Summary of Water Metrics for CII
by Mary Kean, P.E.

For a more detailed & and up to date review of new metrics,
refer to Water Metrics Report and the tables on EcoCloud Water Metrics

CII = Commercial, Institutional, Industrial

Name	Purpose (Topics Addressed)					Topic/Type	Tool/ Calculator [6]
	Water Accounting [1]	Ecosystem Impacts [2]	Business Risks [3]	Prevention/Response [4]	Public Engagement [5]		
AFT Fathom						IT/Software: Design: a general-purpose pipe network analysis tool	X
AFT Mercury						IT/Software: Design: general-purpose pipe network optimization tool (updated 2010)	X
Alliance for Water Stewardship (AWS)	♦	♦		♦	X	freshwater certification program to be applied across industrial sectors at organizational/ site levels (expected: 2013)	♦
Aquawareness			♦	♦	♦	Assessment framework using 4 main indicators to indentify risks/impacts to business and water ecosystem. 3rd party certification; Draft complete; Final: 2013	♦
Aqueduct Alliance, World Resource Institute	X	X	X	X		Interactive website risk evaluation watershed maps w/ 14 indicators for sensitive ecocsystems; pilot includes 10-12 watersheds	X
Autodesk Green Building Studio				X		Web-based energy analysis software includes water, CO2 factors, renewable technologies	X
BEES (Building for Environmental and Economic Sustainability)		X		X		IT/Software: uses LCA to measures environmental performance of building products	X
Business Roundtable Water Brief for Business				X		Website w/ questions and general framework for implementing sustainable water initiatives	
California Energy Commission						State Agency website that provides resources on water-energy intersection; tech papers, articles, reports, fact sheets	

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California Urban Water Conservation Council CII Task Force Report	X			X		State task force detailed report on CII water conservation BMPs, metrics, and case studies (>470 pgs) (expected summer 2012)	
CAL-WEC (CA Water & Energy Collaboration Site						Collaborative web platform to store info and foster collaboration on CA energy/water	
Carbon Disclosure Project - Water Disclosure	X	X	X	X	X	Voluntary online disclosure system that provides water-related data from world's largest corps by annual water questionnaire	
CEO Water Mandate: Water Action Hub		♦		♦	♦	(under development): Will be an online collaborative platform where companies can indicate water management projects they want to address with nearby neighbors	♦
E.A.S.Y. - Energy Accounting System for Your Buildings	X					IT Software using energy and water data for buildings to identify cost effective energy conservation projects and future cost of projects	X
EBMUD WaterSmart Guidebook for Businesses Report	X					Water Use Efficiency Plan and Review Guide for New Businesses to provide information on water saving technologies	
Energy Cost Calculator for Electric and Gas Water Heaters	X					US DOE's energy cost calculator for elect & gas water heaters	X
EnergyPlus	X					T Software for PC: An energy analysis and thermal load simulation program for HVAC in buildings.	X
ENXSuite	X	X		X		Energy, GHG, water, waste and environmental management software (available by fee from Company)	X
FRESA (Federal Renewable Energy Screening Assistant)						A screening tool for facilities and buildings to screen renewable energy technologies to reduce electricity, GHG, and fuels (for federal gov't; others can use)	X
GE Proficy® for Sustainability Metrics	X	X		X		Software program system which measures and analyzing energy and water consumption at the area, process or machine level within a facility.	X

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Global Environmental Management Initiative (GEMI) Water Sustainability Planner	X	X	X	X		3 web based tool for water sustainability assessment (water balance/use; risk evaluation, case studies); Online water use calculator	X
Global Environmental Mangmt Initiative (GEMI) Water Sustainability Tool	X	X	X	X		Web based tool: water sustainability flow chart and questions (5 modules) to identify water risk/strategy	X
Global Reporting Initiative (GRI)	X	X			X	sustainability reporting guidelines / framework	
Global Water Footprint Standard	X	X			X	widely accepted standard for water footprint calculation metrics methodology	X
Global Water Tool - (WBCSD)	X		X	♦	X	Excel Tool and GIS mapping/online Google tools to map water use/assess water risk in global operations and supply chains	X
Green Grid, The	X	X		X		Data center maturity model: metrics to track data center sustainability efforts	X
Hara	X	X		X		Energy and environmental management software (analysis available for a fee)	X
HEAT Energy Audit Tool	X					iPhone/iPod Touch/iPad Ap for Energy Auditing and Data Collection for energy auditors, utilities, and Energy Service Corp. (ESCO)	X
Hospital Energy Benchmarking Guidance	X	X		X		Report - describes water and energy benchmarking framework for hospitals (33 pages) (2009)	
IBM Strategic Water Information Management (SWIM) solutions platform	X	X		X		Software allows continuous automated sensing, monitoring, and decision support for water management; includes Maximo, a water asset management tool	X
Institute for Supply Mgmt metrics	X	X				Large supply management association which provides supply management and BMPs; links to green purchasing websites/tools	X
ISO 14046, Water footprint	♦	♦		♦		Guidelines for standardized water footprint metrics	♦

