facing business you can refer to the following sources:

[CDP Annual Report of Corporate Water Disclosure 2016](#)

[CDP's Water Data Visualization](#)

[CEO Water Mandate Water Stewardship Toolbox](#)

World Business Council for Sustainable Development, Meridian Institute, World Resources Institute (2008), [“Corporate Ecosystem Services Review: Guidelines for Identifying Business Risks and Opportunities Arising from Ecosystem Change”](#)

W4.1a Please describe the opportunities water presents to your organization and your strategies to realize them

This question only appears if you select “Yes” in response to question W4.1.

You are requested to respond to this question in the table provided in the ORS, reproduced below. A sample answer is provided below.

Country or region	Opportunity	Strategy to realize opportunity	Estimated timeframe	Comment
[Select from]: <ul style="list-style-type: none"> • Company-wide • Country drop down list • Other, please specify 	[Select from]: <ul style="list-style-type: none"> • Carbon management • Climate change adaptation • Collective action • Competitive advantage • Cost savings • Ensuring supply chain resilience • Improved community relations • Improved water efficiency • Increased brand value • Increased shareholder value • Innovation • Regulatory changes • R&D • Sales of new products/services • Social license to operate • Staff retention • Other, please specify 	[open text: 1500 characters max]	[Select from]: <ul style="list-style-type: none"> • Current - up to 1 year • 1-3 years • 4- 6 years • >6 years • Unknown 	[open text: 1500 characters max]

If you have more than one opportunity you wish to report, you can enter them into the table by adding more rows using the ‘Add Row’ button to the bottom right.

Guidance on responding to each of the columns is provided below:

- **Country or region**
 - The “Country or region” column requires you to select opportunities from a certain scale. These include opportunities presented companywide, a country from the drop down list or for you to select “Other” and fill in the text box provided to specify a region of your own choosing. For example, a water issue that is important to your business may be connected to a specific watershed within or across countries. In such a case, you specify this local impact rather than one of the listed countries or regions. Refer back to *Box 7: Geographical scale* if you require guidance on geographical reach.

- **Opportunity**

- This column provides a drop-down list of types of opportunities. The list is limited to general categories. However some opportunities may be unique to your company and you can describe these using the “Other” option. Examples of opportunity types are provided in *Box 18: Opportunity types*.
- **Strategy to realize the opportunity**

Please describe the strategies your company has in place, or has planned, in order to take advantage of these water opportunities as they relate to your company specifically. Include details of the financial impact of the opportunity, specify whether the action is being implemented already, and include a case study or example of the strategy in action if possible. Actions may include developing new product lines to address water challenges or increased demand for certain product lines due to changing consumer attitudes. This column is a free text field; all entries should be a maximum of 1500 characters. This maximum includes spaces.
- **Estimated timeframe**
 - This column asks you to provide the timescale in which you expect your business to experience the water opportunity. For example, you may expect water opportunities to arise in less than three years while another may not be anticipated for more than ten years. In the first case, select “1-3 years” and in the second, select “>6 years”.
- **Comment**
 - The “Comment” column allows you to provide any additional information about the water opportunity you have not already described. This is a free text field and all entries should be a maximum of 1500 characters. This maximum includes spaces.

Box 18: Opportunity types

Cost savings: Reducing water use through water efficiency, recycling or re-use of wastewater, may provide savings by reducing energy use, water bills or the need for discharge permits.

Increased brand value: By associating a company’s brand in a positive way with consumer interest in local water issues, a company might accrue increased brand value. For example, by selling products that promote water-efficiency in water-scarce regions, consumer confidence may grow in a brand and prompt consumers to buy other products from the same brand. This might provide a commercial advantage over a competitor, increasing market share or helping to position a company in new markets, ultimately increasing sales and revenue.

Improved water efficiency: Reducing water use through improving process and/or procedures. Improved water efficiency can lead to cost savings, increased brand value, or the creation of a new product or service. Efficiency gains are consistently set as targets for large corporations and can be used across different sectors as a relative measure of water use.

Regulatory changes: The introduction of new standards, for example, for water use and quality of effluent discharged, can provide a competitive advantage to those organizations well prepared to quickly implement changes.

Sales of new products and services: Local water issues in certain markets e.g. poor water quality in China, may create greater demand for new products e.g. domestic water filters.

Staff retention: By associating a company’s brand in a positive way in local water issues, a company can maintain a working environment that supports current staff. By enhancing staff job satisfaction, a company can substantially reduce costs in hiring and training new staff.

Increased shareholder value: By taking action on water that ensures the sustainability of your business, whether through brand reputation, operational improvements or safeguarding against regulatory changes may contribute directly or indirectly to increased shareholder value.

Innovation: Designing new products or services in response to increasing water challenges.

Research & Development (R&D): Water challenges may provide greater impetus to fund specific research areas.

Ensuring supply chain resilience: Water challenges may provide greater impetus to invest in ensuring supply chain resilience ensuring the long-term resilience of current and future growth strategies.

Collective action: By engaging with other water users in local catchments or working with policy makers for example, business may share in the value created from tackling difficult local water challenges in a collective manner. This is an opportunity to influence how water is used locally and help ensure the sustainability of business locally in the face of water challenges such as increasing water scarcity.

Improved community relations: By being transparent about water use and engaging with the local community to understand and alleviate concerns about water issues, a business may maintain their social licence to operate and possibly grow their business in the future locally.

Climate change adaptation: Investing in solving water-related challenges such as poor water infrastructure, implementing flood risk strategies or catchment restoration for example, may have the dual purpose of sustaining important operational inputs such as water supply or product distribution as well as ensuring resilience against climate change.

Competitive advantage: By investing in solving water-related challenges or water-related innovation, may put some businesses ahead of their competitors or help capture greater market share.

Social license to operate: Working with local communities or maintaining/improving brand reputation with customers or the general public in relation to water issues may help to maintain a social licence to operate in regions of increasing water stress.

Carbon management: Greater investment in water efficiency can contribute to a reduction in carbon emissions and help achieve emission reduction targets especially in industries that are water-intensive.

W4.1a Sample Response – for guidance only

Country or region	Opportunity	Strategy to realize opportunity	Estimated timeframe	Comment
Other: Emerging economies (India, China etc.)	Increased brand value	We plan to leverage our sector leader status with an extensive marketing campaign targeting new and existing customers in emerging markets with our new household wet appliance line – Wash N'Go. Through increased advertising and sponsorship, revenue	1- 3 years	We estimate that becoming the leading company in water efficient household wet appliances in these emerging markets will increase our market share over the next three years by 4%;

		from an increased market share in these countries is forecasted to be in the region of US\$150 million. We have already rolled out this strategy in 10 major Indian cities and seen an increased market share of 0.5%.		
South Africa	Cost savings	Reducing water use by increasing water recycling will lead to lower costs and associated taxes across our South African facilities; reducing wastewater loading will reduce costs for treatment and disposal across our South African facilities. We aim to install water efficient technologies in our entire portfolio of South African facilities by 2014/15. We estimate that this may result in savings of up to ZAR 2 million per year once implemented.	1-3 years	We have already installed water efficient measures at 10% of our South African facilities in the past 18 months which has resulted in cost savings of ZAR 20,000 from reduced water charges.

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

This question only appears if you select “No” in response to question W4.1.

You are requested to respond to this question in the table provided in the ORS, reproduced below.

Primary reason	Please explain
[Select from]: <ul style="list-style-type: none"> ▪ Opportunities exist, but nothing substantive ▪ Not yet evaluated ▪ No opportunities identified ▪ Other, please specify 	[open text: 1500 characters max]

The “Primary reason” column provides you with a drop down menu that allows you to either select a reason or to select “Other” and fill in the text box provided to specify a reason of your own choosing.

In the “Please explain” column, please use the open text field to explain further why there are no apparent water opportunities for your company, making reference to how you defined “opportunities”,

how you assessed them, and when you will next repeat the assessment. This free text field allows up to a maximum of 1500 characters. This maximum includes spaces.

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

This question only appears if you select “Don’t know” in response to question W4.1.

You are requested to respond to this question in the table provided in the ORS, reproduced below.

Primary reason	Please explain
[Select from]: <ul style="list-style-type: none"> ▪ Incomplete analysis ▪ Judged to be unimportant ▪ No instruction from management ▪ Review of opportunities in progress ▪ Other, please specify 	[open text: 1500 characters max]

The “Primary reason” column provides you with a drop down menu that allows you to select a reason why you do not know if water issues present a substantive opportunity to your company. If your organization has not explored water opportunities, please give an indication as to why this is. For example, you might select “No instruction from management” or “Judged to be unimportant”. Otherwise, you can select “Other” and fill in the text box provided with a reason of your own choosing.

In the “Please explain” column, please explain why your company is not able to identify such opportunities and whether you have plans to explore this issue. If a review of opportunities is in progress, please give details of this including its scope and when it will be completed. This is a free text field; all entries should be a maximum of 1500 characters. This maximum includes spaces.

Facility Level Water Accounting Module Guidance

W5. Facility level water accounting

Question Pathway

The following questions are shown on the facility level water accounting page.

If “Yes, direct operations and supply chain” or if “Yes, direct operations only” are selected in response to question W3.1, the “Facility level water accounting” section will appear. This water accounting data is linked to the facilities disclosed in response to question W3.2a.

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



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



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



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



W5.3 Water consumption: for the reporting year, please provide water consumption data* for all facilities reported in W3.2a



W5.4 For all facilities reported in W3.2a what proportion of their water accounting data has been externally verified?



END

General guidance

In this section, CDP requests you disclose water accounting data, for **only** those operations exposed to water risks that have the potential to generate a substantive change in your business operation, revenue or expenditure (current or future). This section is linked to question W3.2a. Please ensure you have completed question W3.2a before continuing with this section.

In question W3.2a you were asked to provide details for those facilities exposed to water risks that had the potential to generate a substantive change in your business operation, revenue or expenditure (current or future).

When responding in this section to questions W5.1, W5.1a, W5.2, W5.2a, W5.3, and W5.4 we request that you provide facility-level information for *only* those facilities reported in W3.2a, not all of your facilities.

N.B. If you did not have any operations exposed to water risks that have the potential to generate a substantive change in your business operations, revenue or expenditure and therefore were not asked to complete question W3.2a, you do not need to complete this section.

This section requests information on water accounting as currently practiced by your company. This module is broken down into the following sections:

- Questions W5.1 and W5.2 covers measurement of water withdrawals and discharges;
- Water consumption data is requested in question W5.3;
- Question W5.4 requests information as to level of verification your organization is able to provide on their accounting figures at facility level.

Key changes from 2016

- None.

Measuring corporate impacts on water resources is difficult. While some companies regularly collect data on operational water use and wastewater discharges, communicating those metrics into measures of local impact, such as those impacts on the water quality, ecosystems or local communities remains challenging.

Please note that CDP recognizes the fact that the maturity of the water disclosure practice is often directly related to the maturity of your organization's water management policies and practice. In understanding organizations will be at different levels of maturity and thus not all able to provide the same level of detail, the facility level water accounting section includes both 'Basic' questions (W5.1 and W5.2) that CDP expects all organizations to be able to answer as well as 'Advanced' questions (W5.1a, W5.2a and W5.3) for companies with more mature disclosure practices.

Organizations that are more advanced and are able to report information at a facility and river basin or catchment level should do so as this more granular reporting is currently deemed to be best practice for corporate reporting. Investors are using the ability of an organization to report at this level as a proxy for sound risk management. Organizations that are unable to report at this level and instead provide more basic information imply that they do not have a full understanding of the risk.

Box 19: Reporting facility level water accounting information and its relation to risk

Please note that we encourage you to **report accounting figures only for those facilities you have already identified as being at substantive water risk in question W3.2a**. For any facilities for which you do not have data, please leave the field blank. We encourage this approach because water accounting (withdrawals and discharges) figures:

- Can be difficult to collect for all countries in which you operate and reporting these breakdown of figures for all facilities/operations may represent significant resource costs to your company; and
- Are only meaningful when coupled with the location in which the water transactions take place.

Water transactions in areas of substantive water stress or water risk are more significant than water transactions in areas with no or unsubstantial risk.

N.B. Please note that we aware that we are requesting facility level water accounting figures regardless of the type of substantive water risk being reported for those river basins. In occasional cases, such as in the case of flooding of mining operations, disclosure of facility level water accounting may not be directly meaningful for management of that water risk. However investors are using the ability of an organization to report information at facility and river basin level as a proxy for sound risk management and therefore this information may also be applied broadly as confidence in other types of water risk management. CDP hopes to be able to offer more tailored options for response in future as our reporting technology advances.

Data accuracy: CDP recognizes that there may be uncertainty linked to water accounting information that could impact on data accuracy. Uncertainty can arise from data gaps, assumptions, metering/measurement constraints including equipment accuracy, data management, etc. However the emphasis should be placed on reporting transparently and providing an explanation why reported data cannot be validated by expanding on the uncertainty in your data in the “please explain” or “comment” explanation columns provided in the water accounting questions.

The specific guidance for each question below will provide you with relevant information on water withdrawals and discharges to help you answer the questions. **Questions in the water accounting section of the 2017 information request are predominantly based on recommendations from the CEO Water Mandate Corporate Water Disclosure Guidelines and consultation with external CDP stakeholders.**

For further assistance please note that in the GRI Standards, Disclosures 303-1 and 306-1 are aligned with CDP questions in the accounting section.

Pre-population of responses for 2017

Prep-population is not enabled for this page.

Specific question guidance

Definitions for each type of water use are included below. Due to the correlation on water accounting between CDP’s water questionnaire and GRI Standards, the definitions have been primarily aligned with GRI water definitions. In cases where GRI does not specifically define a type of water use, CDP has aligned itself with those definitions provided by the CEO Water Mandate, Ceres Aqua Gauge or other relevant water definitions.

Definitions for each type of water use requested:

- **Water withdrawals**
 - GRI defines total water withdrawals in Disclosure 303-1 as: “The sum of all water drawn into the boundaries of the organization from all sources (including surface water, ground water, rainwater, and municipal water supply) for any use over the course of the reporting year.”
 - Please note that cooling water (freshwater or sea water) can often be withdrawn in large quantities and returned in similar volumes to its original source with negligible losses or variation in quality. You should report this in question W5.1a.

- **Water discharge**
 - GRI defines water discharge in Indicator Disclosure 306-1 as: “The sum of water effluents discharged over the course of the reporting year to subsurface waters, surface waters, sewers that lead to rivers, oceans, lakes, wetlands, treatment facilities, and ground water either through:
 - A defined discharge point (point source discharge)
 - Over land in a dispersed or undefined manner (non-point source discharge)
 - Wastewater removed from the organization via truck.Discharge of collected rainwater and domestic sewage is not regarded as water discharge”.
 - Please note that in the mining industry precipitation/rainwater volumes may constitute a principal input of water at site level and excluding rainwater would not be a true reflection of their site water balance. Companies in this sector may wish to include rainwater/runoff drawn into the boundaries of their operations as a water discharge in question W5.2a.

- **Water consumption**
 - CDP recognizes that the term ‘water consumption’ is not consistently defined or used. For the purpose of this questionnaire, CDP uses Ceres’s definition of water consumption, an “amount of water that is used but not returned to its original source”. This includes water that has evaporated, transpired, has been incorporated into products, crops or waste, consumed by man or livestock or otherwise removed from the local source.

For further information when answering these questions, you may want to refer to the GRI [Standards](#).

W5. Facility level water accounting

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

You are requested to respond to this question in the table provided in the ORS, reproduced below.

In question W3.2a you were asked to provide details to those facilities exposed to water risks that have the potential to generate a substantive change in your business operation, revenue or expenditure (current or future). When responding to **questions W5.1, W5.1a, W5.2, W5.2a W5.3 and W5.4 we request that you provide facility-level information for all of those facilities reported in question W3.2a. Please note that CDP is not asking for information for all facilities, just those exposed to substantive water risk as defined in question W3.2.** A sample answer is provided below.

Please note that the facilities listed in W3.2a should match the river basin locations for W5.1 and subsequent questions in W5.

Please note: W5.1 is a leading question, prompting linked sets of follow up questions to appear depending on the response given. If question W5.1 is amended after subsequent follow up questions are completed, then these related data will also be erased. Please ensure that you re-enter the data for the follow up questions also, as appropriate.

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
[drop down reference number]	[Select from]: [Country drop down list]	[Select from]: [list of river basin] Not known Other, please specify	[Select from]: [open text: 500 characters max]	[numeric]	[Select from]: <ul style="list-style-type: none"> • Much lower • Lower • About the same • Higher • Much higher • This is our first year of measurement 	[open text: 500 characters max]

Please note that CDP considers question W5.1 to be a basic level accounting question.

Guidance on responding to each of the columns is provided below. For further information when answering these questions, you may want to refer to the [GRI Standards](#).

- **Facility reference number**
 - Please select a facility reference number from the drop down menu provided. The facility reference number is not specific to your organization, but is used by CDP to track information related to the same facility in following questions. The use of the facility reference number prevents responding companies from having to provide the same information for both the river basin and facility name for following questions W5.1a-W5.3.
- **Country**
 - In the second column, please select from the drop down menu the country in which facilities exposed to water risk that could generate a substantive change in your business, operations, revenue or expenditure are located.
- **River basin**
 - Please select the appropriate river basin from the drop down menu provided. If you do not see the basin required, please select “Other, please specify” and write in the correct river basin using the text box provided. If you do not know the river basin in which your facility resides, the following tools have the functionality to map the river basin locations of facilities:
 - The Water Footprint Network (WFN) [Water Footprint Assessment Tool](#);
 - The Water Risk Filter developed by [WWF and DEG](#);
 - The [WRI Aqueduct Water Risk Atlas Tool](#)

- The [WBCSD Global Water Tool](#); and
- CEO Water Mandate's [Interactive Database of the World's River Basins](#)

You might want to put a sub-basin of a bigger river basin identified in the drop-down menu. Please feel free to do it by using the “Other, please specify” and inputting your value and the main basin, e.g. “Putumayo, Amazon”. Finally for companies withdrawing water from large confined **aquifers** that may not discharge to the river basin they are located in e.g. Ogallala aquifer in the United States, please select ‘Other’ and type in the name of the local aquifer source. However please also ensure that the correct country name is selected in the “Country” column adjacent.

