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TECHNICAL MEMORANDUM

DATE: July 22, 2022

TO: Gretchen Laustsen, Midpeninsula Regional Open Space District

FROM: Emily Applequist, Carina Bilodeau, Karley Rodriguez, and Holly Burger

SUBJECT: Bear Creek Stables Riparian Assessment

Midpeninsula Regional Open Space District (Midpen) is proposing to implement repairs and improvements to existing facilities at Bear Creek Stables within Bear Creek Redwoods Open Space Preserve. The proposed Bear Creek Stables project site is located adjacent to an unnamed ephemeral tributary to Briggs Creek in Santa Clara County (County). Stillwater Sciences (Stillwater) has assessed the riparian conditions along this unnamed creek and evaluated the potential for impacts from proposed improvements in consideration of County Policy R-RC 37 and the associated goals for protection of riparian communities. All proposed site improvements will be outside the extent of the riparian area, and planned improvements are expected to lessen adverse impacts of the site on the creek. Therefore, the proposed upgrades to Bear Creek Stables are consistent with overall County guidance and intent for protecting riparian habitats and streams.

1 EXISTING FACILITIES AND PROPOSED IMPROVEMENTS

Bear Creek Stables has continuously operated as an equestrian boarding and arena facility for over a century since construction of its original stable in 1916 (Midpen 2017). The site currently provides housing for up to 72 horses. Existing facilities include a caretaker's residence, main barn, breezeway, hay barn, and several small, wooden stables and accessory structures (Figure 1).

Most on-site structures and the 0.15-mile gravel road used to access the site do not meet current building code and road standards. As such, Midpen is proposing extensive upgrades to these facilities to address safety issues and ensure code compliance while maintaining the current functionality of the stables (Figure 2). Proposed upgrades include:

- removal of two residences, accessory structures, and five wooden stables;
- rehabilitation of the main barn, breezeway, hay barn;
- construction of a new caretaker's residence;
- replacement of aluminum restroom trailer with prefabricated, accessible restroom facilities;
- replacement and relocation of the on-site septic system;
- an improved manure dump with concrete bottom and sides;
- installation of a new connection to the San Jose Water Company municipal water line to replace the current water supply from nearby Aldercroft Creek;
- widening and improving accessibility of the main site access road and parking area; and
- establishment of new planting areas and a bioswale adjacent to the improved parking area.

TREE DEMOLITION TABLE		
TAG #	TREE SPECIMEN	SIZE DBH
373	OAK	8'-0"
375	TBD	1'-4"
379	OAK	10"
380	OAK	0'-5"
381	OAK	7"
390	TBD	8"
398	OAK	3'-0"
399	OAK	0'-8"

LEGEND

1. RESIDENCE, WOOD
2. RETAINING WALL, CONCRETE
3. WALLS, CONCRETE
4. MAIN BARN, WOOD
5. ACCESSORY STRUCTURES, WOOD
6. GOAT STRUCTURE, WOOD
7. RESTROOM, ALUMINUM TRAILER
8. HORSE WASH-DOWN, WOOD
9. SMALL SHED, WOOD
10. STABLES, WOOD
11. BREEZEWAY, WOOD & METAL
12. HAY BARN, WOOD
13. ROADWAY, GRAVEL
14. EXISTING PARKING

(E) STRUCTURE TO REMAIN

STRUCTURE TO REPAIR BY OTHERS

STRUCTURE TO RELOCATE

STRUCTURE TO REMOVE

STRUCTURE TO REMOVE, FOUNDATION TO REMAIN

15 SEPTIC TO BE DECOMMISSIONED

(E) ROADWAY TO REMAIN

(E) ROADWAY TO REMOVE

TREE TO BE REMOVED

UTILITY POLE TO BE REMOVED & RELOCATED

(E) FENCE TO REMAIN

(E) FENCE TO REMOVE

WALLS TO REMOVE (5)

