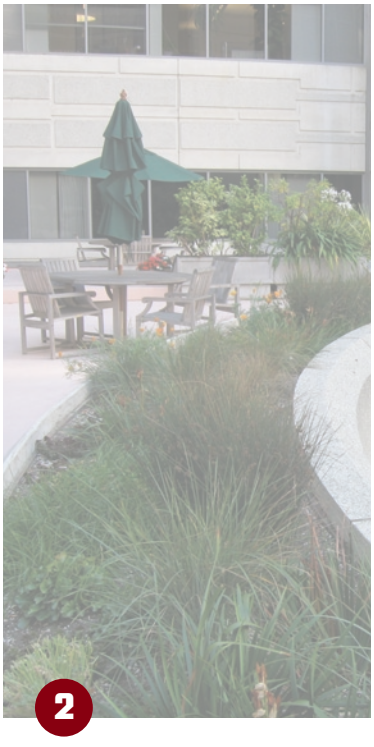

Editor's note: This is the third in a series of three case studies that took place in San Francisco on urban ecology. Each of the properties needed fresh ideas to revitalize their landscape, while addressing problem areas.

CASE STUDY #3:

RESTORING NATIVE HABITATS

One designer proves how new landscape models can support regional ecosystems. By Linda Novy

The third property is a skyscraper with a popular public garden located over its parking structure. Prior to this building, the area was part of a low-rise retail district. This area of San Francisco was originally a bay estuary, gradually filled and built up. Surrounding the estuary were sand dunes and rocky cliffs, meandering creeks and marshes, attracting a wide range of wildlife.

The property manager called upon my services to troubleshoot an ailing street tree but, after examining the tree, I was drawn up the steps into the attractive, well-manicured garden space. The landscape had been replanted in 2001 with ficus, Japanese maples, Hornbeam trees, privet, star jasmine, agapanthus, ferns and other traditional plant choices. It was being maintained in a tightly pruned manner, preventing any plants from producing blooms. Some plants, which were not thriving, had been replaced with seasonal perennials from the landscape contractor's commercial grower. More than 30 color bowls and several areas of color rotation were planted with a single plant variety, and while making a color impact, they were not offering much habitat value to native wildlife.

At our first meeting, I asked the property manger if he would be open to some suggestions that might improve the habitat and diversity of the garden, and if he would accept plants that attract native and European bees, butterflies, hummingbirds, and other beneficial wildlife. At that moment, a hummingbird zoomed in front of us and, as if working a grid, she scanned every square inch of a tightly clipped

LINDA NOVY

Plant palette, using 4 inch and 1 gal. **Plant material**: *Juncus* 'Elk Blue' (California gray rush), *Ceanothus* 'Ray Hartman,' *Polystichum munitum* (Western sword fern), *Mimulus aurantiacus* Orange (sticky monkey flower), Iris Pacific 'Canyon Snow' (Douglas iris), *Heuchera* 'Canyon Delight' (Coral bells), *Festuca glauca* 'Elijah Blue' (dwarf blue fescue), *Carex praegracilis* (California field sedge), *Erigeron glaucus* 'Wayne Roderick' (seaside daisy), *Saliva sonomensis* x Bee's Bliss, *Epilobium canum* (California fuchsia), *Dudleya farinosa* (live forever), *Festuca idahoensis* 'Siskiyou Blue' (Idaho fescue), *Satureja douglasii* (Yerba Buena), *Penstemon* blue bedder 'Electric Blue' (Penstemon).
Seeds: *Eschscholizia californica* (California poppy), *Lupinus nanus* (sky lupine), *Phacelia tanacetifolia* (tansy phacelia), non-native *Lobularia maritime* (Alyssum Wonderland White), *Chrondopetalum* (cape rush) and *Carex divulsa* (Berkeley sedge).

Property management:
CAC Real Estate Management Co.

Landscape design and management:
Linda J. Novy & Associates

Landscape maintenance:
The Shooter Co.

Soil:
Roof mix with organic amendment

Nursery consultant and supplier:
Jim Dreer, Sweet Lane Nursery

Arborist firm:
Bartlett Tree Experts

Seed supplier:
Pacific Coast Seeds

privet hedge for a food source. Finding none, she flew off. The hummingbird's visit illuminated the lack of pollen and nectar at the property, and the property manager responded that yes, he was interested in improving the diversity of the property and welcomed the native wildlife. I began by working with the maintenance team, identifying the shrubs and ground cover that could be allowed to grow out and flower, and using targeted hand pruning to maintain their structure.

Phase two was to remove plants that were not thriving and infill areas with native and native-like plants. For example, the snail-host Liriope was removed and replaced with native iris, blue Fescue and coral bells, an excellent hummingbird host.

California field sedge was used under a specimen Japanese maple that previously was specified for azaleas and seasonal color rotation. This was more in keeping with the original ecology of the area, and would eliminate the constant disturbance of the maple's root system. A cluster of planters were renovated using ceanothus standards, Berkeley sedge, rushes, seaside daisy, fescue and dwarf penstemon, with interplanting of allysum to boost the insectary quality of the planting.

All these changes reduced the amount of seasonal color rotation while boosting the biological diversity of the landscape. The color rotation palette was broadened to include native-like perennials such as black eyed Susan (a bee attracting plant), Scabiosa, plus native dwarf penstemon with purple blue flowers. A section of the garden was infused with habit plants by interplanting natives with stands of flax. Native fuschia, salvia and sticky monkey flower were planted, and California poppy, tansy phacelia and lupine were seeded. Later phases of the renovation included infilling color rotation areas with native iris, Yerba Buena sword ferns and cape rush. White allysum, a well known insectary plant, was included in a permanent native planting that characterized a fresh water seep and sand dune plant community.

By introducing native plants, allowing the non-native hedges and ground cover to assume a more naturalistic habit, reducing annual color rotations and integrating longer lasting pollinator friendly perennials, the budget of this property has benefited – but equally important, so has the habitat for the native wildlife.

The next phase being considered is to change the high-maintenance lawn to native bent grass, which will reduce mowing and reflect the early ecology of the area.

The author is a sustainable landscape manager consulting nationally to property owners and managers. She received *Lawn & Landscape's* Leadership Award in 2000.

SUMMARY
In these case studies, it is clear that restoring native habitats tells a story of stewardship and creates a unique sense of place. The landscape industry has an important role to play in creating new landscape models that support regional ecosystems. This approach benefits everyone: the property manager conserves dollars and the environment, the landscape contractor cultivates horticultural and ecological skills, and natural systems are restored and supported. Even in cityscapes, in planters on structures, we can restore historical plant communities and welcome back beneficial wildlife.

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