

COASTAL

Services

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Royal offers clients a professional and knowledgeable staff of engineers, planners, and scientists who are experts in solving the complex issues that are present in coastal and estuarine systems. Royal is extremely familiar with unique issues relevant to design and construction in the coastal zone including risk analysis, proper selection of materials, constructability issues, cost implications, and environmental impacts. Federal, state, and local officials have made a tremendous effort to formulate synergistic coastal restoration and Royal offers permitting, design, and construction services to support those efforts. Royal has long-standing relationships with governmental decision makers and is proud to play an active role in advocating these long-term strategic plans to enhance the sustainability of our home region.

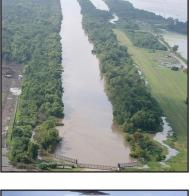


Our coastal services and experience include:

- Ecosystem Restoration- Planning and Design
- Wetland Regulatory Compliance/Section 10/404
- State and Federal Permits
- Hydraulic and Hydrodynamic Modeling
- Geophysical/Geotechnical Investigations
- Water Control Structures
- Shoreline Protection
- Levees and Dikes
- Offshore Breakwaters
- Beneficial Use of Dredged Material
- Marsh Creation Design
- Coastal, Riverine & Deltaic Processes
- Sediment Management
- Sand Source Investigations
- Project and Construction Management
- Bulkhead Design
- Barrier Island Restoration

Representative Project Experience:

- NRCS Shoreline Protection-Iberia, Jefferson and Lafourche Parishes, Louisiana
- Assessment of Mississippi River Freshwater Re-Introduction Into Bayou LaFourche- Barataria & Terrebonne Basins, LA





SERVICES Civil Engineering **Construction Management Project Management** Coastal Services