TREE PROTECTIVE FENCE

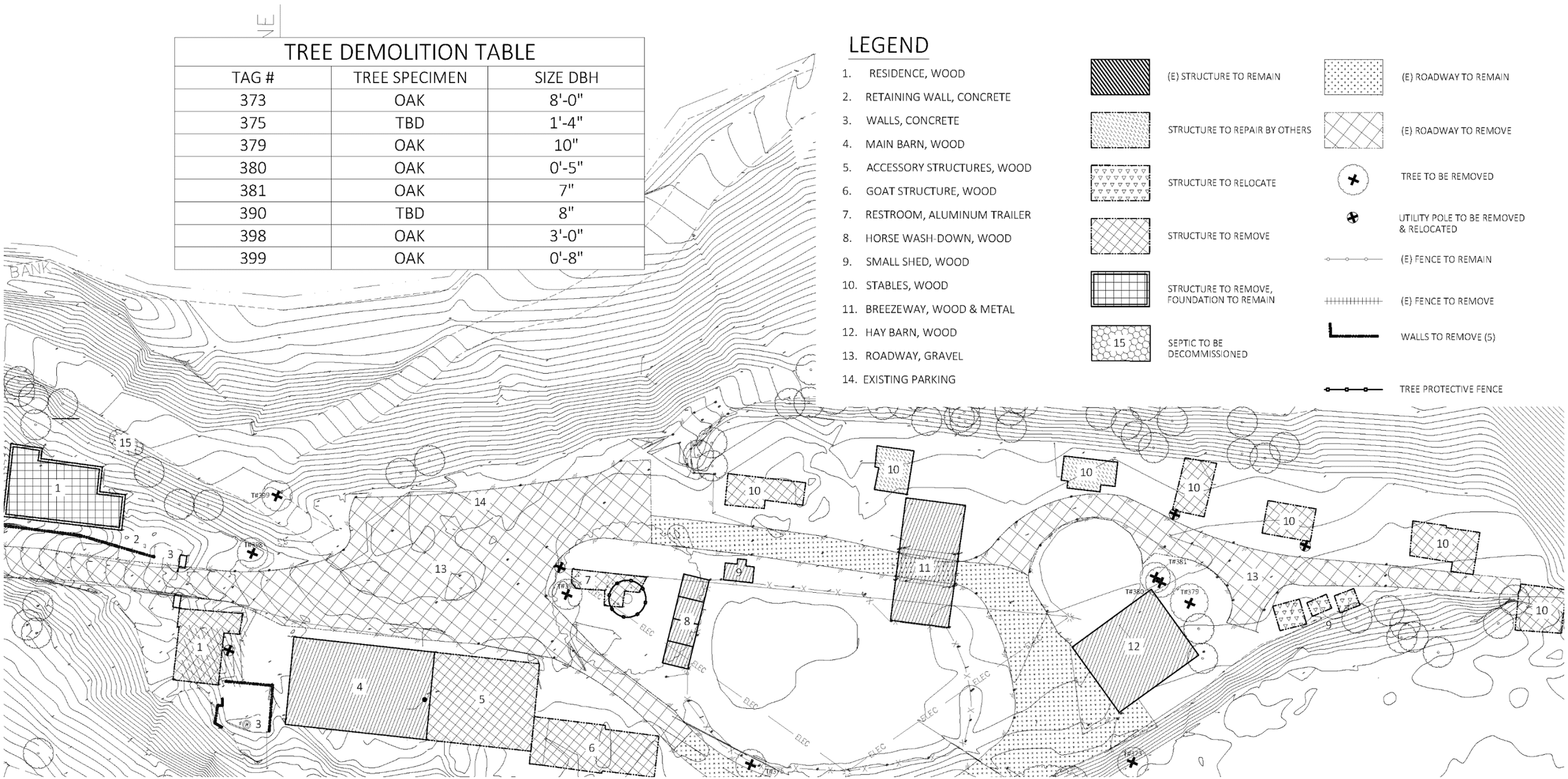


Figure 1. Demolition plan for existing facilities at Bear Creek Stables (John Northmore Roberts & Associates 2021).

