

CHAPTER 7. HABITAT RESTORATION

Many habitats in SEAs have been lost, degraded, or fragmented due to past development or use. This degradation is generally accompanied by loss and impairment of valuable ecosystem functions and amenities that support the health and wellbeing of the human populations of LA County. The County welcomes habitat restoration projects, which aim to restore SEA Resources and ecosystem services to degraded habitats. When done well, habitat restoration can regain and correct ecosystem process and functions that filter our water and air, help control air temperatures, support biodiversity, and provide movement opportunities for wildlife. Failure to restore degraded ecosystems can result in increased environmental cost later, in the extinction of species or natural communities, and in permanent ecological damage.

To improve the County's monitoring of ecosystem health and encourage best practices in habitat restoration, the SEA Ordinance establishes a mandatory (but free) review of habitat restoration projects within SEAs to ensure that the methodologies and practices being implemented are consistent with the goals and policies of the SEA Program. To qualify for this special Habitat Restoration Review, a project should demonstrate, through a Restoration or Enhancement Plan or the equivalent, that it meets the SEA Findings (Section 22.102.080(D)). The project must also be voluntary and not part of a larger project whose primary purpose is not habitat restoration, such as a land use permit for a non-habitat restoration construction activity. Restoration proposed as part of a larger project that includes non-habitat restoration development will be reviewed as part of the permit for that development. If the restoration project does not demonstrate that it meets the SEA Findings, it will be required to go through the same SEA assessment process as is required for a development project.

WHAT IS HABITAT RESTORATION?

Habitat restoration is the process of returning a habitat to a close resemblance of its condition prior to disturbance.

Successful restoration means that both ecosystem structure and function have been recreated or repaired to such degree that the natural ecosystem processes that contribute to self-maintenance of the ecosystem are operating effectively and without the need for further human engineering or interference.

Even small scale or partial ecological restoration can substantially expand or improve SEA Resources and ecosystem services.

For restoration projects that meet the SEA Findings, the Habitat Restoration Review will be used by the County to provide guidance and recommendations for ensuring consistency with the SEA Program. By reviewing and monitoring habitat restoration projects, the County will be able to collect data on where and how restoration is taking place within SEAs, track successes, and identify trends and information gaps. The County will use this information to assist in evaluating the overall success of the SEA Program.

HABITAT RESTORATION REVIEW

The purpose of Habitat Restoration Review is to assist restoration practitioners in designing sound habitat restoration and enhancement projects that are compatible with the goals of the SEA Program. This chapter is also intended to assist Department Staff in evaluating and approving restoration or enhancement projects. These guidelines and principles are general and intended to be applied flexibly on a site-by-site basis. They do not replace or supersede the permit requirements of any other agency, such as the U.S.



Figure 34. Habitat restoration before and after pictures. Source: Puente Hills Habitat Preservation Authority website.

Fish and Wildlife Service, Army Corps of Engineers, State Water Resources Control Board, or CA Department of Fish and Wildlife. However, the County review process is intended to allow for coordination with other permit processes by allowing the use of common application materials and content.

While it is not required by the Ordinance, we highly recommend that applicants schedule a pre-submittal counseling meeting with Department Staff to get feedback on the project and its environmental protection measures. Department Staff can provide valuable insight about local conditions, including likely presence of sensitive species, upcoming development in the project vicinity, and other important information that may affect project plans. Attending a pre-submittal counseling meeting will also help ensure that sufficient technical detail is included in the restoration document to be submitted. To schedule a pre-submittal counseling meeting, contact sea@planning.lacounty.gov.

BASIC PRINCIPLES

- ❖ The desired outcome for all restoration projects is to create and enhance biologically functional habitats that support target species as well as other species that are important to overall biodiversity.
- ❖ Restoration activities should not begin until the restoration plan is reviewed by the Department.
- ❖ The restoration should be led by an experienced restoration ecologist with documented experience of successful native habitat restoration in the region.
- ❖ The restoration should be performed by experienced restoration contractors specializing in native habitat restoration.
- ❖ There are numerous resources available to guide restoration practitioners on successful restoration strategies for the type of habitat being restored. The proposed methodology should be consistent with such manuals and documents that describe best available restoration and enhancement methodologies for the type of habitat being restored.
- ❖ Restoration should be conducted only on sites where soils, hydrology, and microclimate conditions are suitable for the type of community being restored. Identification of restoration sites should involve an analysis of the suitability of potential sites to support the desired habitat, including comprehensive mapping and documentation of physical and biological site conditions through species surveys, soils surveys, drainage mapping, and constraints analysis.