- Please note that the dropdown list of river basins aligns with the CEO Water Mandate's [Interactive Database of the World's River Basins](#). For companies operating in South Africa, the list also includes the nine new Water Management Areas for South Africa, as proposed in the South African revised National Water Resources Strategy (NWRS2). See [Appendix C: River basin list and South African Water Management Areas \(WMAs\)](#).
 - Examples of tools/methods that can help you identify the river basin location for your withdrawal information are given in *Box 9: Examples of methods used to characterize water risk*.
- **Facility name**
Please use the text box provided to specify the facility name you will be providing water accounting data for. Please note that this should be the same facility used throughout questions W5.1a – W5.3.
 - **Total water withdrawals at this facility**
 - Question W5.1 corresponds to GRI Disclosure 303-1 in the [Standards](#). Information on your company's water withdrawals may be collected from several sources. According to GRI, it can be drawn “from water meters, water bills, calculations derived from other available water data or (if neither water meters nor bills or reference data exist) the organization's own estimates.” Please provide data from these sources.
 - Please report the water volumes in megaliters per year (1 megaliter = 1 million liters or 1000 m³). This column will accept numbers up to 999999999999. Please report this to a maximum accuracy of two decimal places. Your reporting year is the time period you stated in response to question W0.2 in the introduction module.
 - **How does the total water withdrawals compare at this facility to the last reporting year?**
 - Please select from the drop down menu if the water withdrawals for the specified facility were: “Much higher, Higher, About the same, Lower, Much lower”, than the last reporting year. If this is the first year you have calculated water withdrawal data, please select “This is our first year of measurement” and provide explanation in the next column.
 - **Please note that CDP does not define the thresholds for the “Much higher, Higher, About the same, Lower, Much lower” categories in this column.** CDP sends our water questionnaire to many different industries with huge variations in water use therefore it would difficult to set thresholds for these categories that would be meaningful for each company.

It is recommended that a company responding to this question define their own thresholds for each category and make a note of these so that each year their reporting is consistent based on these thresholds applied and an investor can track

their water use across different years. An explanation of these thresholds can be provided in the “Comment” column.

- **Please explain**
 - Please use the text box provided to give details if the water data was or was not different to the previous reporting year or if there has been no change. Please also use this text box to indicate if this is the first year your organization has recorded water accounting data for the specified facility. You can use up to a maximum of 500 characters.
 - **SCORING:** If the change to your water data is NOT substantially different to the previous reporting year, then please put ‘No change’ into the cell in the column titled “Please explain” **This instruction is for automated scoring purposes.** See *Box 3: Reporting company-wide water accounting information & Water scoring* for further information on how to complete table questions and avoid unnecessary scoring errors.

W5.1 Sample Response – for guidance only

Country	River basin	Facility name	Facility reference number	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
Scotland	St. Lawrence	The Oxford pass Distillery	Facility 1	120842.34	Higher	Due to the overall growth of our business, our total water withdrawals increased at this facility by 10%. Despite this, the water intensity of our operations decreased by 17% compared to the previous reporting year and by 22% compared to a baseline of 2008. As this facility is in a water-stressed area, we aim to reduce the total water withdrawal by 5% by 2015 and 25% by 2020. This will be achieved by the installation of new water pumps in early 2014.

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

**This table is pre-populated with the same number of rows chosen to respond to question W5.1*

You are requested to respond to this question in the table provided in the ORS, reproduced below. **CDP requests that you provide facility level information, using the facility reference number selected in W5.1. This should only include those facilities identified in W3.2a that were listed**

as exposed to water risks that have the potential to generate a substantive change in your business operation, revenue or expenditure (current or future).

Facility reference number	Fresh surface water	Brackish surface water /seawater	Rain water	Groundwater (renewable)	Groundwater (non-renewable)	Produced/process water	Municipal water	Waste water from another organization	Comment
[drop down reference number]	[numeric]	[numeric]	[numeric]	[numeric]	[numeric]	[numeric]	[numeric]	[numeric]	[open text 500 characters max]

Please remember to assign water accounting data to the correct water facility as identified in question W5.1. **Please note that each facility reference number should correspond to a single facility.** Please note that CDP considers question W5.1a to be an advanced level accounting question.

For all data points, please report water volumes in megaliters per year for your reporting year (1ML = million liters or 1000 m³). The numeric columns will accept numbers up to 99999999999. Please report this volume up to two decimal places. Your reporting year is the time period you stated in response to question W0.2 in the introduction module.

SCORING: If any of the listed water sources are not used in your water withdrawal, please do not leave the field blank but report 0.00 megaliters/year. It is not possible to state 'N/A' due to restrictions in the ORS. If you wish to distinguish between a quantity of zero or negligible value and a water source that is not relevant, please do so in the comment box. **This instruction is for automated scoring purposes.** See *Box 3: Reporting company-wide water accounting information & Water scoring* for further information on how to complete table questions and avoid unnecessary scoring errors.

Guidance on responding to each of the columns is provided below. For further information when answering these questions, you may want to refer to the [GRI Standards](#).

Note on withdrawal source definitions: CDP makes a further distinction than GRI when defining withdrawal sources for reporting purposes, splitting sources into quality categories including fresh and brackish surface water and renewable and non-renewable groundwater. This distinction is to help companies to demonstrate their potential risk exposure from different water sources. For example, a utility company may use large volumes of surface water for cooling purposes but the water quality may not be fresh. Companies should report this information by selecting 'Brackish surface water/seawater', to demonstrate to investors 'that they are not dependent on potentially scarce fresh surface water sources and therefore their risk exposure is likely to be less than if they were dependent on freshwater resources.

- **Facility reference number**
 - Please select from the drop down menu the facility reference number for the facility you wish to report basic water withdrawal accounting data.
- **Fresh surface water**
 - Surface water is naturally occurring water on the Earth's surface in ice sheets, ice caps, glaciers, icebergs, bogs, ponds, lakes, rivers and streams. (Fresh water underground is called groundwater and oceans are not freshwater). Fresh water sources are generally characterized by having low concentrations of dissolved salts (below 1,000 mg/l) and other total dissolved solids.
- **Groundwater (renewable)**

- Water in soil beneath the soil surface, usually under conditions where the pressure in the water is greater than the atmospheric pressure, and the soil voids are substantially filled with the water. Renewable groundwater sources can be replenished relatively quickly and are usually located at shallow depths.
- **Groundwater (non-renewable or fossil)**
 - Water in soil beneath the soil surface, usually under conditions where the pressure in the water is greater than the atmospheric pressure, and the soil voids are substantially filled with the water. Non-renewable groundwater is generally located at deeper depths and cannot be replenished easily or is replenished over very long periods of time. They are sometimes referred to as “fossil” groundwater sources.
- **Municipal water**
 - Water provided by a municipality or other public provider.
- **Produced/process water**
 - Water which, during extraction or processing, comes into direct contact with or results from the production or use of any raw material (e.g. crude oil or a by-product from sugar cane crushing), intermediate product, finished product, by-product, or waste product. **Please note this category should NOT be confused with recycled water.**
- **Wastewater from another organization**
 - Ceres Aqua gauge defines wastewater as “Water that is of no further immediate value to the purpose for which it was used or in the pursuit of which it was produced because of its quality, quantity or time of occurrence.”
 - Cooling water is not considered to be wastewater.
- **Brackish surface water/Seawater**
 - Brackish water is water in which the concentration of salts is relatively high (over 10,000 mg/l). Seawater has a typical concentration of salts above 35,000 mg/l.
- **Comment**
 - Please use this field to explain further detail for any of your withdrawal source information.
 - This column is a free text field; all entries should be less than 500 characters.

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

**This table is pre-populated with the same number of rows chosen to respond to question W5.1*

You are requested to respond to this question in the table provided in the ORS, reproduced below. A sample answer is provided below.

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
[drop down reference number]	[numeric]	[Select from]: <ul style="list-style-type: none"> • Much lower • Lower • About the same • Higher • Much higher • This is our first year of measurement 	[open text: 500 characters max]

Please remember to assign water accounting data to the correct water facility as identified in question W5.1. **Please note that each facility reference number should correspond to a single facility.** Please note that CDP considers question W5.2 to be a basic level accounting question.

For all data points, please report water volumes in megaliters per year for your reporting year (1ML = million liters or 1000 m³). The numeric columns will accept numbers up to 99999999999. Please report this volume up to two decimal places. (Your reporting year is the time period you stated in response to question W0.2 in the Introduction module.)

Guidance on responding to each of the columns is provided below. For further information when answering these questions, you may want to refer to the [GRI Standards](#).

- **Facility reference number**
 - Please select from the drop down menu the facility reference number for the facility you wish to report water discharge from.
- **Total water discharged (megaliters/year) at this facility.**
 - Please report the total water discharged for each facility up to two decimal places. This column will accept numbers up to 99999999999.
 - According to GRI's explanation of Indicator G4-EN22, water discharges are defined as "water effluents discharged over the course of the reporting year to subsurface waters, surface waters, sewers that lead to rivers, oceans, lakes, wetlands, treatment facilities, and ground water either through:
 - A defined discharge point (point source discharge)
 - Over land in a dispersed or undefined manner (non-point source discharge)
 - Wastewater removed from the organization via truck.
Discharge of collected rainwater and domestic sewage is not regarded as water discharge".
 - Please note that in the mining industry precipitation/rainwater volumes may constitute a principal input of water at site level and excluding rainwater would not be a true reflection of their site water balance. Companies in this sector (and others to which this is relevant) many wish to include rainwater/runoff drawn into the boundaries of their operations as a water discharge in question W1.2b for these reasons and explain this in the "Comment" column provided.
 - Please report the water volumes in megaliters per year (1 megaliter = 1 million liters or 1000 m³). This column will accept numbers up to 99999999999. Please report

this to a maximum accuracy of two decimal places. Your reporting year is the time period you stated in response to question W0.2 in the introduction module.

- If reporting zero discharges please refer to *Box_5: Reporting “zero discharges”*.
- **How does the total water discharged at this facility compare to the last reporting year?**
 - Please select from the drop down menu if the total water discharged for the specified facility was; “Much higher, Higher, About the same, Lower or Much lower”, than the last reporting year. If this is the first year you are have calculated water withdrawal data, please select ‘This is our first year of estimation’ and indicate as such in the next column.
 - **Please note that CDP does not define the thresholds for the “Much higher, Higher, About the same, Lower, Much lower” categories in this column.** CDP sends our water questionnaire to many different industries with huge variations in water use therefore it would difficult to set thresholds for these categories that would be meaningful for each company.

It is recommended that a company responding to this question define their own thresholds for each category and make a note of these so that each year their reporting is consistent based on these thresholds applied and an investor can track their water use across different years. An explanation of these thresholds can be provided in the “Comment” column.
- **Please explain**
 - Please use the text box provided to give details if the water data was or was not is different to the previous reporting year or if there has been no change. Please also use this text box to indicate if this is the first year your organization has recorded water accounting data for the specified facility. You can use up to a maximum of 500 characters.
 - **SCORING:** If the change to your water data is NOT substantially different to the previous reporting year, then please put ‘No change’ into the cell in the column titled “Please explain” **This instruction is for automated scoring purposes.** See *Box 3: Reporting company-wide water accounting information & Water scoring* for further information on how to complete table questions and avoid unnecessary scoring errors.

W5.2 Sample Response – for guidance only

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	80348.98	Lower	At the Oxford Pass Distillery, we introduced new technology which combines anaerobic digestion and water recovery. Whilst this was introduced in the middle of the reporting year, it is expected that it will reduce the total volume of wastewater discharge by 40%.

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

**This table is pre-populated with the same number of rows chosen to respond to question W5.1*

You are requested to respond to this question in the table provided in the ORS, reproduced below.

Facility reference number	Fresh surface water	Municipal/industrial wastewater/treatment plant	Seawater	Groundwater	Wastewater for another organization	Comment
[drop down reference number]	[numeric]	[numeric]	[numeric]	[numeric]	[numeric]	[open text; 500 characters max]

Please remember to assign water accounting data to the correct water facility as identified in question W5.2. **Please note that each facility reference number should correspond to a single facility.** Please note that CDP considers question W5.2a to be an advanced level accounting question.

For all data points, please report water volumes in megaliters per year for your reporting year (1ML = million liters or 1000 m³). The numeric columns will accept numbers up to 999999999999. Please report this volume up to two decimal places. Your reporting year is the time period you stated in response to question W0.2 in the Introduction module.

SCORING: If any of the listed water sources are not used in your water withdrawal, please do not leave the field blank but report 0.00 megaliters/year. It is not possible to state 'N/A' due to restrictions in the ORS. If you wish to distinguish between a quantity of zero or negligible value and a water source that is not relevant, please do so in the comment box. **This instruction is for automated scoring purposes.** See *Box 3: Reporting company-wide water accounting information & Water scoring* for further information on how to complete table questions and avoid unnecessary scoring errors.

Guidance on responding to each of the columns is provided below.

- **Facility reference number**
 - Please select from the drop down menu provided the facility reference number for the facility you wish to report basic water discharge accounting data.

- **Fresh surface water**
 - Surface water is naturally occurring water on the Earth's surface in ice sheets, ice caps, glaciers, icebergs, bogs, ponds, lakes, rivers and streams. (Fresh water underground is called groundwater and oceans are not freshwater). Fresh water sources are generally characterized by having low concentrations of dissolved salts (below 1,000 mg/l) and other total dissolved solids.

- **Brackish surface water/Seawater**
 - Brackish water is water in which the concentration of salts is relatively high (over 10,000 mg/l). Seawater has a typical concentration of salts above 35,000 mg/l.

- **(Discharge to) Groundwater**
 - The discharge of water underground via soil to water beneath the soil surface or directly to a water bearing layer of rock (aquifer) by human activity or natural activity.

- Examples of discharges to groundwater include disposal of sewage, trade effluent and surface water (run-off from urban areas). This can be achieved through various methods such as dug or constructed spreading basins, soakaways, swales or injection wells.
- **Municipal/industrial wastewater treatment plant**
 - A facility for the treatment of municipal wastewater. The treatment can be primary, secondary or tertiary
- **Wastewater for another organization**
 - Wastewater that is reused by another organization than yours. Please note that this other organization must be outside the reporting boundary given in question W0.2 to qualify as “another organization”. If it is within your reporting boundary, then the final discharge destination outside of the reporting boundary should be stated instead.
- **Comment**
 - Please use this field to explain further detail for any of your discharge destination information.
 - This column is a free text field; all entries should be less than 500 characters.
 - If reporting zero discharges please refer to *Box_5: Reporting “zero discharges”*.

W5.3 Water consumption: for the reporting year, please provide water consumption data* for all facilities reported in W3.2a

**This table is pre-populated with the same number of rows chosen to respond to question W5.1*

You are requested to respond to this question in the table provided in the ORS, reproduced below.

Facility reference number	Consumption (megaliters/year)	How does this compare to the last reporting year?	Please explain
[drop down reference number]	[numeric]	[Select from]: <ul style="list-style-type: none"> • Much Lower • Lower • About the same • Higher • Much Higher • This is our first year of measurement 	[open text: 500 characters max]

Please remember to assign water accounting data to the correct water facility as identified in question W5.1. **Please note that each facility reference number should correspond to a single facility.**

For all data points, please report water volumes in megaliters per year for your reporting year (1ML = million liters or 1000 m³). Please report this volume up to two decimal places. Your reporting year is the time period you stated in response to question W0.2 in the Introduction module.

Guidance on responding to each of the columns is provided below. For further information when answering these questions, you may want to refer to the [Standards](#).

- **Facility reference number**
 - Please select a facility reference number from the drop down list provided. The facility reference number is not specific to your organization, but is used by CDP through the following questions to track information related to the same facility. The use of the

facility reference number prevents responding companies from having to provide the same information for both the river basin and facility name throughout the Accounting module.

- **Consumption (megaliters/year)**
 - Please report the total water consumption for each facility up to two decimal places. This column will accept numbers up to 999999999999.
 - Ceres Aqua Gauge recognizes that the term 'water consumption' is not consistently defined or used. For the purpose of this questionnaire, CDP uses Ceres's definition of water consumption as an "amount of water that is used but not returned to its original source." This includes water that has evaporated, transpired, has been incorporated into products, crops or waste, consumed by man or livestock or otherwise removed from the local source.
 - If reporting zero consumption please refer to *Box_5: Reporting "zero discharges"*.

- **How does this compare to the last reporting year?**
 - Please select from the drop down menu if the total consumption for the specified facility was; "Much higher, Higher, About the same, Lower or Much lower", than the last reporting year. If this is the first year you have calculated water withdrawal data, please select 'This is our first year of estimation' and indicate as such in the following column.

- **Please explain**
 - Please use the text box provided to give details if the water data was or was not different to the previous reporting year or if there has been no change. Please also use this text box to indicate if this is the first year your organization has recorded water accounting data for the specified facility. You can use up to a maximum of 500 characters.

 - **SCORING:** If the change to your water data is NOT substantially different to the previous reporting year, then please put 'No change' into the cell in the column titled "Please explain" **This instruction is for automated scoring purposes.** See *Box 3: Reporting company-wide water accounting information & Water scoring* for further information on how to complete table questions and avoid unnecessary scoring errors.

W5.4 For all facilities reported in W3.2a what proportion of their water accounting data has been externally verified?

You are requested to respond to this question in the table provided in the ORS, reproduced below.

Water aspect	% verification	What standard and methodology was used?
Water withdrawals – total volumes	[Select from]: <ul style="list-style-type: none"> • Not verified • 1-25 • 26-50 • 51-75 • 76-100 	[open text: 500 characters max]
Water withdrawals – volume by sources		
Water discharges – total volumes		
Water discharges – volume by destination		
Water discharges – volume by treatment method		
Water discharge quality data – quality by standard effluent parameters		
Water consumption – total volume		

Please complete the table provided by first selecting the proportion of verification your organization has completed for each water aspect **only for those facilities exposed to water risks that have the potential to generate a substantive change in your business operation, revenue or expenditure (current or future), as referenced in question W3.2a.**

Please note, we are not asking for verification of water accounting data across your entire organization. Please see *Box 20: Verification* for an example on how to calculate the proportion of facilities at risk verified using a sampling methodology.

For those water aspects that are verified, please use the open text box provided in the column labeled 'What standard and methodology was used' and provide details as to the standard your organization uses to verify your accounting data plus the methodology used and scope of that methodology e.g. a sampling method, so that investors are aware that this approach has been taken and may check the data if necessary.

If you do not verify your water accounting data, please select 'Not verified' from the options available. Please also provide an explanation as to why this water aspect is not verified in the column labeled 'What standard and methodology was used'.

Box 20: Verification

By Verification, CDP refers to third-party, independent verification according to a recognized, relevant standard.

At the present time, CDP recognizes the lack of universally applied verification standards for water. So CDP requests that companies disclose the extent of any current verification practices and the standards they are using. This information will guide future development of questions on verification.