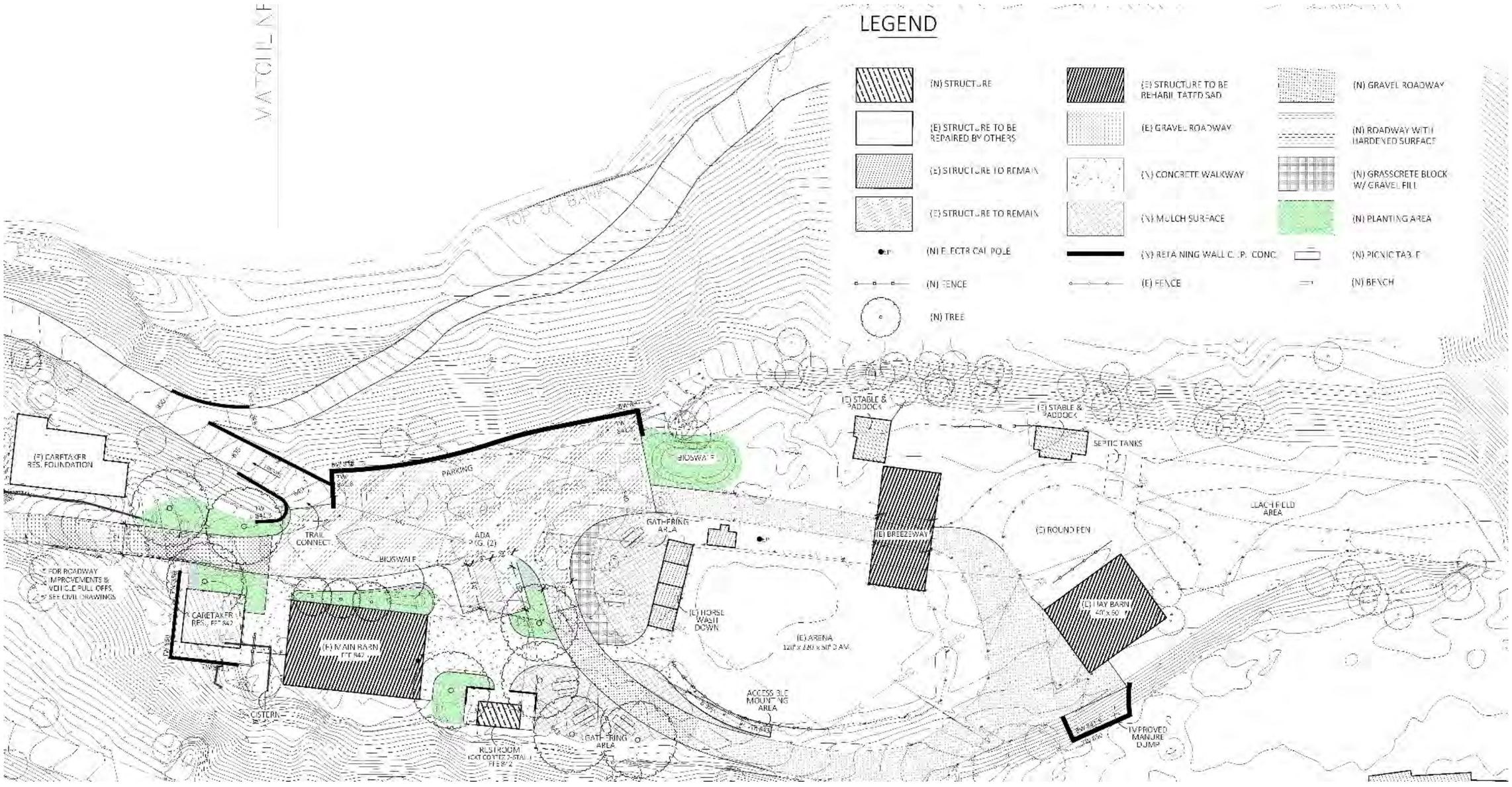


Figure 2. Proposed site plan for Bear Creek Stables (John Northmore Roberts & Associates 2021).

2 RIPARIAN HABITAT

On May 6, 2022, Stillwater biologists Karley Rodriguez and Carina Bilodeau conducted a field assessment of riparian conditions, including taking representative photos (Figure 3) and delineating the top of bank along the unnamed ephemeral tributary to Briggs creek adjacent and to the north of Bear Creek Stables (Figure 4). Where it borders the proposed improvements to the site, the creek has a narrow, steep channel with a riparian canopy that is poorly defined but generally aligned with the top of bank (Figure 3). Riparian ecosystem function (e.g., soil stabilization, water and nutrient retention, wildlife habitat) in the area, therefore, is largely limited to this narrow corridor below the top of bank. Overstory vegetation within the riparian corridor is composed primarily of California bay (*Umbellularia californica*), valley oak (*Quercus lobata*), and California buckeye (*Aesculus californica*), all of which extend into adjacent upland areas. Consistent with field observations by Stillwater biologists, the riparian corridor along the ephemeral creek and adjacent upland areas are classified as Montane Hardwood habitat, which is typically dominated by oaks (*Quercus* spp.) and California buckeye (Ascent Environmental, Inc. 2016).

