

# *Resource and Research Guide*

## Forum on Industrial Water Use

September 23, 2010

**SMI**   
Sustainable Manufacturing Initiative

## Sustainable Manufacturing Initiative

*U.S. Department of Commerce*

<http://www.manufacturing.gov/sustainability>

The Sustainable Manufacturing Initiative (SMI) aims to identify U.S. industry's most pressing sustainable manufacturing challenges and coordinate public and private sector efforts to address these challenges.

## Sustainable Business Clearinghouse

*U.S. Department of Commerce, SMI*

<http://trade.gov/competitiveness/>

[sustainablemanufacturing/Resource\\_clearinghouse.asp](http://sustainablemanufacturing/Resource_clearinghouse.asp)

The Sustainable Business Clearinghouse is a searchable database that provides U.S. companies with a central portal for information on programs and resources that can assist them in enhancing their competitiveness and profitability in environmentally sustainable ways.

## Manufacturing Extension Partnership

*National Institute of Standards and Technology*

<http://www.nist.gov/mep/>

The National Institute of Standards and Technology's Manufacturing Extension Partnership (MEP) is America's #1 resource for helping U.S. manufacturers use innovation to grow their profitability as they compete for customers in the global marketplace. MEP's nationwide network of field staff serve as trusted business advisors focused on solving manufacturers' challenges and identifying opportunities for growth.

## Lean Manufacturing and the Environment

*U.S. EPA*

<http://epa.gov/lean/>

While lean manufacturing streamlines businesses and saves them money, many of these money-saving techniques also have environmental benefits. This site provides links to resources and guides to help you incorporate environmental principles into existing Lean programs to maximize their economic and environmental benefits.

## Water Efficiency Manual

*North Carolina Department of Environment and Natural Resources*

<http://www.p2pays.org/ref/01/00692.pdf>

This guide contains detailed guidelines to a successful water efficiency program with information on specific water management options, such as those in cooling and heating and cleaning; industry specific water issues, such as in the textiles, food and beverage and metal finishing industries; and metrics and assessment tools.

## WaterSmart Guidebook: A Water Use Efficiency Plan and Review Guide for New Businesses

*East Bay Municipal Utility District*

[http://www.ebmud.com/for-customers/conservation-](http://www.ebmud.com/for-customers/conservation-rebates-and-services/commercial/water-smart-guidebook)

[rebates-and-services/commercial/water-smart-guidebook](http://www.ebmud.com/for-customers/conservation-rebates-and-services/commercial/water-smart-guidebook)

The WaterSmart Guidebook provides information on water-saving technologies currently available to the commercial, industrial, and institutional sectors and is intended for use as a resource by: existing and new businesses, developers, consultants, and designers planning agencies; and water providers (for plan review and/or for reviewing and estimating water use at existing businesses, respectively)

## Connecting the Drops Toward Creative Water Strategies: A Water Sustainability Tool

*GEMI*

<http://www.gemi.org/resources/ConnectingTheDrops.pdf>

The five steps, or modules, in this tool assist you to identify water-related opportunities and risks, determine the business case for action, and engage your organization in developing and implementing an effective water strategy. It includes case studies and sections on common challenges, water trends, and perspectives on water sustainability provide additional guidance and context. GEMI has also developed a companion website ([www.gemi.org/water](http://www.gemi.org/water)) with additional resources to help you use this tool.



## **Water Footprint Manual: State of the Art**

*Water Footprint Network*

[http://www.waterfootprint.org/downloads/](http://www.waterfootprint.org/downloads/WaterFootprintManual2009.pdf)

[WaterFootprintManual2009.pdf](http://www.waterfootprint.org/downloads/WaterFootprintManual2009.pdf)

This manual contains a complete overview of the method of water footprint assessment. It covers a comprehensive set of methods for water footprint accounting. It shows how water footprints can be calculated for individual processes and products, as well as for consumers, nations and businesses. The report also includes methods for water footprint sustainability assessment and a library of water footprint response options.

## **Corporate Water Accounting: An Analysis of Methods and Tools for Measuring Water Use and Its Impacts**

*Pacific Institute*

[http://www.pacinst.org/reports/corporate\\_water\\_accounting\\_analysis/corporate\\_water\\_accounting\\_analysis.pdf](http://www.pacinst.org/reports/corporate_water_accounting_analysis/corporate_water_accounting_analysis.pdf)

This report assesses existing and emerging water accounting methods and tools being used in the private sector, with the goals of elucidating commonalities and differences among emerging methods and practice; identifying gaps and challenges; and suggesting where accounting methods might benefit from harmonization and increased field testing.

