

Model Landscape Design Code

Project Objectives:

- *To research and analyze existing landscape codes in the U.S. that are suitable for the landscape in the State of Louisiana*
- *To define and illustrate methods of detaining/retaining on-site stormwater runoff within common landscape code compliance areas*
- *To assemble related technical data and develop a preliminary draft model landscape code*
- *To draft a model landscape code that incorporates public input and approved comments, which is suitable for use by communities in the State of Louisiana*
- *To develop a Final Landscape Code Suitable for Communities in the State of Louisiana that is assembled in a written text*

Measure of Success

Success will be measured as communities embrace draft ordinance language and incorporate it into their municipal zoning law. Also, prediction of the reduction in off-site runoff and the amount of runoff retained on site due to compliance with the technical standards and design guidelines prepared for the model landscape code will be evaluated. Success will be measured when communities show interest in implementing the model code in their district.



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Model Landscape Design Code for Communities in the State of Louisiana



**LOUISIANA NATIVE PLANTS AND TREES:
MARSH MALLOW, BALD CYPRESS, & COPPER IRIS**



Model Landscape Design Code

Introduction

The entire state of Louisiana is made up of a massive network of streams, bayous, rivers, swamps, estuaries, and coastal marshes. Over 40 % of the nation's wetlands and the 7th largest delta on earth are present in Louisiana. Ecosystems in Louisiana are typically comprised of a diverse species of native plants and animals that favor wet areas. The environmental conditions there often become unstable from increased stormwater runoff and frequent flooding.



Natural features, including the native fauna and flora, play an important role in managing stormwater runoff and frequent flooding. They promote important functions such as retention, infiltration, filtration, recycling of nutrients, and removal of pollutants. Louisiana has maintained an environment with an abundance of natural resources, rich with fisheries and wildlife. Louisiana plays a critical role in the hydrological and nutrient cycle within this part of the world. Significant alterations to this process could be costly and degrade environmental quality.

The Problem

Increased demands for housing, commercial development, and transportation infrastructure has caused a sharp rise in the amount of development and construction. Accommodating this type of growth often increases the amount of impervious surfaces. Some examples of impervious surfaces are rooftops, parking lots, streets, and roadways. Impervious surfaces do not allow water from rainfall, to infiltrate into the ground and accumulate pollutants. This results in a higher potential for flooding and water pollution. The scientific community and landscape architects have recognized the important role that natural ecosystems play in the landscape and are taking steps to incorporate them into new or existing developments. The approach is termed low impact development where developers utilize nature to maintain a balanced environment. This approach is cost-effective and has benefits, such as increased aesthetics and economic value, reduced maintenance, sustainable natural resources, and preservation of a local heritage.



RAIN BARREL AND RAIN GARDEN



The Solution(s)

Current Landscape ordinances may not recognize Louisiana's need for managing high volumes of stormwater runoff and flooding. Features should be created that simulate processes occurring in Louisiana's natural landscape, which are known to manage stormwater runoff and flooding.



POROUS PAVEMENT AND WET POND

Statement of Purpose

A model code crafted to include both landscaping and storm water management would be a new tool for city planning agencies. The model code will apply to new and redeveloped multi-family, commercial, institutional and industrial properties under the regulations of community zoning law. The model is expected to address land clearing, tree preservation, site planting, parking lot design, sediment control during construction, low impact development procedures, and on site storm water control for new and redeveloped projects, which can be permitted under the general rules of zoning laws. Community landscape codes are contained within zoning ordinances so that any community with zoning can benefit by updating their ordinance to include the landscaping and storm water management design principles set forth in the model code.