



August 21, 2018

Lisa and Bill Burtner
PO Box 1150
Big Bear Lake, CA 92315

Re: Supplemental Site Visit and Habitat Assessment for the Burtner Parcel Subdivision and McDonald Learning Center Project, Tentative Tract 18815, APN 0315-231-16 and 0315-421-02, Near Big Bear City, San Bernardino County, California

Dear Lisa and Bill,

As you requested, we conducted follow-up general biological assessments at the above-referenced project sites on October 12 and November 1, 2017. We conducted a biological survey, a habitat assessment for the California threatened southern rubber boa (*Charina bottae*; rubber boa) and a rare plant survey for this same project, LUSD Project No. P201100317, in 2011. Those surveys and report (Report) submitted to the County of San Bernardino on December 12, 2011 were for the Burtner Parcel Subdivision. Although those surveys and report covered the same area, our recent surveys also included an assessment of the proposed McDonald Learning Center Project (Preschool) immediately west of Subdivision and within a separate parcel. To simplify our discussion we will refer to the combined Subdivision and Preschool as the Project.

Our 2017 site visits were intended to determine if conditions had changed in any way that might have implications for sensitive biological resources in or immediately adjacent to the Project area. Since 2011, you have completed construction of your home in the original tract and the proposed Project now includes the development of the remaining 17 lots and the Preschool.

This letter report addresses the biological resources occurring on or immediately adjacent to the Project site and potential impacts to those resources from the proposed Project. In addition to the Project site, our surveys included a surrounding 100 meter buffer zone though access was limited in some areas because of fencing and because a portion of this area has been developed as single-family residences. As was the case in 2011, the primary biological issues of concern for the Project are the rubber boa and rare plants.

The Project site is at an elevation of approximately 6800 feet (2,070 meters) on land with well-drained soils which is topographically flat. There are no drainage features within the Project site but a small

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drainage just to the west runs northeast to Shay Meadow which is north of the site. The site has only one major vegetation type, Jeffrey pine forest. In addition, there are disturbed areas on the site from OHV and equestrian use and from previous thinning operations.

Our October 12, 2017 site visit focused on the Subdivision and the November 1 visit focused on the Preschool area. Based on our observations we do not believe that habitat in the greater Project area has changed markedly since our 2011 surveys. In both areas the duff layer is not thick enough and does not hold enough moisture to support the rubber boa. In addition, we do not believe that downed woody material which has accumulated since 2011 has decomposed enough to provide hibernacula or hold sufficient moisture at ground level for the rubber boa.

It should also be noted that the habitat in the Project area as well as the 100 meter buffer remains unsuitable for the San Bernardino flying squirrel (*Glaucomys sabrinus californicus*). The area lacks the understory and the structural complexity to support this species. In 2017 this species was identified as the southern California flying squirrel squirrel (*Glaucomys oregonensis californicus*) but as of yet there have been no publications confirming a taxonomic change.

During our 2017 surveys we observed a log/firewood pile, a boulder pile and a brush pile in the Subdivision area which were not present in 2011. We do not believe that the firewood pile currently provides habitat for the rubber boa. And, as we understand it, you will be processing these logs this winter. However, both the brush pile (Photograph 1) and the boulder pile appear to have sufficient structure and gaps necessary to provide habitat for both the rubber boa and its prey. Based on our conversation, we understand that the brush pile has been removed from the Project area. Because we cannot know if there are rubber boas in the boulder pile or the remains of the brush pile currently, we recommend that they are monitored during any ground clearing operations.

Two particular habitat types, pebble plain and high elevation meadow, support most all of the sensitive plants found in the Big Bear Valley. As indicated in our Report to the County, we did not observe either of these habitat types in the Project area during our 2011 surveys. Neither pebble plain nor meadows were observed during our 2017 surveys. As noted in our 2011 Report, the Project may enhance habitat for other sensitive species which can occur in or adjacent to Jeffrey Pine Forest [eg, Baldwin Lake linanthus (*Linanthus killipii*) and ash-grey paintbrush (*Castilleja cinerea*)] because it will limit OHV traffic through the area.

Based on our 2017 surveys, our only new concerns relative to the 2011 Report are the boulder pile and the remains of the brush pile located in the Subdivision area. Again, we recommend monitoring these piles during ground clearing operations such as road building and grading. Otherwise, we have no further recommendations for you with regard to biological resource issues for this Project and refer you to Page 13 of the 2011 Report for mitigation, monitoring and surveying recommendations.

If you have any questions or concerns regarding this letter report, please contact me directly.

Sincerely,



Richard Tanner
Principal