## **Product Water Footprint Assessments: Practical Application in Corporate Water Stewardship**

*The Coca-Cola Company and The Nature Conservancy*

[http://www.thecoca-colacompany.com/presscenter/TCCC\\_TNC\\_WaterFootprintAssessments.pdf](http://www.thecoca-colacompany.com/presscenter/TCCC_TNC_WaterFootprintAssessments.pdf)

This report examines the concept product water footprinting and its practical application for addressing the growing challenges related to freshwater. It includes three case studies of Coca-Cola products.

## **Water Budgets: Foundations for Effective Water-Resources Management and Environmental Management**

*U.S. Geological Survey*

[http://pubs.usgs.gov/circ/2007/1308/pdf/C1308\\_508.pdf](http://pubs.usgs.gov/circ/2007/1308/pdf/C1308_508.pdf)

This report provides an overview and qualitative description of water budgets as foundations for effective water-resources and environmental management of freshwater hydrologic systems. Perhaps of most interest to the hydrologic community, the concepts presented are also relevant to the fields such as agriculture, ecology, mining, water supply, pollution control, and other areas of science, society, and industry.

## **The CEO Water Mandate**

*United Nations Global Compact*

[http://www.unglobalcompact.org/docs/news\\_events/8.1/Ceo\\_water\\_mandate.pdf](http://www.unglobalcompact.org/docs/news_events/8.1/Ceo_water_mandate.pdf)

The CEO Water Mandate structure covers six key areas and is designed to assist companies in developing a comprehensive approach to water management. The six areas are: Direct Operations; Supply Chain and Watershed Management; Collective Action; Public Policy; Community Engagement; and Transparency.

## **Water Footprinting: Identifying & Addressing Water Risks in the Value Chain**

*SAB Miller and WWF*

[http://assets.panda.org/downloads/sab0425\\_waterfootprinting\\_text\\_artwork.pdf](http://assets.panda.org/downloads/sab0425_waterfootprinting_text_artwork.pdf)

The report provides a detailed insight into the learning of WWF and SABMiller to undertake water footprints of the beer value chain in South Africa and the Czech Republic. It discusses what the water footprint results in both countries mean for SABMiller's businesses and their action plans in response to the findings. This study looks beyond the basic water footprint numbers and considers where the resource is used and the context of its use – in particular by considering water use for different agricultural crops in the context of specific water catchments.



## Water for Business: Initiatives Guiding Sustainable Water Management in the Private Sector

*World Business Council for Sustainable Development*

[http://www.wbcasd.org/DocRoot/3wlfDj0SSDsKcJWIBbKu/WBCSD\\_Water\\_for\\_Business\\_WEB.pdf](http://www.wbcasd.org/DocRoot/3wlfDj0SSDsKcJWIBbKu/WBCSD_Water_for_Business_WEB.pdf)

The key objectives of this document are to: provide a structured overview of major initiatives to improve understanding of “who is doing what”; help build a common language for business on water sustainability; support the identification of risks and opportunities, gaps and complementarities; demonstrate leadership and facilitate business engagement in relevant initiatives.

## UK Water Footprint: the Impact of the UK’s Food and Fibre Consumption on Global Water Resources: Volume One

*World Wildlife Foundation*

[http://assets.panda.org/downloads/wwf\\_uk\\_footprint.pdf](http://assets.panda.org/downloads/wwf_uk_footprint.pdf)

The report discusses what the water footprint results in South Africa and the Czech Republic mean for SABMiller’s businesses and their action plans in response to the findings. This study looks beyond the basic water footprint numbers and considers where the resource is used and the context of its use – in particular by considering water use for different agricultural crops in the context of specific water catchments.

## Making Every Drop Work: Increasing Water Efficiency in California’s Commercial, Industrial, and Institutional (CII) Sector

*Natural Resources Defense Council*

<http://www.nrdc.org/water/cacii/files/cii.pdf>

This issue paper examines the range of potential water savings measures and practices, as well as their application in specific industries. In addition, it presents case studies of water agencies and businesses across California to offer insights into how some of these programs have been implemented, the costs and benefits of the programs, and some of the barriers and challenges that water agencies and businesses face.

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