

# PRESIDIO TRUST

## FACT SHEET | Presidio Natural Resources

The Presidio's long tenure as a military post (1776-1994) ensured that its natural setting was significantly protected from urbanization as the city around it grew increasingly dense. But when the Army left in 1994, many of the Presidio's natural resources were in a state of decline. Over the previous centuries encampments and housing had displaced wetland and riparian habitats. Roads, coastal batteries, and bunkers affected dunes and grasslands, the health of the 300-acre planted forest was declining, and natural streams were redirected through dams and underground culverts.

Since taking over management of the Presidio in 1996, the Presidio Trust has worked with its partners at the National Park Service and the Golden Gate National Parks Conservancy to restore and preserve the park's natural landscapes. Projects are guided by the Presidio Vegetation Management Plan, which lays out a framework for balancing native plant restoration, the historic forest, and designed landscapes. In many cases, the first step was environmental remediation. An innovative agreement with the U.S. Army gave the Trust primary responsibility for remediation. This program was largely completed in 2016.

### Fast Facts

- The diversity of wildlife in the Presidio is unusually high for an urban park, **with more than 323 species of birds, mammals, reptiles, amphibians, insects, and fish**; its location on the Pacific Flyway attracts more than 65 bird species during their migrations. And other species migrate too, like bats, dragonflies and butterflies.
- The 1,491-acre Presidio includes **991 acres of open space and 384 acres of native plant communities**, including threatened, rare and endangered species.
- The **262-acre historic forest** planted by the Army is maintained as part of a cultural landscape; more than **20 acres of the declining forest have been replanted at a rate of 1.5 acres per year**.
- Since its establishment in 1996, the Presidio Trust has engaged more than 125,000 volunteers who have donated more than 650,000 hours of service.
- 16 landfill sites have been removed or capped; 500 former fuel storage tanks have been remediated; miles of fuel distribution piping have been removed; and lead-based paint in soil has been removed at hundreds of structures.
- The Presidio has a rich collection of historic gardens and ornamental plantings, including rare 100-year-old hybrids
- A majority of the Presidio's fresh water - 85% - comes from the Lobos Creek watershed in the west side of the park.

### The Return of Wildlife

The success of the Trust's resource management can be measured by the spontaneous return and successful reintroduction of wildlife to the park. For example, the restoration of dune habitat and the removal of non-native Cape ivy, resulted in a spontaneous return of Silver digger bees. The Green hairstreak butterfly has spread across the park as habitat is restored. The Trust partnered with Point Blue Conservation Science to monitor bird activity before, during, and after environmental remediation

and native vegetation and habitat restoration. Results of the study showed a marked increase in song sparrows and Anna’s hummingbirds, among others. Efforts to encourage growth of the native Olympia oysters at Quartermaster Reach and the Crissy marsh are underway.

### **Wildlife Reintroductions (outside of Mountain Lake)**

Ringlet butterflies, checkerspot butterflies, newts, fence lizards are just a few.

### **Native Plants Reintroduction**

The Presidio’s diverse wildlife depends on equally diverse plants for food and shelter. The important work of native plant restoration is made possible by the Presidio Nursery. A collaborative effort of the Presidio Trust, National Park Service, and Golden Gate National Parks Conservancy, **the nursery grows more than 65,000 native plants** annually for restoration projects — including many species that have never successfully grown in a nursery before.

### **Watershed Restoration**

The Tennessee Hollow Watershed covers 271 acres in the eastern section of the Presidio, with three creeks that flow to the Crissy Field marsh and on to the Bay. Its revitalization is a long-term project that is being completed in stages to restore the “spring-to-bay” stream corridor. Over the past decade, the Trust, its partners, and thousands of volunteers have successfully brought long-buried creeks back above ground and restored wildlife habitats and native vegetation, creating more than 20 acres of new wildlife habitat, returning 450 feet of stream to the surface, planting 20,000 seedlings from 123 species, and increasing native plant cover by 94%. At the heart of the watershed, El Polín Spring is a historically significant freshwater spring that was used by the Ohlone — the original inhabitants of the area — Spanish military families, and the U.S. Army. Today it serves as an outdoor classroom and is a hot spot for archaeology research and habitat restoration.

### **Mountain Lake Revitalization**

Since the late 1990s, the Trust has been working with local science and education organizations to bring 2,000-year-old Mountain Lake back to health. One of the last remaining natural lakes in San Francisco, it had absorbed sediment, toxins, and pesticides for decades due to its proximity to Park Presidio Boulevard and the Presidio Golf Course (the course now uses more environmentally sensitive maintenance techniques). Dredging removed 15,600 cubic meters of sediment and increased the depth of the lake by one-third to 15 feet. Native submerged aquatic vegetation was planted to remove algae-forming nutrients. Predatory and invasive fish were removed, and the native three-spine stickleback was reintroduced. Other wildlife species reintroduced include Pacific chorus frogs, western pond turtles, California floater mussel and the San Francisco Forktail damselfly.

### **Historic Forest Enhancement**

The 262-acre historic forest, made up of majestic stands of eucalyptus, Monterey pine and cypress trees, was planted by the Army in a relatively short time-period, beginning in the 1880s. A significant feature of the Presidio, it was named a protected landmark in 1962. When the park was turned over to the Trust, the pine and cypress trees were already reaching the end of their lifespans. The Presidio Trust’s reforestation team is gradually replacing the trees a few acres per year to create a healthier, mixed-age forest. Felled trees are used as compost, milled for benches and fencing, and can be seen in Andy Goldsworthy’s site-specific art installations throughout the park.