Attachment 1. GreenCO BMPs and Relationship to Water Conservation Planning

GreenCO BMP			CWCB Conservation Measures and Goals	Literature Review Priority
General Category	**GreenCO BMP Name**	**Brief BMP Description**	**Relation to Demand Side Measure or Program to Reduce Peak Seasonal Demand**	
Sustainability	Sustainable Landscaping	This BMP introduces basic sustainability and energy conservation concepts that Green Industry professionals can consider integrating into their professional practice.	Landscape Efficiency	Low
Xeriscape	Xeriscape	Implement the seven basic landscape principles of Xeriscape: planning and design, soil improvement, zoning of plants, practical turf areas, efficient irrigation, mulching and appropriate maintenance.	Landscape Efficiency Xeriscape ordinances, rebates/incentives; landscape standards	High
Water Budgeting	Water Budgeting	Calculate the water needs of irrigated landscapes based on plant types, land area and irrigation system efficiency. Use the calculated water budget to apply water according to the needs of the plants and manage irrigation.	Landscape Efficiency Water Budgets (also relates to Conservation Pricing)	High
Design	Landscape Design (including Plant Selection & Placement and Hardscapes)	Plan and design landscaping comprehensively to conserve water and protect water quality.	Landscape Efficiency Landscape Standards, Drought Resistant Vegetation, Xeriscape	Medium
Landscape Installation: General	Landscape Installation/Erosion and Sediment Control	Minimize erosion and control sediment leaving the construction site during landscape installation.	Landscape Efficiency	Low
Soils	Soil Amendment/Ground Preparation	Evaluate soil and improve, if necessary, to promote efficient water usage and healthy plants.	Landscape Efficiency Soil amendment ordinances and rebates/incentives	High
Trees	Tree Protection	Identify trees suitable for preservation and implement measures to protect these trees during construction activities.	Landscape Efficiency	Low
Trees	Tree Placement in Urban Landscapes	Trees must be placed in the urban landscape so that adequate soil and space for root growth are provided for the long-term growth and health of the tree.	Landscape Efficiency	Low
Trees	Tree Planting	Properly plant trees, shrubs and other woody plants to promote the long-term health of the tree.	Landscape Efficiency	Low
Irrigation	Irrigation Efficiency	Properly design, install and maintain irrigation systems to ensure uniform and efficient distribution of water, thereby conserving water and protecting water resources.	Landscape Efficiency/ Irrigation System Standards	High
Irrigation	Irrigation System Design	Design the irrigation system for the efficient and uniform distribution of water.	Landscape Efficiency/ Efficient Irrigation; Irrigation System Standards	High
Irrigation	Irrigation System Installation	Install the irrigation system according to the irrigation design specifications, which should be in accordance with manufacturer's specifications, local code requirements and sound principles of efficient and uniform water distribution.	Landscape Efficiency/ Efficient Irrigation; Irrigation System Standards	High
Irrigation	Irrigation System Maintenance	Maintain the irrigation system for optimum performance, ensuring efficient and uniform distribution of water. Modify the irrigation system as needed to provide supplemental water for maintaining healthy plants without wasting water.	Landscape Efficiency/ Efficient Irrigation; Irrigation System Standards; Water Waste Ordinance	High
Irrigation	Irrigation Efficiency Audits	Auditing existing irrigation systems to identify needed improvements is a key tool in reducing landscape water waste and improving irrigation efficiency.	Landscape Efficiency/ Efficient Irrigation; Irrigation Audits	High
Irrigation	Irrigation Technology and Scheduling	Irrigation systems can be equipped with a variety of water conserving devices such as soil moisture sensors, rain sensors and shutoff devices, weather stations, high wind shutoff devices, freeze protection devices, and advanced, automated, "Smart" control systems that incorporate evapotranspiration (ET) conditions. Because one of the key benefits of advanced irrigation technology with regard to controllers (clocks) is increased ease of scheduling and more precise scheduling, irrigation scheduling is also discussed as part of this BMP.	Landscape Efficiency/Irrigation Efficiency Measures (rebates/incentives for a variety of devices such as rainfall, soil moisture and ET sensors); alternative irrigation systems (e.g., subsurface drip)	High
Irrigation	Irrigation Using Nonpotable Sources	Nonpotable water may be used for irrigation purposes as a method to conserve potable or higher quality water sources for human consumption (drinking water).	Supply Side Measure: Source Substitution (Reuse)	Need to Discuss