The GHG Protocol defines verification for greenhouse gas emissions and this definition can equally be applied to the verification of water information:

Verification involves the assessment of the risks of material discrepancies in reported data. Discrepancies relate to differences between reported data and data generated from the proper application of the relevant standards and methodologies.

Verification may have different objectives, which are agreed upon by the verifier and the commissioning company. The GHG protocol specifies possible objectives for the verification which, again, may also apply to water. These include:

- Enhancing stakeholder trust by increasing the credibility of the publicly reported information and demonstrating progress towards targets;
- Increasing senior management confidence in reported information on which to base investment and target setting decisions;
- Improving internal accounting and reporting practices and facilitating learning and knowledge transfer within the company; and
- Preparation for mandatory verification requirements.

How to report the proportion of verification for facilities at risk

If any of the water aspects requested in W5.4 are assured globally then 100% of that water aspect is verified. This would capture all facilities exposed to substantive water risk and it would be possible to report 76-100% for the water aspects measured.

If a company reports 50% global numbers assured then you would need to check how many of the water risky sites, reported in question W3.2a, are assured within this sample and then report this proportion in response to W5.4.

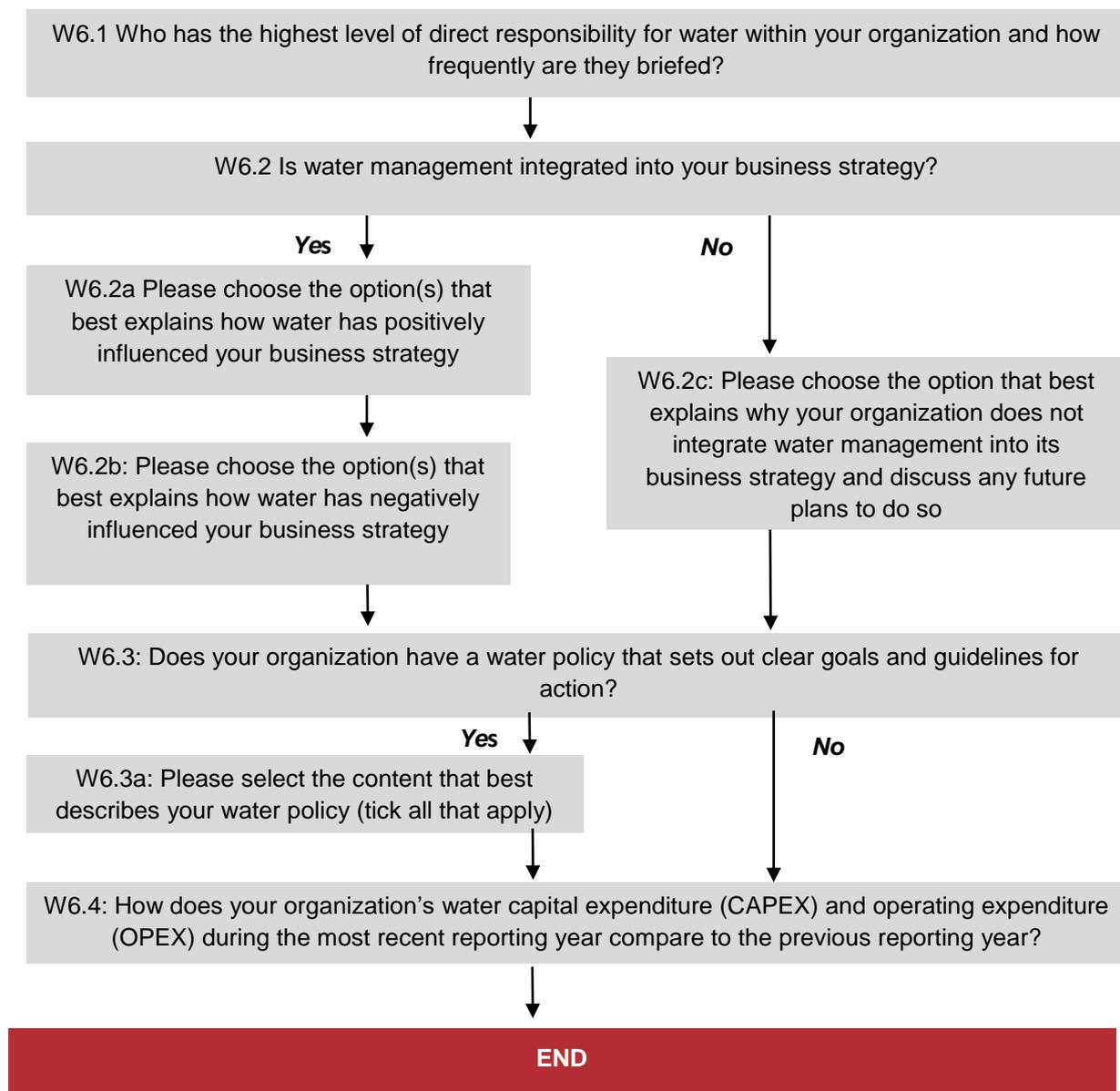
If a sampling method has been applied to your assurance then you will need to check with your verifier to understand the scope of the verification and whether your water risky sites are captured. Please report the methodology and scope covered in the column 'What standard and methodology was used?' in question W5.4.

Response Module Guidance

W6. Government & strategy

Question Pathway

The following questions are shown on the Response: Government & strategy page.



General guidance

This section of the CDP water questionnaire focuses on your organization's response to its water use and is comprised of three subsections:

- *Governance & strategy* – has your organization integrated water into its core management process and planning?
- *Compliance* – does your organization comply with water regulation?
- *Targets & initiatives* – has your organization developed targets and initiatives that aim to improve its water performance and reduce water risks?

The government & strategy module asks you to disclose information about your company's water policies, strategies or management plans. It also allows you to report on water actions that your company has taken which fall outside your water policy strategy or plan.

The questions in the government and strategy module focus on the following aspects:

- Question W6.1 identifies the highest level of direct responsibility within your organization;
- Question W6.2 explores the integration of water into your organization's business strategy focused on understanding either positive or negative impacts;
- Questions W6.3 asks about goals and guidelines your organization has set for action; and
- Question W6.4 asks about your organizations water related capital and operational expenditure.

Key changes from 2016

- None

Pre-population of responses for 2017

If you responded to water last year you can automatically populate the following questions with last year's response by clicking the "copy from last year" button at the bottom of the relevant page in the ORS. You can then modify last year's response as needed. You must click "copy from last year" before completing any fields on each page of the ORS where this function has been enabled.

- The copy from last year function has been provided for questions W6.1, W6.2, W6.2a, W6.2b and W6.2c, W6.3, W6.3a and W6.4.

Please always remember to review your pre-populated selections to make sure they are still appropriate for 2017. This is particularly important if new data points have been added to questions or if dropdown lists may have been updated. Regarding the latter, if you selected 'Other' to provide a different category from the dropdown list in 2016, you may find that your category has now been included in the 2017 dropdown list. We request that companies use the pre-selected categories as much as possible as this greatly assists investors with data analysis.

Specific question guidance

W6. Governance & 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
[Select from]: <ul style="list-style-type: none"> • Board of individuals/Sub-set of the Board or other committee appointed by the Board • Senior Manager/Officer • Other Manager/Officer • No individual or committee with overall responsibility for water • Other, please specify 	[Select from]: <ul style="list-style-type: none"> • Scheduled - quarterly • Scheduled – annual • Scheduled - twice per year • Scheduled - monthly • Sporadic - as important matters arise • Never (does not happen) • Other, please specify 	[open text: 1000 characters max]

Guidance on responding to each of the columns is provided below:

- **Highest level of direct responsibility for water issues**
 - Using the drop down menu, please select the highest level of direct responsibility for which water management applies. If there is no relevant drop down option that best represents your organization’s responsibility for water management, please select the “Other” option and complete the text field with the appropriate title.
- **Frequency of briefings on water issues**
 - Please select the closest dropdown option that reflects the frequency of briefings on water issues at your organization that incorporate the highest level of direct responsibility selected in the first column.
 - Please put any detailed or more explicit information about the frequency of briefings e.g. that the briefing is an annual review against targets, within the ‘Comment’ field rather than selecting ‘Other’ within the ‘Frequency’ column. Please keep this column for frequency of reporting only e.g. scheduled quarterly.
- **Comment**
 - If no individual or committee has overall responsibility with water, or if there are never any briefings on water issues within your company, or if you would like to be more explicit about the type of briefing undertaken, please use the comment box to provide an explanation as to why. This is a free text field and all entries should be a maximum of 1000 characters.
 - Alternatively, please also use the comment box to provide any additional information as to the level of water responsibility and frequency of briefings in your company.

W6.2 Is water management integrated into your business strategy?

[Select from]:

- Yes
- No

Please select “Yes” **only** if water management is integrated into your business strategy at the corporate level. If water management is only integrated into your organization at the facility level, please select “No”.

Box 21: Water management

In a corporate context, water management will mean a general or specific plan to manage water issues affecting your company. Water management may imply CSR or environmental reporting and may incorporate tools and resources used in water initiatives. Although your water management plan can take many forms, it generally must be guided by a mission or vision, have clear objectives and have an action plan.

Water management should extend beyond technical intervention that impacts water at a specific facility and instead be embedded within the organization’s strategy. An organization’s water management should include governance structure, accountability, water performance standards, supply chain and policy, and will also go beyond an organization’s own water use and look to engage stakeholders such as the local community and policy makers. Integration and understanding between water and other sustainability issues, such as energy, also enhance water management and establish best practice.

W6.2a Please choose the option(s) below that best explains how water has positively influenced your business strategy

This question only appears if you select “Yes” in response to question W6.2.

You are requested to respond to this question in the table provided in the ORS, reproduced below. A sample answer is provided below.

Influence of water on business strategy	Please explain
<p>[Select from]:</p> <ul style="list-style-type: none"> • Alignment of public policy positions with water stewardship goals • Establishment of sustainability goals • Establishment of a clear water strategy • Exploration of water valuation practices • Exploration of environmental impact • Greater due diligence • Introduction of water management KPIs • Investment in staff / training • Water resource considerations are factored into location planning for new operations • Water resources considerations are factored into site expansions • Water resource considerations are factored into new product development • Water resource considerations are factored into new market exploration • Publicly demonstrated our commitment to water • Water is factored into procurement directives • Greater supplier diversification • Greater supplier engagement • Greater customer engagement • Greater employee engagement • Greater regulator engagement • Tighter operational performance standards • Tighter supplier performance standards 	<p>[open text: 1500 characters max]</p>

<ul style="list-style-type: none"> • Water management incentives established for employees • Water management incentives established for senior management • Water management incentives established for suppliers • Accelerating vital research and development • No measurable influence • Other, please specify 	
Add Row	

If you have multiple drivers that have positively influenced your business strategy, you can add rows into the table by using the “Add Row” button to the bottom right.

Please select from the options that best explain how water has positively influenced your business strategy. CDP has taken guidance from The Ceres Aqua Gauge⁶ in addition to analysis of previous CDP responses to develop and provide a comprehensive list of drop down options. If, however, you cannot find an option that is applicable to your organization, please select “Other, please specify” and a text box will appear where you can write in your own response.

In the “Please explain” column, please provide additional details that explain the circumstances as to how water has positively influenced your organization’s business strategy, a company-specific example of how this influenced the company and an outcome. This box is an open text field; all entries should be a maximum of 1500 characters. This maximum includes spaces.

W6.2a Sample Response – for guidance only

Influence of water on business strategy	Please explain
Greater supplier diversification	Water shortages can disrupt dyeing operations, particularly in China, and this has caused disruption to our supply chain in the past. We now operate a flexible global business model that allows us to diversify production to apparel suppliers in non-affected regions at short notice, allowing the company to continue to achieve forecasted annual targets.
Water resource considerations are factored into new market exploration	Increased demand for water efficient household appliances in the Western US is being driven by new regulations to tackle drought conditions in several states. We estimate that becoming the leading company in water efficient household wet appliances will increase our market share by 4% over the next three years. We forecast increased revenue of US\$ 150 million as a result of this increased market share.
Alignment of public policy positions with water stewardship goals	Our company is committed to the long-term stewardship of water resources. As such we support strong water policy such as the proposed Murray-Darling Basin Plan, which aims to encourage improved water management by all

⁶ For more information about Ceres Aqua Gauge tool here: <http://www.ceres.org/resources/reports/aqua-gauge/view>

	stakeholders. We provided a consultation response to the Plan, encompassing our stakeholders, including representatives of our agricultural supply chain, employees and communities near our food canning facilities during the consultation, and have initiated sector engagement in support of the Plan. Our commitment to positive engagement means we are better placed to respond to changes in regulation, and ensure that long term water risks to our business in the region are diminished.
--	--

W6.2b Please choose the option(s) below that best explains how water has negatively influenced your business strategy

This question is a follow up question from W6.2a and only appears if you select “Yes” in response to question W6.2.

You are requested to respond to this question in the table provided in the ORS, reproduced below.

Influence of water on business strategy	Please explain
[Select from]: <ul style="list-style-type: none"> • Closure of operations • Divestment from regions exposed to water risks • Increased capital expenditure • Increased insurance cover • Reduction in business expansion • Delays in business expansion • Reduction in projected sales/demand • Impacts on other sustainability KPIs • No measurable influence • Other, please specify 	[open text: 1500 characters max]
Add Row	

If you have multiple drivers that have negatively influenced your business strategy, you can add further options into the table by adding more rows using the “Add Row” button to the bottom right.

Please select from the options provided in the drop down menu how water has negatively influenced your business strategy.

If none of the available options are suitable for your business, please select “Other, please specify” and a text box will appear so that you can write in your response.

In the text box provided in the “Please explain” column, please provide additional details on the circumstances why water has had a negative impact on your organization’s business strategy a company-specific example of how this influenced the company and an outcome. If there is no influence, please explain why and how you expect this to change in the future. This box is an open text field; all entries should be a maximum of 1500 characters. This maximum includes spaces.

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

This question only appears if you select “No” in response to question W6.2.

You are requested to respond to this question in the table provided in the ORS, reproduced below.

Primary reason	Please explain
<p>[Select from]:</p> <ul style="list-style-type: none"> • Water does not pose a substantive risk to the business strategy <ul style="list-style-type: none"> ▪ Judged to be unimportant ▪ No instruction from management ▪ Under review/in progress • Other, please specify 	<p>[open text: 1500 characters max]</p>

In the drop down menu, please select the primary reason as to why your organization does not currently integrate water management into its business strategy.

Please note that organizations should only select “Water does not pose a substantive risk to the business strategy”, if they have completed a robust risk assessment that ensures water does not pose a substantive risk to the business. If your organization has not performed a complete water risk assessment, please select an alternative option.

In the text box provided in the “Please explain” column, please explain why your organization has not integrated water management into its business strategy and if you intend to put one in place. If “Under review/in progress” has been selected please include when this process is due to be completed. This box is an open text field and all entries should be a maximum of 1500 characters. This maximum includes spaces.

W6.3 Does your organization have a water policy that sets out clear goals and guidelines for action?

[Select from]:

- Yes
- No

Whilst CDP understands that individual organizational policies are likely to be varied and complex, this question aims to gain an understanding as to the inclusion of a number of key elements;

- Is your organization’s water policy publicly available and is it incorporated within the group environmental, sustainability or EHS policy?
 - Does your organization’s water policy cover your entire organization? Or is it only applicable for select facilities?
 - Does your organization’s water policy include performance standards for all of the following: direct operations, suppliers, and procurement process and procedures?
 - Does your organization’s water policy include recognized best practice process and procedures?
 - Does your organization’s water policy include a commitment to customer education?
 - Does your organization’s water policy include guidelines as to the human right to water, health and sanitation?

If “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
[Select all that apply]: <ul style="list-style-type: none"> • Publicly available • Company-wide • Select facilities only • Performance standards for direct operations • Performance standards for supplier, procurement and contracting best practice • Commitment to customer education • Incorporated within group environmental, sustainability or EHS policy • Acknowledges the human right to water, sanitation and hygiene • Other 	[open text: 1500 characters max]

Please tick all options that describe the content that best describes your water policy. If there is content not covered in the options presented, please select ‘Other’ to provide a description.

In the text box provided in the “Please explain why this content is included” column, please explain why your organization has included this content within their water policy, and why you exclude any content, if relevant. This box is an open text field and all entries should be a maximum of 1500 characters. This maximum includes spaces.

W6.4 How does your organization’s water-related capital expenditure (CAPEX) and operating expenditure (OPEX) during the most recent reporting year compare to the previous reporting year?

You are requested to respond to this question in the table provided in the ORS, reproduced below.

Water CAPEX (+/- % change)	Water OPEX (+/- % change)	Motivation for these changes
[numeric response]	[numeric response]	[open text: 1000 characters max]

A worked example is available in *Box 22: CAPEX and OPEX* below.

Guidance on responding to each of the columns is provided below:

- **Water spending (CAPEX)**
 - Please provide a figure that specifies the proportion of total water capital expenditure your organization has spent in the last reporting year. You may report the figure as a negative or positive percentage up to four decimal places.

- **Water spending (OPEX)**
 - Please provide a figure that specifies the proportion of total water operating expense your organization has spent in the last reporting year. You may report the figure as a negative or positive percentage up to four decimal places.
- **Motivation for these changes**
 - Please use the open text box to provide details as to why your organizations CAPEX or OPEX has increased, decreased, or remained the same when comparing this reporting year to the previous reporting year. This is an open text box that can take a maximum of 1000 characters. This maximum includes spaces.

Box 22: CAPEX and OPEX

For the purpose of this questionnaire CAPEX AND OPEX are defined as:

Capital expenditure (CAPEX) “Represents the money invested by a company to acquire or upgrade fixed assets [related to water], such as buildings and equipment. Capital expenditure measures the value of purchases of fixed assets that are used repeatedly in production processes for more than a year.”

OECD, Glossary of Statistical Terms (Adapted.)

Operating expense (OPEX) is the “Expenditure your organization incurs as a result of performing its normal business operation [for example, water bills]. Expenses such as employee wages, research and development and administrative costs are included. OPEX does not include cost of goods sold (COGS), taxes, depreciation, and interest.”

European Commission, Eurostat (Adapted).

How to calculate Water CAPEX comparison for question W6.4

In 2015 (previous reporting year), Water CAPEX is \$1m. In 2016 (current reporting year) Water CAPEX is \$1.1m.

(Water CAPEX 2016)\$1.1m – (Water CAPEX 2015) \$1.0m = +\$0.1m (difference between 2016 and 2015)

(\$0.1m (difference) / \$1.1m (Water CAPEX 2016)) x 100 = +9.09 %

This is reported as ‘+9.09%’ because 2016 Water CAPEX is greater than 2015 Water CAPEX

How to calculate Water OPEX comparison for question W6.4

In 2015 (previous reporting year), Water OPEX is \$0.20m. In 2016 (current reporting year) Water OPEX is \$0.15m.

