Green Infrastructure Practices

Maintaining and Acquiring Natural and Open Lands

Scale: landscape, watershed, community, shoreline

Context: coastal and upland; rural to urban

Examples: land acquisition, conservation easements,

establishing parks and greenways



Forestry Practices

Scale: landscape, watershed, community **Context**: coastal and upland; rural to urban

Examples: urban forestry, street trees, yard trees



Green Streets

Scale: community

Context: coastal and upland; suburban to urban

Examples: narrower streets, bio-swales, rain gardens



Bioretention

Scale: community, site

Context: coastal and upland; rural to urban

Examples: rain gardens, bio-swales, stormwater planters



Green or Blue Roofs

Scale: community, site

Context: coastal and upland; suburban to urban

Examples: intensive or extensive green roofs, cisterns, roof

drain disconnection

(over)



Source: South Carolina Department of Natural Resources



Permeable Pavements

Scale: community, site

Context: coastal and upland; suburban to urban

Examples: permeable concrete and asphalt, paver blocks, gravel

and grass pave systems



Dune or Beach Creation and Protection

Scales: shore

Context: coastal; rural to suburban

Examples: beach nourishment, dune creation, dune

revegetation



Salt Marsh and Tidal Wetlands Protection and Restoration

Scale: shore

Context: coastal; rural to urban

Examples: salt and tidal marsh preservation and restoration,

submerged aquatic vegetation preservation



Oyster and Coral Reef Protection and Restoration

Scales: shore

Context: coastal; rural to urban

Examples: protection of existing reefs, establishment of oyster

reefs



Source: US Fish and Wildlife Service

Hybrid Practices

Scales: shore

Context: coastal; rural to urban

Examples: coupling hard infrastructure with natural systems such as a rock sill or breakwater with marsh grasses behind.

Particularly useful in higher energy environments





Green Infrastructure Practices and Benefits

| | Water & Stormwater Management | | | | | | Climate Mitigation | | | | Cultural Benefits | | | | Conservation and Shoreline Processes | | | | |
|--|----------------------------------|---------------------------|--------------------------------------|----------------------------|-------------------------------------|-----------------------------------|--------------------|----------------------|----------------------------|------------------------------|---------------------|---|----------------------------|--------------------------------|--------------------------------------|---------------------|-----------------------------|---------------------------------|-----------------------------------|
| PRACTICE | Reduces Water Treatment Needs | Improves Water Quality | Reduces Gray Infrastructure Needs | Reduces Inland Flooding | Increases Available Water Supply | Increases Groundwater Recharge | Reduces Energy Use | Improves Air Quality | Reduces Atmospheric CO2 | Reduces Urban Heat Island | Improves Aesthetics | Increases Recreational Opportunities | Reduces Noise Pollution | Improves Community Cohesion | Improves Habitat | Reduces Wave Energy | Reduces Coastal Flooding | Maintains Sediment Transport | Reduces Saltwater Infiltration |
| Maintaining and Acquiring Natural and Open Lands | | | | | | | | | | | | | | | | | | | |
| Forestry Practices | | | | | | | | | | | | | | | | | | | |
| Green Streets | 0 | | | | | | | 0 | | | 0 | | 0 | | | | | | |
| Bioretention | | | | | | | | | | | | | | | 0 | | | | |
| Green or Blue Roofs | | | 0 | | | | 0 | | | | | | | | | | | | |
| Permeable Pavements | | | 0 | | | | | | | | | | | | | | | | |
| Dune or Beach Creation and Protection | | | 0 | | | | | | | | | 0 | | 0 | | | 0 | 0 | |
| Salt Marsh and Tidal Wetlands | | 0 | 0 | 0 | | | | | 0 | | | 0 | | | | | 0 | 0 | |
| Oyster and Coral Reef Protection/Restoration | | 0 | | | | | | | | | | | | | | | 0 | | |
| Hybrid Practices | | | | 0 | | | | | | | | | | | | 0 | | 0 | |



YES

MAYBE

Table modified from "The Value of Green Infrastructure: A Guide to Recognizing its Economic, Environmental, and Social Benefits," Center for Neighborhood Technology and American Rivers, 2010.

