

# Nature in the City

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## MEMO

**DATE:** Thursday, July 20, 2006  
**TO:** San Francisco Recreation and Park Commission  
**FROM:** Peter Brastow, Director, *Nature in the City*,  
Former *National Park Service* Presidio Restoration Coordinator,  
*PROSAC* District 5 Representative  
Chair, *San Francisco Weed Management Area*

**RE:** Urban Nature & Franciscan Natural Resources **Facts** and **FAQs**

## FACTS

1. San Francisco harbors **diverse natural resources** in a unique environment characterized by a moderated Mediterranean climate, topographical and geological complexity. An incomplete sketch of natural San Francisco includes:

- diverse **geology**, e.g., sand dunes, sandstones, serpentinite & red rock chert;
- diverse **water resources**, e.g., lakes, springs, creeks, aquifers, and wetlands;
- over a dozen **native plant communities**, many of which are rare and endangered;
- **20 rare and endangered plant species** including 5 that are **federally listed**;
- **federally listed wildlife** including mission blue butterfly, western snowy plover, red-legged frog and California brown pelican;
- dozens of **butterfly, reptile, amphibian, and mammal species**;
- hundreds of species of **birds** including the locally endangered California quail, San Francisco's official bird;
- untold **insect diversity** including 60 species of solitary bees and 19 species of ants;
- hundreds of species of **fungi, algae, and lichen**.

2. **Impacts** to ecological health and integrity are severe. **Invasive weeds** are the single biggest force of destruction to the city's natural habitats. Plants like cape ivy, French broom, yellow oxalis & eucalyptus and many others displace native plant and wildlife habitats. Ecologically insensitive uses, lack of public awareness and anti-ecological negativity are also problematic.

3. In San Francisco, the **National Park Service**, the **Presidio Trust**, **U.S. Fish and Wildlife Service**, **State Parks**, the **Port**, **East Bay Regional Park District**, and the **SF Recreation and Park Department** all manage their lands for the conservation of local biodiversity. Due to fiscal

constraints, i.e., the constant slashing of resource management budgets, natural resources planning & management is limited to the highest priority sites. Coordination among jurisdictions, i.e., holistic watershed-level ecosystem planning and management is non-existent.

4. **Ecological community stewardship** of the city's natural areas and habitats is a thriving conservation and recreational activity within several jurisdictions. San Francisco has a rich history of community ecological stewardship in which local volunteers take care of local natural lands.

5. Several of the agencies that manage San Francisco's natural lands are partners in the **Golden Gate Biosphere Reserve**, a unit of UNESCO's Man and the Biosphere program. Diverse and committed volunteer stewards in the reserve perform the following activities among others:

- \* band raptors
- \* monitor harbor and elephant seals
- \* remove non-native invasive plants and restore native plant communities
- \* repair trails
- \* educate others about the environment.

6. Besides applicable state and federal laws and regulations, **local San Francisco laws**, policies and plans pertaining to biodiversity conservation include the following:

- a. The *Precautionary Principle* states, "Where threats or irreversible damage to people or nature exists, lack of full scientific certainty about cause and effect shall not be viewed as sufficient reason for the City to postpone cost effective measures to prevent the degradation of the environment or protect the health of its citizens."
- b. *Proposition C*, a continuation of the Open Space Fund, includes specific allocation of monies for the significant natural areas management program if not covered by operations.
- c. The *General Plan*. The Open Space and Environmental Protection Elements articulate the conservation of biodiversity, natural areas and rare and endangered species.
- d. The *Golden Gate Park Master Plan* directs conservation of the coast live oak woodlands.
- e. The *Sustainability Plan* contains a comprehensive biodiversity section with goals, long-term and short-term objectives, and actions.

# Frequently Asked Questions (FAQ) & Myths about Urban Nature

## Why do we restore (San Francisco's urban) biodiversity?

The parentheses are to indicate that the answers to this fundamental question apply worldwide.

1. The nature of San Francisco is unique like everywhere else on Earth. Our local biodiversity and ecological communities are as worthy of respect, celebration, restoration and stewardship as the Amazon or British Columbian rainforests. We must restore our local ecological integrity for its own sake, not just because we nearly destroyed it in the first place, but also simply out of respect for the right to exist of all other living things.
2. The membership of our city's natural lands in the Golden Gate Biosphere Reserve is recognition that our local nature and biodiversity and the rest of Earth are interconnected and interdependent, and that the Franciscan bioregion is critical to larger regional, continental, and global ecological sustainability. For example, millions of birds migrate through San Francisco on their long journeys between the Arctic and Mexico, Central and South America. Our urban habitats are very important for their survival.
3. Childhood exploration of nature is in danger of becoming extinct for the next generation. "Nature-Deficit Disorder", a non-clinical term recently coined by Richard Louv, is a frightening phenomenon that has rapidly emerged in the last 30 years. A striking suite of social, cultural, economic and institutional factors contribute to our children, rich or poor, becoming increasingly disconnected from nature. Controlled scientific studies and a wealth of anecdotal and observational evidence demonstrate that kids need the freedom of unrestricted and exploratory interaction with nature for successful social, moral and physical development.
4. All people, regardless of age or culture, need connection with nature. Humans are part of nature, and yet, many historical forces have caused an increasing disconnection between people and nature, physically, psychologically and culturally. We live in a modern urban society that is disconnected from nature, but in San Francisco, we have an incredible opportunity to connect people with nature where they live, "in their own backyard".
5. Restoring connections between people and their local nature is essential for public health and *is* environmental justice. Many studies have demonstrated a positive correlation between unhealthiness and lack of access to and experience in nature. As people become more aware of their local nature, they will realize they do not have to go far. They will get out of their cars, away from the TV and explore and enjoy the outdoors on foot and bicycle, thereby becoming healthier and ever more aware of their local environment. Poor and underserved communities have been cut off from access to and knowledge of nature, even if the opportunity is nearby. And many people simply cannot afford to go to Yosemite or even Point Reyes.