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IWR-MAIN	X					IT software for PC: provides estimate of current future residential, CII, govt demand by sector for a study area	X
kW-Field	X					T Software for PC: a tablet-based touch screen field tool for conducting commercial and industrial energy audits.	X
Life Cycle Assessment (LCA) Initiative (UNEP/SETAC)	X	X				Website database of LC inventory registry; reports on how to complete LCA for various sectors	X
Peer Water Exchange (PWX) by Blue Planet Network (BPN)						Web based tool: Business Analytics allows tracking and benchmarking of projects & business trends; social networking platform	X
PG&E water energy classes				X		San Francisco Resource Center and library; PG&E offers a variety of classes on energy efficiency, green building, solar, and water	
Pipe-Flo						IT software: Flow analysis software used to design, optimize, troubleshoot and simulate the operation of piping systems	X
Portfolio Manager	X			X		An interactive web platform for energy management that allows you to track and assess energy and water consumption	X
REEP (no web link)	X					IT Software: Performs large scale analysis of DOD energy and water conservation projects; analyzes 104 energy and water efficiency technologies	X
River Network's water-energy calculators	X					5 water/energy/CO2, water savings calculators - e.g. showerhead comparison, community water-energy savings	X
SBA Energy Saving Calculators	X					list/links to energy star calculators for equipment for residential, commercial, HVAC, and lighting	X
Scientific Software Group (SSG)	X	X				150+ software apps for environmental, groundwater, surface water, and air pollution modeling, etc.	X
Talleyfox Website				X		collaborative platform innovative water/wastewater technologies	

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Texas Renewable Energy Education Campaign - Energy/Water Calculators						Contains lists of calculators and software programs on carbon, electric power, solar water heating, and wind	X
The California Water Sustainability Indicators Framework	X	X		X	X	Report on CA water sustainability indicators framework process to be used by regions and river basins (78 pgs) (2011)	X
Trend Importer	X					IT Software for PC: Configure trend matrices from any collected trend data regardless of source	X
U.S. DOE Building Energy Software Tools Directory	X	X		X		List of building energy software applications; includes those that address water conservation	X
UN CEO Water Mandate			X	X	X	Assist companies in development, implementation and disclosure of water sustainability policies and practices	
UN Water Footprint, Neutrality and Efficiency (WaFNE) Umbrella Project	X	X		♦		Report Available (184 pgs); under development website to host different water footprinting tools/methodologies	♦
UNEP/SETAC Life Cycle Initiative				X		Website: Life Cycle Assessment & Life Cycle Mgmt: database of LC inventory registry; reports on how to complete LCA	X
Utility Manager	X					IT Software for PC: captures data from utility bills every month into its centralized database	X
Veolia – Water Impact Index		X	X	X		Water Impact Index methodology incorporating/comparing impact of projects on water resources	X
Water for Business: Initiatives guiding sustainable water Mngt	X	X	X	X		Summary Report of calculators, tools, and methodologies (1 page per tool) (40 pages) (march 2010)	X
Water Innovation Centre				X		collaborative project research/analysis of industrial and other impacts on lake Winnipeg Basin; case studies/research	
Water Stewardship Australia	X	X				Organization responsible for water management standards for the largest Australian water users	
WaterAide	X					IT Software for PC: Comprehensive residential, commercial and industrial water audit software	X

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WATERGY	X			X		Excel model that screens sites and illustrates the energy savings that result from water conservation activities.	X
WaterSense				X		product certification: WaterSense Label products are 20% more water efficient	X
Wholly H2O	X	X	X	X	X	Wholly H2O focuses on CA advocacy, research, and education; primary focus is on decentralized water re-use	X
WWF/DEG Water Risk Filter	♦	♦	♦			Tool which quantifies water related risks at facility and portfolio level (under development)	♦

Notes:

1. Water Accounting**:** Tools and resource that provides information about how to track or manage water from a project, building, or enterprise including a) water quantity (withdrawals, discharge, consumption), water quality, or water re-use; and b) supply chain, direct, and end-use.

2. Ecosystem/ Environmental Impact: Tools and Resources that provide information about the impact from a project, building, or enterprise on the water environment or about the impact of available water resources on a project, building, or enterprise; impact to human or aquatic life; impaired quality

3. Identify/Assess Business Risks: Identification of risks and opportunities related to water use and impacts. Business Risks include risks from:
- Physical risk – management -; scarcity, quality
- Regulatory Risk – changes in rules, less availability loss of license
- Reputational Risk – loss of market
- Financial risk – impact on cost and revenues

4. Prevention & Response: Resource that aids in how to report, what actions to take, and how to identify responsible companies through certification schemes, conservation, management, and reuse of water.

5. Public Engagement and Dislosure: Resource that aids in identification of what and how to disclose information and engage the public

6. Tool**:** Interactive resources where you can either query information, save, or manipulate data or certify your project or facility. Tool column is checked if resource is either a "tool" or a reference which provides a list of tools.