

Open Space and Landscape

CONTEXT AND EXISTING CONDITIONS

Currently about 40% of the main site is open space, the majority of which consists of steep slopes and a rustic landscape of grasslands, chaparral, forests, and occasional riparian areas that surround the site’s developed areas. This area of rustic landscape is host to more than 120 species of birds, mammals, and reptiles / amphibians and includes all of the protected habitats found on the main site.

The open space within the developed clusters is generally a vehicular and service-oriented setting consisting mostly of roadways, utility/service yards, parking, and areas for pedestrian access. Landscape planting in this area, such as shade trees and shrubs, are designed and maintained to mitigate the impacts of this more pragmatic setting consisting mostly of hard surfaces.

Open spaces specifically designed and maintained for pedestrian use provide a valuable amenity within several of the developed clusters. The most notable being the outdoor dining and lawn area adjacent to the Cafeteria, the historic redwood grove, and the entry plaza near the ALS building. These “commons” areas are highlighted by a formal landscape of lawns, ornamental plantings, patterned hardscape, and outdoor furnishings that



work together to contrast these special places from the more rustic open space areas.

Stands of mature redwoods, eucalyptus, pine and oak trees within each of these open space areas provides a visual screen for views of the Laboratory from the urban areas to the west. From these lower level areas, views to the Laboratory are in

FIGURE 3.26 Views of Laboratory buildings from the City of Berkeley are softened by screening tree stands and open space reserves

FIGURE 3.27 The Laboratory is host to more than 120 different animal species, including Columbian Black-Tailed deer



numerous vistas from the Laboratory to the San Francisco Bay Area.

The Berkeley/Oakland Hills region is susceptible to wind-driven firestorms such as the Oakland hills fire of 1991. Following this event, the Laboratory implemented an extensive vegetation management program that, by reducing the amount of fuel and potential flame intensity, should allow Laboratory buildings to survive such a fire. As a result of this program tree stands have been thinned regularly and a clear understory is maintained annually giving the forested areas of the site a “park-like” quality.

The Laboratory’s main site consists of a wide variety of native and non-native vegetation. In more recent years, as a part of the Laboratory’s vegetation management program, invasive

keeping with the general character of the East Bay hills—predominantly a mix of grasslands, woodlands and partial views of buildings among the trees. While these tree stands provide an effective cover they are also positioned to frame

exotic plants are being thinned or removed and replaced with native, drought-tolerant plants.

The region is also susceptible to unstable hillside slopes. Over the years, slope stabilization projects have corrected the most serious landslide conditions. The remaining slide areas have been stabilized. Slope retention and drainage control structures are located throughout the site and visually extend the purpose-built architectural character of Laboratory buildings into the landscape.

OPEN SPACE AND LANDSCAPE STRATEGIES

Both the Open Space Framework and the Landscape Framework are based on strategies that aim to preserve the environmental quality and enhance the overall experience of the Laboratory main site.

- Preserve and enhance the native rustic landscape and protect sensitive habitats
- Develop new campus-like outdoor spaces such as plazas within clusters of facilities and improve those that already exist
- Maintain and enhance tree stands to reduce the visibility

of Laboratory buildings from significant public areas in neighboring communities

- Improve the overall appearance and experience of the Laboratory through improvements to the main entry gates and the landscape areas associated with roadways, parking lots, and pedestrian pathways
- Continue to use sustainable practices in selection of plant materials and maintenance procedures
- Develop all new landscape improvements in accordance with the Laboratory's vegetation management program to minimize the threat of wildland fire damage to facilities and personnel
- Utilize native, drought-tolerant plant materials to reduce water consumption; focus shade trees and ornamental plantings at special outdoor use areas
- Minimize impervious surfaces to reduce storm water run-off and provide landscape elements and planting to stabilize slopes and reduce erosion and sedimentation

OPEN SPACE AND OPEN AREA FRAMEWORK

Like that of a university campus, the Laboratory is comprised of different kinds of open space with distinctly different character and purpose. The Open Space and Open Area Framework illustrated in Figure 3.28 is a conceptual illustration of the Laboratory's four primary kinds of open space. While these spaces may share physical characteristics, the purpose and intended uses of these spaces vary. Therefore, each category has a unique set of parameters that ensure the development of a more campus-like setting at Berkeley Lab. The four open space categories are:

Perimeter Open Space

The Perimeter Open Space corresponds directly with the 66 acre land use zone of the same name and includes most of the site's protected habitats. This area of the site, consisting of a rustic landscape similar to that of adjacent properties, provides a buffer to neighboring uses and visually enhances the natural quality of the Berkeley Hills setting. These lands will generally be maintained as they have been and in accordance with the limitations discussed in the Land Use section.



Developed Open Area

The Developed Open Area is of a similar landscape as the Perimeter Open Space but encompasses the rustic hillside terrain that lies between each research cluster. While new projects may be sited within this area, it is considered less likely due to the unfavorable site conditions and relatively remote building sites within this area.

Cluster Open Area

Within the research clusters, where most of the future development will occur, much of the unimproved land surrounding existing and future buildings will be dedicated to vehicular and service uses. Yet these areas will often need to provide for pedestrian access and landscape features. These landscaped areas, planned for each cluster, are identified as Cluster Open Area.

Even though unimproved land will be limited in this area, special attention will be given to developing clear and safe pedestrian access. Site improvements will be planned and designed to separate vehicular and pedestrian traffic where possible. Land will be set aside to provide for vegetation for visual screening, shade, and an overall enhancement to the quality of the pedestrian environment.

Cluster Commons Open Area

As new projects develop, Cluster Commons Open Areas will provide a center of pedestrian activity within each research cluster. This space is intended to be used much like the quads or plazas found on a traditional university campus and would be scaled to be appropriate for the cluster of research facilities, with features to encourage informal use. The largest of these would occur at the Laboratory Commons, in the center of the Laboratory where the highest levels of activity and events will occur.

LANDSCAPE FRAMEWORK

The Landscape Framework illustrated in Figure 3.29 defines the ways in which open spaces will be improved or maintained.

Rustic Landscape Zones

The vast majority of the Laboratory's open space is characterized by the rustic, diverse landscape mosaic of oak and mixed hardwood forests, native and non-native grasslands, chaparral, coastal scrub, marsh and wetland communities, and riparian scrubs and forests. Maintenance activities will be undertaken to maintain the health of these areas.