



H. T. HARVEY & ASSOCIATES

Ecological Consultants

April 26, 2018

Nancy Hendrickson
Northgate Environmental Management, Inc.
428 13th Street, 4th Floor
Oakland, CA 94612

RE: PG&E Egbert Switching Station Project – Bat Habitat Assessment (HTH 4076-02)

Per your request, H. T. Harvey & Associates has conducted a reconnaissance-level survey of potential bat habitat within and adjacent to the Egbert Switching Station Project in San Francisco, Daly City and Brisbane, California. We understand that the project includes construction of the proposed Egbert-Embarcadero 230 kV Line, Martin-Egbert 230 kV Line, Egbert Switching Station, and Jefferson-Egbert 230 kV Line and that questions have arisen regarding the potential for project activities to result in impacts to roosting and/or foraging bats. We evaluated foraging and roosting habitat for bats throughout the project alignment. This letter report provides a description of potential bat habitat for each route or area where construction will occur and discusses potential impacts to bats, along with recommended measures to mitigate any potential impacts to bats possibly associated with this project.

Methods

On April 20, 2018, I conducted a reconnaissance-level survey of bat habitat for the proposed PG&E Egbert-Embarcadero 230 kV Line, Martin-Egbert 230 kV Line, Egbert Switching Station, and Jefferson-Egbert 230 kV Line. In addition to driving along the project alignment, I frequently got out of my vehicle to take images of potential habitat and made notes as to the likelihood of bats roosting and foraging within and adjacent to the project area.

Potential Bat Habitat in and along the Project Alignment.

The proposed Egbert-Embarcadero 230 kV Line and Martin-Egbert 230 kV Line, running from the underpass of Bacon Street under U.S. 101 and along Egbert Avenue to the edge of the railroad line, are lined by mostly industrialized land uses, with some residential land uses on the north side of the routes. The buildings along these routes appear to have little potential for use by roosting bats. The U.S. 101 underpass at Bacon Street has a flat concrete ceiling that does not provide the thermal qualities needed for a maternity colony of bats, and I do not expect any impacts to bats along these segments of the project alignment.

The proposed Egbert Switching Station site is currently occupied by an active lumber yard with degraded buildings (sheds) along the yard's perimeter. Because the Mexican free-tailed bat (*Tadarida brasiliensis mexicana*)

is common and widespread in San Francisco (Krauel 2009)¹, and therefore is expected to commonly roost in buildings throughout San Francisco, this species could potentially roost in structures located within the designated Proposed Egbert Switching Station site.

The proposed Jefferson-Egbert 230 kV Line would proceed south of the aforementioned lumber yard through a parking lot of a datacenter and a parcel with two unoccupied buildings, across Paul Avenue, along Crane Street, across U.S. 101, and along Mansell Street, Visitacion Avenue, Hahn Street, Sunnysdale Avenue, Santos Street, Geneva Street, and Carter Street before tying into the existing Jefferson-Martin 230 kV Line at Guadalupe Canyon Parkway. Some areas along this portion of the project alignment provide potential bat roosting habitat. An abandoned historic building with a tile roof, located at 400 Paul Avenue, is located approximately 60 feet to the northwest of the project alignment. Because the tiles on this style of roof have irregular spaces between them, the Mexican free-tailed bat frequently uses this roofing style for roosting. Farther south along the project alignment, Mansell Street includes a long running median strip with approximately 100+ trees, consisting primarily of various species of eucalyptus, pine, and cypress. None of these trees appeared to provide potential roosting habitat for the crevice-roosting bats of San Francisco, the Yuma myotis (*Myotis yumanensis*), little brown bat (*Myotis lucifugus*), and the Mexican free-tailed bats (Krauel 2009). Many of the eucalyptus trees of various species provide potential habitat for the western red bat (*Lasiurus blossevillii*), a species that over-winters in San Francisco (Constantine 1959)². Large stands of various species of eucalyptus and cypress also occur along the other streets (e.g., Visitacion Avenue) associated with the project alignment. As at Mansell Street, I did not observe any trees along or adjacent to these roads that likely provide crevice roosting habitat for bats, although some of these trees provide potential roosting habitat for the western red bat.

Potential Impacts to Bat Roosting and Foraging Habitat

Many trees along the project alignment include potential roosting habitat for the foliage-roosting western red bat. However, this species does not raise young in San Francisco; rather, it over-winters primarily in wooded areas of San Francisco. Further, any western red bats potentially roosting in trees along this urbanized project alignment have had to habituate to high levels of disturbance, including high and low frequency noise and considerable nighttime lighting.

Existing structures located within the proposed Egbert Switching Station site will be removed, and these structures could potentially provide roosting habitat for San Francisco's crevice roosting bats (Yuma myotis, little brown bat, and Mexican free-tailed bat). Additionally, the historic building at 400 Paul Avenue with an open tile roof provides potential roosting habitat for these crevice roosting bats. The removal of any structure with roosting bats, or the use of strong light directed into the tiles of a roof with roosting bats, could disturb bat colonies. Because the 400 Paul Avenue building is located in close proximity to U.S. 101 and an active railroad line, and in an industrialized area of San Francisco, low and high frequency noises are expected at all hours of the day and night. Therefore, any potentially roosting bats are expected to be habituated to many kinds of noises, and any additionally generated noise as a result of the project is not expected to disturb roosting bats.

¹ Krauel, J. J. 2009. Foraging Ecology of Bats of San Francisco. M.A. Thesis. San Francisco State University.

² Constantine, D. 1959. Ecological Observations of Lasiurine Bats in the North Bay Area of California. Journal of Mammalogy. 40:13-15.

Although bats could occasionally forage along the project alignment, particularly along Mansell Street and Visitacion Avenue, the temporary loss of this potential foraging habitat during project construction would not result in substantial impacts to bats because bats will easily fly to other adjacent areas to forage without spending much extra energy to do so. The foraging habitat along the project alignment is of marginal quality when compared to nearby habitat in undeveloped areas with trees and meadows and therefore does not represent important bat foraging habitat.

Please feel free to contact me by email at djohnston@harveyecology.com or by phone at (408) 458-3226 if you have any questions regarding this survey. Thank you for contacting H.T. Harvey & Associates regarding this project.

Sincerely,

A handwritten signature in black ink that reads "Dave Johnston". The signature is written in a cursive style with a long horizontal stroke extending from the end of the name.

Dave Johnston, Ph.D.

Associate Ecologist and Bat Biologist