









Sustainable Technologies for Green Building, Green Infrastructure, and Sustainable Energy Design in Evaluation Matrix Format

Items	Primary/ Secondary Target Resources for Sustainable Uses	Example of Existing Sustainable Technologies	Attain Multiple Sustainable Objectives	Performance			Comments/ Remarks/ Applicability and Maintenance	Recommendations for Implementation
				High	Medium	Low		
1. 2.	<p>Primary Target: Water Management</p> <p>Secondary Targets: Energy Management, Biodiversity, Community Benefits, etc.</p>	<p>Green Rooftops: Green roof coverts rooftops into a living and diverse plant community. It improves biodiversity; mitigate excessive urban temperatures and stormwater runoff. The insulating effect of a green roof can significantly reduce both air conditioning and heating costs inside the building.</p> 	Water Conservation					
			Energy Conservation					
			Improve Biodiversity					
			Improve Community Benefits/Education					
		<p>Soakaways, Infiltration Trenches and Chambers: Man-made depressions, engineered to hold back surface water and let it infiltrate into the soil, thus reducing the volume of runoff. Basins are landscaped to create structures that appear natural and offer an amenity value for the local community.</p> 	Water Conservation					
			Energy Conservation					
			Enhance Biodiversity					
			Enhance Community Benefits/Education					

3.		<p>Bioretention: Bioretention swales provide both <u>stormwater</u> treatment and conveyance functions. The swale component provides pre-treatment of stormwater to remove coarse to medium sediments while the bioretention system removes finer particulates and associated contaminants.</p> 	Water Conservation					
			Energy Conservation					
			Enhance Biodiversity					
			Enhance Community Benefits/ Education					
4.		<p>Naturalized Stormwater Pond:</p> 	Water Conservation					
			Energy Conservation					
			Enhance Biodiversity					
			Enhance Community Benefits/ Education					
5.		<p>Bioswales: Bioswales are linear, vegetated channels which allow for the collection, transport, filtration and absorption of stormwater. Bioswales typically take stormwater runoff from nearby paved surfaces and hold the water long enough to allow it to slowly soak into the deep soil and possible rock drainage layer.</p>	Water Conservation					
			Energy Conservation					
			Enhance Biodiversity					

6.			Community Benefits/ Education					
		<p>Permeable Pavement: A type of hard surfacing that allows rainfall to percolate through to underlying soil substrate or be removed by a subsurface drain. Permeable paving can replace conventional asphalt and concrete for sidewalks, driveways, parking areas and road surfaces.</p>	Water Conservation					
			Energy Conservation					
			Enhance Biodiversity					
7.	<p>Primary Targets: Energy Management, Community Benefits, etc.</p> <p>Secondary Targets: Water Management, Biodiversity, Community Benefits, etc.</p>		Enhance Community Benefits/ Education					
		<p>Green /Cool Roof:</p> 	Water Conservation					
			Energy Conservation					
			Enhance Biodiversity					
8.		<p>Green architecture with cross-ventilation:</p>	Water Conservation					

9.		Energy Conservation					
		Enhance Biodiversity					
		Enhance Community Benefits/ Education					
	Using sustainable construction materials: Integrating biodegradable (such as paints without volatile organic compounds), recycled and sustainable materials in building construction enhance conservation of natural resources.	Water Conservation					
		Energy Conservation					
		Enhance Biodiversity					
		Enhance Community Benefits/ Education					
10.	Green Infrastructure practices contribute to energy conservation initiatives by insulating buildings, shading building envelopes and/or ameliorating the urban heat island effect. In addition to the direct energy saving benefits, they can also be built as a complement to sustainable energy generation practices. For example, the buildings below include solar arrays installed on a green roof.	Water Conservation					
		Energy Conservation					
		Enhance Biodiversity					



Enhance Community
Benefits/ Education