Due to its steep and narrow channel, ephemeral nature, and lack of pools, the unnamed tributary provides limited wildlife habitat and lacks suitable habitat for special-status aquatic species that otherwise have the potential to occur in the vicinity (e.g., California red-legged frog [*Rana draytonii*], foothill yellow-legged frog [*Rana boylii*], western pond turtle [*Actinemys marmorata*]). Additionally, its location upstream of Lexington Dam precludes the presence of anadromous fish (Midpen 2017). Frequent landslides in the region can further reduce habitat quality by increasing sedimentation and altering natural drainage patterns (Midpen 2017). However, despite its limited aquatic habitat value, the creek can still function as a critical water source for local wildlife species and groundwater basins, and the surrounding riparian vegetation can provide nesting, foraging, and refugia opportunities for local wildlife.



Figure 3. Representative photos of the riparian corridor along the unnamed creek adjacent to Bear Creek Stables.

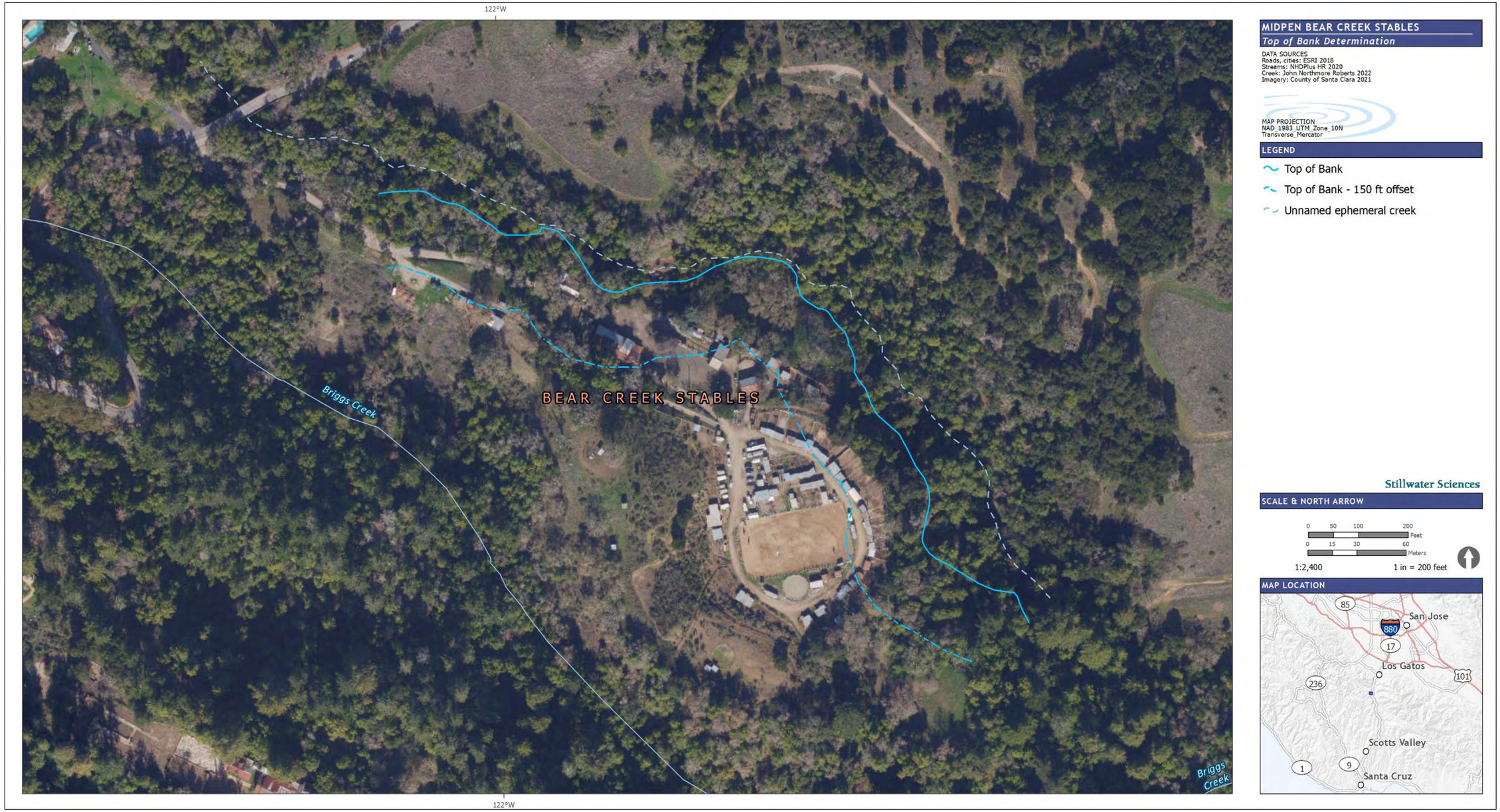


Figure 4. Top of bank and 150-foot buffer along unnamed creek adjacent to Bear Creek Stables project site.

