



PRESS KIT

Water Use Valuation Method

The water valuations are derived from an extensive review of the available water valuation literature adjusted for local incomes and water scarcity. The values for water represent the reduction in services provided by the water system (such as freshwater replenishment, ecosystem maintenance and water nutrient cycling) as a result of water extraction. This is a result of water consumption across the value chain of each product from raw materials and production processes to the customer use and disposal. . The lost value associated with reduced water availability for direct consumption (the opportunity cost of water) is not included because this is assumed to be accounted for in the price PUMA and its suppliers pay for water extraction and use.

The indirect use value of water is considered to be principally driven by its scarcity. To estimate the relationship between scarcity and value, a sample of 18 existing studies was used. The available literature of sufficient comparability is limited and the decision was taken to use a subset of comparable US studies to plot the relationship. The value is location specific and is proportional between the relationship of value and scarcity.

The observed relationship between water scarcity (withdrawal from surface and groundwater as a percentage of actual renewable freshwater resources) and value was calibrated to the valuation estimate obtained from the literature review and applied across sites and countries in PUMA's own operations and supply chain to estimate the water use externality. The level of water scarcity across each product value chain was obtained at a basin-level where location-specific information was available and otherwise considered at a country-level. The weighted average value according to the

locations of PUMA's operations and that of its global supply chain is €0.58/m³ with a range of €0.04 to €25.82/m³ depending on the scarcity in each location (as described above).

Chart: Relationship between value and scarcity