(Water OPEX (2016) \$0.15m - Water OPEX (2015) \$0.20m) = - \$0.05m (difference between 2016 and 2015)

(- \$0.05m (difference) / \$0.15m (Water OPEX 2016)) x 100 = - 33.33 %

This is reported as ‘- 33.33%’ because 2015 Water OPEX is less than 2016 Water OPEX

Box 22: CAPEX and OPEX

For the purpose of this questionnaire CAPEX AND OPEX are defined as:

Capital expenditure (CAPEX) “Represents the money invested by a company to acquire or upgrade fixed assets [related to water], such as buildings and equipment. Capital expenditure measures the value of purchases of fixed assets that are used repeatedly in production processes for more than a year.”

OECD, Glossary of Statistical Terms (Adapted.)

Operating expense (OPEX) is the “Expenditure your organization incurs as a result of performing its normal business operation [for example, water bills]. Expenses such as employee wages, research and development and administrative costs are included. OPEX does not include cost of goods sold (COGS), taxes, depreciation, and interest.”

European Commission, Eurostat (Adapted).

How to calculate Water CAPEX comparison for question W6.4

In 2014 (previous reporting year), Water CAPEX is \$1m. In 2015 (current reporting year) Water CAPEX is \$1.1m.

(Water CAPEX 2015)\$1.1m – (Water CAPEX 2014) \$1.0m = +\$0.1m (difference between 2015 and 2014)

(\$0.1m (difference) / \$1.1m (Water CAPEX 2015)) x 100 = +9.09 %

This is reported as ‘+9.09%’ because 2015 Water CAPEX is greater than 2014 Water CAPEX

How to calculate Water OPEX comparison for question W6.4

In 2014 (previous reporting year), Water OPEX is \$0.20m. In 2015 (current reporting year) Water OPEX is \$0.15m.

(Water OPEX (2015) \$0.15m - Water OPEX (2014) \$0.20m) = - \$0.05m (difference between 2015 and 2014)

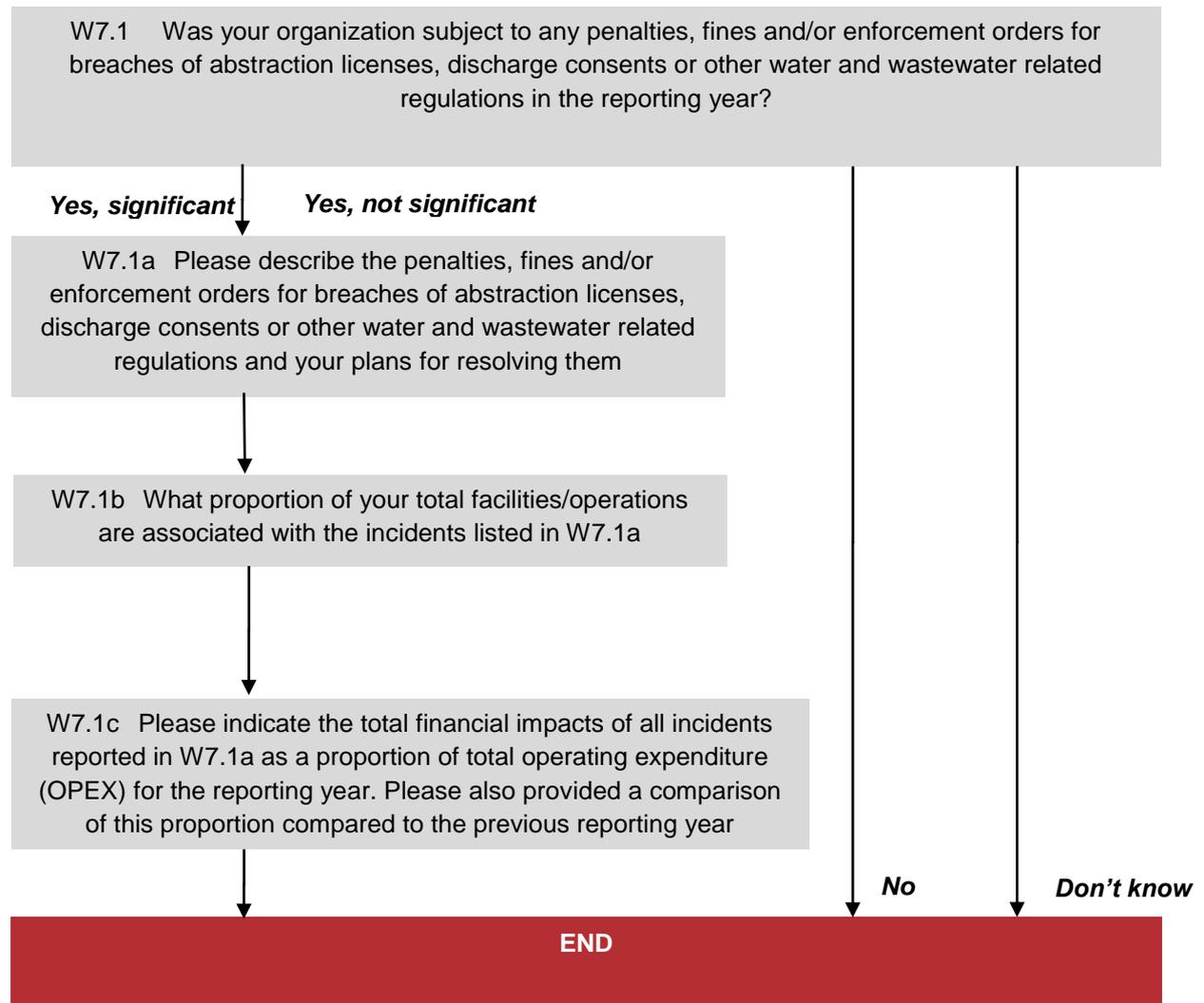
(- \$0.05m (difference) / \$0.15m (Water OPEX 2015)) x 100 = - 33.33 %

This is reported as ‘- 33.33%’ because 2014 Water OPEX is less than 2015 Water OPEX

W7. Compliance

Question Pathway

The following questions are shown on the Response: Compliance page.



General guidance

The compliance module asks companies to disclose to CDP any penalties, fines and/or enforcement orders your organization was subject to in the reporting year. Companies are also encouraged to provide an incident description of the external impacts or effects of the business on ecosystems and/or communities, plus the internal actions or external engagement your company undertook to resolve the incident. Please refer to the CEO Water Mandate Corporate Water Disclosure Guidelines for further guidance on external impacts, internal actions and external engagement.

Key changes from 2016

- There are no changes for 2017.

Pre-population of responses for 2017

If you responded to the water questionnaire last year you can automatically populate the following questions with last year's response by clicking the "copy from last year" button at the bottom of the relevant page in the ORS. You can then modify last year's response as needed. You must click "copy from last year" before completing any fields on each page of the ORS where this function has been enabled.

- The copy from last year function has been provided for question W7.1 only.

Please always remember to review your pre-populated selections to make sure they are still appropriate for 2017. This is particularly important if new data points have been added to questions or if dropdown lists may have been updated. Regarding the latter, if you selected 'Other' to provide a different category from the dropdown list in 2016, you may find that your category has now been included in the 2017 dropdown list. We request that companies use the pre-selected categories as much as possible as this greatly assists investors with data analysis.

Specific question guidance

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?

[Select from]:

- Yes, significant
- Yes, not significant
- No
- Don't know

Please select one of the options from the dropdown menu. Whilst CDP does not provide guidance as to what constitutes 'significant', it is expected that organizations should develop a consistent use of the term throughout their response. Please note that what constitutes a significant breach will vary by local context; however it will usually imply a major impact on the environment, community and/ or business(es).

If your organization needs further guidance as to what constitutes 'significant', CDP recommends companies consider the general definition of "materiality" provided in the GRI Standards as a starting point. This definition puts the onus on companies to determine a materiality threshold based on

internal, industry, and external stakeholder interests. More information is available at the [GRI website](#).

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

This question only appears if you select “Yes, significant” or “Yes, not significant” in response to question W7.1.

You are requested to respond to this question in the table provided in the ORS, reproduced below.

Facility name	Incident	Incident description	Frequency of occurrence in reporting year	Financial impact	Currency	Incident resolution
[open text: 500 characters max]	<ul style="list-style-type: none"> • Penalty • Fine • Enforcement order 	[open text: 500 characters max]	[Numeric]	[Numeric]	[Dropdown]	[open text: 1500 characters max]
Add Row						

If you have multiple penalties or fines, you can enter them into the table by adding more rows using the ‘Add Row’ button to the bottom right.

Guidance on responding to each of the columns is provided below:

- **Facility name**
 - Please specify the name of the facility that was impacted by the penalty and/or fine. This is an open text field that can accept up to a maximum of 500 characters. This maximum includes spaces.

- **Incident category**
 - Please choose the category that most closely matches the type of financial penalty your incident(s) were given.
 - Companies should only report directly related financial costs e.g. fine/penalty/costs related to actions resulting from a breach or enforcement order. Direct costs could be interpreted as costs to the company separate to or in addition to financial penalties and/or fines, such as having to install new technology to meet the requirements of an enforcement order, employ new staff to monitor for compliance etc. This is because compliance breaches may not result in financial penalties and fines but could result in unplanned operational or capital expenditure nonetheless. If there is no cost to the company (that fits this general description), then it is not necessary to report the incident.

- **Incident description**
 - Please use the open text box to provide a brief description of the incident, specifying if the penalty/fine/enforcement order was a result of a breach in abstraction license, a result of a breach in discharge consent or was a result of other water and wastewater related regulations. **Companies are also encouraged to provide an incident description of the external impacts or effects of the business on ecosystems and/or communities.**

- Discharge agreements refer to the volume of water permitted to be discharged and to the quality of this water in terms of chemical constituents. For a list of standard parameters of water pollutants you may refer to Appendix 3 (pp. 103-111) of the [Guidance Document for the Implementation of the European PRTR](#) by the European Commission.
- **Frequency of occurrence in reporting year**
 - Please report the number of times each incident occurred within a reporting year. This column will accept numbers up to 9999999999.
- **Financial impact**
 - Please report any associated fines and penalties or costs related to an enforcement order as a result of this breach of permit/consent. Please report for each facility up to two decimal places. This column will accept numbers up to 9999999999.
- **Currency**
 - Please select the most appropriate currency in relation to the fine.
- **Incident resolution**
 - Please use the open text box to provide a brief description of how your organization has resolved the incident or what plans your organization will be taking to resolve the incident if it is still ongoing, **including internal actions and/or external engagement (please see CEO Water Mandate Corporate Water Disclosure Guidelines)**. Please include any action to minimize the risks of future non-compliance. Actions may include: upgrading facilities, changing treatment methods, decreasing volume of discharge, increasing volumes of reused or recycled water, engaging with policymakers, or engaging with local communities. If your organization has a compliance assurance system in place, please provide details in your response in this column. If you have not been taking such actions, please specify whether you intend to do so in the future. This is an open text field with 1500 characters maximum. This maximum includes spaces.

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

Please provide the proportion of affected facilities in W7.1a compared to your total facilities globally.

For example, if 10 facilities are listed in W7.1a and you have 100 facilities worldwide, then the response to W7.1b would be 10 percent.

A figure between 0-100 will be accepted only. If the figure is below 100, up to two decimal places are permitted.

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
[numeric] <i>N.B. can be positive or negative percentage so keep as numeric field</i>	[Select from]: <ul style="list-style-type: none"> • Much lower • Lower • No change • Higher • Much higher

This question assesses if your organization has seen an increase or a decrease in water penalties as a year on year proportion of total operating expenditure.

Firstly, please determine your organization's total amount of penalties (as listed in W7.1a) as a proportion of total OPEX for the reporting year. Please report this proportion in the first column.

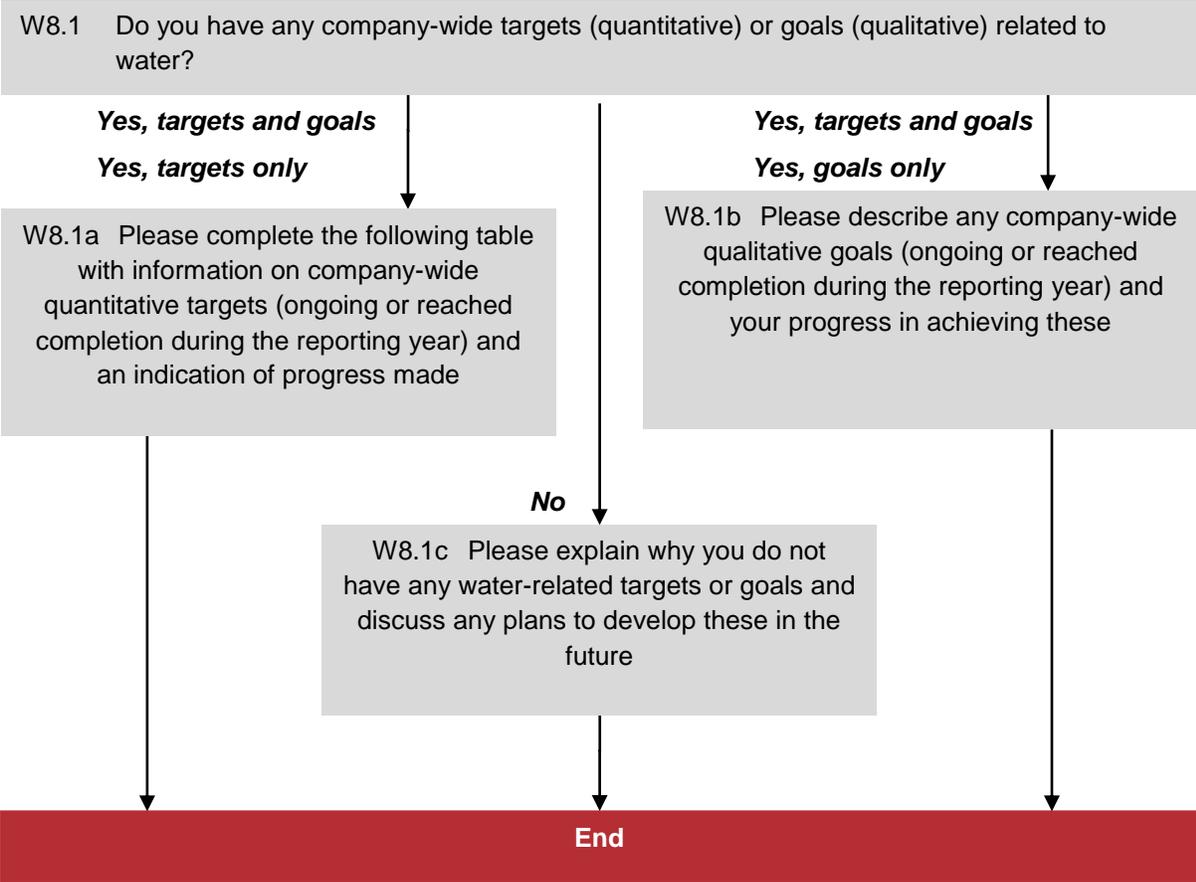
Secondly please determine from the previous reporting year your organization's total amount of water penalties and/or fines for breaches of abstraction, licenses, discharge contents or other water and wastewater related regulations as a proportion of OPEX for the previous reporting year **and compare this figure to the current reporting year proportion.**

Finally, please select from the drop down menu provided whether the proportion of total penalties and/or fines, as a proportion of OPEX, has increased or decreased and by how much or if there has been no change.

W8. Targets and initiatives

Question Pathway

The following questions are shown on the Response: Targets and initiatives page.



General guidance

The final module aims to understand the company-wide targets and initiatives set for your organization for the reporting year. CDP asks that you detail both the quantitative and qualitative targets and goals your organization sets and communicates.

Several categories of activities are provided as starting points, based on the six principles of the CEO Water Mandate, and examples of these activities are provided in the specific question guidance. A comprehensive listing of your company's activities is encouraged.

The questions allow you to:

- report on water actions that your organization has taken which fall outside your 'company fence line'.
- demonstrate to investors how your targets and goals are linked to the water risks and impacts you have disclosed.

Key changes from 2016

- There are no changes from last year.

Pre-population of responses for 2017

If you responded to water last year you can automatically populate the following questions with last year's response by clicking the "copy from last year" button at the bottom of the relevant page in the ORS. You can then modify last year's response as needed. You must click "copy from last year" before completing any fields on each page of the ORS where this function has been enabled.

- The copy from last year function has been provided for W8.1, columns 1-4 in W8.1a, columns 1-3 in W8.1b, and W8.1c.

Please always remember to review your pre-populated selections to make sure they are still appropriate for 2017. This is particularly important if new data points have been added to questions or if dropdown lists may have been updated. Regarding the latter, if you selected 'Other' to provide a different category from the dropdown list in 2016, you may find that your category has now been included in the 2017 dropdown list. We request that companies use the pre-selected categories as much as possible as this greatly assists investors with data analysis.

Specific question guidance

W8. Targets and initiatives

W8.1 Do you have any company wide targets (quantitative) or goals (qualitative) related to water?

[Select from]:

- Yes, target and goals
- Yes, targets only
- Yes, goals only

- No

Please select from the drop down menu the option that best describes your organization’s current practice. Please select a “Yes” route only if your organization has set targets and goals for the current reporting year.

W8.1a Please complete the following table with information on company-wide quantitative targets (ongoing or reached completion during the reporting year) and an indication of progress made

This question only appears if you select “Yes, targets and goals” or “Yes, targets only” in response to question W8.1.

You are requested to respond to this question in the table provided in the ORS, reproduced below. A sample answer is included for your reference.

Category of target	Motivation	Description of target	Quantitative unit of measurement	Base-line year	Target year	Proportion of target achieved, % value
[Select from]: <ul style="list-style-type: none"> • Absolute reduction of water withdrawals • Reduction in consumptive volumes • Reduction of product water intensity • Reduction in wastewater • Water pollution prevention • Increased access to Water, Sanitation and Hygiene • Community engagement • Improvement in monitoring of water use Other, please specify	[Select from]: <ul style="list-style-type: none"> • Brand value protection • Cost savings • Increased revenue • Recommended sector best practice • Risk mitigation • Sales of new products / services • Shared value • Water stewardship Other, please specify	[open text: 1500 characters max]	[Select from]: <ul style="list-style-type: none"> • % increase in rainwater harvesting per facility • % increase in rainwater harvesting per product • % increase in recycling / reuse per facility • % increase in recycling / reuse per product • % increase of wastewater reclamation per facility • % increase of wastewater reclamation per product • % reduction in concentration of contaminants per discharge volume • % reduction of water sourced from groundwater • % reduction of water sourced from municipal supply • % reduction of water sourced from surface water • % reduction per business unit 	[Numeric]	[Numeric]	[Numeric]

			<ul style="list-style-type: none"> • % reduction per dollar revenue • % reduction per employee • % reduction per product • % reduction per unit of production • % sites monitoring water use Other, please specify 			
Add Row						

If you have multiple targets, you can enter them into the table by adding more rows using the ‘Add Row’ button to the bottom right.

