June 8, 2023

Honorable City Council
c/o City Clerk, Room 395, City Hall
Los Angeles, CA 90012

LOS ANGELES ZOO VISION PLAN – CERTIFICATION OF REVISED FINAL ENVIRONMENTAL IMPACT REPORT (STATE CLEARINGHOUSE NO. 2019011053) AND PROJECT APPROVAL (COUNCIL FILE 21-0828)

Honorable Members of the City Council:

In accordance with the *California Environmental Quality Act* (CEQA), the Zoo Department, in cooperation with the Bureau of Engineering (BOE), recommends that the City Council review, consider, and certify the attached Revised Final Los Angeles Zoo Vision Plan Environmental Impact Report (EIR) and approve the Los Angeles Zoo Vision Plan, Alternative 1.5, the California Focused Conservation Alternative, as described in the Revised Final EIR.

These recommendations are the intentional and thoughtful culmination of a seven-year community engagement and environmental review process during which the Zoo finalized the EIR and then, in the pandemic era with continued public feedback, decided to pause the process, listen to the public with intentionality, and make changes based upon this feedback. The City then recirculated revised portions of the EIR to solicit additional comments and held two additional virtual public meetings. Notable among the changes in the Revised Final EIR is Alternative 1.5, the California Focused Conservation Alternative, which was crafted in the context of the Zoo's first-ever Conservation Strategic Plan, launched in 2021.

Alternative 1.5 makes significant changes from the previous proposed Project, calling for the elimination of the development of a six-acre oak woodland hillside area and instead calls for actively restoring that area with native habitat, which the Zoo has already initiated in partnership with Outward Bound Adventures. Other changes in Alternative 1.5 from the previous proposed Project are the removal of the aerial tram and proposed parking structure. The latter paved the way for the Zoo to enter into a long-term agreement with the Department of Water and Power to instead place a 3.5-megawatt solar carport project in that area, which will assist the City by providing renewable energy to its grid, and, once finished, will be the largest solar project on City-owned land. In concert with this, the Zoo will formalize a

"Creating dynamic experiences to connect people and animals"

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peak visitation management system based on a process that was successfully implemented during the pandemic, to manage the parking lot capacity and peak attendance days. Additionally, Alternative 1.5 calls for the Zoo to expand its commitment to providing more equitable public transit opportunities while reducing vehicle miles traveled to the Zoo. Through the leadership of Councilmember Raman, and in partnership with the Department of Recreation and Parks and the Los Angeles Department of Transportation, the Zoo is already exploring the feasibility of a new bus service, electric car-share service, and new transit-focused street improvements (Council Files 23-0440 and 23-0441). Other key differences since the Focused Recirculated EIR are that the Zoo commits to:

- No blasting as a construction method; Trying a tunnel design first to create accessible pathways and avoid the need for a Condor "canyon";
- Making the California visitor center smaller in scale and less obtrusive on the hillside and ridgeline and not in the style of a Yosemite lodge;
- Moving up construction of a roundabout at the Zoo Drive and Western Heritage Way intersection instead of starting with a traffic signal; and
- Targeting a Vehicle Miles Traveled (VMT) reduction goal of ideally 15%.

RECOMMENDATIONS

The General Manager of the Zoo Department respectfully requests that the City Council:

1. Certify that the Revised Final EIR was completed in compliance with CEQA; that the Revised Final EIR was presented to the Council, as the decision-making body of the City of Los Angeles (City); that the Council reviewed and considered the information contained in the Revised Final EIR; and that the Revised Final EIR reflects and expresses the City's independent judgment and analysis;

2. Adopt the Findings and Statement of Overriding Considerations;

3. Adopt the Mitigation Monitoring Program;

4. Specify that the documents constituting the record of proceedings in this matter are at the Office of the City Clerk, 200 North Spring Street, Los Angeles, California 90012; in the files of the Zoo Department located at 5333 Zoo Drive, Los Angeles, CA 90027 and at the Department of Public Works, Bureau of Engineering (BOE), 1169 South Broadway, Suite 600, Los Angeles, California 90015; and any other relevant City department; and

5. Approve the Project as described as Alternative 1.5: The California Focused Conservation Alternative in the Revised Final EIR and the 2022 Los Angeles Zoo Draft Plan: Alternative 1.5.

TRANSMITTALS

The following EIR documents are provided as electronic transmittals and can also be found on BOE's website at https://eng.lacity.org/about-us/divisions/environmental-management/projects/los-angeles-zoo-vision-plan.

1. Los Angeles Zoo Vision Plan Project Revised Final Environmental Impact Report (State Clearinghouse No. 2019011053), dated May 2023. https://englacity.app.box.com/s/o230vgtf6jc95e6ybprfhqyqlitfhvci
2. Findings of Fact and Statement of Overriding Considerations (Also included as **Attachment 1**) https://englacity.app.box.com/s/n5017sauph0tk4bthx3bidta0qcs08vs
3. Mitigation Monitoring Program (Also included as **Attachment 2**) https://englacity.app.box.com/s/iao8xq6fpjn0j3damql0i15s79imdk7c
4. Revised Final EIR Appendix O: Alternative 1.5 Project Description and 2022 Los Angeles Zoo Draft Vision Plan: Alternative 1.5 (Also included as **Attachment 3**) https://englacity.app.box.com/s/ex8n5k3t0r9it50to773szc5qjv0ys50

BACKGROUND

The City of Los Angeles has had a zoo in continuous operation since 1885. Although the venues, ownership, and exhibits have changed significantly over the past 138 years, the chance for people to experience the wonder of wildlife in the midst of our urban landscape has been a constant in the story of Los Angeles. As zoos across the country have evolved from local tourist attractions to global wildlife conservation organizations, the Los Angeles Zoo has kept pace, and often set the pace, with plans to do even more.

In 1992, the Zoo developed its first master plan and then updated it in 1998. These documents provided the blueprint for the Zoo's capital improvement plan, which involved an investment of more than $172 million in new projects and infrastructure improvements from 1996 to 2014. These were the first large-scale upgrades made since the Zoo opened in its current location in 1966. These master plan projects delivered on the Zoo's commitment to the community, who voted to approve multiple bond measures and who made generous donations. The capital investment was made possible with funding provided through multiple voter-supported measures (Propositions A-1, A-2, K, and CC), City monies, and funds raised by the Greater Los Angeles Zoo Association (GLAZA). Successful outcomes of those investments included immersive habitats (*Chimpanzees of Mahale Mountains, Sea Life Cliffs, Campo Gorilla Reserve*, *Elephants of Asia*, and *Rainforest of the Americas*) and state-of-the-art animal care and support facilities.

Now, decades later, we must address the remainder of the Zoo's campus, which is comprised of mostly 1960s-era facilities, to ensure that we meet and exceed today's animal welfare standards, ensuring equitable and inclusive access and transforming the

Zoo into the environmentally sustainable and world-class wildlife conservation center that Los Angeles deserves, and that wildlife everywhere needs. Animal welfare is at the heart of the Vision Plan and is the highest of the Zoo's priorities. The Vision Plan was developed with the following six guiding principles by which the Zoo seeks to innovate and transform the physical campus:

- Achieve the highest level of animal welfare;
- Advance conservation efforts locally and globally;
- Create meaningful, safe, and fun experiences for our visitors and our community;
- Enhance our facility, operations, and outreach as a world-class destination;
- Demonstrate environmental sustainability and best practices; and
- Embody operational excellence at every level.

The following provides the project description and describes the EIR process.

PROJECT DESCRIPTION

The 2022 Vision Plan, Project Alternative 1.5 will guide the physical transformation and improvement of facilities and operations of the Zoo. The full Proposed Project (Project) description is provided in the Revised Final EIR, Section 2.0. As indicated above, the Alternative 1.5 project description is in Appendix O of the Revised Final EIR. Project implementation would involve demolition of existing buildings and structures, construction of new exhibits and facilities and the installation of new pathways and circulation infrastructure.

Alternative 1.5 would reconfigure the Vision Plan's proposed land use plan to make several changes, particularly avoiding the development of six acres of undeveloped hillsides containing native habitat and sensitive biological resources within the Africa planning area. Alternative 1.5 would also exclude the 2-acre public park in the northern parking lot from the Project and would not develop the parking structure and aerial tram, including the upper terminal in the Africa planning area, the lower terminal in the Zoo Entry area, and all footings. Alternative 1.5 would also refine the proposed use and development of a 1.87-acre area adjacent to the Zoo Entry and the California planning area. This area is the same site as Cumulative Project No. 1 (the Angela Collier Gardens project) analyzed in the Revised Final EIR (see Section 3.18, Cumulative Impacts). Instead of developing Cumulative Project No. 1 at this location within the Zoo, Alternative 1.5 would develop a publicly accessible garden and special event space to provide a range of visitor-serving uses that would also effectively replace those lost by the reduction of development in the Africa planning area, such as the safari picnic area. Landscaping would involve native, water-wise plantings and landscaping that is attractive to local wildlife, consistent with the goals of the Vision Plan, and proposed development design guidelines would promote the use of California native plant species under this alternative. Further, Alternative 1.5 would implement additional design measures or improvements not proposed as part of the Project. These include creation and implementation of a new

set of design guidelines to guide future development and upgrades that would build on the goals and objectives included in the Vision Plan, including addressing issues such as ridgeline protection and ecological concerns, and maintaining the integrity of wildlife habitat and linkages. In addition, Alternative 1.5 would implement a "Peak Visitation Management Program" (PVMP) to ensure the surface parking lots would be utilized as efficiently as possible through improved visitor demand management.

Elimination of some features of the Project, the reduced area of development, and decrease in Zoo visitation would slightly reduce the construction and operational impacts of Alternative 1.5 when compared to the Project. Due to elimination of the aerial tram, Alternative 1.5 would avoid the potential for generation of glare from aerial tram gondolas that could be visible from nearby public trails and views and would not require implementation of mitigation. Further, elimination of the parking structure would eliminate the need for mitigation to reduce visibility and screen the structure from view from public roadways. Alternative 1.5 would decrease development within the Zoo by 7.6 percent from the proposed Project. Alternative 1.5 would also remove the proposed vineyard plantings.

Alternative 1.5 would continue to include Condor Canyon area circulation improvements, which would contribute to the creation of an efficient and accessible internal loop circulation system with a Primary Loop Path; however, the Zoo is committed to exploring the viability of a tunnel connection option first and will not employ any blasting in construction, so the outcome may not be a "canyon." This feature would improve not only the visitor experience, but also visitor safety and operational excellence. Although Alternative 1.5 would not develop the aerial tram feature, other ground-based alternative travel options would still be provided through the proposed circulation improvements. This alternative would include internal circulatory improvements and the secondary/exhibit pathways and would implement the proposed funicular to improve access including ADA accessibility. As a result, Alternative 1.5 would sufficiently meet all Project objectives.

SUMMARY OF ENVIRONMENTAL REVIEW PROCESS

Scoping

A Notice of Preparation/Initial Study (NOP/IS) was released for the proposed Project on January 24, 2019, and circulated for 45 days for public and agency comments. Public scoping meetings were held at the Los Angeles Zoo's Witherbee Auditorium at 5333 Zoo Drive on Thursday, February 7, 2019, from 6:00 pm-8:00 pm and Saturday, February 9, 2019, from 11:00 am – 1:00 pm to solicit input on the proposed Project. Sixty comment letters were received from public agencies, organizations, and individuals. These scoping comments are summarized in the Draft EIR and provided in Appendix C. In addition, the City also engaged in expanded stakeholder consultation and outreach by conducting 13 stakeholder interviews with nearby local jurisdictions, resident organizations, non-profits, and schools. Through the scoping process, the City learned of key concerns related to animal welfare, transportation and traffic, land use and planning, preserving the urban

forest, construction emissions, and habitat and biological resource impacts, and factored these concerns into the project design and environmental analysis.

Draft EIR

The Draft EIR was released on December 17, 2020, and was circulated for 60 days for public and agency review and comment. A Notice of Availability (NOA) and Notice of Completion (NOC) for the Draft EIR was mailed to interested parties and posted with the County of Los Angeles Clerk's Office and the Governor's Office of Planning and Research, State Clearinghouse. A notice regarding the public review period was published in the *Los Angeles Times*. The Draft EIR was also posted on the BOE website for review.

Due to the ongoing public health crisis associated with the COVID-19 pandemic, a virtual public meeting was held on January 13, 2021, during the Draft EIR public review period to solicit comments from interested parties on the content of the Draft EIR. A total of 32 comments were received on the Draft EIR through letters, emails or at the virtual public meeting. Responses to comments are documented in Section 8 of the Revised Final EIR.

Final EIR

A Final EIR was completed and included written comments received by mail and electronic mail on the Draft EIR, verbal comments received at the Draft EIR virtual public meeting, written responses to the written and oral comments received, and the associated changes to the Draft EIR. The Final EIR was published in June 2021 and posted to the BOE website. The Zoo Department transmitted the Final EIR to the City Council July 2021.

Focused Recirculated EIR

As a result of public input received following the publication and transmittal of the Final EIR, the Zoo decided to pause the process, listen to the public with intentionality, and make significant changes based upon this feedback which led to the development of a new Alternative 1.5, for CEQA analysis. BOE reports that such a step in the EIR process is extremely rare. A Focused Recirculated EIR was published in July 2022 and circulated for public comment between July 14, 2022, and September 23, 2022. An NOA was prepared and distributed to relevant interested parties. An electronic copy of the Focused Recirculated EIR document was made available online at the BOE's website. Due to the ongoing public health crisis associated with the COVID-19 pandemic, two virtual public meetings were held during the Focused Recirculated EIR public review period to solicit comments from interested parties. The meetings were held on August 15, 2022, and September 12, 2022.

Revised Final EIR and Findings

A Revised Final EIR has been completed and includes written comments received by mail and electronic mail on the Focused Recirculated EIR, verbal comments received at the Focused Recirculated EIR virtual public meetings, comments sent to City Council File 21-0828 regarding the Final EIR and Focused Recirculated EIR, and written responses to the written and oral comments received. Modifications to the Final EIR are also included in Section 9 of the Revised Final EIR.

The Revised Final EIR states that Alternative 1.5 would result in less than significant impacts after mitigation is implemented for Air Quality, Biological Resources, Cultural Resources, Urban Forestry Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise and Vibration, Recreation, and Transportation (construction impacts). The Revised Final EIR identifies feasible mitigation measures that would reduce these impacts to less than significant.

The Revised Final EIR also finds that even with the implementation of all feasible mitigation measures, Alternative 1.5 would still result in unavoidable significant impacts to Transportation (operational impacts), as the City's established vehicle miles traveled (VMT) threshold of net zero for employees and Zoo visitors is not possible to meet, and Aesthetics, due to construction of transportation improvements at Zoo Drive and Western Heritage Way. As such, Alternative 1.5 requires that the Findings and Statement of Overriding Considerations be adopted by the City Council to approve the Project as described under Alternative 1.5.

The Findings are based on information contained in the Draft EIR, Final EIR, Focused Recirculated EIR, and Revised Final EIR, as well as information contained within the administrative record. The administrative record includes, but is not limited to, the public hearing records, public notices, written comments on the proposed Project and Alternatives and responses to those comments, proposed decisions and the findings on the proposed Project and alternatives, and other documents relating to the agency decision on the proposed Project and alternatives.

PROJECT ALTERNATIVES

In accordance with the requirements of CEQA, the EIR describes a range of reasonable alternatives to the proposed Project that could feasibly attain most of the objectives of the proposed Project, but would avoid or substantially lessen any significant environmental impacts. The No Project Alternative, Reduced Project Alternative (Alternative 1), California Focused Conservation Alternative (Alternative 1.5) and Multi-modal Transportation Alternative (Alternative 2) were analyzed in detail in the Draft EIR and Focused Recirculated EIR

No Project Alternative

Under the No Project Alternative, the Vision Plan would not be adopted, comprehensive Zoo-wide expansion and redevelopment would not occur and the Zoo would continue to operate as is, with maintenance, repair, and improvement of facilities occurring as needed. Improvements to Zoo Drive, the intersection of Zoo Drive/Western Heritage Way, realignment of Crystal Springs Drive, and the Zoo's parking lot would not occur. Similarly, resident animals would continue to live in some outdated animal spaces. The No Project Alternative does not mean "no future growth or land uses," but rather that targeted Zoo improvements or expansion would occur under the existing 1998 Zoo Master Plan. The No Project Alternative would not involve any major improvements or large-scale expansions, as the 1998 Master Plan is nearly built out.

