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1. Introduction, scope and objective

The Water Directive (“WD”) is issued under the LafargeHolcim Environmental Policy.

The Environmental Policy Landscape is made up as follows:

- **Principles** are defined in the Environmental Policy and are mandatory to uphold.
- **Requirements** as defined in the Environmental Directives are mandatory for compliance in order to fulfil the Environmental Policy Principles.
- **Standards** as defined in the Environmental Standards are mandatory for implementation.

The scope of this Water Directive is worldwide and applies to LafargeHolcim Ltd and its “Countries” which are financially consolidated and/or under management control. Included in the scope are the following active sites:

- Integrated cement plants, including its quarry operations and captive power plants (CPP)
- Grinding and blending stations
- Cement terminals
- Aggregates plants
- Ready-Mix and Concrete Products plants
- Asphalt plants
- AFR Pre-processing platforms

Where new operating sites are acquired, this WD will be implemented within three (3) years of acquisition.

In associated companies or joint ventures where LafargeHolcim does not have financial or management control, the responsible Group Executive Committee Member will establish that the associated company or joint venture is aware of the Water Directive and will encourage its adoption or at least essentially equivalent standards by such associated company or joint venture.

Water is a precious resource, essential to life. Water is also essential to LafargeHolcim operations, which may impact this resource both in terms of quality and availability. LafargeHolcim is committed to reducing its water impacts and to supporting sustainability of water resources by

- Quantifying and managing the impact on water resources;
- Evaluating and mitigating water-related risks; and
- Identifying and seizing opportunities to make positive contributions on water resources and ecosystems.

2. Rules and requirements

In order to meet regulatory requirements and achieve sustainable water management across LH operations, each site in scope must establish a Water Management Plan¹ (WMP) and comply with the following six (6) Rules and Requirements of the Water Directive.

2.1 Rule 1: Comply with legal requirements and the LH Code of Business Conduct

Compliance with applicable laws and regulations and the LH Code of Business Conduct is mandatory. Systems and processes must be in place to comply with all local requirements related to water. Compliance needs to be regularly reviewed. Guidance regarding dealings with government officials can be found in the LH Anti Bribery and Corruption Policy (Annex 1).

2.2 Rule 2: Establish operational water footprint

¹ As defined in Annex 3. WMP is a document describing the site management approach towards a sustainable water management. It can be a stand-alone document or its key elements, part of an appropriate site management systems (e.g., Environmental Management System, Site Operational Plans).

Managing water in a sustainable way requires the understanding of the operational water footprint of the site. This is the first step towards developing a feasible water efficiency strategy.

All sites must identify and map major points of:

- Water withdrawal, including water harvesting;
- Water consumption, including water losses;
- Water discharge; and
- Water recycling/reuse.

All sites must develop their water flow diagram and measure their operational water footprint according to the LafargeHolcim Water Management Standard (WMS). A site water flow diagram illustrates the water flows into all site boundaries and identifies the sources where the water is withdrawn from, as well as the site locations where the water is used, consumed, recycled and discharged.

The scope of measurement, including where measurement devices must be installed, is specified in the LH Water Management Standard.

2.3 Rule 3: Conduct site level assessment and establish corresponding action plans

All sites must assess potential local and regional risks and opportunities using the water risk assessment methodology given in the WMS. This water risk assessment methodology is adapted to the context and impacts of LafargeHolcim operations. It addresses:

- Regulatory risks, including access to water resources and discharge of water;
- Physical risks, in terms of available quantity and quality of water;
- Reputational risks, including stakeholders' perceptions and expectations; and
- Financial risks related to the price of water and cost of water management requirements.

The appropriate level of water management for the site, including mitigating actions, must be prioritized and developed according to the level of the identified water risk. Once all water related issues, opportunities and risks have been identified, it is important to understand the range of available options (internal and external), the required costs and resources, and the challenges of implementing them. In some cases, actions may require the site to implement water-related activities beyond the site boundary.

The action plans to be developed must be integrated in the site's Water Management Plan (WMP).

2.4 Rule 4: Proactively engage with relevant stakeholders

Stakeholder engagement is essential to reduce the water impacts and to promote more responsible water stewardship in the wider watershed/river basin. It is also important to take into consideration the conflicting perspectives and interests of stakeholders as these relate to their decision making on water management.

The Communities and Stakeholder Engagement Directive, Stakeholder Engagement Handbook and related tools are the reference documents for planning and implementing stakeholder engagement activities.

Key elements to consider are the following:

- Assess the level of stakeholder engagement that is required in order to develop and execute the WMP effectively;
- Relevant stakeholders must be identified according to local conditions (e.g. other land use, industrial or agricultural interests, representatives of local communities, authorities, NGOs, etc.) and must be consulted at an early stage;
- Opportunities for developing strategic partnerships and engaging in a multi-stakeholder collaboration should be explored; and
- A communication concept must be put in place according to local needs and embedded in the overall communication strategy of the Country.

