

Rio Americano High School Stadium Improvements Project Draft Environmental Impact Report

SCH Number: 2026010094

Appendix C Bat Survey Memo



August 2026

Rio Americano High School Bat Survey Results

To: San Juan Unified School District
From: Kim Fettke, Wildlife Biologist

This memo presents the results of bat surveys conducted for the Rio Americano High School Improvements Project (proposed project) during the summer of 2025.

Project Description

San Juan Unified School District (District) is proposing to improve the existing Raider Stadium and related pedestrian access pathway within the Rio Americano High School Campus by adding high mast light standards, additional bleacher seating, an upgraded public address (PA) system, and a new press box. New light standards would also be installed for pedestrian safety along the paved fire lane between the stadium and the main campus parking lot. The proposed stadium lights would be used on select evenings to accommodate athletic practices and competitions and other schoolwide or community events, primarily during the winter months when the sun sets early. Though the school currently uses portable diesel-powered lights for athletic activities, the installation of permanent lights and other project improvements is expected to accommodate an increase in the level of activity after sunset.

The project site encompasses Raider Stadium and associated paved areas within the Rio Americano High School campus located at 4540 American River Drive (Assessor's Parcel Number [APN] 292-0210-019-0000). The project site is bounded by American River Drive on the north, private residences adjacent to Whitehall Way on the northeast, private residences adjacent to Morris Drive on the southwest, and the American River Parkway (Parkway) to the south. It is located in unincorporated Sacramento County east of Sacramento City limits in the urbanized Arden-Arcade community.

Potential Impacts

The State of California provides legal protection for all bat species under several different laws and regulations. Fish and Game Code Sections 4150 and 4152 prohibit the take or possession of any non-game mammals; by definition, take under this code means "hunt, pursue, catch, capture, or kill." California Code of Regulations Title 14 Section 251.1 prohibits harassment of bats. Penal Code Section 597 prohibits intentional and malicious acts of cruelty to living animals. California Code of Regulations Title 14 Section 15386 designates the California Department Fish and Wildlife as a Trustee Agency having jurisdiction by law over wildlife, fish, and plants affected by actions defined as a project under the California Environmental Quality Act.

California Department Fish and Wildlife also maintains a list of Species of Special Concern that are considered Special-status Species under California Environmental Quality Act. Three Species of Special Concern have a potential to roost or forage in the vicinity of the project site, including pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), and western red bat (*Lasiurus frantzii*).

In October 2025, California Department Fish and Wildlife released the latest version of the State Wildlife Action Plan, a resource management document that is updated approximately every 10 years. This document identifies bat Species of Greatest Conservation Need that will be added to the list of Species of Special Concern. This document identifies two new bat species as Species of Greatest Conservation Need; however, this change has not yet been carried forward to the list of Species of Special Concern. Bat roost habitat can exist in buildings and other human-made structures (occupied or not), and in natural structures such as trees and rock outcroppings. The silver-haired bat (*Lasionycteris noctivagans*) and the hoary bat (*Lasiurus cinereus*), each identified in the 2025 State Wildlife Action Plan as Species of Greatest Conservation Need, have a potential to roost or forage in the vicinity of the project site.

Construction activities associated with proposed project improvements would occur during the summer months, and could cause temporary and potentially significant impacts to bats if construction disturbance (e.g., noise and unusual human activity) were to cause the abandonment of an active maternity roost. If mother bats were to abandon a roost occupied by nonvolant pups (pups that cannot fly), pup mortality would result.

Though lighted evening activities already occur at Raider Stadium, operational changes could result from the proposed project, including changes in lighting and increased noise disturbance from sports and other activities occurring during the evening hours. These changes could cause permanent and potentially significant impacts if such disturbance caused roost abandonment and pup mortality during the maternity season (April 1 – August 31) or roost abandonment during the winter months (November 1 – February 28). Arousal from hibernation or roost abandonment during the winter, when food resources are scarce, could result in mortality from decreased fitness or starvation.

Artificial lighting can attract some insect prey species and thus some foraging bat species, while it can also discourage foraging by bat species that avoid lighted areas where they are more visible to predators. The early evening hours when lighting and noise associated with sporting activities occurs also serve as prime foraging hours for most bat species. Therefore, operational changes from the proposed project, including changes in lighting and increased noise disturbance from sports and other activities occurring during the evening hours could result in a permanent loss of foraging habitat for a portion of some nights on and around the existing Raider Stadium. In addition, some bat species (e.g., pallid bat) require foraging habitat very near their roosting habitat, so loss of important foraging habitat may also result in abandonment of nearby roosts.

To evaluate the potential for these project-related impacts, surveys were conducted for potential bat roost habitat within and around the existing Raider Stadium.

Survey Methods

Roost Habitat Assessment

AECOM biologist, Kim Fettke, conducted a daytime bat roost habitat assessment on the afternoon of July 25, 2025 in a survey area of approximately 500 feet around Raider Stadium. The actual survey area was field-fit based on the likelihood of potential roost habitat and the amount of light and noise buffering between the stadium and the potential roost habitat. Temperatures were in the low 80 degrees Fahrenheit (°F) with sustained winds up to 12 miles per hour (mph).

All buildings and other human-made structures were inspected using binoculars and a flashlight for structural features that could provide suitable roosting areas, such as holes in buildings larger than a quarter-inch that could provide ingress to building interiors and protected gaps or cavities that could provide roosting habitat on the outside of buildings. Structures were also inspected for indications of

roosting such as guano, urine or oil staining, the sounds and smells of bat roosting, and bats visibly roosting.

