

Lawrence E. Hunt
Consulting Biologist

Mark Edwards
Parton-Edwards Construction, Inc.
109 South La Cumbre Lane
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1 November 2005

Subject: Biological Assessment of Proposed Residential Construction Project at 124 Los Aguajes Avenue (APN 33-041-07), Santa Barbara, Santa Barbara County, California

Dear Mr. Edwards,

This letter report summarizes my observations and conclusions regarding existing conditions of and potential project-related impacts to biological resources from development of the proposed residential development project located at 124 Los Aguajes Avenue in the City of Santa Barbara (Photo 1).

Proposed Project. The proposed project involves demolition of an existing single-story house and detached garage and construction of a three-story, 3-unit condominium on the property.

Methods. A complete walkover survey of the subject property and surrounding neighborhood was conducted on 2 February 2005 between 1400 hrs and 1600 hrs and again on 11 August 2005 between 0815 and 0930 hrs.

Existing Conditions. The subject property is located in a medium- to high-density residential/commercial development neighborhood within the City of Santa Barbara (Photo 1). Los Aguajes Avenue borders the property on the south. The property is bordered by residential development on the east, commercial development on the west, and by Mission Creek and the Union Pacific Railroad tracks on the north (see attached photographs). The existing residence, detached garage, and associated concrete driveway cover at least 50% of the lot. Lawn grass and ornamental plantings cover the backyard of the property and include the following shrubs and trees: jade plant (*Crassula* sp.), banana (*Musa* sp.), elephant ear (*Alocasia* sp. or *Colocasia* sp.), avocado (*Persea americana* or *P. drymifolia*), and orange (*Poncirus* sp.). A single coast live oak (*Quercus agrifolia*) is present along the hedge bordering the eastern edge of the backyard. This tree is between six and seven feet tall and has a trunk diameter at breast height (dbh) of approximately two inches. It appears to have been accidentally planted as an acorn by a bird. Twenty-five foot tall podocarpus trees (*Podocarpus* sp.) border the west side of the driveway of the subject property, but occur on the adjacent lot. The adjacent property owner removed these trees sometime between my February and August visits to the property. A Canary Island palm (*Phoenix canariensis*), also found on an adjacent property, abuts the northwestern property line of the subject property and is approximately 35 feet tall.

Mission Creek originally ran through the subject property according to 1895 Sanborn maps, but it was channelized and displaced eastward several decades ago. Currently, Mission Creek borders the north side of the property as a deep channel with a concrete-lined bottom and 12-foot high and 15-foot high vertical sandstone block walls forming its northerly and southerly banks, respectively (Photo 2). The existing creek was channelized at the turn of the 20th Century from the southernmost Chapala Street bridge northward at least to the north side of Highway 101, a distance of over 1,500 feet. The sandstone block walls form the top-of-bank along the edge of the subject property and extend three to five feet above the grade of the backyard along the northern property line. The backyard of the subject property abuts this wall. There is no riparian corridor. The bottom of the creek channel is lined with concrete and therefore, does not support aquatic, emergent, or riparian vegetation. Sediment has collected along the northern edge of the channel to a depth of one or more feet and provides an ephemeral substrate for plant growth. This shallow layer of sediment overlying a concrete substrate and subject to regular disturbance by storm flows and/or channel maintenance precludes the establishment of stable plant communities within this reach of the Mission Creek channel. Sediment that accumulates here provides only temporary, low-quality, foraging habitat for opportunistic, widespread species of birds and mammals at certain times of the year (Photo 2).

The long history of use of the subject property and neighborhood for residential/commercial purposes, including this channelized reach of Mission Creek, provides generally low-quality habitat for wildlife. The following wildlife species were observed from the backyard of the subject property either Mission Creek channel or in surrounding yards during the site visits: western gull (*Larus occidentalis*), mallard (*Anas platyrhynchos*), acorn woodpecker (*Melanerpes formicivorus*), western scrub-jay (*Aphelocoma californica*), Anna's hummingbird (*Calypte anna*), black phoebe (*Sayornis nigricans*), and house finch (*Carpodacus mexicanus*). Generalist wildlife species that are adapted to living in urban environments are expected to comprise most, if not all, of the wildlife species found in this neighborhood.

This reach of Mission Creek does not appear to provide a dispersal corridor for wildlife movements. The concrete channel provides nothing more than a physical link between more natural reaches of this watercourse found well upstream and downstream from the subject property. This reach lacks vegetative cover, which is a critical component of wildlife movement corridors.