2.5 Rule 5: Improve performance continuously

All operating sites must apply good water management practices (Annex 2) and systematically identify potentials for improvement which includes:

- Minimize freshwater withdrawal and reduce water consumption wherever feasible (e.g. water recycling/reuse, rainwater harvesting);
- Manage water discharge to avoid any detrimental impact on ecosystems and on communities; and
- Manage specific water related targets (e.g., water efficiency improvement, watershed protection) based on the local context, potential risks and actual performance.

All related objectives, targets and actions shall be specified in the Water Management Plan. The WMP must be integrated in the Environmental Management System (EMS) of the site.

2.6 Rule 6: Review of the Water Management Plan (WMP)

A review of the site's Water Management Plan must be carried out as required by local regulations or if there is a significant change to the site's water footprints (e.g. process change, plant upgrade). In the absence of any requirements, a review of the Water Management Plan must be carried out every five (5) years.

The review of the WMP will assess to what extent the initial objectives have been achieved and the effectiveness of the corresponding actions. Based on the outcome of the assessment, the objectives and/or actions may have to be adapted accordingly.

If, as a result of the review, significant changes are anticipated, relevant stakeholders must be consulted accordingly. Any changes agreed upon with the relevant stakeholders must be documented.

3. Monitoring and Reporting

3.1 Monitoring Progress

The progress of water management activities must be monitored and evaluated as required by the local regulations, or at least on an annual basis. The results should be assessed as part of the EMS and improvement actions should be defined if needed.

Benefits generated by water-related activities that are implemented beyond the site boundary will be evaluated using the Water Positive Impact Methodology (WPIM).

3.2 Data Reporting

All Countries and active sites must report water indicators, as defined by Group Sustainable Development, according to the LafargeHolcim Environmental Reporting Standard. This standard specifies the mandatory reporting tools, frequency and scope.

4. Organization

4.1 Group Level

4.1.1 Water Steering Committee

The committee consists of function heads from Sustainable Development (SD), Cement Excellence Manufacturing (CEM), RMX Concrete (RMX), and Aggregates (AGG). The committee reviews and endorses amendments to the Chief Sustainability Officer (ExCo)

4.1.2 Sustainable Development Function

- Reviews and proposes amendments to this Directive where and when necessary
- Assists Countries in understanding and applying the Directive
- Provides standards and tools in the implementation of the Directive
- Supports training on the Directive in the Countries
- Supports experience exchange and share best practices between Countries
- Chairs the Water Expert Network
- Monitors compliance of the Countries with this Directive by tracking annual progress
- Provides annual progress reports to ExCo

4.1.3 Other Group Functions (CEM, RMX, AGG, Geocycle)

- Provide technical support in water management
- Cooperate with Group SD in the interpretation of this Directive
- Support experience exchange and share best practices between Countries, together with SD
- Support reviews of the Directive and proposed amendments
- Are a Member of the Global Water Experts Working Group

4.2 Regional Management

SD Responsible or Environmental Experts at regional level are expected to:

- Facilitate the roll-out of this Directive and its supporting tools
- Support the implementation of this Directive
- Share good practices and promote success stories pertaining to sustainable water management.

4.3 Country Level

4.3.1 Country CEO

- Is ultimately responsible and accountable for the implementation and compliance of the Country with this Water Directive
- Delegates responsibility for the implementation of the requirements of the Water Directive to the concerned functions/managers within the organization

4.3.2 Country Environmental Coordinator(s) / Country Environmental Manager(s)

- Ensures that the Country CEO has complete and reliable information on the Country's compliance (for his/her area of responsibility) with this Directive
- Reports annually the status of implementation and compliance (for his/her area of responsibility) to Group Level via the functional environmental reports.
- Supports the implementation of the requirements of the Water Directive within the organization, notably seeking input from Country legal to assess legal requirements

This Directive was approved by Group Executive Committee on October 20, 2016 and will come into force on November 2, 2016.

Original dated: October 31, 2016	Revision Dates: April 2020
Version dated: October 31, 2016	
Responsible Group Executive Committee Member: Magali Anderson – Chief Sustainability Officer.	

Annexes

Annex 1: LH Policies, Directives and Standards related to LH Water Directive

Policies and Directives

Link to Water Directive	Description	Responsibility	Reference
Cement Environmental Directive	The Directive specifies the environmental requirements for cement operations to be complied with in order to fulfill the Environmental Policy principles. Its objective is to identify, manage and mitigate environmental impacts and risks to prevent environmental damage, negative health impacts on surrounding communities as well as related reputational damage.	Chief Sustainability Officer	Environment Policy
Environmental Directive for Aggregates and RMX Operations (under development)	The Directive specifies the environmental requirements for non-cement operations to be complied with in order to fulfill the Environmental Policy principles. Its objective is to identify, manage and mitigate environmental impacts and risks to prevent environmental damage, negative health impacts on surrounding communities as well as related reputational damage.	Chief Sustainability Officer	Environment Policy
Communities and Stakeholder Engagement Directive	The Directive defines the requirements for the relationship with Communities and Stakeholders.	Chief Sustainability Officer	Corporate Citizenship Policy
Stakeholder Engagement Handbook	The Handbook provides guidance and templates on how to develop a Stakeholder Engagement Plan in all operational sites.	Chief Sustainability Officer	Communities and Stakeholder Engagement Directive
LH Code of Business Conduct	The Code specifies how to act with integrity performing tasks, and offer guidance on how to deal with challenging situation	Group CEO	LH Code of Business Conduct
ABC Policy	The Policy sets out the relevant principles for appropriate business conduct and related rules when interacting with Third Parties, whether Public Officials or commercial parties.	Group CEO	Anti Bribery and Corruption Policy