Reduced Project Alternative – Alternative 1

Alternative 1 would retain approximately 22 acres of undeveloped area currently within the Zoo property in its current setting. In doing so, this alternative would preserve a combination of native and non-native vegetation communities supporting a limited range of sensitive species and protected trees, as well as avoid visual and geologic changes to these areas. As a result, this alternative would reduce potentially significant impacts to biological and urban forestry resources, as well as aesthetics, air quality and GHG emissions, energy, noise, transportation, and utilities. With mitigations, Alternative 1 would reduce one significant and unavoidable impact (Impact VIS-2) related to aesthetic impacts to the visual character of the Zoo in context of the Zoo Drive gateway to Griffith Park. However, Alternative 1 would still generate VMTs that exceed the City's Transportation Assessment Guidelines (TAG) threshold of net-zero VMT for regional attractions like the Zoo and impacts related to transportation would remain significant and unavoidable. Alternative 1 would not meet or only partially meet several Project objectives.

Multi-modal Transportation Alternative – Alternative 2

The Multi-modal Transportation Alternative would incorporate the mitigation measures identified for the proposed Project, including the Zoo Transportation Demand Management (TDM) Program (MM T-2), with additional mitigation measures employed as necessary that would substantially expand multi-modal transportation opportunities (transit, bicycles, walking, ridesharing, etc.) to achieve a goal of reducing both employee and visitor VMT by 15 percent by 2040. As compared with the proposed Project, this alternative would reduce environmental impacts identified in the EIR associated with VMT. However, as the City's VMT threshold is net-zero, or no net increase in VMT, this alternative would not result in zero new VMT and transportation impacts would remain significant and unavoidable. This alternative would also reduce potentially significant

impacts to aesthetics, air quality and GHG emissions, energy, land use and planning, and transportation. This alternative would implement all improvements included as part of the proposed Project except that the size, bulk and scale of the onsite parking structure would be reduced because of the decrease in parking demand resulting from the reduction of VMT by 15 percent. All proposed Zoo improvements would be implemented in the same time frame as the proposed Project.

Environmentally Superior Alternative

The No Project Alternative would result in the fewest impacts on the existing environment. Pursuant to CEQA regulations (see CEQA Guidelines Section 15126.6(e)(2)), if the No Project Alternative is the environmentally superior alternative, then the EIR must also identify an environmentally superior alternative from among the build (or "action") alternatives. Based on the analysis in the Final Revised EIR, Alternative 1.5, the California Focused Conservation Alternative, is identified as the Environmentally Superior Alternative. Alternative 1.5 would generate the least adverse impacts compared to the proposed Project, Alternative 1, and Alternative 2 due largely to the projected reduction in visitation from implementation of the proposed PVMP and the loss of exhibit and visitor space in the Africa planning area. Alternative 1.5 would result in the lowest growth in visitation of any scenario analyzed in the Final Revised EIR. A reduced Zoo footprint and reduction in visitation of approximately 500,000 guests per year, compared to the Project, would eliminate the multi-story parking garage, the Zoo aerial tram, and the public park in the parking lot and would therefore reduce VMT, air emissions and GHGs, demand for energy and water, and a direct loss of habitat areas and protected trees.

The California Focused Conservation Alternative (Alternative 1.5) would avoid development within the existing undeveloped hillsides of the Africa planning area where protected trees, native habitats, and other special status plant species are present, substantially reducing disturbance of native habitats compared to the Project. Alternative 1.5 would implement a set of development design guidelines prioritizing the protection and planting of native plant species and habitats throughout new exhibits.

The reduced development under Alternative 1.5 and implementation of the PVMP would substantially reduce visitation compared to the proposed Project, thereby reducing projected vehicle miles traveled and associated energy demand and air pollutant and greenhouse gas emissions. As such, Alternative 1.5 would reduce impacts on aesthetics, air quality, greenhouse gas emissions, biological resources, urban forestry, noise, and transportation when compared to the proposed Project. However, Alternative 1.5 would continue to result in significant and unavoidable impacts to aesthetics and transportation, similar to the Project, Alternative 1, and Alternative 2. While this alternative would result in the lower adverse impacts compared to the proposed Project and other alternatives, Alternative 1.5 would continue to meet the Project objectives for animal welfare and care,

capital improvements, and environmental sustainability. Alternative 1.5 would increase space dedicated to animal welfare by 162.1 percent compared to existing conditions. All Project objectives would be largely met by Alternative 1.5. which would substantially reduce impacts and better achieve the Project objectives when compared to Alternative 1, and would reduce impacts when compared to the proposed Project and Alternative 2. Therefore, given that Alternative 1.5 would result in a lesser degree of impacts, Alternative 1.5 is identified as the Environmentally Superior Alternative.

PROJECT PHASING, COST AND FINANCING

Alternative 1.5 includes near-term and long-term improvements through seven sequential phases of development over the course of 18 years. Pending funding, Phases 1-3 are projected to be completed over a 5 – 10-year timeframe and include the Zoo Entry, California, Asia and Africa areas. Phases 4-7 are projected to be completed after Phases 1-3 over a 10-year timeframe. The near-term Phases 1-3 were estimated to cost approximately $650 million in 2022 dollars including design, construction, project management and contingencies; however, given ongoing global supply chain issues, associated market fluctuations and increased construction demands and cost, this estimate will need to be refined in the design phase. The Zoo endeavors to finance early phases of the Plan through public funds and fundraising efforts.

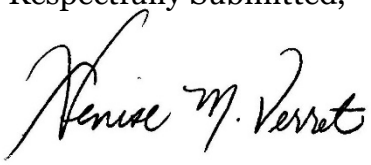
CONCLUSION

The 2022 Vision Plan: Alternative 1.5 will guide future development and transformation of the Zoo for the next 20 years and includes comprehensive redesign and redevelopment to replace outdated exhibits, buildings, and infrastructure, and achieve the Vision Plan's six guiding principles: 1) achieve the highest level of animal welfare; 2) advance conservation efforts locally and globally; 3) create meaningful, safe and fun experiences for our visitors and our community; 4) enhance our facility, operations and outreach as a world-class destination; 5) demonstrate environmental sustainability and best practices; and embody operational excellence at every level. The environmental review process has been completed over a more than four-year period and has included extensive engagement and public feedback, resulting in the creation of Alternative 1.5. The completion of this Project is a significant milestone in the Zoo's history to innovate and transform the physical campus into a modern zoological facility for future generations of Angelenos, while advancing our efforts toward wildlife conservation in the face of climate change and other growing threats to local and global biodiversity, and embracing equity and access in all forms.

FISCAL IMPACT STATEMENT

The approval and certification of the Los Angeles Zoo Vision Plan Revised Final Environmental Impact Report and the approval of the Los Angeles Zoo Vision Plan (Alternative 1.5) do not have a direct fiscal impact as there is no obligation of funding. Implementation of early phases will facilitate increased attendance and revenue, ensuring a financially sustaining operating model for the Zoo into the future.

Respectfully Submitted,



Denise M. Verret, General Manager
Zoo Department

Attachments

cc: Jacqueline Hamilton, Office of the Mayor
Steve Houchin, Office of the City Attorney
Ted Allen, Bureau of Engineering

Findings of Fact and Statement of Overriding Considerations for Certification of a Revised Final Environmental Impact Report

Los Angeles Zoo Vision Plan Project - Alternative 1.5: The California Focused Conservation Alternative

SCH. No. 2019011053

City of Los Angeles, Department of Public Works

Bureau of Engineering, Environmental Management Group

1149 South Broadway, Suite 600

Los Angeles, California 90015

May 2023

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1.0 INTRODUCTION

1.1 INTRODUCTION

These Findings of Fact and Statement of Overriding Considerations are for the implementation of Alternative 1.5: The California Focused Conservation Alternative.

The California Environmental Quality Act (CEQA) (Public Resources Code Section 21081) and the CEQA Guidelines (Section 15901) require that no public agency approve or carry out a project for which an Environmental Impact Report (EIR) has been certified which identifies one or more significant effects of the project on the environment unless both of the following occur:

a) The public agency makes one or more of the following possible findings with respect to each significant effect:

    1. Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment.

    2. Changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency.

    3. Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the environmental impact report.

b) With respect to significant effects which were subject to a finding under paragraph (3) of subdivision (a), the public agency finds that specific overriding economic, legal, social, technological, or other benefits of the project outweigh the significant effects on the environment.

As required by CEQA, the City of Los Angeles (City) finds that the Final EIR and the Revised Final EIR for the Los Angeles Zoo (Zoo) Vision Plan Project reflects the City's independent review and judgment. In accordance with the provisions of CEQA and the CEQA Guidelines, the City adopts these Findings as part of its certification of the Final EIR and Revised Final EIR.

In conjunction with its adoption of these Findings, the City has reviewed and considered a substantial amount of material in the record of proceedings, including, but not limited to, the following:

- *Los Angeles Zoo Vision Plan – 2028 and Beyond* and all appendices and technical reports thereto;
- *Los Angeles Zoo Vision Plan Initial Study/Environmental Checklist;*
- *Los Angeles Zoo and Botanical Gardens Vision Plan Project Draft EIR* (December 2020);
- *Los Angeles Zoo Vision Plan Project Final Environmental Impact Report*, including Public and Agency Comments and Responses to Comments (June 2021);

- *Los Angeles Zoo Draft Plan 2020 – Alternative 1.5: The California Focused Conservation Alternative* and all appendices and technical reports thereto;
- *Los Angeles Zoo Vision Plan Project Focused Recirculated Environmental Impact Report*, including Public and Agency Comments and Responses to Comments (July 2022); and
- *Los Angeles Zoo Vision Plan Project Revised Final Environmental Impact Report* (May 2023).

1.2 ORGANIZATION OF CEQA FINDINGS OF FACT

The content and format of this CEQA Findings of Fact and Statement of Overriding Considerations is designed to meet the latest CEQA Statutes and Guidelines. The document addresses the implementation of Alternative 1.5: The California Focused Conservation Alternative. The document is organized into the following sections:

Chapter 1, Introduction, outlines the organization of this document and identifies the location and custodian of the record of proceedings.

Chapter 2, Project Description, describes the location and existing setting, objectives, characteristics, and the required permits and approvals for the Alternative 1.5 Project.

Chapter 3, CEQA Review and Public Outreach, describes the steps the City of Los Angeles Bureau of Engineering (BOE) has undertaken to comply with the CEQA Guidelines as they relate to public input, review, and participation during the preparation of the Draft and Final EIRs.

Chapter 4, Findings of No Environmental Effects, provides a summary of those environmental issue areas where no reasonably foreseeable impacts from the implementation of Alternative 1.5 would occur.

Chapter 5, Findings of Less Than Significant Environmental Effects without Mitigation, provides a summary of impacts from the implementation of Alternative 1.5 determined to be below the threshold of significance without the incorporation of mitigation measures.

Chapter 6, Findings of Less Than Significant Environmental Effects with Mitigation, provides a summary of potentially significant environmental effects from the implementation of Alternative 1.5 for which implementation of identified feasible mitigation measures would avoid or substantially reduce the environmental effects to less than significant levels.

Chapter 7, Findings of Significant Environmental Effects, provides a summary of potentially significant environmental effects from the implementation of Alternative 1.5.for which no feasible mitigation measures are identified or for which implementation of identified feasible mitigation measures would not avoid or substantially reduce the environmental effects to less than significant levels.

Chapter 8, Findings Regarding Project Alternatives, provides a summary of the alternatives considered.

Chapter 9, Findings on Mitigation Monitoring Program, provides a brief discussion of the Alternative 1.5 project's compliance with the CEQA Guidelines regarding the adoption of a program for reporting and/or monitoring.

Chapter 10, Findings on Changes to the Draft EIR and Recirculation, provides a summary of the changes to the Draft EIR in response to public comments received and findings that changes to the Draft EIR do not require recirculation of the Draft EIR for public review.

Chapter 11, Statement of Overriding Considerations, presents the Statement of Overriding Considerations for the significant adverse effects that cannot be avoided, even with the implementation of Alternative 1.5 mitigation measures.

1.3 RECORD OF PROCEEDINGS

The documents and other materials that constitute the record of proceedings upon which project approval is based are located at the Zoo Department located at 5333 Zoo Drive, Los Angeles, CA 90027; BOE located at 1149 South Broadway, Suite 600, Los Angeles, CA 90015; the Office of the City Clerk, 200 North Spring Street, 3rd Floor, Los Angeles, CA 90012; and any other relevant City department. The record of proceedings is provided in compliance with Public Resources Code Section 21081.6(a)(2) and CEQA Guidelines Section 15091(e).

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2.0 PROJECT DESCRIPTION – ALTERNATIVE 1.5: THE CALIFORNIA FOCUSED CONSERVATION ALTERNATIVE

2.1 ALTERNATIVE 1.5 LOCATION AND SETTING

The Alternative 1.5 Project is located at 5333 Zoo Drive in the City, in the southern portion of Los Angeles County. The 142-acre Project site is in the northeastern portion of Griffith Park, at the base of the foothills of the Santa Monica Mountains. The Alternative 1.5 Project site encompasses the entire property of the existing Zoo and is generally bordered by the Golden State Freeway or Interstate (I-) 5 to the east and the Ventura Freeway or California State Route (SR-) 134 to the north. The Los Angeles River also borders the north and east boundaries of Griffith Park before continuing south and eventually flowing into the Pacific Ocean at Long Beach.

The Zoo is bordered to the north by undeveloped land within Griffith Park, to the east by the Autry Museum of the American West, to the south by Wilson and Harding Golf Courses, and to the west by Mineral Wells Picnic Area, as well as Condor and Mineral Wells hiking trails Existing development, animal facilities, and walkways are concentrated within the Zoo's central and eastern 102 acres, which support animal facilities, visitor-serving facilities and the Zoo's pedestrian routes. These facilities are generally developed on level and gently sloping valley bottom areas. Service and conservation uses are concentrated on steeper slopes.

Approximately 31 acres of the Zoo are undeveloped supporting a mix of non-native woodland and native habitats. Undeveloped hillsides in the Zoo support coastal sage scrub, chaparral, riparian, and southern oak woodland plant communities that are typical in the interior mountain ranges of Southern California. Ash, Southern California black walnut, oak, sycamores, willows, and mulefat can also be found in ravines, along with chaparral. The Zoo also includes several extensive groves of eucalyptus in undeveloped areas.

A total of 2,345 parking spaces for guests and Zoo employees are provided at the Zoo's main parking and an additional parking lot located south of Crystal Springs Drive, adjacent to the North Hollywood High School Zoo Magnet Center. Up to 166 parking spaces for Zoo staff are also available at several small parking areas along the perimeter roads and in a secured lot. The Alternative 1.5 Project site is also fully serviced by utility infrastructure which currently operates at capacity.