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Maintenance: General	Landscape Maintenance	Practice landscape maintenance appropriate for the site including practices such as pruning, weeding, mulching, fertilization and attention to the irrigation system.	Landscape Efficiency	Need to Discuss
Maintenance: Trees	Tree and Other Woody Plant Care	Properly plant and maintain prune or trim trees, shrubs and other woody plants to maximize the plants' health.	Landscape Efficiency	Low
Maintenance: Herb. Plants	Herbaceous Plant Care	Properly plant and maintain herbaceous plants to maximize plant health and conserve water.	Landscape Efficiency	Low
Maintenance: Turf	Turf Management	Plan, properly install and maintain practical turf areas.	Landscape Efficiency Turf Rebates/Incentives*	High
Maintenance	Fertilizer Application	Properly apply fertilizers, based on the specific needs of plants, particularly as identified by appropriate soil or plant tissue tests.	Landscape Efficiency	Low
Maintenance	Pesticide and Herbicide Application	Apply pesticides and herbicides at minimal levels in accordance with the label and targeted to specific disease and weed problems.	Landscape Efficiency	Low
Maintenance	Pesticide, Fertilizer and Other Chemical Storage, Handling and Disposal	Pesticides, herbicides, fertilizers, fuel and other maintenance chemicals must be properly applied, stored, handled and disposed of to prevent contamination of surface water and groundwater.	**	N/A
Maintenance	Lawn Aeration	Aerate lawns to reduce thatch, thereby improving nutrient and water uptake, reducing runoff and reducing compaction.	Landscape Efficiency	Medium-High
Maintenance	Lawn Waste Disposal/Composting	Dispose of yard waste to minimize adverse impacts to the environment by keeping waste out of storm drains. Recycle and compost organic materials whenever possible.	**	Low-Medium
Maintenance	Mowing	Mow lawns to the proper height and at the proper frequency to maintain turfgrass health, thereby minimizing the need for pesticide and fertilizer application and reducing water usage.	Landscape Efficiency	Medium-High
Maintenance	Mulching	Use organic mulches to reduce water loss through evaporation, to reduce soil loss due to exposure to wind and runoff, to suppress weeds, and to provide a more uniform soil temperature.	Landscape Efficiency Rebates/Incentives	Medium-High
Maintenance	Drought and General Water Conservation Practices for Landscapes	Manage landscapes using the most water-efficient techniques during drought conditions.	Landscape Efficiency/Irrigation Efficiency	N/A (individual practices split out separately)
Snow	Snow Removal	Snow removal practices should be conducted in a manner that minimizes adverse impacts to vegetation, soils and water quality.	**	N/A
Production	Production Practices for Nurseries, Greenhouses, and Sod Growers	Nurseries, greenhouses and other growers should implement a variety of source, structural, cultural and managerial controls to minimize pollution of water resources. Irrigation practices that minimize off-site transport of pollutants also typically conserve water.	Industrial/Commercial Irrigation Efficiency Measures	Out of Scope
Production	Water Management Practices for Nurseries, Greenhouses, Sod Growers and Holding Yards	Manage production and holding areas to promote the efficient use of water..	Industrial/Commercial Irrigation Efficiency Measures	Out of Scope
Retail	Retail Practices for Nurseries, Greenhouses and Garden Centers	Retail businesses should operate in a manner to maintain the health of plants, to conserve water and to promote water conservation and water resource protection to the general public.	Industrial/Commercial Irrigation Efficiency Measures	Out of Scope
Large Landscapes	Park, Golf Course and Other Large Landscape Design and Management	Large landscaped areas such as parks and golf courses should be well designed and properly managed to be an environmental amenity and to minimize runoff to waterbodies.	Landscape Efficiency/ Irrigation Efficiency Measures	Need to Discuss

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Drainage	Landscape Features in Low Impact Development	Properly design, install and maintain landscape features serving stormwater runoff water quality treatment and volume reduction functions. Low Impact Development (LID) designs seek to approximate pre-development runoff hydrology by allowing storm runoff to infiltrate into the landscape rather than routing urban runoff directly into the storm sewer.	Landscape Efficiency (Alternative to Rainwater Harvesting)	Medium
Drainage	Revegetation of Drainageways	Establishment of a robust cover of vegetation is critical to the proper functioning of engineered drainage structures such as grass-lined channels, detention basins, retention ponds, and wetlands.	**	N/A
Drainage	Riparian Buffer Preservation	Preserve wide, undisturbed natural riparian areas along streams.	Landscape Efficiency Natural Landscaping	Low-Medium
Education	Employee Education	Educate industry employees on water quality and water conservation practices.	Education/Information	Medium-High
Education	Public Education	Model and teach water conservation and water pollution prevention to the general public and consumers of green industry products.	Education/Information	Medium-High
Education	Regulatory Awareness	A variety of local, state and federal environmental regulations impact landscaping and nursery operations. Green industry professional should be aware of these regulations and comply with their requirements.	**	N/A

Other Practices Not in GreenCO Manual
Cash for Grass