BOTANICAL SURVEY
FOR THE PROPOSED IMPROVEMENTS
AT ALUM ROCK PARK
SAN JOSE, CALIFORNIA

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August 19, 2008

1.0 INTRODUCTION

On May 29, 2008, a botanical survey was conducted for the proposed improvements at Alum Rock Park in San Jose, California. The surveys were conducted in the east central portion of Santa Clara County, located approximately 8 miles northeast of San Jose City Hall. The survey was conducted to address the potential to affect possible sensitive plant species in the process of new construction.

The surveys were conducted by Winzler and Kelly senior biologist, Gary S. Lester.

2.0 ENVIRONMENTAL SETTING

Alum Rock Park consists of approximately 720 acres with the current project consisting of 11 small project areas along Penitencia Creek. The proposed improvements include refurbishing existing bridge sites, bank stabilization and re-establishment of historic flood plain contours. The survey area lies primarily in the Penitencia Creek corridor. The elevations range between 350 and 600 feet above mean sea level. The survey area features a low gradient perennial stream, steep creek banks and level creek-side terraces.

Habitats within the project site include oak/sycamore riparian woodlands, perennial stream, introduced landscaping and foothill grasslands in upland areas.

Eleven small project areas of Alum Rock Park will be developed adjacent to the fore mentioned habitats. The riparian woodland is dominated by canyon live oak (*Quercus chrysolepis*), coast live oak (*Quercus agrifolia*), California black oak (*Quercus kelloggii*), and California sycamore (*Platanus racemosa*). Associates include poison oak (*Toxicodendron diversiloba*), blue elderberry (*Sambucus mexicana*), coffee berry (*Rhamnus californica*) and red bud (*Cercis occidentalis*). Disturbed grassland habitats dominate the understory of the proposed development sites.

3.0 METHODS

A field survey of the project area was conducted on, May 29, 2008. Winzler & Kelly biologist Gary Lester conducted these surveys. Mr. Lester is qualified to conduct botanical surveys. He has at a minimum an undergraduate degree in Biology with emphasis in Botany and he has local experience in recognition of the local flora.

The Alum Rock Park survey area topographic map (Calaveras Reservoir) and project site plans were consulted prior to and during the survey to determine potential sensitive species occurrence.

The surveys were conducted following protocol developed by James Nelson for the California Department of Fish and Game (DFG, 2000). An intuitively controlled, seasonally appropriate survey was conducted that inventoried the construction area habitat. The survey was high in coverage (90-100%). All sites were surveyed at a high coverage because plants occupying these areas were readily visible. Plants were identified to the lowest taxonomic level (genus or species) necessary for rare plant identification. The scientific nomenclature follows the Jepson Manual (Hickman, 1993).

4.0 SENSITIVE SPECIES ANALYSIS

Sensitive Plant Species Historically Reported Nearby

The California Natural Diversity Database (CNDDB) includes historical records for the following plant species within the Calaveras Reservoir 7.5 minute USGS quadrangle:

1) The chaparral harebell (*Campanula exigua*) is known approximately 2 miles northeast from project site.

2) The Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*) known from a 1908 collection approximately 2 miles from project site.

3) The robust spineflower (*Chorizanthe robusta* var. *robusta*) is known only from an 1882 collection in the vicinity of San Jose.

4) The fragrant fritillaria (*Fritillaria liliacea*) is known from a pre-1941 collection in Alum Rock Park, it was not seen in a 1994 search or during this survey.

5) The arcuate bush-mallow (*Malacothamnus arcuatus*) was reported from Alum Rock Park but the 1936 report has not been confirmed.

6) The robust coyote mint (*Monardella villosa* ssp. *globosa*) is known to occur north of Alum Rock Park, although no upland habitat (chaparral) is to be affected.

7) Maple-leaved checkerbloom (*Sidalcea malachroides*) is reported from the project area, but the identity is questioned.

8) The most-beautiful jewel-flower (*Streptanthus albidus* ssp. *peramoenus*) is known from nearby Alameda Creek and east of Calaveras Reservoir.

Potential Sensitive Species Present

All species included on List 1 and 2 (herein referred to as sensitive species) of the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Vascular Plants of California (Skinner and Pavlick 1994) were reviewed to determine potential presence in the vicinity of the

project area. The CNPS inventory includes all species listed as rare or endangered by the Federal and State governments. Based on the species identified in the CNDDB records, the range of habitats present, and the geographical range of the various sensitive species, the species considered most likely to occur in the vicinity of Alum Rock Park are listed above.

5.0 RESULTS

Seasonally appropriate surveys were conducted for all potentially occurring species. The floristic level botanical survey of the Alum Rock Park proposed project areas located the following species of plants at each individual location:

Site 1-Creekside Bridge wing repair
The project site is a heavily disturbed creek bank (erosion) and understory (rogue trails) with proposed work occurring beneath mature big-leaf maple (*Acer macrophyllum*). Ground cover consists of scattered poison oak (*Toxicodendron diversilobum*), California figwort (*Scrophularia californicum*), miner's lettuce (*Claytonia perfoliata*), Italian thistle (*Carduus pycnocephalus*), rip-gut (*Bromus diandrus*), soft chess (*Bromus hordeaceus*) and Bermuda buttercup (*Oxalis pes-caprae*).

Site 2-YSI Bridge wing repair
The project site is a heavily disturbed creek bank (erosion) with proposed work occurring beneath a mature Deodar cedar (*Cedrus deodora*), which will be removed. Ground cover consists of scattered periwinckle (*Vinca major*), hoary nettles (*Urtica dioica* ssp. *holosericea*) with scattered white alder (*Alnus rhombifolia*), common horse chestnut (*Aesculus hippocastanum*) and Australian she-oak (*Casuarina cunninghamiana*).