2.2 PROJECT OBJECTIVES

Broadly, the *Los Angeles Zoo and Botanical Gardens Vision Plan for 2028 and Beyond* (the "2018 Vision Plan") and the *Los Angeles Zoo Draft Plan 2022 – Alternative 1.5: The California Focused Conservation Alternative* (the "2020 Vision Plan") would serve as the blueprint for transformation and modernization of the Zoo over the next 20 years. The City has identified 14 objectives for future development of the Zoo:

1. **Animal Welfare and Care.** Provide an environment for all the animals that call the Zoo home to thrive through development of state-of-the art exhibits and animal care facilities that meet or exceed Association of Zoos and Aquariums (AZA), United States Department of Agriculture and state of the industry care standards, as well as upgraded Zoo service centers and veterinary facilities that ensure optimal animal welfare.
2. **Increase and Modernize Zoo Exhibit Space.** Increase and modernize Zoo exhibit space to maximize animal habitat areas, create infrastructure for innovative and proactive animal care and welfare practices, and represent ecosystems and lifecycles by transforming underutilized and underdeveloped areas of the Zoo.
3. **Conservation.** Advance conservation efforts by developing facilities and programs that will support conservation actions to protect and grow animal populations and habitats.
4. **Learning and Education.** Advance public engagement efforts by developing facilities and experiences that promote lasting relationships with nature, life-long learning, opportunities for outreach beyond the Zoo's campus, and a civic culture of conservation.
5. **Immersive Visitor Experience.** Design Zoo exhibits and visitor spaces to provide nature-based experiences that allow Zoo visitors to engage with environments and animals in seamless, immersive spaces.
6. **World Class Destination.** Enhance Zoo facilities and operations to increase Zoo visitation, create a sense of place that transports visitors to other parts of the world, and generate revenue to support operation of the Zoo, capital improvements, and conservation programs.
7. **Visitor-serving Amenities.** Provide a variety of visitor-serving amenities including food and retail establishments, a range of resting and gathering places, and special event centers that will attract visitors and support a range of special events within the Zoo.
8. **Efficient Circulation System.** Develop an efficient and accessible internal loop circulation system that maximizes access to Zoo exhibits for visitor comfort, operational efficiency, and safety, providing dedicated pathways for pedestrians, trams, and emergency and service vehicles.
9. **Accessibility.** Design the Zoo to serve the needs of a diverse population of all ages and abilities through incorporation of Americans with Disabilities Act of 1990 (ADA) pathways, alternative travel options in the Zoo such as aerial or ground-based trams, and exhibit features and facilities for families and those with special needs, along with a cohesive approach to wayfinding.
10. **Multi-modal Access.** Improve multi-modal accessibility and regional transportation to the Zoo, including the provision of alternative transportation options to reduce congestion and improve the circulation of vehicle traffic.
11. **Visual Appearance.** Improve the visual characteristics of the Zoo through architectural design, landscaping, lighting, pedestrian-oriented improvements, and incorporation of symbolic design, and create features that reflect architecture of animal habitat theme areas and the Zoo history.

12. **Capital Improvements.** Identify and provide for implementation of capital improvements and investments that are needed to ensure that future demands on the Zoo's infrastructure will be successfully accommodated.
13. **Environmental Sustainability**. Incorporate sustainable design practices into Zoo facilities to ensure resource conservation consistent with City's Sustainable City pLAn, One Water L.A. Plan, and Resilient Los Angeles Plan.
14. **Operational Excellence.** Provide facilities and resources that allow Zoo staff and emergency responders to safely and efficiently support Zoo operations, including safe and quick vehicle access to all parts of the Zoo, as well as ensuring the Zoo is clean, well-maintained, supportive of the organizational culture, and provides high quality customer service.

2.3 SUMMARY OF THE ALTERNATIVE 1.5 PROJECT

The Alternative 1.5 Project as described in the 2022 Vision Plan would guide physical transformation and improvement of facilities and operations of Zoo. The 2022 Vision Plan would serve as the blueprint for transformation and modernization of the Zoo over the next 20 years. The 2022 Vision Plan's proposed infrastructure and animal facility improvements prioritize animal welfare, conservation, sustainability, and community engagement. The 2022 Vision Plan also addresses operational deficiencies at the Zoo, including the quality and extent of animal habitat within exhibits such as the current lion exhibit area. The 2022 Vision Plan also addresses the currently constrained visitor circulation system and missing linkages between animal facilities, and a limited range of visitor-serving facilities. The 2022 Vision Plan would guide comprehensive animal facility improvements and capital projects to upgrade Zoo facilities and circulation to ultimately create a transformational zoo for the City, including expansion of the current elephant area by approximately 200 percent.

2.4 ACTIONS AND APPROVALS

An EIR is a public document used by a public agency to analyze the significant environmental effects of a proposed project, to identify alternatives, and to disclose possible ways to reduce or avoid environmental damage (CEQA Guidelines, Section 15121). As an informational document, an EIR does not recommend for or against approving a project. The main purpose of an EIR is to inform governmental decision makers and the public about potential environmental impacts of the project.

The EIR prepared for the Vision Plan Project will be used by the City, as the lead agency under CEQA, in making decisions with regard to the adoption of the Alternative 1.5 Project and the subsequent construction and development of the Alternative 1.5 Project, described above. Various permits and approvals would be required in order to approve and implement the Alternative 1.5 Project. These may include but may not be limited to, the following:

City of Los Angeles

- Vision Plan adoption
- Certification of the Final EIR
- Permits for disposal of materials and haul routes
- Use of Public Property Permit
- Oversize Load Permit
- Tree Removal Permit
- Building Permit
- Grading Permit
- Traffic Management Plan (TMP)

State of California, Los Angeles Regional Water Quality Control Board

- National Pollutant Discharge Elimination System (NPDES) Permit for stormwater discharge

3.0 CEQA REVIEW AND PUBLIC OUTREACH

BOE has complied with the CEQA Guidelines during the preparation of the EIR for the Alternative 1.5 Project. The Draft EIR, dated December 2020, was prepared after soliciting input from the public, responsible agencies, and affected agencies through the EIR scoping process. The "scoping" of the EIR was conducted utilizing several of the tools available under CEQA. In accordance with Section 15063 of the CEQA Guidelines, a Notice of Preparation (NOP) and Initial Study were prepared and distributed to the State Clearinghouse, responsible agencies, affected agencies, and other interested parties on January 24, 2019. The NOP was posted in the Los Angeles County Clerk's office for 45 days, as well as the City Clerk's office. Two public scoping meetings were held at Witherbee Auditorium at 5333 Zoo Drive on February 7 and February 9, 2019 to solicit input on the Alternative 1.5 Project. The NOP was also submitted to the California Office of Planning and Research (OPR; State Clearinghouse) to officially solicit participation in determining the scope of the EIR. Information requested and input provided during the NOP comment period regarding the scope of the EIR are included in the EIR.

The Draft EIR was circulated for a 60-day public review and comment period starting on December 17, 2020 and concluding on February 15, 2021. The timeframe of the public review period was identified in the Notice of Availability (NOA) attached to the Draft EIR. The public review period was conducted pursuant to CEQA and its implementing guidelines. The purpose of the public review period was to provide interested public agencies, organizations, and individuals the opportunity to comment on the contents and accuracy of the document. The Draft EIR and the Notice of Completion were distributed to OPR, and the State Clearinghouse. Relevant agencies also received copies of the document. The NOA was distributed to relevant legislators, agencies, and community stakeholders, and individuals. The NOA informed them of where they could view the document and how to comment. An electronic copy of the Draft EIR document was made available online at the BOE's website. The NOA was filed by BOE at the City Clerk's office. The NOA was also filed with the County Clerk on December 17, 2020. Due to the ongoing public health crisis associated with the COVID-19 pandemic, a virtual public meeting was held during the Draft EIR public review period to solicit comments from interested parties on the content of the Draft EIR. Information regarding the virtual public meeting was included in the NOA, which was made available online, as described above. The meeting was held on January 13, 2021. A Final EIR has been completed and includes written comments received by mail and electronic mail on the Draft EIR, oral comments received at the Draft EIR virtual public meeting, written responses to the written and oral comments received, and the associated changes to the Draft EIR.

As a result of public input received following the publication of the Final EIR, the City decided to include a new alternative, Alternative 1.5: The California Focused Conservation Alternative, for CEQA analysis. A revised Vision Plan, *Los Angeles Zoo Draft Plan 2020 – Alternative 1.5: The California Focused Conservation Alternative*, was prepared. A Focused Recirculated EIR was published in July 2022 and circulated for public comment between July 14, 2022, and September 23, 2022. A NOA was prepared and distributed to relevant legislators, agencies, community

stakeholders and individuals. An electronic copy of the Focused Recirculated EIR document was made available online at the BOE's website. Due to the ongoing public health crisis associated with the COVID-19 pandemic, two virtual public meetings were held during the Focused Recirculated EIR public review period to solicit comments from interested parties. The meetings were held on August 15, 2022 and September 12, 2022. A Revised Final EIR has been completed and includes written comments received by mail and electronic mail on the Focused Recirculated EIR, oral comments received at the Focused Recirculated EIR virtual public meetings, written responses to the written and oral comments received, and the associated changes to the Focused Recirculated EIR.

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4.0 FINDINGS OF NO ENVIRONMENTAL IMPACT

Based on the Final EIR, the Revised Final EIR, and the record of proceedings, the City finds that the Alternative 1.5 Project would have no impacts associated with agriculture and forestry resources; mineral resources; population and housing. Because the finding of No Impact was made in the Initial Study and because no further information was received or identified during the scoping process, these environmental issue areas were not carried forward for detailed analysis in the EIR.

Further, based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, and the record of proceedings, the City finds that the Alternative 1.5 Project would have no impacts, direct, indirect, or cumulative, associated with aesthetics and visual resources (scenic resources along a scenic highway); biological resources (loss of riparian or sensitive natural communities, effects on wetlands, and conflicts with Habitat Conservation Plan/Natural Community Conservation Plan); geology and soils (soil capacity supporting wastewater disposal systems); hazards and hazardous materials (private air strips and public airports); hydrology and water quality (housing within a 100-year flood hazard area and expose people or structures to seiche, tsunami, or mudflow); land use and planning (division of an established community); noise (private air strip or public airport); and public services (libraries).

4.1 AESTHETICS AND VISUAL RESOURCES – SCENIC RESOURCES ALONG A SCENIC HIGHWAY

There are no existing designated scenic highways adjacent to or with views of the Zoo. The nearest designated scenic roadway is a segment of Riverside Drive within the City that extends from Stadium Road to Los Felix Boulevard, approximately 2.3 miles south of the Alternative 1.5 Project site, just south of Griffith Park. The Alternative 1.5 Project site is in the northeast corner of Griffith Park. Neither the Alternative 1.5 Project site nor its immediate surroundings are visible from this City-designated scenic roadway. Therefore, the implementation of Alternative 1.5 would not result in significant impacts to scenic resources located along or viewed from a scenic highway.

4.1.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, and the whole of the record, the City finds that the Alternative 1.5 Project would result in no reasonably foreseeable impacts to aesthetic and visual resources related to scenic resources located along or viewed from a scenic highway.

4.2 AGRICULTURAL AND FORESTRY RESOURCES

The Alternative 1.5 Project site does not contain traditional forestry resources or lands which are classified as Prime Farmland, Unique Farmland, Farmland of statewide Importance, or designated for agricultural or timber extraction. There are no lands within the City under the

Williamson Act contracts. The Alternative 1.5 Project does not propose any actions that would substantially affect such resources within the City or surrounding region. Therefore, implementation of the Alternative 1.5 Project would not result in impacts to these resource areas.

4.2.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, and the whole of the record, the City finds that the Alternative 1.5 Project would result in no reasonably foreseeable impacts relating to agricultural and traditional forestry resources.

4.3 BIOLOGICAL RESOURCES – LOSS OF RIPARIAN OR SENSITIVE NATURAL COMMUNITY / EFFECTS ON WETLANDS / CONFLICT WITH HABITAT CONSERVATION PLAN OR NATURAL COMMUNITY CONSERVATION PLAN

No riparian habitat or other sensitive communities are noted on the site, and no other sensitive species associated with a unique, special, or sensitive habitat were identified or considered to have potential to exist onsite. While the Los Angeles River is located approximately 900 feet from the Alternative 1.5 Project site, this portion of the river is concrete-lined and provides no riparian habitat or other sensitive communities. Further, there are no waters of the U.S. or State of California or associated wetlands onsite. There are no existing adopted habitat conservation plans, natural community conservation plan, or other approved local, regional, or state habitat conservation plan which apply to the Zoo. Implementation of the Alternative 1.5 Project would have no impact on biological resources related to these issues.

4.3.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, and the whole of the record, the City finds that the Alternative 1.5 Project would result in no reasonably foreseeable impacts to biological resources relating to riparian or sensitive natural communities, wetlands, or consistency with a Habitat Conservation Plan/Natural Community Conservation Plan.

4.4 GEOLOGY AND SOILS – SOIL CAPACITY SUPPORTING WASTEWATER DISPOSAL SYSTEMS

The Alternative 1.5 Project does not propose the construction or use of a septic tank or alternative wastewater disposal system. All sewage generated onsite would be conveyed to the City's North Outfall Sewer from a system of sewer lines beneath the Zoo. Therefore, the Alternative 1.5 Project would not result in a significant impact due to soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems.

4.4.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, and the whole of the record, the City finds that the Alternative 1.5 Project would result in no reasonably foreseeable impacts to geology and soils relating to soil capacity supporting wastewater disposal systems.

4.5 HAZARDS AND HAZARDOUS MATERIALS – PRIVATE AIR STRIPS AND PUBLIC AIRPORTS

The nearest public airport to the Alternative 1.5 Project site is the Bob Hope Airport (BUR), located approximately 4.4 miles northwest of the Zoo. Los Angeles International Airport (LAX) is located approximately 15 miles southwest. The Zoo is not within the Runway Protection Zones or the Area of Influence of either BUR or LAX according to the Los Angeles County Airport Land Use Plan. Further, there are no private airstrips in the vicinity of the Alternative 1.5 Project site. The Dreamworks Heliport Glendale is a private heliport located approximately 0.5 miles north of the Alternative 1.5 Project site; however, this heliport is located outside of the Federal Aviation Administrations recommended 280-foot Helicopter Protection Zone. Therefore, the Alternative 1.5 Project would not result in a safety hazard for people visiting or working at the Zoo.

4.5.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, and the whole of the record, the City finds that the Alternative 1.5 Project would result in no reasonably foreseeable impacts to hazards and hazardous materials relating development in proximity to a private air strip or public airport.

4.6 HYDROLOGY AND WATER QUALITY – HOUSING WITHIN A 100-YEAR FLOOD HAZARD AREA / EXPOSE PEOPLE OR STRUCTURES TO SEICHE, TSUNAMI, OR MUDFLOW

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, the Alternative 1.5 Project site is not located within a 100-year flood hazard area and does not contain any zones that are subject to flood or mudflow hazards. The nearest Special Flood Hazard Area to the Alternative 1.5 Project site is the portions of the Burbank Channel and the Los Angeles River in the City of Burbank, approximately 1.25 miles north of the Alternative 1.5 Project site. The Alternative 1.5 Project site is not located in proximity to a dam that would have the potential to cause flooding in the Project vicinity. Therefore, the Alternative 1.5 Project would not place within a 100-year flood hazard area structures that would impede or redirect flood flows.

In addition, according to the FEMA Flood Insurance Rate Map, the Alternative 1.5 Project site does not contain any zones that are subject to tsunami, seiche, or mudflow hazards. The Alternative 1.5 Project site is not located in proximity to a large body of water. The only body of water within Griffith Park is the Hollywood Reservoir, located approximately 2.5 miles southwest

of the Gottlieb Animal Health and Conservation Center at the Zoo. There are several mountains that are located between the reservoir and the Alternative 1.5 Project site. Therefore, the Alternative Project site is not located in an area that is susceptible to seiches or tsunamis. The Alternative 1.5 Project site is not mapped as having the potential for landslides or mudflows. Therefore, the Alternative 1.5 Project would not expose people or structures to inundation by seiche, tsunami, or mudflow.

4.6.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, and the whole of the record, the City finds that the Alternative 1.5 Project would result in no reasonably foreseeable impacts to hydrology and water quality relating to development of housing within a 100-year flood hazard area or exposure of people or structures to seiche, tsunami, or mudflow hazards.

4.7 LAND USE AND PLANNING – DIVISION OF AN ESTABLISHED COMMUNITY

The Alternative 1.5 Project would not physically divide an established community. Most construction associated with the Alternative 1.5 Project would occur within the existing footprint of the Zoo, with additional improvements to the parking and circulation immediately surrounding the Zoo property. The Alternative 1.5 Project's Alternative 1.5 uses would be consistent with existing land uses at the Zoo. Therefore, the Alternative 1.5 Project would not physically divide an established community.