Special-Status Species. The highly modified environment of the subject property and surrounding neighborhood precludes the presence of special-status aquatic, riparian, or upland plants and wildlife. Permanent water in the channel provides a continuous physical link between natural riparian habitats found well upstream and downstream of the subject reach, but surface flows following storms quickly diminish along this reach to only a few inches deep. There are no pools, runs, overhanging banks, or shading

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bankside vegetation along the channelized reach of the creek. Southern steelhead (*Oncorhynchus mykiss*) and tidewater goby (*Eucyclogobius newberryi*) are known to occur in Mission Creek, far upstream and/or downstream of the subject reach, but the concrete-lined channel bordering the subject property provides no habitat structure for fishes and may present an effective barrier to movements of anadromous steelhead and gobies.

Impacts. This section identifies potential project-related impacts to biological resources. Mitigation measures, designed to reduce or eliminate these impacts are provided in the following section.

- a) *Creek Zone:* The City of Santa Barbara has established minimum 25-foot wide area of development limitation from the top-of-bank for properties that border Mission Creek in order "...to prevent undue damage or destruction of developments by flood waters." (SBMC 28.87.250). In many cases, this area of development limitation permits riparian habitat restoration and stabilization of the bed and banks of Mission Creek with native, locally-occurring ground cover, shrubs, and trees, in order to improve habitat quality for aquatic and terrestrial wildlife along the urban reaches of the watershed. These plantings also reduce water quality impacts associated with development, by filtering surface runoff from pollutants and sediment, reducing or eliminating bank erosion, reducing or eliminating invasive, non-native plant species. A vegetated setback also creates a visual screen that blocks human activity from wildlife habitats in the creek, and reduces water temperature and evaporation in the creek through canopy shading. Certainly, these types of buffers along urbanized reaches of watercourses work best where the top-of-bank is natural and contiguous to a natural streambed. None of these characteristics occur along the northern boundary of the subject property.

The bed and banks of Mission Creek bordering the subject property, and for hundreds of feet upstream and downstream of the subject property, retain none of these criteria because the creek has been re-aligned, channelized, and lined with concrete and stone. Therefore, the subject property lacks two elements critical to a functioning riparian corridor: a) habitat connections between the creek and upland (here, top-of-bank is defined by 15-foot high vertical sandstone wall at the northern property line), and; b) habitat continuity (here, the concrete-lined channel and vertical stone banks provide no substrate for plant growth). Consequently, there is no biological basis for designating a 25-foot-wide area between the existing channel wall and the building footprint as a "riparian zone".

Despite the current relationship between the subject property and this reach of Mission Creek in its existing form, there are opportunities to improve habitat conditions for wildlife through judicious landscape planting that creates or

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restores foraging, roosting, and possibly nesting features for wildlife, particularly birds. Successful implementation of the mitigation measures below could significantly increase wildlife habitat values over existing levels without the need to designate or enforce a "riparian zone" in the backyard of this property.

- b) *Water Quality*: The project incorporates a number of design features that capture varying amounts of site-generated runoff, depending on precipitation levels. The project design may decrease existing levels of polluted runoff entering Mission Creek from the project site (see Mitigation Measure (f) in the following section).

In general, the project as proposed poses no significant impacts to biological resources. On the contrary, it affords the opportunity to enhance wildlife habitat quality of the project site through the use of native and ornamental landscaping that is of value to wildlife.

Mitigation Measures. The following recommendations are designed to increase the attractiveness of the subject property to wildlife, particularly resident and migratory birds and bats, as well as minimize storm water runoff and improve the quality of surface runoff. Birds can most easily utilize a heavily degraded and fragmented riparian corridor such as that presented in the neighborhood of the subject property because of their ability to easily cross man-made barriers. Several of these measures already have been incorporated into the Landscape Plan for this project:

- a) I collaborated with the Project Landscape Architect on the Preliminary Landscape Plan in order to create a plant palette for the project that blends native trees and shrubs with ornamental species that provide high value in terms of food and/or cover for wildlife. Eight of the nine trees and shrubs proposed for landscaping in the backyard within 25 feet of the creek channel are native species [e.g., western sycamore (*Platanus racemosa*), western redbud (*Cercis occidentalis*), ceanothus (*Ceanothus* spp.), elderberry (*Sambucus mexicanus*), evergreen huckleberry (*Vaccinium ovatum*), and porcelainberry (*Ampelopsis brevipedunculata*), wood fern (*Dryopteris arguta*), and giant chain fern (*Woodwardia fimbriata*)]. The Landscape Plan also includes planting at least three king palms (*Archontophoenix cunninghamiana*) in the back yard. These species will create ground, mid-level, and canopy-level plant structure in the backyard and will provide a partial screen between Mission Creek channel and the proposed residential structure. Moreover, each of these species provides dense cover and/or a potential food source for foraging and nesting birds. The king palms and the existing Canary Island palm provide valuable roosting and/or nesting habitat for a variety of birds, including several species of woodpeckers, as well as bats. If possible, four bat boxes, one placed at each compass direction, should

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be attached to the trunk of the existing Canary Island palm at a height of at least 25 feet above ground in order to attract and provide temporary roosting sites for bats.

- b) The ornamental plants proposed for the sides and front yard of the subject property represent a mix of species that provide foraging/cover habitat and food sources for a variety of birds and these plantings should blend well with the native species planted in the back yard. A fence proposed to run along the western property line will be planted with a flowering vine attractive to hummingbirds.
- c) The proposed rectangular retention basin, when lined with sedges or other native vegetation, will function as a compact bioswale. The proposed permeable paving and drive area, constructed over a crushed rock retention basin will retain a significant amount of storm water, onsite, and return the water directly to the underlying soils. Also, the proposed, above-grade, rainwater management tank will reduce and reuse storm water runoff from the site. These storm water management systems, will capture, filter, and, depending on storm intensity, contain, or reduce, runoff generated by the structure.

I anticipate project implementation will increase the attractiveness of the project site to wildlife (i.e., birds and possibly bats) because the landscape plant palette provides foraging and/or cover opportunities for wildlife in close proximity to an existing perennial water source (Mission Creek).

Sincerely,



Lawrence E. Hunt
attachments: two site photographs

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ATTACHMENT: SITE PHOTOGRAPHS

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Photo 1. Existing house on subject parcel at 124 Los Aguajes Avenue. 2 February 2005.

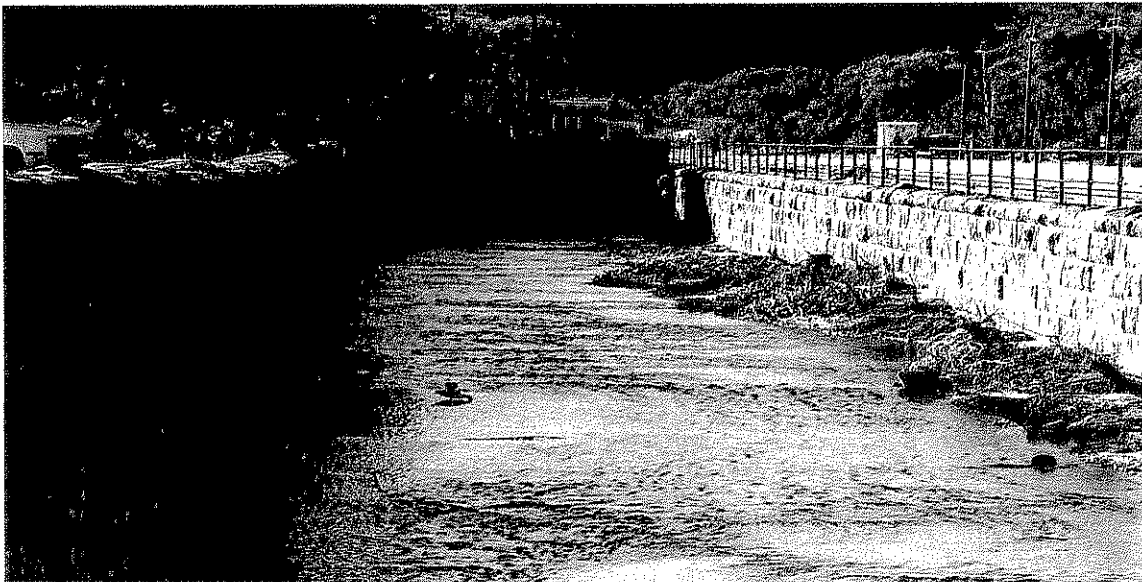


Photo 2. Mission Creek Channel, looking upstream (southwest). Backyard of subject parcel abuts curve in stone wall on left in distance. UPRR tracks run along right side of photo. Note absence of riparian corridor and aquatic vegetation along this channelized, concrete-lined reach. depth of channel, height of cut sandstone retaining walls, and sediment and debris deposited along inside curve channel during storm flows. 2 February 2005.