Guidance on responding to each of the columns is provided below:

- **Category of target**
 - Please select the category of target applicable to your organization. You will have an opportunity to describe your target in more detail in the third column, so please pick the option that is closest to what your organization’s target specifies. If there is not an option that is applicable, please select “Other, please specify” and a text box will become available so that you can write in your own category of target. This is suitable for **targets that aim to stabilize previous targets, for example, in water efficiency.**

- **Motivation**
 - Please select from the drop down menu the primary motivation behind the target set by your organization. If there is not an option that is applicable to your organization, please select “Other, please specify” and write in your own motivation.

- **Description of target**
 - Please provide additional company specific details that will help CDP understand your organization’s target and why it was chosen. Please include how company level targets are informed by substantive challenges at the local level. For example: “Discharge treatment was found to be inadequate across several sites in different geographies. We have set a company- wide goal of reviewing this risk and setting a company-wide 100% compliance target to meet or go beyond regulatory requirements”. Please aim to include what investment in financial or personnel resources is necessary to achieve the target. This is an open text box with a maximum of 1500 characters. This maximum includes spaces.

- **Quantitative unit of measurement**
 - Please select from the drop down menu how your organization quantitatively measures the success of this target. There are a number of options available that provide a unit of measure for targets related to your organization’s direct operations, supply chain, and watershed management. If none of the options are applicable to your target, please select “Other, please specify” and include your organization’s unit of measurement, **including metrics measuring the stabilization of previous targets, for example, in water efficiency.**

- **Baseline year**
 - Please enter a whole number between 1900 and 2016. If you have a year-on-year rolling target, your base year will be the previous reporting year. If you have a target based on financial years, please enter the year that applies to the end of your previous financial year. If you have a target based on an average (e.g. five year average), please enter the year that applies to the end of the average period.

- **Target year**
 - Please enter a whole number between 2000 and 2100. If you have a year-on-year rolling target, your target year will be the current reporting year. If you have a target based on financial years, please enter the year that applies to the end of your financial year. If you have a target based on an average (e.g. five years average), please enter the year that applies to the end of the average period. You should not be reporting any target that was completed before the start of the reporting year e.g. 2015 when the reporting year is 2016.

- **Proportion of target achieved, % value**
 - Please include a numerical value that indicates how much progress your organization has made in the reporting year towards achieving your target. Please report the value up to two decimal places

W8.1a Sample Response – for guidance only

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	Cost savings	Our goal is to reduce our absolute water withdrawals from wholly-owned breweries by 40% by 2018 against a baseline year of fiscal 2010. Water use was identified as our most material environmental impact and this challenging reduction target is a key pillar of our Corporate Sustainability Strategy for the next 3 years.	% reduction of water sourced from surface water from the River Kennet	2010	2018	47%
Water pollution prevention	Water stewardship	As a major stakeholder in the Tana river basin, we are working with other catchment stakeholders to mitigate water pollution	% reduction in concentration of contaminants per discharge volume	2008	2020	20%

		by creating a self-regulated water management plan with shared responsibilities and concrete goals- to be implemented in 2014 to ensure a long-term sustainable river environment for all river users.				
--	--	--	--	--	--	--

W8.1b Please describe any company wide qualitative goals (ongoing or reached completion during the reporting year) and your progress in achieving these

This question only appears if you select “Yes, targets and goals” or “Yes, goals only” in response to question W8.1.

You are requested to respond to this question in the table provided in the ORS, reproduced below.

Goal	Motivation	Description of goal	Progress
[Select from]: <ul style="list-style-type: none"> • Providing access to WASH in workplace • Providing access to WASH in local communities • Strengthen links with local community • Educate customers to help them minimize product impacts • Engagement with public policy makers to advance sustainable water policies and management • Engagement with suppliers to help them improve water stewardship • Sustainable agriculture • Watershed remediation and habitat restoration, ecosystem preservation • Other, please specify 	[Select from]: <ul style="list-style-type: none"> • Brand value protection • Cost savings • Increased revenue • Recommended sector best practice • Risk mitigation • Sales of new products / services • Shared value • Water stewardship • Other, please specify 	[open text: 1500 characters max]	[open text: 1500 characters max]
Add Row			

If you have multiple targets, you can enter them into the table by adding more rows using the ‘Add Row’ button to the bottom right.

Guidance on responding to each of the columns is provided below:

- **Goal**
 - Please select the goal that is most applicable to your organization. You will have an opportunity to describe your goal in more detail in column three, so please pick the option that is closest to what your organization’s goal specifies. If there is not an option that is

applicable, please select “Other, please specify” and a text box will become available so that you can write in your own category of target.

- A goal is considered to achieve a longer term qualitative outcome or a specific change in behavior or circumstances, as opposed to a target which is generally a specific measurable output within a specific timeline. Goals are often under constant review and targets could feed into goals. Please see the sample response for W8.1b below for examples of goals.

- **Motivation**

- Please select from the drop down menu the primary motivation behind the goal set by your organization. If there is not an option that is applicable to your organization, please select “Other, please specify” and write in your own motivation.

- **Description of goal**

- Please provide additional details that will help CDP understand your organization’s goal. Please include the measure of success of your goal (consider; how will you know when the goal has been achieved?); what your date or timescale for completion of the goal is (consider; how long do you plan to work on this goal?); and why this goal was adopted by your company. This is an open text box with up to a maximum of 1500 characters.

- **Progress**

- Please provide details as to how your organization measures the progress made in achieving your organization’s goal. Please specify the progress made against each goal achieved by the end of your reporting year as well as the financial and personnel resources that have been committed towards achieving it. This is an open text box with a maximum of 1500 characters. This maximum includes spaces.

W8.1b Sample Response – for guidance only

Goal	Motivation	Description of goal	Progress
Show consistent progress towards the six focus areas of the CEO Water Mandate	Other: As a signatory and supporter of the Mandate, the importance of water to our production processes and being one of the key water users in the areas we operate in (Vaal region), it is a strategic priority for us to show consistent progress on the Mandate six focus areas. We have been self-assessing our progress against the focus areas following development of relevant KPIs that are specific to our operations.	KPIs are reviewed, updated and extended annually to reflect water stewardship best practice and progress is measured against them. For example, a KPI on transparency (one of the CEO Water Mandate’s focus areas) is to continue to publicly disclose to CDP Water. For each KPI we rate progress as “Implemented”, “In progress”, “Stalled” or “On hold”, with additional ratings of “Ahead of schedule / On schedule” or “Behind schedule. We aim for 75% of KPIs to be in	For 2015 85% of KPIs were ranked as “In progress” or “Implemented”, “Ahead of schedule” or “On schedule”, which exceeded our target of 75%.

		progress and on time or better each year.	
--	--	---	--

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 [open text: 1500 characters max]

This question only appears if you select "No" in response to question W8.1.

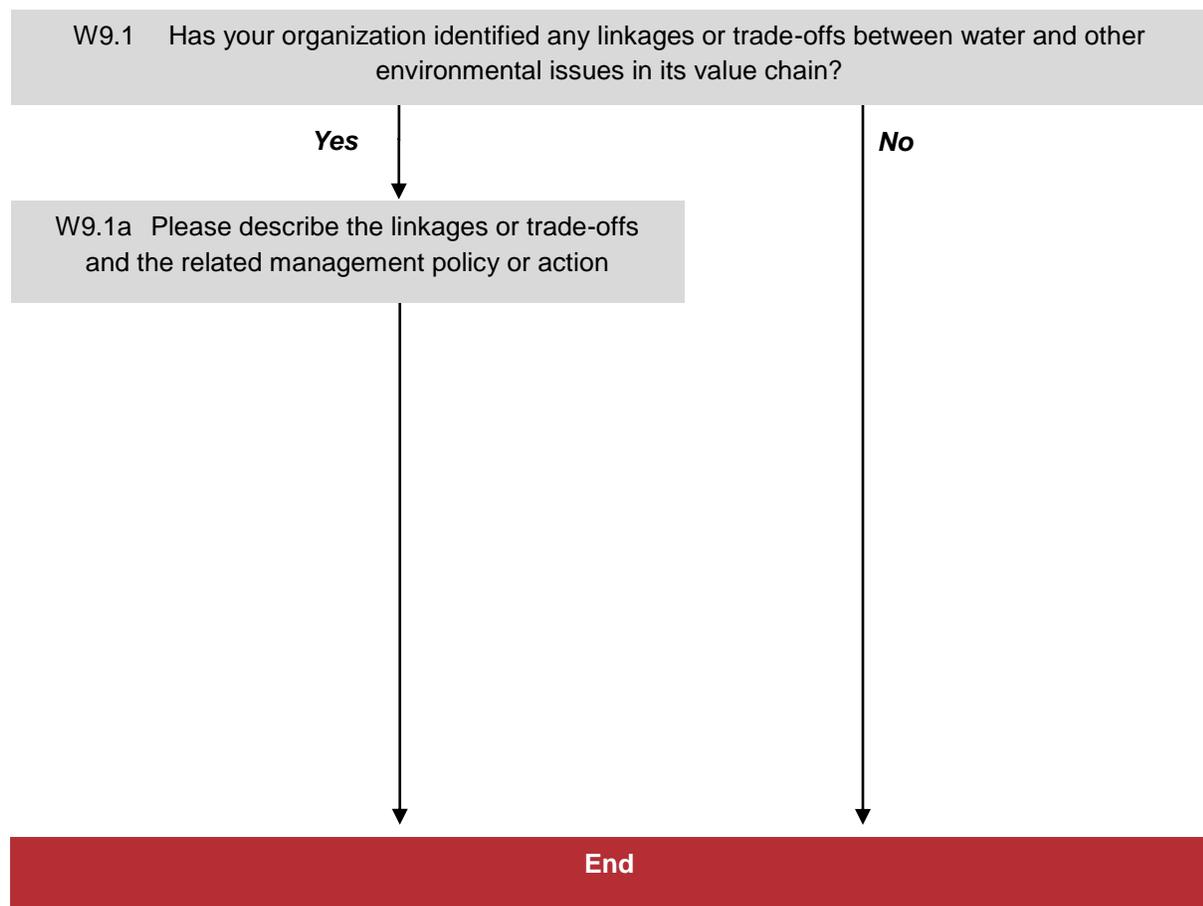
Please use this open text field to provide any relevant details explaining why your organization does not have any targets or goals for the reporting year. If your organization has plans to develop these in the future, please include any information detailing your future plans here.

Linkages and Trade-offs Module Guidance

W9. Linkages and trade-offs

Question Pathway

The following questions are shown on the linkages and trade-offs page.



General guidance

This question seeks to understand how water may impact on risks, impacts, opportunities and decision-making in other areas of sustainability, e.g. maintaining local ecological standards, transfer to renewable energy sources, securing food quotas, reducing deforestation etc.

You may wish to report linkages and trade-offs in your direct operations between areas like water efficiency and carbon management for example, or in your supply chain such as better agricultural practices linked to improving water quality.

You may wish to also report on regulatory issues where government have set policies that indirectly impact on water use or water quality in an effort to solve another environmental issue. Or conversely you may describe current or future policy or regulation on water that has had a positive or negative impact on other sustainability issues for your industry. This will provide insight to investors and policy-makers how these policies are being implemented and managed at operational level by businesses and which environmental issues are considered a priority for your business and why.

Key changes from 2016

- There are no changes for 2017.

Pre-population of responses for 2017

If you responded to the water questionnaire last year you can automatically populate the following questions with last year's response by clicking the "copy from last year" button at the bottom of the relevant page in the ORS. You can then modify last year's response as needed. You must click "copy from last year" before completing any fields on each page of the ORS where this function has been enabled.

- The copy from last year function has been provided for questions W9.1 and W9.1a.

Please always remember to review your pre-populated selections to make sure they are still appropriate for 2017. This is particularly important if new data points have been added to questions or if dropdown lists may have been updated. Regarding the latter, if you selected 'Other' to provide a different category from the dropdown list in 2016, you may find that your category has now been included in the 2017 dropdown list. We request that companies use the pre-selected categories as much as possible as this greatly assists investors with data analysis.

Specific question guidance

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?

[Select from]:

- Yes
- No

Please select "Yes" or "No. This question asks about linkages and trade-offs identified and/or considered when taking actions to manage risks or pursue opportunities related to water and other environmental

issues. You may include linkages and tradeoffs throughout your *operations and supply chain and may also include local, national and regional environmental policy*. For definitions please see Box 23: Linkages and trade-offs between water and other environmental issues.

Box 23: Linkages and trade-offs between water and other environmental issues

Changes in the physical, regulatory, and market environment are likely to increase pressure to consider water in multiple environmental contexts. Increasingly, companies will be required to manage water withdrawals, consumption, and discharges simultaneously with management of other environmental issues e.g. energy consumption and greenhouse gas emissions. Understanding the linkages and trade-offs between water and other environmental issues will help companies seize the potential of managing them more holistically.

A **linkage** is a relationship where water and another environmental issue are correlated. For example, extracting, processing and treating water requires energy, and energy production often requires water as a medium of heat transfer. Increasing water efficiency where there is a linkage with energy will most likely also lead to greater energy efficiency.

Improved farming practices such as more effective application of fertilizer may increase the productivity of crop yields but also contributing to less polluted run-off entering local streams and rivers.

A **trade-off** is an inverse correlation between an environmental issue and water use. For example, mitigating water scarcity by desalination can significantly increase energy use because desalination is traditionally energy intensive. Conversely, using bio-fuels to reduce greenhouse gas emissions may result in much greater water use because of the agricultural production required to manufacture most bio-fuels.

Information on water-energy linkages/trade-offs and strategic approaches to joint management of these resources can be found in the following documents:

- The Role of Water in the Low-[Carbon](#) Transition, CDP Policy Briefing (2016)
- Pacific Institute and the United Nations Global Compact (2009), [“Climate Change and the Global Water Crisis: What Businesses Need to Know and Do”](#).
- World Business Council for Sustainable Development (2009), [“Water, Energy and Climate Change: A Contribution from the Business Community”](#).

If “Yes”:

W9.1a Please describe the linkages or trade-offs and the related management policy or action

Environmental issue	Linkage or trade-off	Policy or action
[open text: 500 characters max]	<ul style="list-style-type: none"> ▪ Linkage ▪ Trade-off 	[open text: 1500 characters max]
Add Row		

In the first column, please report briefly what the environmental issue is that you wish to report (this field has a maximum of 500 characters). In the second column, please choose whether you wish to report a linkage or tradeoff that you have identified between water and this environmental issue (see Box 23: Linkages and trade-offs between water and other environmental issues). Next please describe the related management policy or action. The latter column is a free text field; all entries should be less than 1500 characters.

Your answer should aim to include the following:

- A description of the linkages and/or trade-offs between water and the other environmental issues identified by your company
- Detail on the actions taken that gave rise to these linkages and/or tradeoffs
- Detail on the management policy when facing the challenge of a tradeoff or the opportunity of a linkage between water and another environmental issue.

Qu9.1a – SAMPLE RESPONSE

Environmental issue	Linkage or trade-off	Policy or action
Carbon management	Trade-off	<p>Refrigeration and air-conditioning systems that use water cooling towers are often more carbon-efficient than air cooled or mechanical systems that use more energy. However, this creates a demand for more water from overstretched municipal supplies. Such cooling systems are essential to our ability to distribute food to our supermarkets with minimum spoilage and waste but potentially have a severe impact in water-stressed parts of South Africa.</p> <p>We invested in refrigeration and air conditioning systems at two distribution centers in 2015 that utilize rainwater harvesting, saving both energy and water (16.4 million liters), compared to the older systems they replaced that used water cooling towers dependent on municipal water supplies.</p>
Biodiversity	Linkage	<p>Reducing water usage in our facilities reduces the impact on wetland habitats threatened by water scarcity. In addition to implementing water efficiency measures such as condensing equipment at our potato processing factory in East Anglia, we have partnered with the Fens Restoration Trust to provide staff volunteering programs to help protect the local wetland habitat. Educating staff about the linkages between reduced water use and protection of local</p>

		threatened species helps induce positive behavior changes around water to complement the technical solutions we installed. We are investigating how we can repeat this model at other sites globally.
--	--	---

Sign off Module Guidance

W10. Sign off

Question Pathway

The following questions are shown on the linkages and trade-offs page.

W10.1 Please provide the following information for the person that has signed off (approved) your CDP water response

W10.2 Please select if your organization would like CDP to transfer your publicly disclosed response strategy data from questions W1.4a, W3.2c and W3.2d to the CEO Water Mandate Water Action Hub.

End

General guidance

These questions are included for sign-off by a senior representative of your organization.

Question W10.1 is mandatory and will be scored. Question W10.2 is voluntary and is not scored.

Key changes from 2016

- W10.1: Additional options for job categories.
- W10.2: Question rewording for clarification only
- W10.2: Description of the process for sharing data has been updated.

Pre-population of responses for 2017

The copy from last year function is not available for this module.

Specific question guidance

W10.1 Please provide the following information for the person that has signed off (approved) your CDP water response.

CDP asks companies to identify the person that has signed off (approved) your CDP water response. This information signals to investors that responsibility is being taken for the response and the information contained therein.

Please provide your response in the table in the ORS and reproduced below.

Name	Job title	Corresponding job category
[open text: 200 characters max]	[open text: 200 characters max]	<ul style="list-style-type: none">• President• Board chairman• Board/Executive board• Director on board• Chief Executive Officer (CEO)• Chief Financial Officer (CFO)• Chief Operating Officer (COO)• Other C-Suite Officer • Business unit manager• EHS manager• Energy manager• Environment/Sustainability manager• Facilities manager• Process operation manager• Procurement manager• Public affairs manager• Risk manager• Other, please specify

This question is not enabled for pre-population.