4.7.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, and the whole of the record, the City finds that the Alternative 1.5 Project would result in no reasonably foreseeable impacts to land use and planning relating to division of an established community.

4.8 MINERAL RESOURCES

There are no mineral extraction operations within the Alternative 1.5 Project site or anywhere in the nearby vicinity. The Alternative 1.5 Project site is not designated as an existing mineral resources extraction area by the State, and because the Alternative 1.5 Project site is already highly disturbed, the potential for unknown, recoverable mineral resources to occur on-site is low. Therefore, implementation of the Alternative 1.5 Project would not result in impacts to mineral resources.

4.8.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, and the whole of the record, the City finds that the Alternative 1.5 Project would result in no reasonably foreseeable impacts relating to mineral resources.

4.9 NOISE – PRIVATE AIR STRIP OR PUBLIC AIRPORT

The nearest public airport to the Alternative 1.5 Project site is the BUR, located approximately 4.4 miles northwest of the Zoo. LAX is located approximately 15 miles southwest. The Zoo is not within the Runway Protection Zones or the Airport Influence Area of either BUR or LAX according to the Los Angeles County Airport Land Use Plan. Further, there are no private airstrips near the Alternative 1.5 Project site. The Dreamworks Heliport Glendale is a private heliport located approximately 0.5 miles north of the Project site; however, this heliport is located outside of the Federal Airport Authority's recommended 280-foot Heliport Protection Zone. Therefore, the Alternative 1.5 Project would not expose people working in or visiting the Project site to excessive noise levels from aircraft operations.

4.9.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, and the whole of the record, the City finds that the Alternative 1.5 Project would result in no reasonably foreseeable noise impacts relating to development in proximity to a private air strip or public airport.

4.10 POPULATION AND HOUSING

The Alternative 1.5 Project would not have the potential for significant impacts associated with population and housing. The Alternative 1.5 Project would not result in the demolition, construction, or renovation of any residential uses or units within the City or surrounding cities of Burbank and Glendale. As such, the Alternative Project would not directly increase the population of these cities. The Alternative 1.5 Project would, however, provide an unknown amount of short-term employment opportunities during construction as well as approximately 500 new full-time equivalent (FTE) jobs over the course of 2022 Vision Plan implementation. Short-term Project construction employment would draw from the existing regional workforce and would not significantly increase the population of these cities. Although a majority of Zoo employees would be anticipated to come from the existing regional workforce, the Alternative 1.5 Project could attract workers from other localities, increasing the resident population of those cities. However, assuming in the unlikely worst case all 500 new FTE employees would move from outside the region to live near the Zoo, these increases would represent less than 0.5 percent of the existing population of the cities of Los Angeles, Burbank, and Glendale, and therefore would not be considered to result in substantial population growth. Therefore, potential impacts of the Alternative 1.5 Project associated with population and housing would be considered less than significant.

4.10.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, and the whole of the record, the City finds that the Alternative 1.5 Project would result in no reasonably foreseeable impacts relating to population and housing.

4.11 PUBLIC SERVICES – LIBRARIES

The Alternative 1.5 Project has no residential components and would not accommodate additional population. The Alternative 1.5 Project would not substantially increase the local residential population or induce growth. The Alternative 1.5 Project may create additional new jobs that would be filled by residents in the region. Any growth in population induced by the Alternative 1.5 Project is expected to be insubstantial and is not anticipated to directly increase demand for library services within the City and surrounding area. Further, no public libraries exist on the Alternative 1.5 Project site or immediate vicinity that would be affected by the Alternative 1.5 Project. Therefore, there would be no impacts to libraries.

4.11.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, and the whole of the record, the City finds that the Alternative 1.5 Project would result in no reasonably foreseeable impacts to public services relating to libraries.

5.0 FINDINGS OF LESS THAN SIGNIFICANT ENVIRONMENTAL EFFECTS WITHOUT MITIGATION

Based on the Final EIR, Revised Final EIR and the record of proceedings, the City finds that the Alternative 1.5 Project would have less than significant environmental effects associated with aesthetics and visual resources (scenic vistas, light and glare effects); air quality (odors); cultural and tribal cultural resources (historical resources); energy (wasteful, inefficient, or unnecessary consumption of energy resources); geology and soils (rupture of a known earthquake fault and soil erosion or loss of topsoil); greenhouse gas (GHG) emissions (significant direct or indirect GHG emissions); hazards and hazardous materials (transport, use, or disposal of hazardous materials and effects on emergency access or response); hydrology and water quality (runoff); noise (vibration and groundborne noise levels); recreation (construction or expansion of recreational facilities); utilities (wastewater and solid waste); and wildfire (runoff, post-fire slope instability, or drainage changes).

The City also finds the Alternative 1.5 Project would not cause cumulatively considerable impacts to aesthetics and visual resources (scenic vistas, light and glare effects); air quality (odors); cultural and tribal cultural resources (historic resources); energy (wasteful or inefficient use of resources); geology and soils (rupture of a known earthquake fault and soil erosion or loss of topsoil); GHG emissions (significant direct or indirect GHG emissions); hazards and hazardous materials (transportation, use, or disposal of hazardous materials and effects on emergency access or response); hydrology and water quality (runoff); noise (vibration and groundborne noise levels); recreation (construction of recreational facilities); utilities (wastewater and solid waste disposal); and wildfire (runoff, post-fire slope instability, or drainage changes). Each of these issues, as well as the potential irreversible environmental changes and growth inducing impacts associated with the Alternative 1.5 Project are discussed in this section.

5.1 AESTHETICS AND VISUAL RESOURCES – SCENIC VISTAS/ LIGHT AND GLARE EFFECTS

Scenic Vistas

There are areas within Griffith Park surrounding the Alternative 1.5 Project site that provide undesignated scenic vistas due to the expansive, panoramic views of the natural terrain, more distant urban landscapes, and background of the San Gabriel Mountains. The views afforded from public trails within Griffith Park meet the City's definition of scenic views and thus are considered scenic vistas in this analysis. While existing public roadways such as Zoo Drive, Crystal Springs Road, and Griffith Park Drive offer scenic segments and some views of the Zoo, these generally do not include scenic vistas across the Zoo. The Zoo is most visible and lies within a greater viewshed from specific locations or whole segments of nearby trails, primarily Skyline Trail, Condor Trail, and North Trail. The Alternative 1.5 Project would have several components that would be visible from scenic vistas within Griffith Park, including from popular hiking trails uphill from the Zoo. Impacts to scenic vistas or views from vegetation removal and diminishment

of the urban forest canopy would also be short-term, as the Alternative 1.5 Project proposes extensive landscaping and tree replanting. Despite the addition of several taller structures or features existing distant views of Griffith Park or urban environment from surrounding trails would not be substantially altered. Overall, the Alternative 1.5 Project would have a less than significant impact on existing scenic views and vistas.

Light and Glare Effects

Construction activities under Alternative 1.5, including equipment that may be a source of light and glare, would not be highly visible to the public within the Zoo during operating hours of 10 A.M. to 5 P.M. Light and glare from the construction within the interior of the Zoo would not be highly visible from outside of the Zoo (e.g., from public trails and roads) given intervening topography, vegetation, and distance. Incidental exposure to construction lights and glare from equipment and materials within closed portion of the Zoo would potentially occur as Zoo patrons move long walkways, and visit new and remodeled animal environments, but these effects would be temporary and minor during the day. Further, any construction activities requiring night lighting would be contained within the closed area of the Zoo and would not be highly visible from surrounding public viewing areas including roads and trails. Therefore, nighttime lighting would be localized and not perceived by the public and construction impacts related to light and glare would be less than significant.

New sources of lighting under the Alternative 1.5 Project would include lighting in new structures, safety lighting of the aerial tram, and parking lot, roadway, and pathway lighting, nighttime security lighting of Zoo service areas and administrative facilities. Griffith Park is open from 5:00 AM to 10:30 PM daily, which allows visitors in the park after dark to use park facilities, including park roads and trails near the Project site. Most new lighting sources would not be highly visible from the outside of the Zoo due to the intervening hillsides, vegetation, and the Zoo's urban forest obstructing views into the Zoo. However, the Alternative 1.5 California planning areas constructed on the Zoo's higher elevations would support structures with night lighting that could be seen from distant vistas. Alternative 1.5 would not include an aerial tram. The Alternative 1.5 Project would also increase the frequency of nighttime events, which may involve lighting after the Zoo has closed. Further, reflective materials used in the aerial tram or visitor centers (e.g., view windows) could potentially catch sunlight during the day and project glare toward the public trail overlooks in Griffith Park.

The most visible new lighting on the Alternative 1.5 Project site could be visible from parking lot security and roadway lighting in the public areas fronting the Zoo, including Zoo Drive and Crystal Springs Drive/Western Heritage Way. This area is a designated gateway to Griffith Park where increased lighting may diminish visual quality in the area. The existing main parking lot is currently lit with hooded lighting to direct light down and prevent spill over into wilderness area of the Griffith Park; this type and extent of lighting would persist under the Alternative 1.5 Project, but would not include the multi-story parking structure. While additional lighting may be inconsistent with visual character of the area, the additional lighting itself would not dominate surrounding roadways, as the additional lighting would be hooded and directed downward similar to lighting that currently occurs at the Zoo.

The Alternative 1.5 Project would also increase the frequency and projected attendance of special events held at the Zoo, potentially requiring longer durations of nighttime lighting prior to Zoo daily shutdown. Events may be held in Alternative 1.5 hilltop visitor centers in the California and Africa planning areas, which may be visible from public views in Griffith Park. However, lighting used during such events would be internal to the Zoo and such special event lighting visibility from within the Zoo would be highly limited due to distance from public viewing points (e.g., public trails) and intervening trees and vegetation.

The Zoo is not visible from nearby communities in the City, Glendale, or Burbank and, therefore, would not be affected by Project lighting or glare. Residential communities outside of Griffith Park in proximity to the Zoo are separated from the Zoo by approximately 3 miles and intervening hillsides, the Los Angeles River, and travel corridors of SR-134 and I-5 which provide lighting for traveling vehicles, and completely block views of the Zoo. Therefore, additional lights sources at the Zoo would not adversely impact sensitive residential communities surrounding the Zoo. Uses surrounding the Zoo that have the potential to observe Project lighting include the Autry Museum of the American West and the Wilson and Harding Golf Course. However, the Autry Museum closes at 4:00 PM, and therefore, no visitors or staff would be impacted by current or future nighttime lighting occurring at the Zoo. The Wilson and Harding Golf Course closes at 10:00 PM; therefore, visitors and staff may detect night lighting at the Zoo. However, lighting from the Zoo is not anticipated to create a nuisance to the Wilson and Harding Golf Course, as the golf course is located behind a Zoo ridgeline in the Africa planning area, which would block views of lighting within the Zoo and the parking lots. Further, the golf course provides substantial lighting at its driving range and parking lot so that visitors may continue their activities after sundown. Other facilities in Griffith Park that may be sensitive to night lighting include the Griffith Observatory and the Greek Theater. However, the natural topography of Griffith Park includes a large hillside that divides these areas from one another, thereby obstructing direct views and minimizing potential light spillover.

Zoo lighting would comply with LAMC Section 93.0117, which limits the amount of exterior light intensity on surrounding areas and requires parking lot lighting to face away from streets and residences. Increased lighting would be substantially visible to surrounding uses or cause impacts to Zoo visitors. Therefore, light impacts from night lighting included in the Alternative 1.5 Project would be less than significant.

However, the Project would potentially create sources of glare from bright or reflective surfaces. Given the programmatic nature of the Vision Plan, detailed designs of Alternative 1.5 improvements, including specifications on building materials and architectural coatings or treatment are not available. Based on the Alternative 1.5 conceptual design and visual simulations, several Alternative 1.5 new structures could be visible from higher-elevation trails located in the Alternative 1.5 Project vicinity. For example, the larger developments Alternative 1.5 in Phases 1 through 3 such as the California and Treetops Visitors Center, would be visible from public trails. These structures and features may be constructed or designed with some reflective surfaces (e.g., large windows, polished surfaces) or architectural surfacing that may reflect light during certain hours of the day. Glare may be reflected from Alternative 1.5 hilltop

visitor centers in the California and Africa planning areas, which may be visible from public views in Griffith Park. However, views of these areas would be limited due to distance from viewing points and intervening trees and vegetation. Even if some degree of glare results, these structures would only be visible in the distance from public trails and viewpoints within Griffith Park. Due to the Zoo's dense urban forest, the intermittent duration of views from pedestrians along the trails, distance of the views, and anticipated lack of large reflective surfaces or features, most Alternative 1.5 Project development would not generate significant impacts from glare.

Alternative 1.5 would not require implementation of MM VIS-2 and MM VIS-3 and impacts would be substantially reduced compared to the Proposed Project and would be less than significant.

See discussion of *Aesthetics and Visual Resources* in Section 4.5.3 of the Revised Final EIR.

5.1.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, all reference documents, and the whole of the record, the City finds that the Alternative 1.5 Project would result in less than significant aesthetics impacts to scenic vistas and to light and glare effects.

5.2 AIR QUALITY – ODORS

Potential sources that may produce objectionable odors during construction activities include equipment exhaust, application of asphalt and architectural coatings, and other interior and exterior finishes. Odors from these sources would be localized and generally confined to the immediate area surrounding the Project site and would be temporary in nature and would not persist beyond the termination of construction activities. Facilities existing at the Zoo include animal habitats characterized by natural odors. With the exception of expansion of animal habitats and development of new animal exhibits and enclosures, implementation of Alternative 1.5 would not substantially change any land use designation or facility operations under existing conditions and would not introduce a new substantial source of odors onto the Alternative 1.5 Project site. Impacts from odors would be less than significant.

See discussion of *Air Quality* in Section 4.0 of the Revised Final EIR.

5.2.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, all reference documents, and the whole of the record, the City finds that the Alternative 1.5 Project would result in less than significant air quality impacts related to odorous emissions.

5.3 CULTURAL AND TRIBAL CULTURAL RESOURCES – HISTORICAL RESOURCES

The Zoo is not locally designated as a historic resource and is considered a non-contributing component to Griffith Park's designation as a Los Angeles Historical-Cultural monument and

California Register of Historical Resource. A historical resources assessment prepared for the Alternative 1.5 Project found that neither the Zoo or individual buildings, structures, or features of the Zoo are eligible for historic listing or designation at federal, state, or local levels. The property is not known to have had a significant association with an important event or trend in local, state, or national history. The Alternative 1.5 Project site does not have any known association with prominent individuals or groups. The Alternative 1.5 Project site does not contain any historical resources as defined by CEQA, and therefore there is no potential for impacts to historical resources as a result of the Alternative 1.5 Project. Therefore, Alternative 1.5 Project impacts to historic resources would be less than significant.

See discussion of *Cultural and Tribal Cultural Resources* in Section 4.5.3 of the Revised Final EIR.

5.3.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, all reference documents, and the whole of the record, the City finds that the Alternative 1.5 Project would result in less than significant cultural resource impacts to historical resources and would not cause cumulatively considerable historical resources impacts.

5.4 ENERGY – WASTEFUL, INEFFICIENT, OR UNNECESSARY CONSUMPTION OF ENERGY RESOURCES

Construction of the Alternative 1.5 Project would utilize fuel-efficient equipment consistent with state and federal regulations, such as fuel efficiency regulations in accordance with the California Air Resources Board (CARB) Pavley Phase II standards, the anti-idling regulation in accordance with Section 2485 in Title 13 of the California Code of Regulations (CCR), and fuel requirements in accordance with Section 93115 in Title 17 of the CCR, and would comply with state measures to reduce the inefficient, wasteful, and unnecessary consumption of energy. Therefore, expenditures of energy resources during construction of the Alternative 1.5 Project would result in a less than significant impact. The increase in electricity and natural gas use would not place an undue burden on Los Angeles Department of Water and Power (LADWP) or Southern California Gas Company (SoCalGas) resources, respectively, and would represent a nominal increase above existing demands.