3 CONSISTENCY WITH SANTA CLARA COUNTY RIPARIAN GUIDELINES

The County has established various policies with the goal of protecting riparian habitats and streams (County of Santa Clara 1994). One such policy is Policy R-RC 37, which recommends 150-foot protective buffers from the top bank of a stream in its natural state. However, the County recognizes the need for flexibility in the recommended buffer based on the characteristics of a particular stream and its associated riparian habitat, and allows for exceptions when the stream environment can still be protected from adverse biochemical, thermal, sedimentation, and aesthetic impacts. The County outlines an ultimate objective of buffers providing "protection commensurate with the extent of the existing riparian area, which varies with elevation, terrain, and other factors."

Many of the planned improvements to Bear Creek Stables will be located outside of the County's usual recommendation of a 150-foot protective buffer; however, the improved access road and parking area, new caretaker's residence, and a portion of the leach field for the new septic system will be within 150 feet of the top bank of the adjacent unnamed creek (Figure 4). Several dilapidated structures (i.e., two residences, an aluminum restroom trailer, five stables, and accessory structures) currently located within 150 feet of the top bank of the creek are slated for removal as part of the proposed project, thereby reducing the facility's footprint within the 150-foot buffer. Additionally, no proposed improvements will occur within the limited riparian corridor, which is effectively consistent with the top bank of the unnamed creek; therefore, planned upgrades are consistent with overall County buffer guidance for protection of the riparian community commensurate with its current extent.

The proposed improvements to Bear Creek Stables include elements designed to lessen the potential adverse impacts of site facilities on the adjacent creek relative to existing conditions (Figure 2). Furthermore, all planned improvements (e.g., removal or rehabilitation of dilapidated structures, establishment of new planting areas) will improve the overall aesthetics in the proximity of the creek and associated riparian habitat. The new caretaker's residence and restroom facility will be located farther from the creek than the current structures they are replacing. The poorly functioning septic system will also be replaced with a new system farther from the creek, with the leach field sited in an area with more acceptable soils and terrain for its purpose. The new septic system, in addition to a new, concrete-lined manure dump located greater than 150 feet from the creek, will lessen the likelihood of any such future impacts to water quality. Potential impacts on water quality from erosion and sedimentation will also be lessened with the construction of a properly graded parking area, supported by a retaining wall and bordered by a bioswale. The bioswale will effectively slow runoff, capture sediment and pollutants, increase infiltration, and contribute to groundwater recharge while supplementing native vegetation on site. In addition to the anticipated reduction in adverse impacts from on-site facilities on the nearby unnamed creek, the planned establishment of a connection to the San Jose Water Company municipal water line will reduce adverse impacts on Aldercroft Creek, the current water source for Bear Creek Stables, thereby improving riparian function within the watershed and elsewhere in the County.

Because of the limited extent and habitat value of the riparian corridor of the unnamed creek near Bear Creek Stables, the typical County recommendation of a 150-foot protective buffer is disproportionate to its size and excessive for its protection. All proposed site improvements will be outside the extent of the riparian area, consistent with overall County guidance. Furthermore,

these improvements are expected to lessen adverse impacts of the site on the creek and to improve the aesthetics in its vicinity. Therefore, the proposed upgrades to Bear Creek Stables are largely consistent with overall County guidance and intent for protecting riparian habitats and streams.

4 REFERENCES

Ascent Environmental, Inc. 2016. Draft Environmental Impact Report for the Bear Creek Redwoods Preserve Plan. SCH #2015062029. Prepared by: Ascent Environmental, Inc., Sacramento, CA. Prepared for Midpeninsula Regional Open Space District, Los Altos, CA. September.

County of Santa Clara. 1994. Santa Clara County General Plan. Book B. Planning Office, San Jose, CA. Adopted December 20.

John Northmore Roberts & Associates. 2021. Bear Creek Stables DMR. Schematic Design. Prepared for Midpeninsula Regional Open Space District. Project No. 385. August.

Midpen (Midpeninsula Regional Open Space District). 2017. Bear Creek Redwoods Open Space Preserve. Preserve Plan. Final Summary Report. Los Altos, CA. January.