- ❖ Riparian Restoration: All sites should contain suitable hydrological conditions and surrounding land uses to ensure a self-sustaining functioning riparian vegetation community.
- ❖ Priority should be given to restoring areas that occur adjacent to existing areas of native habitat, especially those that support sensitive species, with the goal of increasing habitat patch size and connectivity while restoring habitat values that will benefit sensitive species.
- ❖ Implementation may be phased over a multi-year timeline (often 5-10 years) to provide for greater diversity of planting ages. Strategies for making prompt mid-course adjustments or corrections in response to changing conditions (e.g. rainfall, fire, flood, etc.) should be included in the restoration plan.
- ❖ Prior to implementation, funding sources and responsible entities for carrying out restoration should be secured.
- ❖ Prior to implementation, an explicit work plan should be developed, including schedules and budgets for site preparation, installation and post-installation actions.
- ❖ Practice adaptive management by developing strategies for revisiting implementation or performance standards if necessary. Identify an advisory team of experts to provide advice and direction.

MANDATORY BEST MANAGEMENT PRACTICES

STRESSORS

- ❖ Any stressors causing habitat degradation should be addressed prior to starting restoration.

PLANT MATERIAL

- ❖ Provide details regarding the planned source of their plant material. If the source is from more than ten miles away or from a completely different vegetation or geology, provide reasonable support for why that stock has been chosen.
- ❖ Special consideration should be given to sources of tree seed and other long lived species. In the case of oak trees, it is preferable to grow seedlings from acorns collected in the immediate project vicinity (within approximately two miles of the project site).
- ❖ All stock should be from plants within Counties in or adjacent to the SEA. Nurseries used to grow stock should also be within counties in or adjacent to the SEA to prevent spread of soil borne diseases and insect pests.
- ❖ Plant material used for habitat restoration purposes should consist of native species that are local to the immediate area of the mitigation site.
- ❖ All plant material proposed for use in a habitat restoration program should be inspected by a qualified biological monitor to ensure that all container plants are in good health and do not contain pests or pathogens that may be harmful to existing native plants or wildlife species.
- ❖ Container plants and other landscaping materials (including organic mulches) should be inspected to ensure they do not contain Argentine ants.
- ❖ Native seed mixes should be inspected by a biological monitor prior to their application to ensure that they contain the proper species and that seed packages are in good condition and do not contain any pests or pathogens.
- ❖ Diseased or infested plant, seed, or landscape materials should be removed from the site and transported to an appropriate off-site green waste facility.

INVASIVE PLANTS

- ❖ Removal of non-native species in patches of native habitat shall be conducted in such a way as to minimize impacts to the existing native vegetation.

- ❖ Provide a clear description of how green waste will be handled.
- ❖ Use of chemical methods should be utilized only as a last resort.
- ❖ Any proposals for use of herbicide treatments should be accompanied by a plan that demonstrates:
 - that other methods of invasive species control have been tested, and that a single application of herbicide has been determined to be the best solution;
 - that there is a post application plan for revegetation and/or mulching; and
 - that the treatment is a one-time application.
- ❖ Preemergent herbicide should never be used, as it may affect rare species in the seed bank.

IMPORTED SOIL

- ❖ Imported soil shall be free of exotic invasive plant species and shall come from a local source.

IRRIGATION

- ❖ Use plugs rather than larger plants to reduce the need for irrigation during establishment in order to conserve water resources. This also helps plants establish new roots that are adapted to the soil in the ground, rather than having a large root mass adapted to the soil in the nursery pot.
- ❖ If irrigation is required, describe the plan to control annual weeds that might occur and thrive from the irrigation.

MULCH

- ❖ Mulch is the least harmful and most beneficial way to prevent weeds, promote healthy soil, and help restore healthy organic material in the soil. One application of mulch can promote storage of large amounts of carbon in soils for years to come, helping with global climate change. It prevents water loss up to 30%. Almost all native habitat, outside of some desert ecosystems, have deep layers of organic material near trees and shrubs, keeping their roots cool and preventing evaporation.
- ❖ An area for native bee nesting without mulch can be set aside and marked. Monthly weeding will be necessary in this area until native plants can be established.

SCHEDULE

- ❖ Provide details regarding the planned schedule. Establishment of restoration/revegetation sites should be conducted during the appropriate time of year (between October 15 and January 30 for most projects), with planting and/or seeding occurring immediately after the restoration sites are prepared.

MAINTENANCE PLAN/GUIDELINES

- ❖ Provide a Maintenance Plan that includes (1) weed control, including cleaning of equipment to prevent further spread or introduction of new weeds; (2) herbivory control; (3) trash removal; (4) irrigation system maintenance; (5) maintenance training; and (6) replacement planting.

SIGNAGE AND FENCING

- ❖ If necessary, the restoration plan should include specifications on fencing to protect biological resources and restrict human access.
- ❖ Signage specifications should be developed to indicate the site is a restoration/preserve area and to either indicate that trespassing is not allowed or to instruct visitors to stay on trails if public access is allowed.