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5 May 2006

Subject: Response to Comments From Creeks Division on Planting Plan for Backyard at 124 Los Aguajes Avenue (APN 33-041-07), Santa Barbara, Santa Barbara County, California

Dear Mr. Edwards,

This letter responds to comments made by the Creeks Committee in their project review letter dated 22 December 2005 regarding the biological value of the proposed planting plan for the backyard of the property located at 124 Los Aguajes Street in the City of Santa Barbara.

Riparian Buffer Area: I have previously stated (letter report dated 3 November 2005) that this property is unique in its relationship to Mission Creek in that the creek has been diverted from its original course and channelized with a concrete bed and 15-foot high sandstone block walls that abut the backyard property line. Thus two critical elements of a functional riparian corridor are lacking in this situation: a) habitat contiguity between creekbed, creek banks, and upland, and; b) habitat continuity upstream and downstream along the watercourse. Consequently, I believe there is no biological basis for designating a 25-foot-wide area between the existing channel wall and the building footprint as a "riparian zone" or "riparian buffer area".

Planting Plan. I have worked with David Black, landscape architect, to develop a planting plan for the backyard of 124 Los Aguajes Street that uses almost exclusively native, locally-occurring trees, shrubs, and ground cover that is of high value to wildlife. Although the subject property currently has no biological connection to Mission Creek other than the 15-foot high channel wall, the proposed planting plan will create that connection. I have attempted to increase the value of the property to wildlife, particularly birds, with an aggressive planting plan that provides food, cover, and roosting opportunities for birds moving along Mission Creek. The proposed plan significantly increases habitat values over existing conditions at this location. Specifically, the plan calls for planting the following species in the backyard. All but one of these species is native:

Trees:

- western sycamore – one tree in SW corner; fast-growing, provides foraging, roosting, and nesting habitat for birds and roosting sites for bats;

- western redbud – several scattered along perimeter of yard; seeds eaten by birds;
- elderberry – several around perimeter of yard; shrub/tree; fruit has high food value and plant has high cover value for birds;
- king palm – one tree; non-native, but provides high wildlife value as roosting and nesting site for birds and bats.

Shrubs: - all species form flowers and/or seeds that are consumed by birds or used by birds during foraging

- *Ceanothus* sp. – *C. arboreus*, *C. spinosus*, or *C. thyrsiflorus*, for use as screen hedge (8-10 ft high) along NE property line; high food value for insects, high food and cover value for birds;
- evergreen huckleberry – fruit is eaten by variety of birds
- porcelainberry – fruit is eaten by variety of birds.

Ground Cover:

- wood fern – cover for birds and other animals;
- giant chain fern – cover for birds and other animals;
- mulch – soil between plantings will be mulched to provide foraging habitat for ground-feeding birds.

In general, the proposed planting plan has species that can be utilized by aerial, mid-level, and ground-foraging birds. Local native plant nurseries can procure these species from genetic stock originating between San Luis Obispo and Orange County. The identity, quantity, and location of these plantings will be shown on a revised planting plan.

I have reviewed the proposed landscaping plan for the remainder of the property (side yards and front yard). None of the proposed trees, shrubs, or ground cover species are invasive. Many of these species also provide food, cover, and roosting habitat for birds and will work well with the native palette selected for the back yard. However, two species, lavender trumpet vine and potato vine, proposed for the fence along the eastern property line are invasive unless heavily controlled. If these species are kept towards the front of the lot and not allowed to spread northward towards the creek, they should pose no threat to Mission Creek.

Given the existing unique relationship between the subject property and this reach of Mission Creek, strict application of riparian zones developed for more natural reaches of the creek is neither appropriate nor necessary at this location. The goals sought by the Creek Division are achieved with the current planting plan, without the need to apply a

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“riparian buffer zone” designation. The proposed plan for the backyard creates foraging, roosting, and possibly nesting opportunities for wildlife, particularly birds.

Sincerely,

A handwritten signature in cursive script, appearing to read "Lawrence E. Hunt".

Lawrence E. Hunt

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