Transfer of public CDP data to the CEO Water Mandate [Water Action Hub](#)

W10.2 Please indicate that your organization agrees for CDP to transfer your publicly disclosed data regarding your response strategies to the CEO Water Mandate Water Action Hub

[Select from]:

- Yes
- No

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

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

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. The CEO Water Mandate Water Action Hub is a collective action platform allowing interested parties working in multiple geographic locations to connect and work together to solve local and regional water challenges. For more details on the CEO Water Mandate Water Action Hub, please visit <https://wateractionhub.org/>

If you select “Yes”, CDP will provide 2017 public response data from three questions to the CEO Water Mandate Water Action Hub. Only responses for the following specific data points will be transferred:

- W1.4a: Country; River basin; Response strategy; Description of response strategy
- W3.2c & d: Country; River basin; Response strategy; Details of strategy and costs

If your responses are a good fit for sharing publicly on the Hub’s website, CDP will provide the CEO Water Mandate with the email address of the registered user for your CDP water response.

The Hub administrator will alert them that your company’s data includes a suitable project. For a fixed period of time, there will be an opportunity to review and amend the project details and determine whether the associated contact information will be public or private. After this period, the project will be published and your company notified. Displaying contact details allows other users of the CEO Water Mandate Water Action Hub to request further information, engagement and potential collaboration on your projects/response strategies. Log-in information provided to you directly from the CEO Water Mandate will enable you to make amendments to the project profile and contact details at any time.

This question is not enabled for pre-population.

Water Supply Chain Module Guidance

Introduction to this module

This module has been prepared for companies responding to Requests for Information on Water on behalf of CDP's Supply Chain members. It has been developed following consultation with both suppliers and CDP Supply Chain members. Its purpose is to facilitate improved understanding for customers of their supplier's management of water using supplier specific questions.

The Water Module builds on specific information requested in the core Water Questionnaire that customers are interested in. This information includes facilities exposed to water risk, projects to improve water stewardship and aspects of water accounting. Further guidance for the more detailed supplier related questions can be found below.

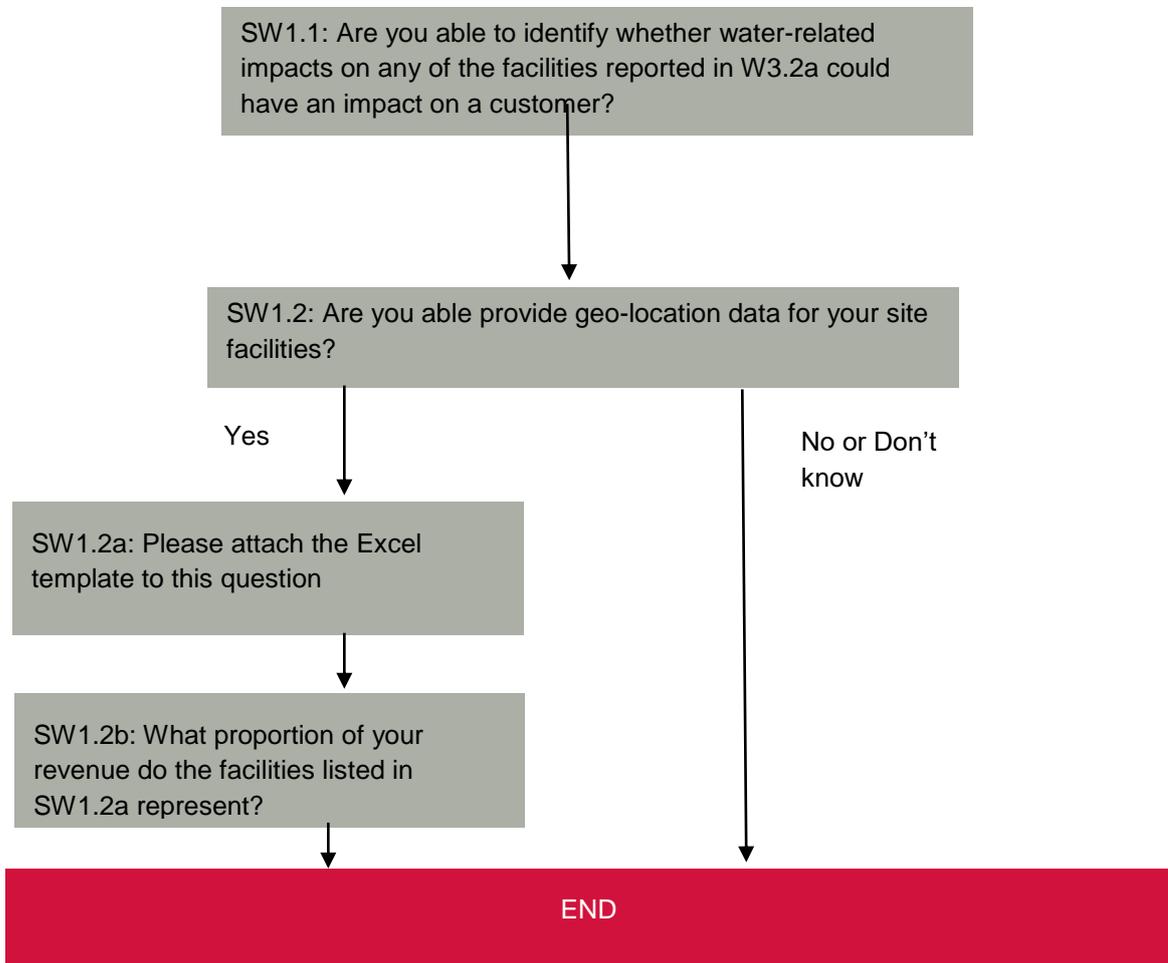
Please note that as the Supply Chain Water Module has added additional questions in SW1.2. Please see below for specific question guidance.

Scoring

Please note that the Supply Chain Water Module is not scored. This applies to all responding companies.

SW1: Facilities Exposed To Water Risk

Question pathway



General Guidance

CDP Supply Chain members are becoming increasingly aware that water risks may exist in their supply chain that could impact their business. To facilitate their understanding of these potential water risks, your customer firstly would like to know which (if any) of the facilities reported in question W3.2a produce goods or services related to his/her spend with you. This is reflected in question SW1.1. Question W3.2a is located in the “Implications” module of the core Water Questionnaire.

Key Changes from 2016

- Question SW1.2 has been added for 2017. This question is simply to identify if suppliers are able to report geolocation data for their site facilities.
- Question SW1.2b has been added for 2017. It asks suppliers to identify what proportion of revenue the facilities with geolocation data represent.

Pre-population

No questions on this page are eligible for pre-population.

Specific Question Guidance

SW1.1: Are you able to identify whether water-related impacts on any of the facilities reported in W5.1a could have an impact on a customer?

Please note that this table (for SW1.1) is designed so that only the customer that you select in column ("Please select the requesting member(s)") will be able to see the data relevant to them. If you enter an answer without selecting a requesting member, your answer will not be viewable at all.

Please select the facilities	Please select the requesting member(s)	Comment
[Multi-select facility reference number]	[Name of requesting member]	[Text answer of up to 2500 characters]
		Add Row

Please remember to assign the correct water facility as identified in question W5.1 in the core Water Questionnaire.

In question W3.2a, you were asked to identify the number of facilities exposed to water risks that could generate a substantive change in **your** business, operations, revenue or expenditure. In question W5.1, you were then requested to provide water accounting data for each of these facilities, providing each facility with a unique identifier.

Question SW1.1 is asking whether any of the facilities that you reported in W3.2a could also have an impact on a requesting customer. As you provided each of the facilities with a unique identifier in W5.1, please use that same identifier to refer to specific facilities that may impact the requesting members.

Column 1: Please select the facility

- For each of the members selected in column 2, please select any facilities that you identified as being exposed to water risks that can cause a substantive impact to your business that may impact this customer. For example, you may have identified 4 facilities in question W3.2a, each producing different goods and services. For one of your members, you may sell products to them that are produced in Facility 3. In this example please only tick Facility 3.
- For more information on what is substantive, please refer to the core [Water Guidance](#).

Column 2: Please select requesting member(s)

- Please note that this table is designed so that only the customer that you select in column 2 will be able to see the data relevant to them. If you enter an answer without selecting a requesting member, your answer will not be viewable by anyone.

Column 3: Comment

- If you cannot track facilities to customers, then please provide an explanation as to why not in the comment field and if you have future plans to address this. Alternatively, you can tailor your response with other relevant information.
- This column can contain up to 2500 characters, including spaces.

SW1.2: Are you able provide geo-location data for your site facilities?

Please select from the following options:

- Yes
- Don't know
- No, as this is commercially sensitive data
- No

There are different ways in which a company can provide geo-location data. These can take the form of coordinates, postcodes and addresses. When answering this question, CDP recommends that you provide this information in the form of latitude and longitude. To help you do this, CDP has provided your company an Excel template, which you can download below in SW1.2a. You may choose to provide this information in a different format, however, please be aware that this will limit the usability of the data.

Latitude and longitude are geographic coordinates that specify, respectively, the north-south and east-west position, of a point on the Earth's surface. They are expressed as angular measures and thus, latitude can vary from +90 to -90 and longitude from 180 to -180.

The geodetic system that should be used is the WGS 84, which is the system used by GPS (Global Positioning System), Google Maps, Google Earth and all major web applications providing coordinates to users. In case you do not have this information and want to locate your facilities using the internet, there are various web tools available to assist companies getting latitude and longitude coordinates according to WGS84. For example, [iTouchMap](#) allows you to enter an address or identify a location on a map and will return the latitude and longitude coordinates.

This information will be useful to link CDP data with maps which show areas of greater of water stress, and the types of risk exposure in those water stressed areas.

If you are unable to provide this data please select either "No", "Don't know" or "No, as this is commercially sensitive data", which will lead to the end of this question module.

SW1.2a: Please attach the Excel template to this question

This question only appears if "Yes" is selected in response to question SW1.2.

You may [download the Excel template](#) to facilitate filling out your response. To attach the template, click on "Browse" to locate the appropriate file and then "Attach" to attach the document to the response. Please ensure that your attachment is under 5MB. Note the requirements and the option to use the CDP template. If you have multiple documents, you should attach these as a zip file.

Facility	Facility type (dropdown)	Longitude (e.g. -120.9762)	Latitude (e.g. 41.25)
[Multi-select facility reference number]	<ul style="list-style-type: none"> • Farming • IT • Manufacturing • Office Space • Production site • Storage facility 		

	<ul style="list-style-type: none">• Other, please specify		
--	---	--	--

SW1.2b: What proportion of your revenue do the facilities listed in to SW1.2a represent?

This question only appears if “Yes” is selected in response to question SW1.2.

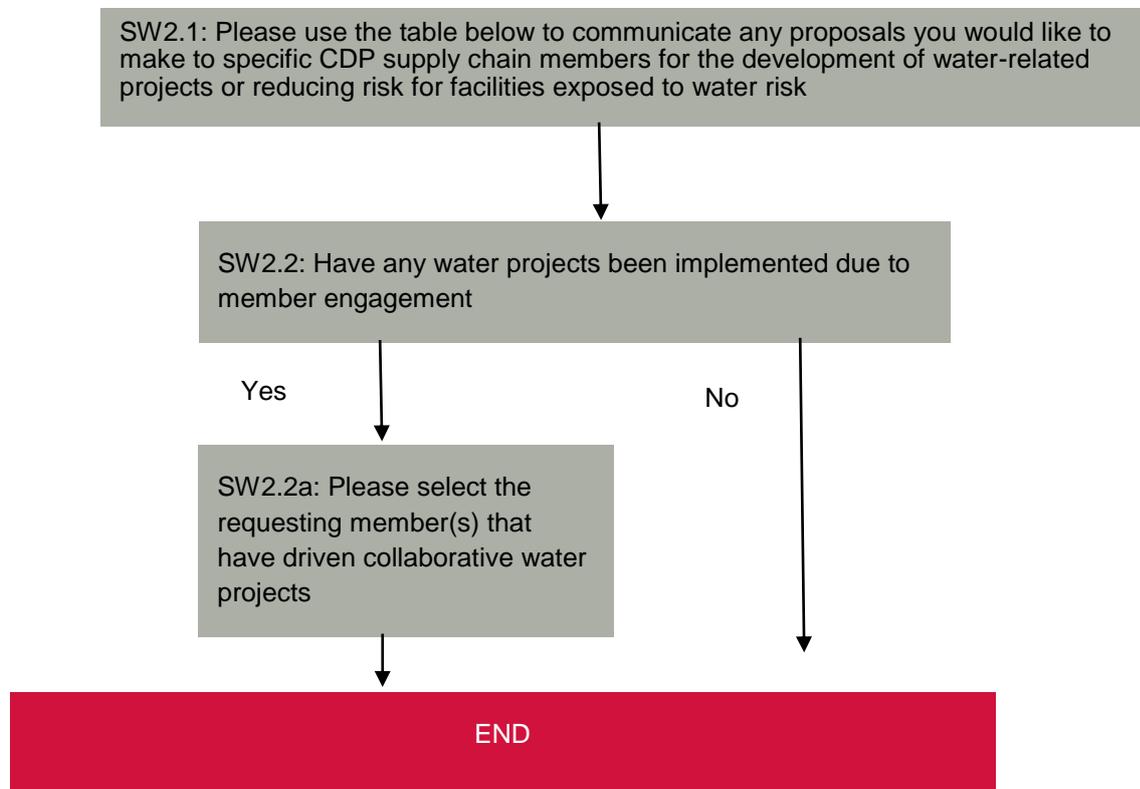
Please select from the following options:

- Less than or equal to 2%
- More than 2% but less than or equal to 5%
- More than 5% but less than or equal to 10%
- More than 10% but less than or equal to 20%
- More than 20% but less than or equal to 30%
- More than 30% but less than or equal to 40%
- More than 40% but less than or equal to 50%
- More than 50% but less than or equal to 60%
- More than 60% but less than or equal to 70%
- More than 70% but less than or equal to 80%
- More than 80% but less than or equal to 90%
- More than 90% but less than or equal to 100%

This question is directly referring to the excel template that you attached in question SW1.2a. Your customer would like to know what proportion of your revenue that the facilities listed in the Excel template represent. For example, suppose you have 20 facilities but you only reported the 10 you have geo-location data for in the Excel template. Though the facilities you reported are half of your total facilities, suppose that they represent the majority of your revenue, about 85%. You would select “More than 80% but less than or equal to 90%”.

SW2: Collaborative Water Opportunities

Question pathway



General guidance

These questions aim to understand what opportunities you and your customer can pursue to improve water impacts and to mitigate water risks to both your and their business. It can also be used to strengthen communication between you and your customers and help drive innovative new partnerships. As many companies are at the beginning of their water stewardship progression, this is a way in which both suppliers and customers can establish best practice. In many cases, you may be aware of water risks to your business, but may not know what projects to implement. In this case you may wish to refer to the [CEO Water Mandate Water Action Hub](#) as a starting point and search for comparable water issues and solutions.

Please do NOT include details of existing commercial offerings of which your customer will already be aware. Use this as an opportunity to think about **new ways** that you can work with your customer to reduce water risks and impacts to your business. You should not feel obliged to complete this question if you do not have any proposals.

Please note that the two tables are designed so that only the customer that you select in column 1 (“Please select requesting member”) will be able to see the data relevant to them. If you enter an answer without selecting a requesting member, your answer will not be viewable at all.

Any data or attachments added to the Further Information field at the end of the page will be viewable by **all** requesting members. If you choose to make your response public, all text and attachments in the “Further Information” fields will be placed on our public website.

Key Changes from 2016

There are no question changes on this page.

Pre-population

No questions on this page are eligible for pre-population.

Specific question guidance

SW2.1: Please use the table below to communicate any proposals you would like to make to specific CDP Supply Chain members for the development of water-related projects or reducing risk for facilities exposed to water risk

Please note that this table (for SW2.1) is designed so that only the customer that you select in column 1 (“Please select requesting member”) will be able to see the data relevant to them. If you enter an answer without selecting a requesting member, your answer will not be viewable at all.

Please select requesting member(s)	Motivation	Type of project	Estimated timeframe for project to be achieved	Projected outcome	Financial benefits	Details of project
[Dropdown menu of names of requesting members]	<ul style="list-style-type: none"> Reducing water withdrawal Collaboration on water policy Improving quality of water discharge Other, please specify 	<ul style="list-style-type: none"> Education Investment in infrastructure New products/ services/ processes Training Other, please specify 	<ul style="list-style-type: none"> 0-1 year 1-3 years 3-5 years Other, please specify 	[A text answer of up to 2500 characters]	[A text answer of up to 2500 characters]	[A text answer of up to 5000 characters]
Add Row						

Column 1: Please select requesting member(s)

- Please note that this table is designed so that only the customer that you select in column 1 will be able to see the data relevant to them. If you enter an answer without selecting a requesting member, your answer will not be viewable at all.

Column 2: Motivation

- Please select the reasons why you are proposing a new project. This could refer back to a physical reason, for example a physical risk such as declining water quality in a specific basin. There may be many motivations why you wish to implement a particular water project with a customer. In this case, please select the primary motivation.

Column 3: Type of project

- Please select the type of water project you wish to implement. While you may have identified a particular motivation, you may not know the specific type of water project that is most appropriate for that motivation. You may wish to refer to the [CEO Water Mandate Action Hub](#) for comparable water issues and solutions.

Column 4: Estimated timeframe for project to be achieved

- Please select from the dropdown menu the most appropriate timeline for that water project to be realized.

Column 5: Projected Outcome

- Please outline how your company and your customer can benefit if this project were to be implemented. For example, it may be that collaborating to influence stronger local water policy will result in improved water quality locally in the basin where you produce products for your customer and reduce costs for water treatment.
- This column can contain up to 2500 characters, including spaces.

Column 6: Financial benefits

- Please describe, if any, the potential financial benefits to both you and your customers' organizations.
- This column can contain up to 2500 characters, including spaces.

Column 7: Details of project

- Please outline any extra details to your customer in this field.
- This column can contain up to 5000 characters, including spaces.

SW2.2: Have any water projects been implemented due to member engagement?

- Yes
- No

If you respond "No" to this question, you will reach the end of the question page.

SW2.2a: Please select the requesting member(s) that have driven collaborative water projects

This question only appears if "Yes" is selected in response to question SW2.2.

Please note that this table (for SW2.2a) is designed so that only the customer that you select in column 1 ("Please select requesting member") will be able to see the data relevant to them. If you enter an answer without selecting a requesting member, your answer will not be viewable at all

Please select the requesting member(s) that have driven a project	Describe the project	How much progress have you made towards the implementation of this project?
[Dropdown of names of requesting members]	[A text answer of up to 5000 characters]	[A text answer of up to 2500 characters]
Add Row		

Column 1: Please select the requesting member(s) that have driven a project

- Please note that this table is designed so that only the customer that you select in column 1 will be able to see the data relevant to them. If you enter an answer without selecting a requesting member, your answer will not be viewable by anyone.