Alternative 1.5 would have less impacts on vehicle miles travelled (VMT) and energy use than the Proposed Project, implementation of which would result in: an increase daily vehicle trips to between 2,673 and 4,095, and annual VMT would be approximately 39,084,812, representing an annual increase of 16,895,528 VMT. The Alternative 1.5 Project in would generate less than a maximum potential annual increase in energy consumption of approximately 3,407 MWh of electricity, 2,513 MBTU of natural gas, 659,598 gallons of gasoline, and 6,817 gallons of diesel fuel. The increase in electricity and natural gas use would not place an undue burden on LADWP or SoCalGas resources, respectively, and would represent a nominal increase above existing demands.

All new and redevelopment activities would be subject to the provisions of the LA Green Building Code, Leadership in Energy and Environmental Design (LEED) Silver design standards and Best Management Practices (BMPs), and LA's Green New Deal pertaining to energy efficiency for non-residential buildings. Ultimately, the Alternative 1.5 Project would reduce facility electricity demand through the incorporation of photovoltaic solar panels producing on-site renewable energy. Overall, the Alternative 1.5 Project would not result in a wasteful, inefficient, or excessive expenditure of energy resources and this impact would be less than significant.

See discussion of *Energy* in Section 4.5.3 of the Revised Final EIR.

5.4.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, all reference documents, and the whole of the record, the City finds that the Alternative 1.5 Project would result in less than significant energy impacts related to wasteful, inefficient, or unnecessary consumption of energy resources.

5.5 GEOLOGY AND SOILS – RUPTURE OF A KNOWN EARTHQUAKE FAULT / SOIL EROSION OR LOSS OF TOPSOIL

No known faults traverse the Alternative 1.5 Project site. All new structures constructed at the Zoo would be required to adhere to the most current building standards of the Los Angeles Municipal Code (LAMC) and Los Angeles Building Code, which adopts California Building Code (CBC) standards. Compliance with the LAMC, Los Angeles Building Code, and CBC and adherence to the design recommendations detailed in site-specific geotechnical studies would reduce impacts related to seismic ground shaking to less than significant. Further, redevelopment of existing outdated facilities under the Alternative 1.5 Project would construct new buildings that meet the most current and stringent seismic requirements, thus reducing the level of risk within each planning area and at the Zoo as a whole, compared to existing conditions.

Alternative 1.5 Project construction, particularly within the existing undeveloped areas of the Zoo, would involve excavation activities that would disturb and loosen soils, allowing for possible erosion, although the temporary nature of these activities would not be expected to result in substantial erosion. The Alternative 1.5 Project would comply with the Regional Water Quality Control Board's (RWQCB's) NPDES, prepare a Storm Water Pollution Prevention Plan (SWPPP), and implement BMPs, to control the discharge of pollutants, including sediment, into the local surface water drainages. All Project components would also be required to comply with the Stormwater and Urban Runoff Pollution Control Ordinance (Chapter VI Article 4.4 of the LAMC) to address soil erosion, including topsoil mobilization and loss, and urban runoff. Under this ordinance, construction projects in the City must follow additional specific BMPs. With adherence to existing state and local regulations that address soil erosion, impacts potentially resulting from erosion or loss of topsoil would be less than significant.

See discussion of *Geology and Soils* in Section 4.5.3 of the Revised Final EIR.

5.5.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, all reference documents, and the whole of the record, the City finds that the Alternative 1.5 Project would result in less than significant geology and soils impacts to rupture of a known earthquake fault and soil erosion.

5.6 GREENHOUSE GAS EMISSIONS – DIRECT OR INDIRECT GENERATION OF SIGNIFICANT GHG EMISSIONS

Greenhouse gas (GHG) emissions would be substantially reduced under Alternative 1.5 as compared with the Proposed Project due to the elimination of the parking structure and implementation of the Peak Visitation Management Program.

Emissions from the Proposed Projects are estimated to be:

Implementation of the near-term improvements (Phase 1-3) would generate an unmitigated net increase of 7,783.5 metric tons of carbon dioxide equivalents (MTCO2e) annually relative to existing conditions in the CEQA baseline year of 2019. By 2030 it is estimated that improvements to the Zoo under the Proposed Project would support approximately 2,808,150 visitors annually (approximately 7,715 persons per day on average) and 990 full- and part-time employees, resulting in a service population (employees plus daily visitors) of approximately 8,705 persons. Based on the Zoo's estimated annual GHG emissions and future service population, the Project would generate approximately 2.7 MTCO2e/person/year and a net 2.3 MTCO2e/person/year. The Proposed Project's total and net estimated GHG emissions following implementation of Proposed Project near-term improvements would fall within the Association of Environmental Professional's recommended adjusted GHG efficiency metric thresholds that were selected for this analysis. Implementation of the complete Project would increase annual GHG emissions by approximately 9,716.4 MTCO2e from 2019, exceeding the South Coast Air Quality Management District's (SCAQMD's) interim Tier 3 GHG emissions threshold of 3,000 MTCO2e/year. Based on the Zoo's estimated annual GHG emissions and future service population, the Proposed Project would generate a total of approximately 2.7 MTCO2e/person/year and a net increase of 2.4 MTCO2e/person/year. Though the Project's estimated efficiency metric (based on total Project emissions and service population) would equal the established efficiency target, the Project's GHG emissions are based on conservative estimates that do not account for Proposed Project design features as well as likely GHG efficiency improvements that would be implemented in the future and would contribute to GHG emissions reductions. As such, it is reasonable to assume the Project's GHG emissions would in actuality be further below the GHG efficiency metric threshold than what has been conservatively estimated for the Proposed Project.

Thus, Alternative 1.5's contributions to cumulative impacts to global climate change as a result of implementation of near-term improvements, when compared against numerical thresholds, are therefore considered less than significant.

See discussion of *Greenhouse Gas Emissions* in Section 4.5.3 of the Revised Final EIR.

5.6.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, all reference documents, and the whole of the record, the City finds that the Alternative 1.5 Project would not directly or indirectly generate GHG emissions that would result in a significant impact to the environment and would result in less than significant impacts.

5.7 HAZARDS AND HAZARDOUS MATERIALS - TRANSPORT, USE, OR DISPOSAL OF HAZARDOUS MATERIALS / EMERGENCY RESPONSE AND EVACUATION

Alternative 1.5 Project construction activities would be temporary in nature occurring over 10 to 20 years, and would use hazardous materials typical of construction (i.e., fuel and lubricants for construction equipment, paving materials for road construction). These hazardous materials would potentially include gasoline, diesel fuel, lubricants, solvents, and other standard materials used for construction activities. Operation of the Alternative 1.5 Project would continue to include existing routine cleaning and maintenance procedures using chemicals such as cleaners, paints, solvents, vehicle fuels, etc. Additionally, the Zoo would continue to utilize potentially hazardous materials (i.e., pesticides, herbicides, etc.) for landscaping and cleaning purposes. Potentially hazardous materials that would be used and stored in the Zoo would be typical of those found currently at the Zoo (e.g., paints, fuels/lubricants, cleaning solvents, adhesives, sealers, and pesticides/herbicides) and would be consistent with what already occurs in the Zoo. Additionally, operation of the designated service and administrative support area at the southern boundary of the Zoo would provide a visitor-restricted area for hazardous materials and waste storage, rather than several locations throughout the Zoo. These materials are not classified as acutely hazardous and the transport, use, and disposal of construction-related hazardous materials would comply with applicable laws and regulations such as those established by the California Department of Toxic Substances Control, U.S. Environmental Protection Agency, SCAQMD, Los Angeles County, and the City to protect the public health and safety. In addition to routine use, if necessary, appropriate permits, worker training, and agency inspections would be obtained and provided. Implementation of standard good housekeeping measures, BMPs, site maintenance and security precautions, as well as compliance with standards and regulations would ensure potential impacts related to the routine transport, use, or disposal of hazardous materials are less than significant.

The Alternative 1.5 Project does not propose changes, obstructions, or reconfigurations to public evacuation routes, so the Project would not result in physical interference or impairment to implementation of this existing emergency and evacuation plan. Emergency access would be maintained during implementation the Alternative 1.5 improvements to the maximum extent feasible during construction and impacts related to emergency access would be less than significant. Therefore, the Alternative 1.5 Project implementation would not impair implementation or physically interfere with an adopted emergency response plan or emergency evacuation plan and overall impacts would be less than significant.

See discussion of *Hazards and Hazardous Materials* in Section 4.5.3 of the Revised Final EIR.

5.7.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, all reference documents, and the whole of the record, the City finds that the Alternative 1.5 Project would result in less than significant hazards and hazardous materials impacts related to transport, use, disposal, and release of hazardous materials and emergency response and evacuation.

5.8 HYDROLOGY AND WATER QUALITY – RUNOFF

The 19 percent increase in impervious surfaces associated with new exhibits, walkways and parking would increase stormwater runoff at the Zoo. However, the Alternative 1.5 Project includes implementation of a Alternative 1.5 stormwater collection system and low impact development (LID) features that would substantially reduce surface runoff and peak flow, creating a minor beneficial impact to water quality, as the reduced volume and velocity of stormwater flows would reduce the rate of soil erosion and sedimentation. Therefore, implementation of the stormwater collection system would result in beneficial and less than significant impacts to polluted runoff.

See discussion of *Hydrology and Water Quality* in Section 4.5.3 of the Revised Final EIR.

5.8.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, all reference documents, and whole of the record, the City finds that the Alternative 1.5 Project would result in less than significant impacts to hydrology and water quality relating to runoff.

5.9 NOISE – VIBRATION AND GROUNDBORNE NOISE LEVELS

Construction related vibration would not generate significant impacts since vibration generating equipment would typically be located more than 25 feet away from off-site structures and would not exceed 0.3 inches per second threshold at this distance.

Potential blasting (if required) would generate vibration levels that would not exceed the 98 vibration decibels (VdB) damage criterion or the 83 VdB annoyance criterion. Anticipated blasting air overpressure levels would not exceed the 133 decibel (dB) damage criterion or the 120-dB annoyance criterion. Therefore, impacts associated with blasting vibration and air overpressure would be less than significant.

As the Zoo has done in the past during construction of prior improvements, measures to protect Zoo animals may include their temporary relocation away from construction activities, closure of exhibits, or even the transfer of animals to other zoos. Accommodations specific to each animal would be developed during the planning process for each phase and details would be included in final construction plans. With continued management of each species of animal exhibited or

rehabilitated at the Zoo and required compliance with the Animal Welfare Act (AWA), there would be no adverse effects on Zoo animals from vibration during construction of the Vision Plan.

The Alternative 1.5 Project would not include an operational source of vibration that would generate vibration levels that exceed 75 VdB. Therefore, impacts associated with operational vibration would be less than significant. Impacts associated with pile driving vibration would not exceed the 0.3 inches per second damage criterion at any off-site uses therefore, impacts associated with pile driving vibration would be less than significant.

See discussion of *Noise and Vibration* in Section 4.5.3 of the Revised Final EIR.

5.9.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, all reference documents, and the whole of the record, the City finds that the Alternative 1.5 Project would result in less than significant vibration impacts.

5.10 RECREATION – CONSTRUCTION OR EXPANSION OF RECREATIONAL FACILITIES

Currently, the Zoo serves as a unique recreational resource and attraction within the City that serves approximately 1.8 million residents and visitors of the City each year. Under the Alternative 1.5 Project, redevelopment and expansion of existing facilities and the construction of new facilities within the Zoo would improve the recreational value and opportunities provided by the Zoo. This includes development of new overnight special event spaces, picnic spots, rock climbing, playgrounds (i.e., Nature Play Park), and a public park to be located within the Zoo's northern parking adjacent Zoo Drive. This public park would be separate from the Zoo and accessible at no cost to the public.

Under Alternative 1.5, Impacts from the construction or expansion of recreational facilities would be less than significant.

See discussion of *Recreation* in Section 4.5.3 of the Revised Final EIR.

5.10.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, all reference documents, and the whole of the record, the City finds that the Alternative 1.5 Project would result in less than significant impacts to recreation resources related to the construction or expansion of recreational facilities.

5.11 UTILITIES – WASTEWATER / SOLID WASTE

Alternative 1.5 implementation would generate increased stormwater within the Zoo property due to the addition of impervious (i.e., paved) surfaces and would generate increased sewage flows within the Zoo's sewer system and the City's North Outfall Sewer due to the addition of new employees and an annual increase in visitors.

Under Alternative 1.5 implementation, sewer water from the Zoo and the Gene Autry Museum would be conveyed via the Alternative 1.5 sanitary sewer lines to the North Outfall Sewer via the existing 6-inch sewer force main that runs across the Zoo's north parking lot to the point of connection with the North Outfall Sewer located northeast of the parking lot. From the City's North Outfall Sewer, wastewater would be directed to the Los Angeles-Glendale Water Reclamation Plan (LAGWRP), treated, and discharged to the Los Angeles River similar to existing conditions for all sewer water within the Zoo. Animal pools at the Zoo would continue to be drained by the animal pond water system, which conveys pond water to the Zoo's Wastewater Facility for desilting and grit removal. Similar to existing conditions, pool water from the Zoo's Wastewater Facility would be discharged to the North Outfall Sewer and conveyed to the LAGWRP for treatment. There is no Alternative 1.5 increase in the total number of pools requiring periodic draining and refilling, requiring water demand and treatment at the Zoo Wastewater Facility.

The Alternative 1.5 Project would involve the installation of new sewer utility lines to replace the existing 50-year-old sanitary sewer system. Project implementation would generate increased stormwater and sewage flows within the Zoo. In addition, the Alternative Project would involve installation of a stormwater collection system that would capture, convey, and store rainfall from the Zoo and the 79.7-acre hillside area adjacent to the Zoo for reuse onsite as irrigation water. This system would be designed to capture a total capacity of 6.8 million gallons, which is equivalent to the 2-year, 24-hour storm event. Flows greater than a 2-year, 24-hour storm event would be directed to the Zoo Wastewater Facility via an overflow line that would run beneath the Zoo's parking lot. Following desilting and grit removal at the Zoo Wastewater Facility, stormwater would be discharged to the North Outfall Sewer, which would direct water to the LAGWRP for treatment, similar to existing conditions for all stormwater within the Zoo.

Implementation of the Alternative 1.5 stormwater collection system would substantially reduce flow to the Zoo Wastewater Facility by capturing and storing rainfall from the Zoo and adjacent hillside area for reuse onsite as irrigation water. Since the Zoo Wastewater Facility would receive only overflow stormwater from flows greater than the 2-year, 24-hour storm event, the volume of water directed to the Zoo Wastewater Facility would be reduced by up to 35 million gallons per year and up to 6.8 million gallons in one day. Additional stormwater within the Zoo would not exceed the capacity of the Zoo's Wastewater Facility and the Alternative 1.5 stormwater collection system would adequately treat and filter stormwater onsite.

Following completion of the Alternative 1.5 stormwater collection system, the majority of flows to the Zoo Wastewater Facility would be comprised of animal pond water from the Zoo's exhibits. Any additional animal pools and other water features that would be constructed under the Vision Plan would be installed with Life Support Systems. Life Support Systems are recirculating water treatment systems, which require a much lower frequency of draining and filling. Therefore, Vision Plan implementation would result in an incremental increase in wastewater generation and associated impact on wastewater facilities related to animal pool water. Due to the substantial reduction in stormwater flows that would be conveyed to the Zoo Wastewater Facility, an incremental increase in generation of animal pond water would not exceed the 1.8-million-gallon

maximum capacity of the Zoo Wastewater Facility. Impacts associated with increased stormwater runoff would be less than significant.

