CALIFORNIA WATER PLAN UPDATE 2013: SUSTAINABILITY INDICATORS FRAMEWORK PROJECT AND WATER FOOTPRINT

The stakeholders of the California Water Plan have wondered how California can measure its progress toward water sustainability. This project answers that call, providing a mechanism for measuring sustainability using indicators and indices (an index is a collection of indicators) for various attributes of water systems and water uses. The Water Footprint is an important index for measuring sustainability and can be combined with other indicators to help measure our progress toward sustainability.

California Water Plan

Update 2013

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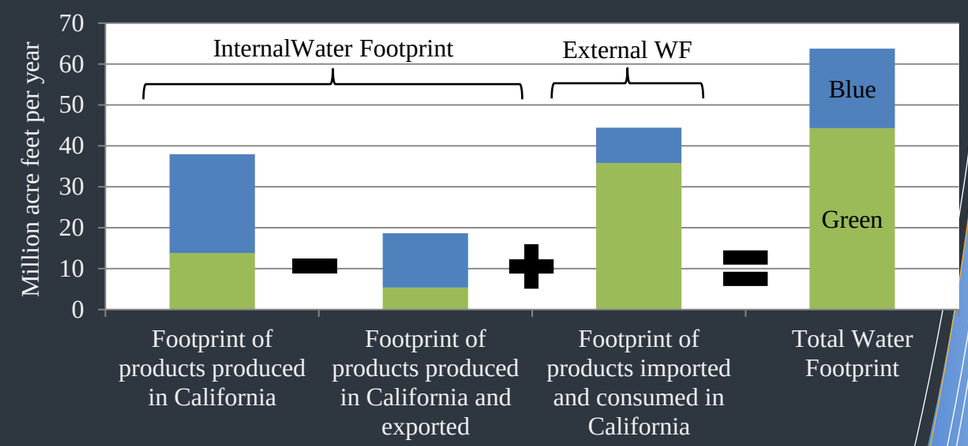
California Water Plan: Update 2013

Water Footprint Business Case



Will Water Footprint work for you?

WATER AGENCIES, BUSINESSES, ELECTED OFFICIALS, AND THE PUBLIC CAN ALL BENEFIT

Food and beverage corporations (e.g., SAB Miller, Coca Cola, and Unilever) have begun to measure the flows of water through their production pathways as a matter of good business. This helps these companies to demonstrate environmental stewardship, as well as to track vulnerabilities and opportunities in their supply chain. A sustainable business rests on sustainable practices and water sustainability is a high priority for progressive companies.

Public water agencies and non-governmental organizations are participating in water footprint exercises. Sometimes this is as simple as calculating individual water consumption through goods and services. Sometimes, this involves a full-scale assessment of the production and consumption of goods and services within the jurisdictions. As with corporate footprint accounting, this allows an individual or municipality to measure both sustainability and supply chain risk.

Water Footprint NETWORK

water footprint helps understand sustainability

MEASURING IMPACTS, USES, AND EFFICIENCY

WATER FOOTPRINT SUPPORT SOLUTIONS

- IRRIGATION EFFICIENCY
- SUPPLY CHAIN VULNERABILITY
- SECTOR-SPECIFIC WATER USES
- GEOGRAPHIC AREA WATER USES
- INDIVIDUAL CONSUMER FOOTPRINT
- REGIONAL FOOTPRINT
- CLIMATE CHANGE VULNERABILITY
- SUSTAINABILITY

WHAT IS THE WATER FOOTPRINT?

The Water Footprint is a calculation of the water consumed to make goods and services we use. The Water Footprint is made up of “blue water” – water that is extracted and managed as water supply; “green water” – water naturally occurring as precipitation and soil moisture; and “grey water” – water that is needed to absorb and process the waste from agriculture, manufacturing and service provision. The Water Footprint can be calculated for home-grown, imported, and exported goods and services. This allows a Water Footprint budget to be calculated for the state, or for a region within the state.

“GREEN WATER”

If precipitation or water in the soil is used to produce a good (e.g., crops) or a service, then the water is called “green water”. The easiest way to think of this type of water is that it is Mother Nature providing water in a form that we can use without building infrastructure. If the water is collected as runoff and used again, it is attributed to the blue water account.

“GREY WATER”

Many production activities result in pollution – the addition of artificial chemicals, or the conversion of natural compounds, into a form that can cause environmental or health impacts. The amount of water that is required, or would be required, to return polluted water to an un-impacted state is the “grey water” part of the water footprint. Another way to think about it is the amount of water required to dilute or process pollutants.

“BLUE” WATER

When water is retrieved from the ground or surface water bodies and consumptively used to generate goods or services, it is called “blue water”. One way to think about this type of water is that it is usually the water that is delivered through reservoirs, canals, and pipes to a place of use. Water that is not consumptively used by an activity and flows back into the water system does not count toward the blue water footprint of that activity because it can serve as a blue water input to other downstream activities.

Taken together, “green”, “blue”, and “grey” water comprise the water footprint and allows us to calculate the total impact and type of impact of using water to generate goods and services.