Column 2: Describe the project

- Please use this field to describe the initiative. This as an opportunity to inform your customers whether any previous engagement with them has driven solo water projects in your organization.
- This column can contain up to 5000 characters, including spaces.

Column 3: How much progress have you made towards the implementation of this project?

- Please describe your project progress
- This column can contain up to 2500 characters, including spaces.

SW3: Product Water Intensity

Question pathway

SW3.1: For the reporting period, please provide any available water intensity values for your organization's products or services across its operation

END

General guidance

Product is a term that means good or service. Water product footprinting methodologies are currently becoming more standardized, particularly with the development of ISO14046. CDP Supply Chain members are becoming increasingly interested in the water footprint of their purchased products. In particular, they are interested in the water intensity of the products they purchase, specifically for those products that are produced in facilities exposed to water risk (where that risk is related to access to water or physical scarcity), and are focused on reducing the direct and indirect water use of that product.

Question SW3.1 is referring to intensity figures for geographical areas/business units across the entire organization. It is not excluded to just those facilities which are exposed to substantive risk as identified in W3.2a. However, this may be of more interest to your customers. While a company does not have to provide all intensity figures for all their products, they may wish to consider those that are located in water stressed regions or represent the largest proportion of spend. Organizations should particularly consider the goods or services that they provide to the members of CDP Supply Chain that are requesting their data – and try to provide information on those products. Please note that organizations should not limit themselves to providing data on just those products.

Pre-population

No questions on this page are eligible for pre-population.

Key Changes from 2016

There are no question changes on this page

Specific question guidance

SW3.1: For the reporting period, please provide any available water intensity values for your organization's products or services across its operation

You are requested to respond to this question in the table provided in the ORS, reproduced below. A sample response is included below.

Country	River basin	Product name	Product unit	Water unit	Water intensity (Water unit/ Product unit)	Water use type	Comment
[Country drop down list]	[drop down list of river basin] Not known Other, please specify	[A text answer of up to 500 characters]	<ul style="list-style-type: none"> Liters Mega-liters Kilogram Ton Other, please specify 	<ul style="list-style-type: none"> Liters Mega-liters 	[A numerical response up to 999999999999, and 4 decimal points]	<ul style="list-style-type: none"> Withdrawals Water use in operations Other, please specify 	[A text answer of up to 1000 characters]
Add Row							

Box 3: Water intensity

This measurement is suitable when aggregating or comparing across businesses that have similar products. This is represented as:

$$\text{Water intensity} = \frac{\text{Volume of water used in making product (water unit)}}{\text{Output or volume of product created (product unit)}}$$

Example: Company A uses six liters of water to produce one liter of orange juice. Company B uses eight liters of water to produce one liter of orange juice. Company A is less water intensive (or more water-efficient) than Company B for that product.

Please describe any available activity-based intensity measurements for your organization’s water use for individual geographical areas/business units. The data entered should describe a measurement of water intensity with respect to product activity. Guidance on responding to each of the columns is provided below:

- **Column 1: Country**
 - In the first column, please select from the drop down menu the country in which you wish to report on.
- **Column 2: River basin**
 - Please select the appropriate river basin from the drop down menu provided. If you do not see the basin required, please select, ‘Other, please specify’ and write in the correct river basin using the text box provided. You may also select “Not known”.
- **Column 3: Product name**
 - Please enter a brief description of the product being used in your calculation of water intensity, e.g. soft drink.
 - This column can contain up to 500 characters, including spaces.
- **Column 4: Product unit**
 - Please select the unit, such as “Liter”, being used for the volume of product used in your calculation of water intensity. If you wish to use another unit which is not shown, please select “Other” and enter the unit/description in the text box provided.
- **Column 5: Water unit**
 - Please select the unit, such as “Liter” being used for the volume of water used to create your product for your calculation of water intensity.
- **Column 6: Water intensity**
 - Enter the numerical figure of your water use per unit of product made at the geographical location or business unit you have selected. Please state this in values of up to 4 decimal places. This column will accept a numerical response of up to 999999999999, with up to 4 decimal points.
- **Column 7: Water use type**

- Please select a water metric, such as “water withdrawals” for the volume of water used in your calculation of financial intensity. If you wish to use another metric which is not shown, please select “Other” and enter the description in the text box provided.
- **Column 8: Comment**
 - You may provide any details on the context or reasons for figures or units used for calculation of water intensity.
 - This column can contain up to 1000 characters, including spaces.

SW3.1 Sample Response

Country	River basin	Product name	Product unit	Water unit	Water intensity (Water unit/Product unit)	Water use type	Comment
Bulgaria	Veleka	Orange juice	Liters	Liters	4.1	Water use in operations	Direct water use for processing only – excludes all water used to grow oranges and other raw materials for product, including packaging.

Appendix A: Reporting boundary definitions

When determining the organizational boundary for inventory or reporting purposes, CDP recommends that companies consult their legal or accounting advisors.

For more detailed guidance on determining organizational boundaries and in particular where joint ventures or complex operational structures are concerned, please refer to Chapter 3 of the GHG Protocol. Although this refers to GHG emissions inventory and reporting, the general definitions can be applied to water reporting. The GHG Protocol defines two approaches: **the control approach** and **the equity share approach**, which will lead not only to different organizational boundaries, but distinct ways of consolidating the figures at the corporate level.

In brief, under the **control approach**, an organization measures the volume of its water withdrawals/discharges from operations over which it has financial or operational control. The following text is adapted from the GHG Protocol to refer to water:

*An organization has **financial control** over an operation if it has the ability to direct the financial and operating policies of the operation with a view to gaining economic benefits from its activities. Generally, an organization has financial control over an operation for water accounting purposes if the operation is treated as a group company or subsidiary for the purposes of financial consolidation. An organization has **operational control** over an operation if the organization or one of its subsidiaries has the full authority to introduce and implement its operating policies at the operation.*

Companies can also report their water data based on their economic share. The following text is adapted from the GHG Protocol to refer to water instead of GHG emissions:

*Under the **equity share** approach, a company accounts for its water data from operations according to its share of equity in the operation. The equity share reflects the economic interest, which is the extent of rights a company has to the risks and rewards flowing from an operation. Typically, the share of economic risks and rewards in an operation is aligned with the company's percentage ownership of that operation, and equity share will normally be the same as the ownership percentage. Where this is not the case, the economic substance of the relationship the company has with the operation always overrides the legal ownership form to ensure the equity share reflects the percentage of economic interest. The principle of economic substance taking precedence over legal form is consistent with international financial reporting standards.*

As financial control can be difficult to establish, the table overleaf has been provided to clarify how water accounting data should be consolidated and reported in certain situations. The table is based on a table found on page 19, Chapter 3 of the GHG Protocol (Revised Edition). It has been adapted to refer to water accounting instead of GHG accounting.

Accounting category	Financial accounting definition	Accounting for GHG emissions according to the GHG Protocol Corporate Standard	
		Based on equity share	Based on financial control
Group companies/ subsidiaries	The parent company has the ability to direct the financial and operating policies of the company with a view to gaining economic benefits from its activities. Normally, this category also includes incorporated and non-incorporated joint ventures and partnerships over which the parents company has financial control.	Equity share of volumes of water withdrawn/ discharged/etc.	100% of volumes of water withdrawn/ discharged/etc.
Associated/ affiliated companies	The parent company has significant influence over the operating and financial policies of the company, but does not have financial control. Normally, this category also includes incorporated and non-incorporated joint ventures and partnerships over which the parent company has significant influence, but not financial control. Financial accounting applies the equity share method to associate/ affiliated companies, which recognizes the parent company's share of the associate's profits and net assets.	Equity share of volumes of water withdrawn/ discharged/etc.	0% of volumes of water withdrawn/ discharged/etc.
Non-incorporated joint ventures/ partnerships/ operations where partners have joint financial control	Joint ventures/ partnerships/ operations are proportionally consolidated, i.e., each partner accounts for their proportionate interest of the joint venture's income, expenses, assets and liabilities.	Equity share of volumes of water withdrawn/ discharged/etc.	Equity share of volumes of water withdrawn/ discharged/etc.
Fixed asset investments	The parent company has neither significant influence nor financial control. This category also includes incorporated and non-incorporated joint ventures and partnerships over which the parent company has neither significant influence nor financial control. Financial accounting applies the cost/ dividend method to fixed asset investments. This implies that only dividends received are recognized as income and the investment is carried at cost.	0%	0%
Franchises	Franchises are separate legal entities. In most cases, the franchiser will not have equity rights or control over the franchise. Therefore franchises should not be included in consolidation of GHG emissions data. However, if the franchiser does have equity right or operational/ financial control, then the same rules for consolidation under the equity or control approaches apply.	Equity share of volumes of water withdrawn/ discharged/etc.	100% of volumes of water withdrawn/ discharged/etc.

Appendix B:

Disclosure glossary

Capital expenditure (CAPEX): Represents the money invested by a company to acquire or upgrade fixed assets, such as buildings and equipment. Capital expenditure measures the value of purchases of fixed assets that are used repeatedly in production processes for more than a year.

Source: *OECD, Glossary of Statistical Terms* (Adapted)

Corporate water disclosure: This is a multistep process which firstly involves the collection of relevant data on the current state of a company's water management. This is followed by an assessment of the implications of this data and information for business leading to the development of a strategic response. The final step is communicating this information to stakeholders (investors, NGOs, consumers, communities, suppliers, employees, and others).

Source: *CEO Water Mandate: Corporate Water Disclosure Guidelines* (Adapted)

Direct water use: Refers to the freshwater consumption and pollution from water use by consumers and producers. It differs from indirect water use which refers to the water consumption and pollution that can be associated with the production of the goods and services consumed by the consumer or the inputs used by the producer. Direct water use includes all water that is used within your own operations.

Source: *WFN, WaterStat* (Adapted)

Fines and/or penalties: Monetary amount paid in response to regulatory violations.

Source: *CEO Water Mandate: Corporate Water Disclosure Guidelines* (Adapted)

Indirect water use: Refers to the freshwater consumption and pollution that are inactively part of products being consumed or produced. It is equal to the sum of all water used to produce products consumed by the consumer or all (non-water) inputs used by the producer. Indirect water use includes all water use that takes place within your value chain but is outside your direct control.

Source: *WFN, WaterStat*

Measurement: Quantification of a single volume or quality or aggregates of single volumes or quality measurements.

Monitoring: This is the tracking of measurements over time i.e. a trend or indication of change in measurement.

Operating expenditure (OPEX): Expenditure your organization incurs as a result of performing its normal business operation. Expenses such as employee wages, research and development and administrative costs are included. OPEX does not include cost of goods sold (COGS), taxes, depreciation, and interest.

European Commission, Eurostat (Adapted)

River basin: An area which has a common outlet for its surface runoff.

Source: *CEO Water Mandate: Corporate Water Disclosure Guidelines*

WASH: access to water supply, adequate sanitation and hygiene as used by the [World Health Organization](#) (accessed 01/12/14).

Water availability: Natural runoff (through groundwater and rivers) minus the flow of water that is required to sustain freshwater and estuarine ecosystems and the human livelihoods and well-being that depend on these ecosystems. Water availability typically varies within the year and also from year to year.

Source: *CEO Water Mandate: Corporate Water Disclosure Guidelines (Adapted)*

Water consumption: Ceres Aqua Gauge, in their definition, recognizes that the term ‘water consumption’ is not consistently defined or used. For the purpose of this questionnaire, CDP uses Ceres’s definition of water consumption as an “amount of water that is used but not returned to its original source”. This includes water that has evaporated, transpired, has been incorporated into products, crops or waste, consumed by man or livestock or otherwise removed from the local source.

Source: [Ceres Aqua Gauge](#)

Water discharge: The sum of water effluents discharged over the course of the reporting year to subsurface waters, surface waters, sewers that lead to rivers, oceans, lakes, wetlands, treatment facilities, and ground water either through:

- A defined discharge point (point source discharge)
- Over land in a dispersed or undefined manner (non-point source discharge)
- Wastewater removed from the organization via truck. Discharge of collected rainwater and domestic sewage is not regarded as water discharge.

Source: *GRI Standards*

Water quality: Refers to the physical, chemical, biological, and organoleptic (taste-related) properties of water.

Source: *CEO Water Mandate: Corporate Water Disclosure Guidelines*

Water risk: “Water risk” refers to the possibility of an entity experiencing a water-related challenge (e.g., water scarcity, water stress, flooding, infrastructure decay, and drought). The extent of risk is a function of the likelihood of a specific challenge occurring and the severity of the challenge’s impact. The severity of impact itself depends on the intensity of the challenge, as well as the vulnerability of the actor.

Water risk is felt differently by every sector of society and the organizations within them and thus is defined and interpreted differently (even when they experience the same degree of water-related challenges). That notwithstanding, many water-related challenges create risk for many different sectors and organizations simultaneously. This reality underpins the notion of what some refer to as “shared water risk” that suggests that different sectors of society have a common interest in understanding and addressing shared water-related challenges. However, some contest the appropriateness of this term on the basis that risk is felt uniquely and separately by individual entities and is typically not shared, per se.

“Water risk for businesses” refers to the ways in which water-related challenges potentially undermine business viability. It is commonly categorized into three inter-related types:

- Physical – Having too little water, too much water, water that is unfit for use, or inaccessible water

- Regulatory – Changing, ineffective, or poorly-implemented public water policy and/or regulations
- Reputational – Stakeholder perceptions that a company does not conduct business in a sustainable or responsible fashion with respect to water

“Water risk for businesses” is also sometimes divided into two categories that shed light on the source of that risk and therefore what types of mitigation responses will be most appropriate:

- Risk due to company operations, products, and services – A measure of the severity and likelihood of water challenges derived from the way in which a company or organization, and the suppliers from which it sources goods, operate and how its products and services affect people and ecosystems.
- Risk due to basin conditions – A measure of the severity and likelihood of water challenges derived from the watershed/basin context in which a company or organization and/or its suppliers from which it sources goods operate, which cannot be addressed through changes in its operations or its suppliers and requires engagement outside the fence.

If a company experiences a high degree of water-related risk due to company operations then it likely will seek to implement water efficiency, wastewater treatment, and other improvements in its own facilities or through its suppliers in response. However, if a company primarily experiences risk due to basin conditions then such operational measures would likely not sufficiently address this risk. Because of this, the company might instead seek to collaborate with other interests in the basin to advance an aspect of sustainable water management (e.g., by facilitating water use efficiency in other water users or supporting infrastructure improvements).

Source: *CEO Water Mandate: [Understanding Key Water Stewardship Terms](#)*

Water scarcity: “Water scarcity” refers to the volumetric abundance, or lack thereof, of freshwater resources. “Scarcity” is human-driven; it is a function of the volume of human water consumption relative to the volume of water resources in a given area. As such, an arid region with very little water, but no human water consumption would not be considered “scarce,” but rather “arid.” Water scarcity is a physical, objective reality that can be measured consistently across regions and over time. Water scarcity reflects the physical abundance of fresh water rather than whether that water is suitable for use. For instance, a region may have abundant water resources (and thus not be considered water scarce), but have such severe pollution that those supplies are unfit for human or ecological uses.

Tool developers and organizations differ on whether environmental water requirements should be included when assessing water scarcity. Water Footprint Network (WFN), for example, takes environmental water requirements into consideration when calculating water scarcity, whereas other organizations do not and rather opt to address environmental water requirements in their respective approaches to characterizing water stress.

Source: *CEO Water Mandate: [Understanding Key Water Stewardship Terms](#)*

Water stress: “Water stress” refers to the ability, or lack thereof, to meet human and ecological demand for fresh water. Compared to scarcity, “water stress” is a more inclusive and broader concept. It considers several physical aspects related to water resources, including water availability, water quality, and the accessibility of water (i.e., whether people are able to make use of physically-available water supplies), which is often a function of the sufficiency of infrastructure and the affordability of water, among other things. Both water consumption and water withdrawals provide useful information that offers insight into relative water stress. There are a variety of physical pressures related to water, such as flooding, that are not included in the notion of water stress. Water stress has subjective elements and is assessed differently depending on societal values. For

example, societies may have different thresholds for what constitutes sufficiently clean drinking water or the appropriate level of environmental water requirements to be afforded to freshwater ecosystems, and thus assess stress differently.

In contrast to other available water risk assessment tools, WFN's Water Footprint Assessment Tool does not use the term "water stress", but instead identifies water-challenged regions (sometimes referred to as "hot spots") based on water scarcity, water pollution levels, benchmarks, (i.e., where the water consumption can be reduced or avoided for reasonable cost) and indicators of social equity. It can be understood that these hot spots are areas experiencing water stress.

Source: *CEO Water Mandate: [Understanding Key Water Stewardship Terms](#)*

Water withdrawals: The sum of all water drawn into the boundaries of the reporting organization from all sources (including surface water, groundwater, rainwater, and municipal water supply) for any use over the course of the reporting year. Water withdrawals should include both water that was withdrawn directly by your company and water withdrawn through intermediaries (e.g. water utilities).