All trees within the survey area were also inspected for potentially suitable roosting habitat such as cavities and sloughing bark. Several trees along the American River Parkway had small cavities and small pieces of sloughing bark with appropriate protection and solar exposure that would provide potential roosting habitat to small numbers of bats. However, these potential roost features are screened from proposed lighting and noise disturbance at the high school by a row of large trees (mostly eucalyptus species) located along the southern fenceline between the school and the American River Parkway. The screening provided by this row of trees would reduce potential disturbance in the American River Parkway to a degree that it would not be expected to cause roost abandonment if any of the trees in the American River Parkway are used for roosting. Therefore, no further survey efforts were necessary for trees in the American River Parkway.

However, the row of large trees located along the southern fenceline between the school and the American River Parkway contain some large and small cavities and flaking bark that could provide suitable roosting habitat for a substantial number of bats. Few of these cavities and flaking bark were accessible for close inspection visually or with a borescope. If these trees contained bat roosts, increased lighting and noise disturbance on and around the immediately adjacent Raider Stadium could cause roost abandonment. Therefore, surveys were conducted for bats emerging from these trees at dusk over four nights in July and August 2025.

Emergence Surveys

Emergence surveys were conducted for the eastern half of the row of large trees located along the southern fenceline between the school and the American River Parkway on July 30 and 31, 2025 during optimal environmental conditions for bat emergence (i.e., warm nightly temperatures, low wind, minimal moonlight, no precipitation). On both nights there were clear skies, a light breeze, and a waxing crescent moon at about 25 degrees (°) high in the west. Surveys started at 8:00 PM when the temperature was 84°F with 3 mph winds. Sunset was at 8:18 PM. Surveys were completed at 9:18 PM when the temperature was 79°F with no wind.

On July 30, the biologist was located on the north side of the line of trees close enough to see emerging bats. On July 31, the biologist was located in the American River Parkway on the south side of the line of trees. The biologist was facing west so that emerging bats were backlit by the setting sun and nighttime lighting located on the school campus. The biologist watched potential roost trees with the naked eye to detect emerging bats. Infrared technology was not used for these surveys because it limits the field of view when surveying a large area, and lighting provided on the school buildings allowed superior visibility of flying bats after last light. An Echometer Pro acoustic bat detector was used to detect and record echolocating bats emerging from the trees and foraging in the survey area.

Emergence surveys were conducted for the western half of the row of trees on August 28 and 29, 2025. On both nights there were clear skies and a waxing crescent moon at about 20° high in the west. Surveys started at 7:30 PM when the temperature was 85°F with no wind. Sunset was at 7:43 PM. Surveys were completed at 8:43 PM when the temperature was 78°F. On August 29, winds picked up during the survey with gusts up to 6 mph at survey end.

Survey Results

No structural features were observed with characteristics indicating a high likelihood of providing roosting habitat and no indications of roosting were detected. No bats were seen or detected emerging from any of the trees surveyed along the southern fenceline. Therefore, no roosting bats are expected within the existing Raider Stadium or adjacent tree line.

Five bats were observed foraging above the existing Raider Stadium and the adjacent ruderal grasslands in a small swale between the playing fields and the line of surveyed trees. Unvetted files from the acoustic recorder identified these as likely Yuma myotis (*myotis yumanensis*) and one canyon bat (*parastrellus hesperus*). Also of interest, on July 30, the first bat was detected acoustically at 8:44 PM (i.e., not immediately after sunset) and identified as a Mexican free-tailed bat (*tadarida brasiliensis*). This was followed by a continuous and regular pattern of detection of other Mexican free-tailed bats for eight minutes, none of which were observed visually. This data would be consistent with an emergence of this bat species from a roost in the vicinity (outside the project disturbance area) flying towards a foraging location at an elevation too high for visibility.

Incidental observations included a juvenile redtail hawk (*buteo jamaicensis*) calling nonstop from the time of arrival on-site until sunset on July 31 from a perch in a redwood tree (*sequoia* spp.) on the east side of the baseball diamonds, a silent adult redtail hawk perched in a tree by the parking lot (raptors often predate bats upon roost emergence), a large flock of approximately 60 yellow-billed magpie (*pica nuttallii*) foraging in the sports fields, and a California toad (*anaxyrus boreas halophilus*) seen at the end of survey next to one of the buildings near the scoreboard.

Recommendations

No indications of roosting bats were found within the existing Rio Americano High School campus and adjacent trees, no impacts to roosting bats are expected as a result of the proposed project improvements, and no further actions are recommended for roosting bats.

The existing Raider Stadium and adjacent ruderal habitat were confirmed as bat foraging habitat. However, because Raider Stadium is currently used for athletic practices, competitions and other events during the evening hours with the use of temporary mobile lights, the proposed improvements are expected to result in minimal increases in disturbance and resulting potential loss of foraging habitat. In addition, only minor foraging activity was detected during surveys, and abundant, generally superior foraging habitat exists in the American River Parkway just to the south of Raider Stadium. Therefore, the potential loss of the relatively small, limited quality foraging habitat provided by the existing Raider Stadium during the evening hours would result in a less-than-significant impact, and no further actions are recommended for foraging bats.

Photo Exhibit Rio Americano High School Improvements Project

	Photograph 1. Raider Stadium with the row of large trees adjacent on the south. Photograph facing west.
	Photograph 2. Row of trees and ruderal grasses adjacent to Raider Stadium on the south. Photograph facing west.
	Photograph 3. Example of a small piece of sloughing bark.



Photograph 4. Example of existing nighttime lighting on the west end of Raider Stadium. Photograph facing north.



Photograph 5. Western half of the emergence survey area, backlit at dusk. Photograph facing west.