San Francisco Bay

National Estuarine Research Reserve

Location: Two sites: China Camp State Park, 20 miles north of San Francisco, California, and Rush Ranch, 50 miles northeast of San Francisco

Date Designated: 2003

Area Protected: 3,710 acres

Web Address: *sfbaynerr.org*

Management: Daily oversight is provided by San Francisco State University. NOAA's Office for Coastal Management provides funding, national guidance, and technical assistance.

Access and Infrastructure

- China Camp State Park: This 1,514-acre park spans a forested ridgeline down to the muddy shoreline below, protecting diverse oak woodlands, grasslands, intertidal marshes, cobble beaches, and mudflats. The park offers opportunities to learn about the area's rich natural and cultural history and to bike, camp, and enjoy the water.
- Rush Ranch: Stretching across 2,070 acres of marsh and rolling grasslands, Rush Ranch protects one of the best remaining examples of a brackish tidal marsh in the country. The marsh provides refuge for endangered animals and serves as a sentinel of environmental change. There are several hiking trails offering panoramic views of Suisun Marsh.
- San Francisco State University: The reserve's administrative headquarters and primary laboratory are at the Romberg Tiburon Center, San Francisco State University's estuary and ocean science center in Tiburon, California.

The San Francisco Bay National Estuarine Research Reserve sites include rare remnants of habitats that were once common in the San Francisco estuary. The wetlands of China Camp and Rush Ranch serve as valuable reference sites for understanding the structure and function of historic marshes; they are an essential tool in the successful restoration of similar habitats.

The reserve's goals include increasing scientific knowledge of the sites, expanding understanding and application of estuarine science, and promoting stewardship of the estuary. The reserve staff achieve these goals by conducting and supporting research and long-term monitoring and engaging communities, educators, and decision-makers with coastal science.

NOAA Office for Coastal Management

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Interesting Things to Know

- The tidal marshes at Rush Ranch and China Camp are both surrounded by protected, undeveloped uplands, allowing for a natural transition that provides vital refuge for marsh animals.
- Weather and water-quality data are collected at both sites and can be easily accessed by the public online. These data are used by scientists, recreational swimmers, duck club managers, teachers, and other curious members of the community.
- China Camp was the site of a thriving Chinese shrimp-fishing village in the late 1800s. The community built upon knowledge and skills learned shrimping in estuaries in China to create a successful new fishery on the shores of the San Francisco Estuary.
- In addition to the hiking trails, visitors to Rush Ranch can visit a working blacksmith shop, a nature center, a restored 100-year-old barn, and a house built in 1932 using a kit from Sears, Roebuck & Co.

About the Programs

The nation's 30 research reserves represent a tremendous asset, protecting nearly 1.4 million acres and providing habitat where plants and wildlife thrive. Community benefits include recreation, flood protection, and water filtration. Because the following programs are offered at each reserve, the system is able to make an environmental impact at the local level, as well as nationally.

Stewardship. Site protection and enhancement are part of every research reserve. Activities may include managing land and water resources, restoring habitat, controlling invasive species, maintaining biodiversity, and reducing environmental stressors.

Research. Reserve research is focused on how environmental factors—such as nutrient loading, climate change, invasive species, and storms—impact coastal ecosystems. The monitoring program, known as the System-Wide Monitoring Program, or SWMP, provides long-term data on water quality, weather, biological communities, habitat, and land-use and land-cover characteristics. This combination of research and data provides a strong, science-based foundation for addressing coastal management challenges.

Training. To provide the community with the information and skills needed to integrate coastal science into local decision-making and everyday lives, reserves provide specialized courses and information. Reserve training professionals are active in community planning and improvement initiatives.

Education. Local data generated at the reserve provide students with a firsthand experience of local environmental conditions. Educators lead student, teacher, and citizen field trips that are life-changing experiences, as participants see, feel, and smell what makes an estuary one of the most remarkable places in the world.