Zoo attendance growth anticipated to occur under the Alternative 1.5 Project (approximately 1,165,203 new visitors) would increase flow within the Zoo's wastewater treatment and conveyance system and North Outfall Sewer by approximately 28,341 gallons per day (gpd), for a total of 100,606 gpd. Additionally, Alternative 1.5 expansion of the animal exhibits would increase generation of animal pond water within the North Outfall Sewer by approximately 11,939 gpd or more than 25 percent, for a total of 41,939 gpd. The projected increase in wastewater could trigger the need for expansion or replacement of individual sewer line segments within the North Outfall Sewer. The Alternative 1.5 new plumbing systems at the Zoo would be installed in accordance with the current California Building Code and Plumbing Code (CCR Title 24), as well as Green Building Code (CCR Title 24, Part 11). All new fixtures would comply with State Water Conservation Guidelines and Green Building Standards. The City would ensure that the capacity of the local and trunk lines are sufficient to accommodate the Alternative 1.5 Project's sewer flows during the construction and operation phases. Furthermore, the Alternative 1.5 Project shall implement any upgrades to the sewer system serving the Alternative 1.5 Project that could be needed to accommodate the project's wastewater generation. In accordance with Section 64.15 of the LAMC, the Zoo would be required to submit a Sewer Capacity Availability Review (SCAR) request to the BOE and pay a SCAR Fee prior to building plan approval to evaluate the capacity of the existing North Outfall Sewer to convey the projected wastewater generation from the Zoo through 2040. With assurance of adequate planning-level surveys of the existing North Outfall Sewer per existing City regulations, impacts to the North Outfall Sewer associated with sanitary sewer water would be reduced to less than significant.

The Zoo's wastewater would continue to be treated at the LAGWRP, which has a capacity to serve the Alternative 1.5 Project's projected demand of up to 41,939 gpd and no new or expanded water or wastewater treatment facilities would be required to serve the Alternative 1.5 Project. Therefore, Project impacts to the LAGWRP would be less than significant.

Wastewater produced by the Zoo would meet RWQCB wastewater treatment requirements through treatment at the LAGWRP. In addition, the implementation of Section 64.15 of the LAMC and BOE Special Order No. SO06-0691 would also help meet wastewater quality treatment standards. Therefore, RWQCB wastewater treatment requirements would not be exceeded, and potential impacts related to the Alternative 1.5 Vision Plan would be less than significant.

With regard to solid waste, construction of the Alternative 1.5 Project would generate construction and demolition (C&D) waste during demolition, excavation, and trenching activities which would be disposed of at a City-certified C&D waste processor. Expansion of the Zoo's animal exhibits under Vision Plan implementation would increase operational solid waste generation at the Zoo associated with animal bedding and waste by less than 81.39 tons per day. Project implementation would also increase operational solid waste generation at the Zoo, including trash and recycling, due to projected growth in visitor attendance, employment, and additional animal residents less than 6.19 tons per day. Factoring in diversion rates and compliance with federal, state, and local statutes and regulations related to solid waste, existing solid waste disposal

facilities would have the capacity to receive the projected increase in solid waste under the Alternative 1.5 Project. Therefore, Alternative 1.5 Project impacts associated with increases in solid waste generation would be less than significant.

See discussion of *Utilities* in Section 4.5.3 of the Revised Final EIR.

5.11.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, all reference documents, and the whole of the record, the City finds that the Alternative 1.5 Project would result in less than significant impacts to wastewater and landfill utilities and service systems.

5.12 WILDFIRE – RUNOFF, POST-FIRE SLOPE INSTABILITY, OR DRAINAGE CHANGES

Development of the Alternative 1.5 Project would occur downslope or downstream of steep hillsides and three small drainages within Griffith Park. There are no creeks or rivers mapped within the Alternative 1.5 Project site, but stormwater flows from the hillsides into the Zoo's stormwater management system, where stormwater is treated before it flows to the Los Angeles River. If a wildfire burned large areas within Griffith Park adjacent to the Zoo, post-fire runoff from a major storm event, slope instability, mudflows, landslides, drainage changes, and limited flooding or sedimentation could occur within the Zoo. The relatively small size of the watershed draining into the Zoo (~80-acres) would potentially limit impacts associated with post-fire runoff from a major storm event, slope instability, mudflows or landslides. However, the sandy erosion-prone soils of these hillsides, areas of very steep slopes and very steep cuts, and embankments show signs of slumping and collapse. High intensity heat from wildfires can make soils hydrophobic (i.e., repel or fail to mix with water), reducing infiltration and increasing runoff potential. If wildfire-denuded surrounding hillsides were subjected to a high intensity rain event, new development within the Zoo has limited potential to face damage from flooding and sedimentation. Sediment and debris could plug existing and planned drainage improvements, including the Alternative 1.5 cistern system. Post-fire conditions on hillsides and slopes within the Zoo could cause similar effects to lower-lying facilities.

Two of the Alternative 1.5 subsurface cisterns serving the Condor Canyon, Bird Show and Animal Programs amphitheater, and the Nature Play Park planning area, are located on high elevation sites relative to the flat interior or the Zoo. These new cisterns would capture all runoff, debris, and sediments conveyed through the watershed, resulting in the potential accumulation of sediment or debris within the system. This would be exacerbated in the event of high rainfall closely following burn of the watershed. However, the small size of the existing watersheds would not create significant runoff, debris flow, or landslides caused by post-fire slope instability that place Project occupants or structures at substantial risk. Therefore, impacts would be less than significant.

See discussion of *Wildfire* in Section 4.5.3 of the Revised Final EIR.

5.12.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, all reference documents, and the whole of the record, the City finds that the Alternative 1.5 Project would result in less than significant wildfire impacts to runoff, post-fire slope instability, or drainage changes.

5.13 SIGNIFICANT AND IRREVERSIBLE ENVIRONMENTAL CHANGES

Construction and operation of new development in the Zoo would entail the commitment of (1) non-renewable energy resources; (2) human resources; and (3) natural resources, such as lumber and other forest products, sand and gravel, asphalt, steel, copper, lead, other metals, and water resources, most of which are non-renewable or locally limited natural resources. Resources that would be permanently and continually consumed during the life of the Alternative 1.5 Project implementation include water, electricity, natural gas, and fossil fuels, as well as landfill space; however, the amount and rate of consumption of these resources would not result in the inefficient or wasteful use of resources. Further, compliance with applicable building codes, policies, standard conservation features, and current City programs would ensure that natural resources are conserved to the maximum extent feasible. Additionally, it is possible that new technologies or systems will emerge in the future, or will become more cost-effective or user-friendly, to further reduce the reliance on nonrenewable natural resources. While future construction activities and operational activities anticipated to occur under the Alternative 1.5 Project would result in the irretrievable commitment of nonrenewable energy resources (primarily in the form of fossil fuels, including fuel oil, natural gas, and gasoline for automobiles and construction equipment, as well as commitment of limited landfill space), consumption of such resources is associated with any development in the region, and are not unique or unusual to the City or the Zoo.

Further, the Alternative 1.5 Project would not be expected to result in environmental accidents that have the potential to cause irreversible damage to the natural or human environment. While development anticipated to occur under the Alternative 1.5 Project would result in the limited use, transport, storage, and disposal of hazardous materials, all activities would comply with applicable state and federal laws related to hazardous materials transport, use, and storage, which would significantly reduce the likelihood and severity of accidents that could result in irreversible environmental damage. As such, the Alternative 1.5 Project is not anticipated to consume energy or use other resources in a wasteful manner, or result in irreversible damage from environmental accidents associated with Alternative 1.5 and impacts are considered less than significant.

See discussion in Sections 4.5.3 and 5.2 of the Revised Final EIR.

5.13.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, all reference documents, and whole of the record, the City finds that the Alternative 1.5 Project would result in less than significant irreversible environmental changes.

5.14 GROWTH INDUCING IMPACTS

The fundamental purpose of the Alternative 1.5 Project is to guide improvements at the Zoo. The Alternative 1.5 Project would be confined entirely to property currently owned by the Zoo or City and largely within fully urbanized areas of the City. The cities of Los Angeles, Burbank, and Glendale are almost entirely built out with little to no opportunity for additional future development within the Project vicinity. Both the Zoo and surrounding areas are well-served by existing infrastructure. Implementation of the Alternative 1.5 Project includes minor improvement of existing utility systems or connection to utility services to serve the Zoo and improvement of existing roadways and intersection to reduce congestion around the Zoo. Major improvements to water, sewer, and circulation systems and drainage connection infrastructure or the extension of this infrastructure would not be needed. Because the Alternative 1.5 Project constitutes redevelopment within an urbanized area and does not require the extension of new infrastructure through undeveloped areas, Alternative 1.5 Project implementation would not remove an obstacle to growth.

The Alternative 1.5 Project may induce growth within the City and region due to the creation of short- and long-term employment opportunities which draw newcomers to the region and increase economic growth. For the purposes of this EIR, implementation of the Alternative 1.5 Project is anticipated to result in the creation of approximately an additional 500 FTE jobs. It is assumed that a large portion of the 500 FTE jobs would be absorbed by existing working-class residents of the City and surrounding region. Therefore, the Alternative 1.5 Project would not be considered growth inducing as it would not substantially affect long-term employment opportunities. Additionally, even if a portion of the 500 new employees were to move to the City or surrounding vicinity, a total increase of 500 new residents to the City would represent an insignificant increase in the overall population of the cities of Los Angeles (population 3,979,576), Burbank (population 102,511), and Glendale (population 199,303) (U.S. Census Bureau 2020). The Alternative 1.5 Project's potential population increase would represent less than 0.5 percent of each of these cities total populations and would not significantly increase the population of the region. Further, the Alternative 1.5 Project would not have significant economic or social effects that would result in adverse physical changes or deterioration of the surrounding area. Therefore, the Alternative 1.5 Project would not be considered growth inducing as it would not substantially affect long-term employment opportunities.

See discussion in Sections 4.5.3 and 5.2 of the Revised Final EIR.

5.14.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, all reference documents, and whole of the record, the City finds that the Alternative 1.5 Project would result in less than significant growth-inducing impacts.

6.0 FINDINGS OF LESS THAN SIGNIFICANT ENVIRONMENTAL EFFECTS WITH MITIGATION

The Revised Final EIR determined that the Alternative 1.5 Project would result in potentially significant environmental effects to air quality (consistency with applicable air quality plans, nonattainment pollutants, and exposure of sensitive receptors to pollutant concentrations); biological resources (effects on special-status species or habitat, interfere with wildlife movement or corridors, and conflict with local policies or ordinances protecting biological resources); cultural and tribal cultural resources (archaeological resources, human remains, and tribal cultural resources); energy (state or local plans); urban forestry resources (local tree policies and ordinances and loss of urban forest); geology and soils (seismic related ground failure, landslides, unstable geologic units, and paleontological resources); GHG emissions (plan, policy, and regulation consistency); hazards and hazardous materials (release of hazardous materials, hazardous materials within one-quarter mile of a school, list of hazardous materials sites); hydrology and water quality (water quality, groundwater supplies and recharge, and drainage patterns); land use (land use plan, policy, and regulation consistency); noise (ambient noise levels); public services (fire, police, schools); recreation (deterioration of parks and recreational facilities); transportation (transportation plans, policies, and regulations consistency, hazardous design features, and emergency access); utilities (water and stormwater drainage); wildfire (emergency response or emergency evacuation, wildfire risk, and infrastructure). The Final EIR and Revised Final EIR identified feasible mitigation measures to avoid or substantially reduce the environmental effects in these areas. Based on the information and analysis set forth in the Final EIR and Revised Final EIR, impacts would be less than significant with the identified feasible mitigation measures incorporated into the Alternative 1.5 Project.

The City also finds that the Alternative 1.5 Project would not cause cumulatively considerable impacts in the following areas after implementation of mitigation measures: air quality (nonattainment pollutants); biological resources; cultural and tribal cultural resources (archaeological or tribal cultural resources); energy (transportation energy); urban forestry resources; GHG emissions (plan, policy, and regulation consistency); hazards and hazardous materials; hydrology and water quality; land use; noise (ambient noise); transportation (hazardous design features and emergency access); and wildfire.

6.1 AIR QUALITY – CONSISTENCY WITH APPLICABLE AIR QUALITY PLAN / NONATTAINMENT POLLUTANTS / EXPOSE SENSITIVE RECEPTORS TO POLLUTANT CONCENTRATIONS

See discussion in Section 4.0 (Air Quality) in Revised Final EIR. The most recent air quality plan applicable to the Alternative 1.5 Project is the SCAQMD 2016 Air Quality Management Plan (AQMP). Sources of air pollutant emissions that would be involved in construction activities include off-road equipment exhaust, on-site ground disturbance and material displacement creating area source fugitive dust, evaporative emissions from architectural coating and paving,

and on-road trips by the crew and hauling vehicle fleet. Project operational emissions are associated with facilities maintenance, natural gas use, and consumer products use and, predominantly, vehicle trips. The incremental change in operational emissions with implementation of long-term improvements would not exceed any applicable SCAQMD mass daily threshold of significance, exacerbate air quality violations, or possibly delay attainment of the air quality standards as set forth in the 2016 AQMP.

Short-term, temporary emissions associated with construction activities would not conflict with the AQMP so long as no SCAQMD air quality mass daily thresholds of significance are exceeded. Construction activities would not generate pollutants in excess of any applicable SCAQMD regional or localized threshold if they occurred sequentially. However, it is anticipated that construction of Phase 1 with an overlap in construction activity phases could potentially result in a significant air quality impact related to emissions of nitrous oxides (NO_X), as emissions would exceed the applicable regional threshold value. To address these potentially significant emissions, MM AQ-1 would reduce air pollutant emissions from off-road equipment during construction of the Alternative 1.5 Project. This measure would also ensure that construction of the Alternative 1.5 Project would not expose sensitive receptors to substantial pollutant concentrations. Therefore, Alternative 1.5 Project impacts related to the applicable air quality plan would be less than significant with mitigation.

The Los Angeles County portion of the South Coast Air Basin (SCAB) is currently designated nonattainment of the National Ambient Air Quality Standards (NAAQS) for eight-hour average ozone (O_3) and 24-hour average particulate matter less than 2.5 micrometers ($PM_{2.5}$), and the California Ambient Air Quality Standard (CAAQS) for O_3, particulate matter less than 10 micrometers (PM_{10}), and $PM_{2.5}$. Implementation of mitigation measure MM AQ-1 would ensure that maximum daily pollutant emissions generated by construction of the Alternative 1.5 Project would not result in a significant increase in emissions of O_3 precursors or particulate matter at either the regional or local assessment scale. Although operation of the Alternative 1.5 Project would increase daily vehicle trips and corresponding emissions, as well as emissions from sources located on the Project site, the incremental increases in daily air pollutant emissions during all stages of operations throughout Vision Plan improvements would remain below applicable SCAQMD mass daily thresholds of significances. Therefore, the Alternative 1.5 Project would not result in a cumulatively considerable net increase of nonattainment pollutants, and the impact would be less than significant.

In addition, all construction activities would be subject to the provisions of SCAQMD Rules 401 (Visible Emissions), 402 (Nuisance), and 403 (Fugitive Dust). By adhering to the stringent SCAQMD rules and regulations pertaining to emission, nuisance, and fugitive dust control and maintaining maximum daily emissions below the SCAQMD mass daily thresholds. Project construction activities would be consistent with the goals and objectives of the applicable air quality plan and would be less than significant.

See discussion of *Air Quality* in Section 4.5.3 of the Revised Final EIR.

6.1.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, all reference documents, and the whole of the record, the City finds that the Alternative 1.5 Project would result in less than significant direct and cumulative air quality impacts with implementation of the following mitigation measures.

MM AQ-1: **Off-Road Construction Equipment Meeting Tier 4 Final Emissions Standards.** All off-road diesel-powered construction equipment greater than 50 horsepower used for Project construction shall meet, at a minimum, Tier 4 Final off-road emissions standards. Construction contractors shall ensure that all off-road equipment meet the standards prior to deployment at the Project site and the Zoo shall demonstrate compliance with this measure to BOE prior to the start of construction. BOE shall monitor for continual compliance with these requirements throughout the course of construction.