Site 3-"L" Bridge repair and flood plain enhancement (includes Site 10)
The project site is a heavily disturbed creek bank (erosion) and understory (picnic area) with proposed work occurring beyond nearby coast live oaks (*Quercus agrifolia*). Ground cover consists of scattered coyote brush (*Baccharis pilularis*), common horehound (*Marrubium vulgare*), mugwort (*Artemisia douglasiana*), wild oats (*Avena barbata*), blazing star (*Mentzelia crocea*), perennial cat's ear (*Hypochaeris radicata*), sow thistle (*Sonchus tenerrimus*), curly dock (*Rumex crispus*), spreading rush (*Juncus patens*), black mustard (*Brassica nigra*), common mustard (*Hirschfeldia incana*), mouse-ear chickweed (*Cerastium glomeratum*), Italian thistle, rip-gut, soft chess and six-week fescue (*Vulpia bromoides*). A narrow terrace adjacent to the creek consists of broad-leaved cattail (*Typha latifolia*), tall flat sedge (*Cyperus eragrostis*), common watercress (*Rorippa nasturtium-aquaticum*), Bermuda grass (*Cynodon dactylon*) penny royal (*Mentha pulegium*), tall willow-herb (*Epilobium ciliatum*), mugwort (*Artemisia douglasiana*), hoary nettles, California sycamore (*Platanus racemosa*) seedlings and common horsetail (*Equisetum vulgare*).

Site 4-Repair of rock wall immediately downstream of Bridge "K"
The project site is a heavily disturbed creek bank (erosion) with proposed work occurring beyond nearby California buckeye (*Aesculus californica*). Ground cover, which is limited due to the extremely steep slope, consists of scattered marsh baccharis (*Baccharis douglasii*), common horehound and common bullrush (*Scirpus* {=*Bolboschoenus*} *robustus*).

Site 5-Creek bank repair downstream from Bridge "I"
The project site is a vertical creek bank (erosion) with proposed work occurring beyond nearby planted coast live oaks. Ground cover consists of scattered coyote brush, common horehound, poison oak, wild oats, self heal (*Prunella vulgaris*), black mustard, periwinckle, English ivy, Italian thistle, rip-gut, soft chess and six-week fescue and planted . The creek bed adjacent consists of broad-leaved cattail, tall flat sedge, common watercress, willow (*Salix* sp.) canary grass (*Phalaris* sp.) and black nightshade (*Solanum nigrum*).

Site 6-Creek bank repair adjacent to Visitors Center
The project site is a previous bank protection project with proposed work occurring beyond nearby mature coast live oaks, big-leaved maple and California bay (*Umbellularia californica*). Cover consists of scattered hoary nettles, common horehound, snowberry (*Symphoricarpus albus*), coffee berry (*Rhamnus californica*), California poppy (*Eschscholzia californica*), poison oak, wild oats, self heal, black mustard, wild oats, English ivy, Italian thistle, rip-gut, soft chess, six-week fescue and planted lily of the Nile (*Agapanthus africanus*).

Site 7-Creek bank repair downstream from Quail Hollow Bridge
The project site is a previous bank protection project with proposed work occurring beyond nearby mature coast live oaks and willows. Cover consists of scattered hoary nettles, common horsetail, perennial ryegrass (*Lolium perenne*), fare-well to spring (*Clarkia unguiculata*) and torrent sedge (*Carex nudata*).

Site 8-Creek bank repair at sharp road curve
The project site is a previous bank protection project (sack wall) with proposed work occurring beyond nearby mature willows, Fremont cottonwood (*Populus fremontii*) and tree tobacco (*Nicotiana glauca*). Limited cover consists of scattered hoary nettles, pipestems (*Clematis lasiantha*) soft chess, black mustard, fennel (*Foeniculum vulgare*), six-week fescue and marsh baccharis. Adjacent creek margin is sparsely vegetated by common bulrush, rabbit's foot grass (*Polypogon monspeliensis*), common watercress and meadow foxtail (*Alopecurus geniculatus*).

Site 9-Bridge "H" and bank repair adjacent to Visitors Center
The project site is a stream weir removal and bank structure protection with proposed work occurring beyond nearby mature coast live oaks. Limited bank and stream cover consists of scattered Mediterranean barley (*Hordeum marinun*), golden-back fern (*Pentagramma triangularis*), ground iris (*Iris macrosiphon*), poison oak, wild oats, toyon (*Heteromeles arbutifolia*), Pacific sanicle (*Sanicula crassicaulis*), Italian thistle, rip-gut, soft chess, six-week fescue and torrent sedge in creek.

Site 10-Floodplain expansion, see above Site 3 description

Site 11-Floodplain expansion downstream of Creek Side Bridge
The project site is a stream grade change and floodplain improvement occurring beyond nearby mature California sycamore (to be removed). Limited bank and stream cover consists of scattered Mediterranean barley, soft chess, Colonial bent grass (*Agrostis capillaris*), Italian thistle, rip-gut, soft chess, six-week fescue and torrent sedge, tall flat sedge, spreading rush, soft rush (*Juncus effusus*) and tall willow herb in creek.

6.0 RECOMMENDATIONS

There are no plant species of concern that occur in the proposed construction areas. Mature tree removal that is proposed should occur outside of the native bird breeding season (August to February) to avoid possible nest disturbance.

7.0 REFERENCES

California Department of Fish and Game. May 2000. *Guidelines for Assessing the Effects of Proposed Development on Rare, Threatened, and Endangered Plants and Plant Communities.* Sacramento, CA.

Hickman, J. C. 1993. *The Jepson Manual: Higher Plants of California.* University of California Press. Berkeley CA.

Tibor, David, P, ed. 2001. *California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California,* Sacramento, CA.