Source: *GRI Standards (Adapted)*

Appendix C: River basin list and South African Water Management Areas (WMAs)

ALABAMA RIVER & TOMBIGBEE	CORUBAL	GUADIANA	LUAN HE
ALAZEYA	CORUH	GUDENA	LULE
ALBANY RIVER	CROSS	HAN-GANG (HAN RIVER)	LURIO
ALSEK RIVER	CUANZA	HAN JIANG	MA
ALTAMAHA RIVER	CUNENE	HAYES RIVER (TRIB. ARCTIC OCEAN) - BACK RIVER	MACKARTHUR RIVER
AMAZONAS	CUYUNI - ESSEQUIBO	HAYES RIVER (TRIB. HUDSON BAY)	MACKENZIE RIVER
AMU DARYA	DALALVEN	HELMAND	MAE KLONG
AMUR	DALINGHE	HONG(RED RIVER)	MAGDALENA
ANABAR	DALY	HORNADAY RIVER	MAHANADI RIVER (MAHAHADI)
ANADYR	DAMODAR RIVER	HORTON RIVER	MAHI RIVER
ANDERSON RIVER	DANUBE	HUANG HE (YELLOW RIVER)	MAJES
ANGERMAN	DARYACHEH-YE ORUMIEH	HUASCO	MAMBERAMO
APALACHICOLA RIVER	DASHT	HUDSON RIVER	MANGOKY
ARAL DRAINAGE	DAULE & VINCES	IJOKI	MANICOUAGAN (RIVIERE)
ARMERIA	DE GREY RIVER	INCOMATI	MANO-MORRO
ARNAUD	DEAD SEA	INDIGIRKA	MAPUTO
ASHBURTON RIVER	DELAWARE RIVER	INDUS	MARITSA
ASI (ORONTES)	DNIEPR	IRRAWADDY	MARONI
ATRATO	DNIESTR	ISHIKARI	MEDJERDA
ATREK	DON	ISSYK-KUL	MEKONG
ATTAWAPISKAT RIVER	DONG JIANG	JAMES RIVER	MERRIMACK RIVER
AWASH	DORING	JEQUITINHONHA	MESSALO
BAKER	DOURO	JOEKULSA A FJOELLUM	MEUSE
BALEINE, GRANDE RIVIERE DE LA	DRA	KALADAN	MEZEN
BALKHASH	DRAMSELV	KALIXAELVEN	MIN JIANG
BALSAS	DRIN	KAMCHATKA	MINO
BANDAMA	EASTMAIN	KEL KIT	MIRA
BANN	EBRO	KELANTAN	MISSISSIPPI RIVER
BARAKA	EEL RIVER (CALIF.)	KEM	MITCHELL RIVER (N. AU)
BARIMA	EILANDEN	KEMIJOKI	MOA
BATANG HARI	ELBE RIVER	KHATANGA	MOGAMI
BATANG KUANTAN	ELLICE RIVER	KINABATANGAN	MONO
BETISBOKA	ESMERALDAS	KISO	MOOSE RIVER (TRIB. HUDSON BAY)
BIOBIO	EYRE LAKE	KITAKAMI	MOTAGUA
BLACKWOOD RIVER	FANE	KIZILIRMAK	MUCURI
BRAHMANI RIVER (BHAHMANI)	FERGUSON RIVER	KLAMATH RIVER	MUGA
BRANTAS	FEUILLES (RIVIERE AUX)	KOBUK RIVER	MUONIO
BRAVO	FITZROY	KOKEMAENJOKI	MURCHISON RIVER
BRAZOS RIVER	FITZROY RIVER	KOLYMA	MURGHAB - HARI RUD
BURDEKIN	FLINDERS RIVER	KOUILOU	MURRAY - DARLING
BUZI	FLY	KOVDA	NADYM
CA	FORTESCUE RIVER	KRISHNA	NAKTONG
CANETE	FOYLE	KUBAN	NARMADA
CANIAPISCAU - AUX MELEZES	FRASER RIVER	KURA - OZERO SEVAN	NARVA
CAPE FEAR RIVER	FUCHUN JIANG	KUSKOKWIM RIVER	NASS RIVER
CAUVERY RIVER	FUERTE	KYMIJOKI	NATASHQUAN (RIVIERE)
CAVALLY	GALANA	LAGARFLJOT	NEGRO (ARGENTINIA)
CESTOS	GALLEGOS-CHICO	LAGOON MIRIM	NEGRO (URUGUAY)
CHAO PHRAYA	GAMBIA	LAKE CHAD	NELSON RIVER
CHELIF	GAMKA	LAKE MAR CHIQUITA	NEMAN
CHIRA	GANGES - BRAHMAPUTRA	LAKE NATRON	NIGER
CHUBUT	GARONNE	LAKE TAYMUR	NILE
CHURCHILL RIVER	GASCOYNE RIVER	LAKE TITICACA	NIZHNY VYG (SOROKA)
CHURCHILL, FLEUVE (LABRADOR)	GEBA	LAKE TURKANA	NOATAK RIVER
CLUTHA	GEORGE RIVER	LAKE UBSA	NORTHERN DVINA(SEVERNAYA DVINA)
COCO	GILBERT RIVER	LAKE VATTERN	NOTTAWAY
COLORADO (ARGENTINIA)	GLOMA	LEICHHARDT RIVER	NTEM
COLORADO RIVER (CARIBBEAN SEA)	GODAVARI	LEMPA	NUECES RIVER
COLORADO RIVER (PACIFIC OCEAN)	GONO (GO)	LENA	NUSHAGAK RIVER
COLUMBIA RIVER	GRANDE DE MATAGALPA	LIAO HE	NYANGA
COLVILLE RIVER	GRANDE RIVIERE	LIMA	NYONG
COMOE	GRANDE RIVIERE DE LA BALEINE	LIMARI	OB
CONCEPTION	GREAT SALT LAKE	LIMPOPO	OCONA
CONGO	GREAT SCARCIES	LITTLE MECATINA RIVER	ODER RIVER
CONNECTICUT RIVER	GRISALVA	LITTLE SCARCIES	OELFUSA
COPPENNAME	GROOT	LOA	OGOOUE
COPPER RIVER	GROOT- KEI	LOFA	OKAVANGO
COPPERMINE RIVER	GROOT-VIS	LOIRE	OLENEK
CORANTIJN	GUADALQUIVIR	LORENTZ	OMOLOY

ONEGA	SAINT JOHN RIVER	TRENT	BATANG KUANTAN
ORANGE	SAKARYA	TRINITY RIVER (TEXAS)	BETISBOKA
ORD	SALADO	TSIRIBIHINA	BIOBIO
ORINOCO	SALINAS	TUGELA	BLACKWOOD RIVER
OUEME	SALWEEN	TULOMA	BRAHMANI RIVER (BHAHMANI)
OULUJOKI	SAN ANTONIO RIVER	TUMBES	BRANTAS
OYAPOCK	SAN JUAN	TWEED	BRAVO
PAHANG	SAN JUAN (COLUMBIA - PACIFIC)	ULUA	BRAZOS RIVER
PALENA	SAN PEDRO	URAL	BURDEKIN
PALYAVAAM	SANAGA	URUGUAY	BUZI
PANGANI	SANTA	UWIMBU	CA
PANUCO	SANTA CRUZ	VAENERN-GOETA	CANETE
PAPALOAPAN	SANTEE RIVER	VAN GOLU	CANIAPISCAU - AUX MELEZES
PARAIBA DO SUL	SANTIAGO	VARDAR	CAPE FEAR RIVER
PARANA	SAO FRANCISCO	VARZUGA	CAUVERY RIVER
PATACUA	SASSANDRA - DAVO	VELEKA	CAVALLY
PATIA	SAVANNAH RIVER	VERDE	CESTOS
PEARL RIVER	SAVE	VICTORIA RIVER	CHAO PHRAYA
PECHORA	SEAL RIVER	VIJOSE	CHELIF
PEE DEE RIVER	SEBOU	VOLGA	CHIRA
PENNER RIVER	SEINE	VOLTA	CHUBUT
PENOBSCOT RIVER	SEMBAKUNG	VUOKSI - NEVA	CHURCHILL RIVER
PERAK	SENEGAL	WAIKATO RIVER	CHURCHILL, FLEUVE (LABRADOR)
PO	SEPIK	WESER	CLUTHA
PONUY	SEVERN RIVER (TRIB. HUDSON BAY)	WESTERN DVINA (DAUGAVA)	COCO
POPIGAY	SHEBELLE	WINISK RIVER	COLORADO (ARGENTINIA)
POTOMAC RIVER	SHINANO, CHIKUMA	WISLA	COLORADO RIVER (CARIBBEAN SEA)
PRA	SITTANG RIVER	XI JIANG - BEI JIANG	COLORADO RIVER (PACIFIC OCEAN)
PUR	SKEENA RIVER	YALU JIANG	COLUMBIA RIVER
PURARI	SKJERN A	YANA	COLVILLE RIVER
PYASINA	SOLO (BENGAWAN SOLO)	YANGTZE RIVER (CHANG JIANG)	COMOE
QUOICH RIVER	SOUTH ESK RIVER	YAQUI	CONCEPTION
RAJANG	SOUTHERN BUG	YENISEI	CONGO
RAPEL	SPEY	YODO	CONNECTICUT RIVER
REZVAYA	ST JOHN	YONGDING HE	COPPENAME
RHINE	ST PAUL	YUKON RIVER	COPPER RIVER
RHONE	ST.CROIX RIVER	ZAMBEZI	COPPERMINE RIVER
RIO ACARAU	ST.JOHNS RIVER	ZARUMILLA	CORANTIJN
RIO ARAGUARI	ST.LAWRENCE	ALABAMA RIVER & TOMBIGBEE	CORUBAL
RIO CAPIM	STIKINE RIVER	ALAZEYA	CORUH
RIO DE CONTAS	STRUMA	ALBANY RIVER	CROSS
RIO DOCE	SUNGAI KAJAN	ALSEK RIVER	CUANZA
RIO GRANDE	SUNGAI KAPUAS	ALTAMAHA RIVER	CUNENE
RIO GURUPI	SUNGAI MAHAKAM	AMAZONAS	CUYUNI - ESSEQUIBO
RIO ITAPECURU	SURINAME	AMU DARYA	DALALVEN
RIO ITAPICURU	SUSITNA RIVER	AMUR	DALINGHE
RIO JACUI	SUSQUEHANNA RIVER	ANABAR	DALY
RIO JAGUARIBE	SUWANNEE RIVER	ANADYR	DAMODAR RIVER
RIO MEARIM	SVARTA, SKAGAFIROI	ANDERSON RIVER	DANUBE
RIO PARAGUACU	SYR DARYA	ANGERMAN	DARYACHEH-YE ORUMIEH
RIO PARAIBA	TAFNA	APALACHICOLA RIVER	DASHT
RIO PARNAIBA	TAKU RIVER	ARAL DRAINAGE	DAULE & VINCES
RIO PINDARE	TANA	ARMERIA	DE GREY RIVER
RIO PRADO	TANA (NO, FI)	ARNAUD	DEAD SEA
RIO RIBEIRA DO IGUAPE	TANO	ASHBURTON RIVER	DELAWARE RIVER
RIO SALADO	TAPTI RIVER	ASI (ORONTES)	DNIEPR
RIO VAZA-BARRIS	TARIM	ATRATO	DNIESTR
ROANOKE RIVER	TAZ	ATREK	DON
ROGUE RIVER	TEJO	ATTAWAPISKAT RIVER	DONG JIANG
ROIA	TENRYU	AWASH	DORING
ROPER RIVER	TEREK	BAKER	DOURO
ROVUMA	THAMES	BALEINE, GRANDE RIVIERE DE LA	DRA
RUFIJI	THELON RIVER	BALKHASH	DRAMSELV
RUPERT RIVER	THJORSA	BALSAS	DRIN
RUVU	THLEWIAZA RIVER	BANDAMA	EASTMAIN
SABINE RIVER	TIGRIS & EUPHRATES	BANN	EBRO
SACRAMENTO RIVER - SAN JOAQUIN RIVER	TOCANTINS	BARAKA	EEL RIVER (CALIF.)
SAGUENAY (RIVIERE)	TONE	BARIMA	EILANDEN
SAIGON	TRANH (NR THU BON)	BATANG HARI	ELBE RIVER

ELLICE RIVER	KINABATANGAN	MONO	QUOICH RIVER
ESMERALDAS	KISO	MOOSE RIVER (TRIB. HUDSON BAY)	RAJANG
EYRE LAKE	KITAKAMI	MOTAGUA	RAPEL
FANE	KIZILIRMAK	MUCURI	REZVAYA
FERGUSON RIVER	KLAMATH RIVER	MUGA	RHINE
FEUILLES (RIVIERE AUX)	KOBUK RIVER	MUONIO	RHONE
FITZROY	KOKEMAENJOKI	MURCHISON RIVER	RIO ACARAU
FITZROY RIVER	KOLYMA	MURGHAB - HARI RUD	RIO ARAGUARI
FLINDERS RIVER	KOUILOU	MURRAY - DARLING	RIO CAPIM
FLY	KOVDA	NADYM	RIO DE CONTAS
FORTESCUE RIVER	KRISHNA	NAKTONG	RIO DOCE
FOYLE	KUBAN	NARMADA	RIO GRANDE
FRASER RIVER	KURA - OZERO SEVAN	NARVA	RIO GURUPI
FUCHUN JIANG	KUSKOKWIM RIVER	NASS RIVER	RIO ITAPECURU
FUERTE	KYMIJOKI	NATASHQUAN (RIVIERE)	RIO ITAPICURU
GALANA	LAGARFLJOT	NEGRO (ARGENTINIA)	RIO JACUI
GALLEGOS-CHICO	LAGOON MIRIM	NEGRO (URUGUAY)	RIO JAGUARIBE
GAMBIA	LAKE CHAD	NELSON RIVER	RIO MEARIM
GAMKA	LAKE MAR CHIQUITA	NEMAN	RIO PARAGUACU
GANGES - BRAHMAPUTRA	LAKE NATRON	NIGER	RIO PARAIBA
GARONNE	LAKE TAYMUR	NILE	RIO PARNAIBA
GASCOYNE RIVER	LAKE TITICACA	NIZHNY VYG (SOROKA)	RIO PINDARE
GEBA	LAKE TURKANA	NOATAK RIVER	RIO PRADO
GEORGE RIVER	LAKE UBSA	NORTHERN DVINA(SEVERNAYA DVINA)	RIO RIBEIRA DO IGUAPE
GILBERT RIVER	LAKE VATTERN	NOTTAWAY	RIO SALADO
GLOMA	LEICHHARDT RIVER	NTEM	RIO VAZA-BARRIS
GODAVARI	LEMPA	NUECES RIVER	ROANOKE RIVER
GONO (GO)	LENA	NUSHAGAK RIVER	ROGUE RIVER
GRANDE DE MATAGALPA	LIAO HE	NYANGA	ROIA
GRANDE RIVIERE	LIMA	NYONG	ROPER RIVER
GRANDE RIVIERE DE LA BALEINE	LIMARI	OB	ROVUMA
GREAT SALT LAKE	LIMPOPO	OCONA	RUFIJI
GREAT SCARCIES	LITTLE MECATINA RIVER	ODER RIVER	RUPERT RIVER
GRISALVA	LITTLE SCARCIES	OELFUSA	RUVU
GROOT	LOA	OGOOUE	SABINE RIVER
GROOT- KEI	LOFA	OKAVANGO	SACRAMENTO RIVER - SAN JOAQUIN RIVER
GROOT-VIS	LOIRE	OLENEK	SAGUENAY (RIVIERE)
GUADALQUIVIR	LORENTZ	OMOLOY	SAIGON
GUADIANA	LUAN HE	ONEGA	SAINT JOHN RIVER
GUDENA	LULE	ORANGE	SAKARYA
HAN-GANG (HAN RIVER)	LURIO	ORD	SALADO
HAN JIANG	MA	ORINOCO	SALINAS
HAYES RIVER (TRIB. ARCTIC OCEAN) - BACK RIVER	MACKARTHUR RIVER	OUEME	SALWEEN
HAYES RIVER (TRIB. HUDSON BAY)	MACKENZIE RIVER	OULUJOKI	SAN ANTONIO RIVER
HELMAND	MAE KLONG	OYAPOCK	SAN JUAN
HONG(REDF RIVER)	MAGDALENA	PAHANG	SAN JUAN (COLUMBIA - PACIFIC)
HORNADAY RIVER	MAHANADI RIVER (MAHAHADI)	PALENA	SAN PEDRO
HORTON RIVER	MAHI RIVER	PALYAVAAM	SANAGA
HUANG HE (YELLOW RIVER)	MAJES	PANGANI	SANTA
HUASCO	MAMBERAMO	PANUCO	SANTA CRUZ
HUDSON RIVER	MANGOKY	PAPALOAPAN	SANTEE RIVER
IJOKI	MANICOUAGAN (RIVIERE)	PARAIBA DO SUL	SANTIAGO
INCOMATI	MANO-MORRO	PARANA	SAO FRANCISCO
INDIGIRKA	MAPUTO	PATACUA	SASSANDRA - DAVO
INDUS	MARITSA	PATIA	SAVANNAH RIVER
IRRAWADDY	MARONI	PEARL RIVER	SAVE
ISHIKARI	MEDJERDA	PECHORA	SEAL RIVER
ISSYK-KUL	MEKONG	PEE DEE RIVER	SEBOU
JAMES RIVER	MERRIMACK RIVER	PENNER RIVER	SEINE
JEQUITINHONHA	MESSALO	PENOBSCOT RIVER	SEMBAKUNG
JOEKULSA A FJOELLUM	MEUSE	PERAK	SENEGAL
KALADAN	MEZEN	PO	SEPIK
KALIXAELVEN	MIN JIANG	PONOY	SEVERN RIVER (TRIB. HUDSON BAY)
KAMCHATKA	MINO	POPIGAY	SHEBELLE
KEL KIT	MIRA	POTOMAC RIVER	SHINANO, CHIKUMA
KELANTAN	MISSISSIPPI RIVER	PRA	SITTANG RIVER
KEM	MITCHELL RIVER (N. AU)	PUR	SKEENA RIVER
KEMIJOKI	MOA	PURARI	SKJERN A
KHATANGA	MOGAMI	PYASINA	SOLO (BENGAWAN SOLO)

SOUTH ESK RIVER
SOUTHERN BUG
SPEY
ST JOHN
ST PAUL
ST.CROIX RIVER
ST.JOHNS RIVER
ST.LAWRENCE
STIKINE RIVER
STRUMA
SUNGAI KAJAN
SUNGAI KAPUAS
SUNGAI MAHAKAM
SURINAME
SUSITNA RIVER
SUSQUEHANNA RIVER
SUWANNEE RIVER
SVARTA, SKAGAFIROI
SYR DARYA
TAFNA
TAKU RIVER
TANA
TANA (NO, FI)
TANO
TAPTI RIVER
TARIM
TAZ
TEJO
TENRYU
TEREK
THAMES
THELON RIVER
THJORSA
THLEWIAZA RIVER
TIGRIS & EUPHRATES
TOCANTINS
TONE
TRANH (NR THU BON)
TRENT
TRINITY RIVER (TEXAS)
TSIRIBIHINA
TUGELA
TULOMA
TUMBES
TWEED
ULUA
URAL
URUGUAY
UWIMBU
VAENERN-GOETA
VAN GOLU
VARDAR
VARZUGA
VELEKA
VERDE
VICTORIA RIVER
VIJOSE
VOLGA
VOLTA
VUOKSI - NEVA
WAIKATO RIVER
WESER
WESTERN DVINA (DAUGAVA)
WINISK RIVER
WISLA
XI JIANG - BEI JIANG
YALU JIANG
YANA
YANGTZE RIVER (CHANG JIANG)

YAQUI
YENISEI
YODO
YONGDING HE
YUKON RIVER
ZAMBEZI
ZARUMILLA

Source: [Interactive Database of the World's River Basins](#), GEO Water Mandate and WRI (Sep, 2014)

LIMPOPO

OLIFANTS

INKOMATI-USUTHU

PONGOLA-UZIMKULU

VAAL

ORANGE

MZIMVUBU-TSITSIKAMMA

BREEDE-GOURITZ

BERG-OLIFANTS

Source: *South African National Water Resources Strategy 2 (NWRS2) Second Edition June 2013*