6.2 BIOLOGICAL RESOURCES – EFFECTS ON SPECIAL-STATUS SPECIES OR HABITAT / INTERFERE WITH WILDLIFE MOVEMENT OR CORRIDORS / CONFLICT WITH LOCAL POLICIES OR ORDINANCES PROTECTING BIOLOGICAL RESOURCES

Alternative 1.5 Project impacts to onsite native vegetation communities and associated special-status species would be primarily related to development within the Alternative 1.5 California planning area following development in laurel sumac shrubland, California coastal sage scrub habitats, coast live oak woodlands, and adjacent eucalyptus/mixed woodlands. Alternative 1.5 would avoid development of six acres in the Africa planning area. Potentially impacted special-status plant species may include Nevin's barberry and Southern California black walnut, which are known to occur, as well as Plummer's mariposa lily, Hubby's phacelia and San Gabriel Mountains leather oak, which have potential to occur. Implementation of MM BIO-1 through MM BIO-4, would reduce Alternative 1.5 Project impacts to special-status plant species by requiring the protection or restoration of native plant communities and special-status species to the maximum extent feasible through pre-construction surveys, protective barrier fencing, capture, relocation, and replanting protocols. Further, with implementation of MM BIO-2 and MM WF-1, adverse impacts to biological resources as a result of installation and maintenance of vegetation clearance from fuel breaks would be reduced through maximum avoidance of native vegetation and appropriate restoration offsite. Implementation of these measures would ensure impacts associated with loss of sensitive species and habitats are less than significant with mitigation.

Alternative 1.5 Project development would lead to removal of a substantial amount of native and non-native vegetation and less than 19 acres of moderate to relatively high-quality native habitats, reducing the ability for potential wildlife movement within the Zoo and roosting and foraging movement areas for migrating birds, roosting bats, and other resident wildlife. Construction noise and lighting has potential to disrupt and discourage wildlife on the lands in the immediate vicinity of the Project site. Project development is unlikely to affect regional movement of wildlife due to

Griffith Park's limited connectivity to the Los Angeles River and the western Santa Monica Mountains. Implementation of MM BIO-1, MM BIO-2, MM BIO-4, and MM BIO-5 would reduce Project impacts to special-status bird species. These measures would require the implementation of construction BMPs and a Worker Environmental Awareness Program (WEAP) to reduce construction-related impacts to the maximum extent feasible. These measures would delineate vegetation communities and area of disturbance associated with Alternative 1.5 development plans by Project phase and preserve or replace affected vegetation communities and sensitive species at appropriate ratios.

Trees and shrubs locally protected under the existing City Tree Preservation Ordinance and Protected Tree Code Amendment, including Southern California black walnut, coast live oak trees, toyon, elderberries, and western sycamores are expected to be removed in all phases of Project development, but impacts would be concentrated within the undeveloped areas of the Alternative 1.5 California and Africa planning areas. Implementation of MM UF-1, requiring preservation, relocation, or replacement of protected native tree and shrub species onsite or at an appropriate offsite location within Griffith Park, and MM UF-2, requiring the Zoo implement a tree and urban canopy restoration plan, would also serve to reduce impacts associated with the loss of protected native trees and shrubs. Implementation of these measures would ensure impacts to native trees and shrubs would be less than significant with mitigation.

See discussion of Biological Resources in Section 4.5.3 of the Revised Final EIR.

6.2.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, all reference documents, and the whole of the record, the City finds that the following mitigation measures shall be implemented to reduce potentially significant direct and cumulative biological resources impacts related to special-status species and other sensitive natural community, wildlife movement and corridors, and locally protected biological resources to a less than significant level.

MM BIO-1: **Biological Resources Mitigation and Monitoring Program.** The Zoo shall prepare and implement a Biological Resources Mitigation and Monitoring Plan (BRMMP) to mitigate loss of native vegetation communities, habitat, and special-status species from each Project phase. The BRMMP shall be prepared after completion of 30 percent design plans for each phase and shall specify timing and implementation of required biological resource restoration, enhancement, or creation measures. The BRMMP shall be prepared by a City-approved biologist as part of planning, engineering, and site design for each Project phase under the direction of and approval by BOE and Zoo planning staff. The BRMMP shall be prepared in consultation with appropriate City departments and resource agencies such as the Los Angeles Fire Department (LAFD), Recreation and Parks Department (RAP), and the California Department of Fish and Wildlife (CDFW). The BRMMP shall be updated prior to final designs and development plans for each phase. The Zoo shall be responsible for ensuring all BRMMP requirements are reflected in Project design/architectural, engineering, and grading plans. All

plans for each Project phase shall be reviewed by the City to ensure compliance with the BRMMP.

The BRMMP shall require measures to avoid and mitigate impacts to biological resources onsite, including, but not limited to, the following:

1. At the 30 percent design plan stage for each Project phase, biological resource surveys shall be completed for areas of potential effect in that phase by a City-approved biologist, subject to the following requirements:
    a. The surveys shall refine the disturbance footprint of impacted habitats plus a buffer if recommended by the City-approved biologist.
    b. The survey shall delineate native vegetation communities such as coast live oak woodland, laurel sumac shrubland, and coastal sage scrub, including maps of the extent and type.
    c. The survey shall identify all special-status plant and animal species present or potentially present within the subject phase of Project development.
    d. A summary of the results of the pre-construction survey shall be submitted to the City immediately upon completion of the survey. A survey report describing and delineating the extent and quality of native vegetation communities and the presence or potential presence of special-status plant or animal species shall be submitted to the City for review and approval prior to completion of 60 percent design plans for the subject Project phase; if no native vegetation communities or special-status species are present or potentially present, the survey report shall describe such findings based on evidence from the surveys.
    e. The survey report shall map and describe the location and extent of native vegetation communities and observed special-status plant or animal species that would be impacted within the areas of potential effect for each Project phase, and require the following avoidance, minimization, and mitigation measures:
        i. To the maximum extent feasible, onsite native vegetation communities and special-status plant species shall be protected and preserved in place, and design plans shall be amended to avoid disturbance or loss of these biological resources. The City-approved biologist shall work with Project designers during design for each phase, as required, to incorporate existing native vegetation and special-status plant species, such as Nevin's barberry, and mature native trees, such as coast live oaks, into the Zoo landscaping and facilities (e.g., exhibits, visitor-serving spaces, service areas) in a manner that would ensure the livelihood and biological value of the natural community and/or individual plant. Construction techniques for Project development to avoid and protect special-status species shall be identified as part of a required construction mitigation plan (see MM BIO-2).

ii. If avoidance or preservation in place cannot be achieved while meeting Project Objectives, the area of disturbed native vegetation communities and the total lost special-status plant species shall be mitigated onsite at a ratio of 2:1, as feasible given space limitation within the Zoo. To the extent feasible, native vegetation communities and special-status plant species shall be relocated or reestablished within disturbed, altered, and/or lost areas of coast live oak woodland, laurel sumac shrubland, and coastal sage scrub within the Project site. The BRMMP shall provide a description of the location and boundaries of the mitigation site and description of existing site conditions. The mitigation area shall be incorporated into the final development plans for each phase of Project development.

iii. If native vegetation communities and/or special-status plant species cannot be protected and/or restored onsite, the Zoo and City shall work with RAP to identify an appropriate site(s) for restoration within Griffith Park to serve as a mitigation site. Offsite restoration of affected native vegetation communities and special-status plant species shall occur at a minimum ratio of 3:1. Ratios for the restoration of native vegetation communities and/or special-status species shall be based upon the vegetation composition, plant rarity, local demographics, and location of the mitigation site. The BRMMP shall provide a description of the location and boundaries of the offsite mitigation site. The City and City-approved biologist shall consult with CDFW to determine City-approved biologist shall consult with CDFW to determine additional measures for protection and restoration of habitats occupied by special-status species, including nesting birds.

iv. If onsite or offsite restoration is required, the BRMMP shall specify restoration plans and techniques, as recommended by a City-approved biologist, including, but not limited to:
    1. Identification of a suitable habitat compensation area of comparable size to be preserved and managed for lost habitat or species
    2. Site preparation
    3. Seed collection and/or plant salvage, designation, or establishment of offsite plant nursery facilities.
    4. Planting, hydroseeding, replanting or seeding activities.
    5. Success criteria
    6. Maintenance and monitoring program, for the short-term plant establishment period (i.e., 1-3 years), and over the long term (i.e., 5 years)
    7. Reporting Requirements

v. If onsite or offsite restoration is required, a binding long-term agreement with the Zoo to implement and maintain protected and restored

habitats/communities shall be implemented with the City. The BRMMP shall identify typical performance and success criteria deemed acceptable by the City based on measurable goals and objectives. Minimum criteria for restored habitats shall be at least 70 percent survival of container plants and 70 percent relative vegetative cover by vegetation type. BRMMP mitigation elements that do not meet performance or final success criteria within 5 years shall be completed through an extension of the BRMMP for an additional 2 years or at the discretion of the City with the goal of completing all mitigation requirements. Monitoring of the mitigation and maintenance areas shall occur for the period established in the BRMMP, or until success criteria are met. If success criteria cannot be met through the BRMMP, the City shall specify appropriate commensurate measures (e.g., additional onsite or offsite restoration).

vi. If special-status animal species are present or potentially present based on the survey, including bat, woodrats, Crotch's bumble bee, or legless lizard species, and migratory or nesting birds, the BRMMP shall include avoidance and minimization measures to avoid or relocate as part of a construction mitigation plan (see MM BIO-2) and management plans for migratory and nesting birds (see MM BIO-4) and bat colonies (MM BIO-5).

MM BIO-2: **Construction Mitigation Plan for Biological Resources.** The Zoo shall prepare and implement a Construction Mitigation Plan (CMP) that identifies avoidance, reduction, and mitigation measures for construction-related impacts to biological resources, including special-status species. The CMP shall be prepared by a City-approved and qualified biologist prior to initiation of construction activities for Phase 1 of the Project and updated prior to construction activities for each subsequent phase. The CMP shall be approved by BOE and Zoo planning staff. The Zoo shall be responsible for ensuring all CMP requirements are included in construction plans and implemented as part of construction. All construction activities shall be monitored by a City-approved biologist to ensure compliance with the CMP. The Zoo would coordinate with CDFW Region 5 prior to the start of any construction activities.

The CMP shall require:

1. Per MM BIO-1, the CMP shall incorporate and address data from biological resource surveys for each Project phase to avoid and protect special-status plant and animal species to the maximum extent feasible, as follows:
   a. Within six months prior to the start of construction of each Project phase, biological resource surveys shall be completed for areas affected in that phase by City-approved biologist, consistent with MM BIO-1.

b. If the phase-specific survey identifies presence or potential presence of special-status species, within 14 days of the start of construction (including mobilization and staging), pre-construction clearance surveys shall be completed by a City-approved biologist to either confirm or update the BRMMP related to the location and extent of special-status species. A report of the pre-construction survey shall be submitted to BOE for review and approval prior to the start of construction.

2. Based on the BRMMP and the results of the pre-construction surveys, the CMP shall require measures to avoid or mitigate impacts to special-status species present or potentially present within the Project phase; if no sensitive species are present or potentially present, the CMP shall identify findings from the surveys. If required based on the BRMMP's determination of biological resource sensitivity within each phase, the CMP shall include avoidance and minimization measures, including biological monitoring during construction, if needed. If determined appropriate based on the results of the BRMMP, a species-specific list (or plan) of proper handling and relocation protocols and a map of suitable and safe relocation areas shall be prepared by the City-approved biologist. The list or plan shall be submitted to the City for review and approval prior to implementing any Project-related ground-disturbing activities and vegetation removal. CMP avoidance and minimization measures shall be subject to review and approval by a City-approved biologist, including, but not limited to, the following:
   a. If present, special-status animal species, such as woodrat, legless lizard, and bat species (see also MM BIO-5), shall be relocated from the Project site either through direct capture or through passive exclusion prior to construction activities. Pursuant to the CCR, Title 14, Section 650, the City-approved biologist must obtain appropriate handling permits to capture, temporarily process, and relocate wildlife to avoid harm or mortality in connection with Project construction and activities. With cooperation and authorization from CDFW, trapping may be employed to identify woodrat species that are inhabiting the site. If determined appropriate, woodrat middens should also be relocated by qualified biologists outside of construction areas.
   b. If present, special-status plant species, such as Nevin's barberry, shall be avoided to the extent feasible through use of high visibility exclusion fencing and signage to protect vegetation and root systems from disturbance or compaction, consistent with the BRMMP. Lost special-status plant species shall be replaced consistent with the BRMMP.
   c. If any California Species of Special Concern (SSC) are harmed during relocation or a dead or injured animal is found, work in the immediate area shall stop immediately. The City-approved biologist shall be notified, and dead or injured wildlife documented. A formal report shall be sent to the

City and CDFW within three (3) calendar days of the incident or finding. Work in the immediate area may only resume once the proper notifications have been made and additional mitigation measures have been identified to prevent injury or death.

3. The CMP shall include BMPs to avoid or minimize impacts to biological resources during construction, including, but not limited to, the following:
   a. Construction equipment and vehicles shall be stored within existing disturbed or developed areas within the Zoo to the maximum extent feasible to avoid impacts to natural areas. All construction vehicle maintenance shall be performed in a designated offsite vehicle storage and maintenance area approved by the City. All construction access roads and staging areas shall be located to avoid known/mapped native vegetation and special-status species.
   b. All construction materials (e.g., fuels, chemicals, building materials) shall be stored at designated construction staging areas, which shall be located outside of designated sensitive areas in the BRMMP and CMP. Should spills occur, materials and/or contaminants shall be cleaned immediately and recycled or disposed of to the satisfaction of the RWQCB.
   c. All trash and construction debris shall be properly disposed at the end of each day. Dumpsters shall be covered either with locking lids or with plastic sheeting at the end of each workday and during storm events. All sheeting shall be carefully secured to withstand weather conditions.
   d. Construction-related erosion shall be minimized to retain sediment within the area of potential effect, including installation of silt fencing, straw waddles, or other acceptable construction erosion control devices. Such measures shall be installed along the perimeter of disturbed areas.
   e. Concrete truck and tool washout shall occur in a designated construction staging areas or other offsite location such that no runoff would flow to natural areas within the Zoo or to the Zoo's stormwater collection system.
   f. All open trenches shall be constructed with appropriate exit ramps to allow species that incidentally fall into a trench to escape. All open trenches shall be inspected at the beginning of each workday to ensure that no wildlife species are present. Any wildlife species found during inspections shall be gently encouraged to leave the Project site by a qualified biologist or otherwise trained and City-approved personnel. Trenches shall remain open for the shortest period necessary to complete required work.
   g. Construction shall be limited to daylight hours (7:00 AM to 7:00 PM or sunset, whichever is sooner).

MM BIO-3: **Worker Environmental Awareness Program.** The Zoo shall retain a qualified, City-approved biologist to prepare a WEAP that shall be implemented during all phases of construction. WEAP training shall be provided to all personnel working on the site by a qualified, City-approved biologist. The training should review the

construction-related requirements of the BRMMP and the CMP, including all special-status species that occur or have potential to occur. Training should explain all mitigation and protection measures, responsibilities of each worker, and a reporting framework. The City-approved biologist shall communicate to all workers that upon encounter with an SSC (e.g., during construction or equipment inspections), work must stop, a qualified biologist much be notified, and work may only resume once a qualified biologist has determined that it is safe to do so. The WEAP shall be prepared and approved by BOE and Zoo planning staff prior to construction activities of Phase 1.