## Why shouldn't we "just let nature take its course"?

1. Contrary to the dominant paradigm of humans vs. nature and our resulting maladaptive cultural ecological relationship, *humans are not separate from nature*. We are of nature and depend on its resources to live. The question is not whether or not we interact with nature. We've never

stopped. The question is *how* we interact with nature. If we continue to destroy rather than steward nature, we will destroy ourselves and millions more species with us. The survival and endurance of humans and other species is dependent on ecological restoration. Restoring people's relationships with nature where they live is essential to our part of restoring a global culture of ecosystem conservation and stewardship.

2. *Invasive weeds* are here to stay, but without management and stewardship, wreak ecological havoc on our natural landscape and native biodiversity. With intentional, prioritized weed management by natural resources professionals and community ecological stewards, we have and can continue to conserve and restore our local biodiversity and Franciscan natural heritage.

## **How can we restore our urban ecosystem if we don't know what was here?**

Thoughtfully, like every human endeavor. A common myth is that since our original landscape was destroyed for urban development, we can't possibly know what is "natural" and thus why should we try.

1. Not only do we have San Francisco's own urban natural areas - the City's remnants of the original landscape that serve as rich information reservoirs and reference sites for our local ecological legacy, but also (and perhaps more well-known) natural lands with even higher ecological integrity persist to the north, east and south of the northern tip of the peninsula.
2. Starting with the Spanish diaries, and then more pointedly with Russian and other European *naturalists*, observations of San Francisco's nature have been recorded through time since first contact with Native Americans.
3. The California Academy of Sciences has been involved in documenting San Francisco's nature since its inception, and currently an effort exists to update the *Flora of San Francisco*, the 50 year-old catalogue of the city's native plants. Researchers from San Francisco State University, UC Berkeley, USGS and many other institutions collectively have studied San Francisco's native bees, butterflies, plants, birds, lakes, hydrology, geology, and historical ecology.
4. Finally, and probably most importantly, heroic community stewards and natural resources professionals have been tending and managing the city's natural lands for decades. Contrary to the cynical belief of anti-ecological and anti-Natural Areas Program forces, land managers, whether paid or not, are invaluable to the conservation of San Francisco's own ecological legacy. Their collective and deep first-hand knowledge and experience of San Francisco's nature is the starting point for our local ecological sustainability, which is severely threatened by the local anti-environmental extremists.

## **Don't native plant activists want to *clear-cut* the urban forest?**

No. Natural resource managers do need to manage invasive non-native trees just like other invasive weeds that impact locally evolved biodiversity. Where invasive trees impact sensitive habitats, removal is often necessary. But this does not mean wholesale removal of the eucalyptus plantations on Mt. Sutro and Mt. Davidson. Refer to the Presidio Vegetation Management Plan for more information about the successful balancing act performed between managing native habitats and "cultural forests".

The San Francisco ecological conservation community represents a broad array of local ecological stakeholders interested in reasonable, logical and culturally relevant ecosystem conservation. People like trees, native or not, and non-native trees can and do provide significant wildlife habitat value. Planting non-native trees throughout our streetscapes, neighborhood parks, and landscaped areas does not have to be incompatible with natural resource conservation, and in fact can be facilitative. The more people understand the value of our indigenous natural resources, the more people and institutions will plant trees that are not invasive and which have significant wildlife habitat value.

## **Do conservationists want to turn Golden Gate Park “back to the dunes”?**

Absolutely not! *No one in the ecological restoration movement has ever proposed turning the City’s centerpiece open space “back to the dunes.”* In fact, the Park has plenty of wildlife habitat value that can be enhanced through natural resource-friendly management. The eastern end harbors native coast live oak woodlands, the most wildlife rich habitat in the city. While Golden Gate Park represents a wholesale transformation of a significant portion of the Franciscan environment, not unlike the filling of the Bay, the Park has tremendous cultural significance, and is a national treasure.

## **People are our environmental problem, so why do we need more volunteers?**

Government natural resource management budgets at all levels and in all jurisdictions continue to be cut. Understaffed agencies are crippled in their ability to manage appropriate usage of our fragile natural areas, where a disconnected and unaware public actively, though unintentionally, damage our urban natural lands. Finally, the geographically fragmented nature of our ecological postage stamps and the sheer quantity of invasive weed sources and species means that the sustainability of weed management in our city is at the tipping point.

Since humans are part of nature - always have been, always will be – we have to decide *how* we interact with nature. Promoting, fostering, and expanding *community ecological stewardship*, under the leadership of professional natural resource managers and volunteer coordinators, is the only way to address long-term the myriad problems facing our local ecosystem and our society's disconnection from nature. True urban ecological sustainability is absolutely dependent on the development and co-evolution of this mutually beneficial local human-nature relationship. Nature needs people, and people need nature.

Through community-based stewardship, city dwellers become more deeply connected to their neighborhood nature. When San Franciscans are empowered to learn about their local watersheds and included in the natural resource management process, they become profoundly connected to their local ecological community, and even more deeply connected to their local human community. People realize the collective positive effect they can have on their local habitats, biodiversity, and watersheds. In the process of stewarding the land, people get to know it better, recognize human-nature interconnectedness, and thereby become better stewards by making it their habitat. Restoring local nature offers a deeper, collective sense of place for San Franciscans.