Standards and Tools

Link to Water Directive	Description	Responsibility	Reference
Water Management Standard (under development)	The Standard sets out the necessary measures in developing and implementing a Water Management Plan for all its operations in a consistent manner. It specifies what, where and how to measure water, and the requirements to ensure data quality and reliability. It also establishes the framework which is applied in the water risk assessment and risk mapping, as well as supports the identification of opportunities and possible actions.	Chief Sustainability Officer	Water Directive
Water Positive Impact Methodology (WPIM) (under development)	WPIM is a monitoring and reporting protocol to quantify benefits (or credits) from water-related activities in the watersheds where the site operates.	Chief Sustainability Officer	Water Directive
Environmental Management System Standard (under development)	The Standard describes the group wide approach in terms of EMS. It defines the specifications and requirements related to set-up, documentation and maintenance of an EMS that conforms to the ISO14001 standard.	Chief Sustainability Officer	Cement Environmental Directive
Environmental Reporting Standard (under development)	The Environmental Reporting Standard defines the reporting frequency, the reporting scope as well as the mandatory reporting tools.	Chief Sustainability Officer	Cement Environmental Directive

Annex 2: LH Recommendations related to LH Water Directive

Recommendation	Definition / Description	Reference
2014 Water Management Guidelines	The Water Management Guidelines is a comprehensive manual addressing a range of water issues across all sites, from reducing water footprint to promoting more responsible water stewardship in the wider watershed / river basin. It also provides examples of best practices for improving water efficiency.	Legacy Lafarge Document
2009 Environmental Good Practice Ready-Mix and Concrete Plants	The Environmental Good Practice guidance has been produced to publicize good environmental practices and techniques for the planning, construction and operation of ready-mix and concrete plants.	Legacy Holcim Document

Annex 3: Definitions and Abbreviations

CEO	Chief Executive Officer
CPP	Captive power plant. Power plant associated with a cement plant which almost entirely consumes its electrical output.
GCCA	Global Cement and Concrete Association GCCA was established in 2018 with LafargeHolcim as one of the founding members. It has developed a strategic partnership with the World Business Council for Sustainable Development (WBCSD) to facilitate sustainable development of the cement and concrete sectors and their value chains.
Freshwater withdrawal	The sum of all water withdrawn from (surface water + groundwater + municipal / third parties + quarry water used). It excludes rainwater harvesting, brackish water and treated wastewater. ¹
Precipitation	Liquid or solid products of the condensation of water vapour falling from clouds or deposited from air onto the ground of the property, including equivalent snowfall. ² Synonym: Rainwater, Stormwater
Rainwater Harvesting	Rainwater that is collected and used on site.
WD	Water Directive
WMP	Water Management Plan WMP is a document describing the site management approach towards a sustainable water management. It defines the site-specific plan developed to achieve set targets that aim to address all site water-related issues and risks, and/or seize opportunities in order to sustainably manage water at site level. The key elements of the WMP include the site operational water footprint, assessment of the site water risks and opportunities, communication plan and stakeholder approach, water targets and corresponding actions with clear timelines. The key elements can be integrated in one single document or incorporated into the appropriate site management systems (e.g., Environmental Management System, Site Operational Plans, Site Environmental Management Plans).
WMS	Water Management Standard
Water Consumption	The consumption removes water from a water system and makes it unavailable for further use. The water evaporated for cooling purposes, the water evaporated from water storage facilities, the water lost via transmission, the water incorporated in the organization's products and on-site uses (e.g., irrigation, dust suppression). ³
Water Discharge	Release of all water effluents, regardless of its quality, ultimately outside the site boundary to a) ocean, surface waters, subsurface waters/well, off-site water treatment, and beneficial/other use through a defined discharge point (point source discharge), or b) over land in a dispersed or undefined manner (non-point source discharge), or wastewater removed from the reporting organization via transport vehicle. This includes domestic wastewater discharge, but excludes precipitation run-off and quarry dewatering not used in the process. ¹
Water Recycling /Water Reuse	The act of reintroducing wastewater generated by the site's operations back into the process, where otherwise, freshwater would have been used. Reused water is returned to the process without treatment whereas recycled water has been initially treated. ⁴
Water Withdrawal	Water drawn into the boundaries of the reporting organization from all sources, including surface water, ground water, quarry dewatering, precipitation and public water systems, for any use. Precipitation or rainwater and quarry water are included in water withdrawal only if they are used at the site. ¹

² Global Reporting Initiative (GRI)

³ GCCA Sustainability Guidelines for the monitoring and reporting of water in cement manufacturing

⁴ International Union for Conservation of Nature (IUCN)

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