MM BIO-4: **Migratory and Nesting Bird Management.** Removal of trees and other vegetation shall be conducted outside of the breeding season (generally January 15 to August 31 for raptors, March 1 to August 31 for other bird species) to the extent feasible. If Project construction activities must be conducted during these period, pre-construction nesting bird surveys by a City-approved biologist shall take place within one week prior to ground disturbance and tree removal or trimming associated with each Project phase. If no active nests or nesting activity is found within or immediately adjacent to the phase work area, construction activities may proceed. If active nests are located during these surveys, the following measures shall be implemented:

1. A summary of the results of the pre-construction survey shall be submitted to the City immediately upon completion of the survey. Consistent with MM BIO-1 and MM BIO-2, the qualified biologist shall prepare a final report of the pre-construction survey to be submitted to BOE for review and approval prior to the start of construction. The report shall detail appropriate fencing or flagging of the buffer zone and make recommendations on additional monitoring requirements. A map of the area of potential effect and nest and roost locations shall be included with the report. If any special-status species are observed during pre-construction surveys, the Project biologist shall report the findings and coordinate with appropriate regulatory agencies to determine appropriate procedures for handling or avoidance of the specimen.
2. If the pre-construction surveys indicate presence of nesting or roosting birds, the construction activity shall be evaluated, and avoidance methods implemented as necessary at the discretion of the qualified biologist. Methods would vary based on bird species, site conditions, and type of work to be conducted, but could consist of limited or reduced construction access; reduced vehicle speeds; and/or noise attenuation.
3. At the discretion of the qualified biologist, construction activities within 300 feet of an active nest of passerine birds shall be restricted until chicks have fledged, unless the nest belongs to a raptor, in which case a 500-foot activity restriction buffer shall be observed to avoid noise, light, and direct disturbance. The Project biologist conducting the survey shall have the authority to reduce or increase the recommended buffer depending upon site conditions and the

species involved. If during Project construction and ground disturbance activities an active nest is discovered, the City-approved biologist shall halt work immediately within the work area, activity restriction buffers shall be established, and avoidance methods shall be employed as necessary.

4. A report of findings and recommendations for bird protection shall be submitted to the City prior to vegetation removal.

MM BIO-5: **Bat Colony Management.** Removal of trees and older structures should be conducted outside of the maternity roost season (typically March 1 to August 31). Prior to removal of any trees over 20 inches diameter-at-breast-height (DBH) or demolition/relocation of existing onsite structures, a pre-construction acoustic and day/night roost survey shall be conducted by a qualified biologist to determine if any tree or structure Alternative 1.5 for removal, trimming, demolition, or relocation harbors sensitive bat species or maternal bat colonies. If present, maternal bat colonies shall not be disturbed and grading and construction activities shall avoid the bat breeding season to the extent feasible. If disturbance of structures must occur during the bat breeding season, buildings and trees must be inspected and deemed clear of bat colonies/roosts within 7 days of demolition and an appropriately trained and approved biologist must conduct a daily site-clearance during demolition. If bats are roosting in a structure or tree in the Project site during the daytime but are not part of an active maternity colony, then exclusion measures shall be utilized and must include one-way valves that allow bats to leave but are designed so that the bats may not re-enter the structure. For each occupied roost removed, one bat box shall be installed in similar habitat as determined by the Project biologist and shall have similar cavities or crevices to those which are removed, including access, ventilation, dimensions, height above ground, and thermal conditions. If a bat colony would be eliminated from the Project site, appropriate alternate bat habitat shall be installed within the Project site. To the extent practicable, alternate bat house installation shall occur near onsite drainages.

MM UF-1: **Protected Tree Plan.** To offset impacts to protected and important trees and shrubs resulting from Vision Plan implementation, the Zoo shall prepare and implement a Protected Tree Plan. The Protected Tree Plan shall identify measures for the protection, relocation, and/or replacement of protected and important significant trees and shrubs. The Protected Tree Plan shall outline and require that Project activities affecting protected trees and shrubs proceed as follows:

1. Preservation of Trees and Shrubs: Protected and important trees and shrubs shall be preserved in place to the maximum extent feasible. To ensure protection of native protected trees and shrubs, as part of final design of the California and Africa area exhibits, all protected trees and shrubs shall be mapped and incorporated into the exhibit to the maximum extent feasible. The Zoo shall hire a City-approved Tree Expert meeting the requirements of the

City's Protected Tree Ordinance to evaluate the health and structure of protected and important trees and shrubs and make recommendations for avoidance of healthy specimens to the maximum extent feasible. The tree expert shall work with project designers during the final design of each phase to incorporate such trees into the exhibits in a manner that would ensure protection of the tree or shrub from damage by exhibit animals or exhibit maintenance activities. Each protected or important tree and shrub to be retained shall have a designated Protection Zone identifying the area sufficiently large enough to protect it and its roots from significant damage during construction. The designated Protection Zone of each specimen shall be protected with 5- to 6-foot-high chain link fences. Fences shall be mounted on 2-inch galvanized iron posts, driven into the ground to a depth of at least two feet and at no more than 10-foot centers, or similarly durable material. Tree and shrub fences shall be erected before demolition, grading, or construction begins and remain until final inspection of the project. Construction and demolition activities around protected trees shall follow all industry standards. Erosion control measures, tree pruning, soil compaction preventive measures, and a tree maintenance schedule shall be implemented and verified by the BOE and a City-authorized tree expert. Following construction, each tree or shrub preserved shall be monitored for a minimum of 5 years to ensure their long-term survivability.

2. Relocation of Trees and Shrubs: Where protected and important trees cannot be avoided and preserved in place, individuals shall be transplanted elsewhere onsite to the extent feasible. If relocation onsite is not feasible, individuals shall be transplanted to an appropriate offsite location elsewhere within Griffith Park, pursuant to the approval of the City BOE and RAP. The City-approved Tree Expert shall identify the necessary measure to be taken to ensure the maximum survivability of the relocated specimens, including relocation method, placement, irrigation method, and maintenance. Relocated individuals shall be monitored for their success for a period of 5 years. The Tree Protection Plan shall identify performance standards for determining whether relocated specimens are healthy and growing normally and shall outline procedures for periodic monitoring and implementation of corrective measures in the event the health of relocated trees declines.
3. Replacement of Trees and Shrubs: Where the preservation or relocation of protected and important trees and shrubs is not feasible, or where the health of preserved or relocated specimens becomes compromised, as part of the final design of each exhibit or feature, the Zoo shall prepare and implement a replacement planting program. Replacement of protected and important trees and shrubs should follow guidelines described in the City's Protected Tree Ordinance adopted at the time, including requirements for relocated or removed trees or shrubs to be replaced by other species protected by the

ordinance at a 4:1 ratio (number of individuals restored to number of individuals impacted). Replacement of oak trees shall be subject to replacement as follows: oak trees less than 12 inches DBH be replaced at 4:1; oak trees between 12 and 24 inches DBH be replaced at 5:1; and oak trees greater than 24 inches BDH be replaced at 10:1. The replacement planting program shall be prepared by a City-approved Tree Expert meeting the requirements of the City's Protected Tree Ordinance. The replacement planting program shall specify the location for replacement, tree or shrub size, planting specifications, and shall include a monitoring program to ensure that the replacement planting program is successful. To the extent feasible, protected, and important trees or shrubs removed within the California or Africa exhibits shall be replaced within each exhibit. Where this is not feasible, the Tree Protection Plan shall outline provisions and standards for replacement in areas outside of each exhibit. At a minimum, the monitoring program shall require monitoring of replacement individuals for a period of 5 years and shall include performance standards for determining whether replacement specimens are healthy and growing normally and procedures for periodic monitoring and implementation of corrective measures in the event that the health of replacement trees declines.

Replacement of removed trees and shrubs should occur within the Zoo to the extent feasible. If replacement within the Zoo is not feasible, the Zoo should coordinate with RAP and the City Forester for replacement trees and shrubs to be planted on adjacent areas of Griffith Park, provided such locations can support the tree's or shrub's survival. Each replacement tree shall be at least 15-gallon, or larger, measuring one inch or more in diameter one foot above the base, and be not less than seven feet in height measured from the base. If use of similar sized replacement trees and shrubs is not possible, smaller sized replacements may be planted. In that event, a greater number of replacement trees or shrubs may be required.

MM UF-2: **Restoration Plan.** To offset impacts to urban forestry resources and ensure landscaping under the Vision Plan is planned to provide urban forest value, the Zoo shall retain a qualified landscape architect to prepare a landscaping plan. The Zoo landscape plan shall be subject to review and approval by City Bureau of Engineering and shall include the following:

1. Maximize protection of existing protected and important trees and shrubs consistent with the Zoo's Tree Protection Plan identified in MM UF-1.
2. Specify a plant palette and landscape plan that ensures establishment of tree canopy that is cohesive with and supports continuity with the surrounding canopy. The plant palette shall emphasize tree species which are considered to provide a healthy mix of visual and biological value and which offer greater shade cover and carbon sequestration.

3. Plantings shall include tree specimens and shrubs capable of reaching or exceeding the heights of the adjacent Alternative 1.5 structures and plantings.
4. Landscaping shall occur immediately following completion of construction of a Alternative 1.5 area of improvement. Planting would use a combination of small containers and larger containers with more mature specimens to ensure plant health while also expediting recovery of the urban forest and minimizing duration of heat island effects following construction.

MM WF-1: **Wildfire Fuel Management Plan.** The Zoo shall retain a City-qualified specialists (i.e., fire management professionals) and City-approved biologist to prepare a Wildfire Fuel Management Plan (WFMP) to design the creation and maintenance of required fire buffers and fuel management zones around the Project site while preserving the integrity of existing native oak woodland, chaparral and coastal sage scrub habitats to the maximum extent feasible. To the maximum extent feasible, native trees and shrubs, such as coast live oak, coastal scrub, and grassland shall be thinned and limbed up but left in place. The WFMP shall be prepared consistent with the requirements of Public Resources Code Section 4291 and also detail methods for achieving fire safety around new and existing structures. The WFMP shall incorporate management strategies in coordination with RAP and LAFD to address any needed future management actions in Griffith Park buffering the Project site. Vegetation and other fuels with the management zone(s) shall be maintained by the Zoo in a manner consistent with existing CFC and LAFD regulations to reduce fuel loading in vulnerable areas and to avoid the buildup of deadwood and leaf litter and/or inappropriate storage of flammable materials. Specifically, the WFMP shall describe at least the following elements:

- Vegetation coverage and type within and adjacent to the vegetation management zone(s);
- Sensitive species identification, mapping, and avoidance;
- Setbacks between structures, Project site boundaries, and access routes;
- Location and management procedure for flammable materials use and storage; and
- Development plan landscaping and planting standards within the setback areas.

The Zoo shall submit the WFMP to BOE, Emergency Management Department, RAP, LAFD, and CDFW for review and approval prior to issuance of any grading and development plans for improvements under the Alternative 1.5 Project.

6.3 CULTURAL AND TRIBAL CULTURAL RESOURCES – ARCHAEOLOGICAL RESOURCES / HUMAN REMAINS / TRIBAL CULTURAL RESOURCES

Construction of the Alternative 1.5 Project would include involving grading, excavation, and earth moving activities up to approximately 30 feet below ground surface (bgs) on the Zoo's previously developed interior and undeveloped hillsides. No previously recorded archaeological sites occur on the Project site and no archaeological resources or unique geographical features were identified onsite during ground surveys conducted for the Alternative 1.5 Project. Both interior developed areas of the Zoo and undeveloped hillsides have a low probability to contain any intact, previously undisturbed cultural resources. Potential for Alternative 1.5 Project improvements to impact unknown cultural resources is very low, but not impossible. Therefore, MM CUL-1 would be implemented to ensure that, in the unlikely event isolated unknown prehistoric and historic-period archaeological resources are encountered during construction activities, appropriate action would be taken to prevent adverse impacts. MM CUL-2 would be implemented so that any inadvertently discovered resources would be protected and curated. Therefore, Project impacts to potential prehistoric resources would be less than significant with mitigation. While possibility of discovering human remains is very low, implementation of MM CUL-3 would ensure the protection and curation of any inadvertently discovered remains. While there is little potential for the discovery of unknown buried tribal cultural resources during construction activities, implementation of MM CUL-4 through MM CUL-7, requiring the monitoring of all construction activities by an appropriate Native American representative and the management of resources in the unlikely event that such resources are uncovered, impacts would be less than significant with mitigation.

See discussion of *Cultural and Tribal Cultural Resources* in Section 4.5.3 of the Revised Final EIR.

6.3.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, all reference documents, and the whole of the record, the City finds that the following mitigation measures shall be implemented to reduce potentially significant direct and cumulative cultural and tribal cultural impacts related archaeological, human remains, and tribal cultural resources to a less than significant level.

MM CUL-1: **Pre-Construction Workshop.** Prior to any ground disturbance activities during construction of each Project phase, a City-qualified archaeologist and shall conduct a cultural resources workshop for all construction personnel. The City-qualified archaeologist must meet the Secretary of Interior standards for archaeology and have a minimum of 10 years of experience as a Principal Investigator working with Native American archaeological sites in southern California. The qualified archaeologist will ensure that all other personnel are appropriately trained and qualified. The workshop will inform all construction personnel of the types of cultural material that may be encountered, and of the

proper procedures to be followed in the event of an unexpected discovery of cultural material or human remains. Appropriate documentation will be completed to demonstrate attendance.

MM CUL-2: **Unexpected Discovery of Cultural Material.** In the event unexpected cultural resource material - such as flaked or ground stone, historic debris, building foundations, or non-human bone - is discovered during Project-related ground disturbances, construction personnel will stop all work within 50 feet of the discovery until a City-qualified archaeologist can evaluate the discovery for significance. Construction personnel will contact the City and Zoo staff immediately. Activities that may adversely impact the discovery will not resume without written authorization from the City that construction may proceed. The nature, extent, and significance of the discovery will be evaluated by a City-qualified archaeologist, and a Native American representative if the discovered resource is prehistoric. If the discovery is determined to be a significant cultural resource under CEQA, avoidance is the primary method of mitigation. If avoidance is not feasible, the City-qualified archaeologist will prepare a treatment plan consistent with CEQA Guidelines Section 15064.5(f) that addresses implementation of data recovery mitigation excavations. Treatment measures typically include development of avoidance strategies, capping with fill material, or mitigation of impacts through data recovery programs such as excavation or detailed documentation and public interpretation. A report of findings shall be prepared, and recovered materials curated, if needed, in an approved facility.

MM CUL-3: **Unexpected Discovery of Human Remains.** In the event human remains are encountered during Project-related ground disturbances, construction personnel will stop all work in the vicinity of the discovery and immediately contact the Los Angeles County Coroner in accordance with Public Resources Code Section 5097.98 and Health and Safety Code Section 7050.5. The City and Zoo staff will also be contacted. If the County Coroner determines the remains are prehistoric, the Coroner will contact the Native American Heritage Commission and the Native American Heritage Commission shall designate a Most Likely Descendant.

MM CUL-4: **Native American Monitoring.** A Native American representative approved by the Gabrieleño Band of Mission Indians-Kizh Nation Tribal Government and the NAHC will monitor ground disturbing construction activities. Ground disturbing construction activities are defined by the Gabrieleño Band of Mission Indians-Kizh Nation as activities that include, but are not limited to, pavement removal, pot-holing or augering, grubbing, tree removal, boring, grading, excavation, drilling, and trenching. The Native American representative will complete daily monitoring logs that will provide the location of construction activities, and a description of the soil and any cultural materials identified. Native American monitoring will be terminated when all ground disturbing construction activities are complete or when the Native American representative determines that the Alternative 1.5 Project site

has a low potential for impacting Tribal Cultural Resources during each phase of Project implementation. Native American monitoring during ground disturbing construction activities will be conducted consistent with current professional standards.

MM CUL-5: **Unanticipated Discovery of Tribal Cultural and Archaeological Resources.** Pursuant to MM CUL-2, upon discovery of any archaeological resources, construction activities will cease in the immediate vicinity of the discovery until the discovery can be assessed. All archaeological resources identified during Alternative 1.5 Project construction activities will be evaluated by the Native American representative approved by the Gabrieleño Band of Mission Indians-Kizh Nation. If the resources are Native American in origin, the Gabrieleño Band of Mission Indians-Kizh Nation will coordinate with the City and the Zoo regarding treatment and curation of the resources including reburial or preservation for educational purposes. Per AR-2, if the discovery is a significant resource, avoidance measures or appropriate mitigation will be implemented.

MM CUL-6: **Preservation of Unique Archeological Resources.** If unique archaeological resources are discovered, preservation in place (i.e., avoidance) will be the preferred manner of treatment consistent with Public Resources Code Section 21083.2(b). If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resources and subsequent laboratory processing and analysis. Historic archaeological material that is not Native American in origin will be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, it will be offered to a local school or historical society for educational purposes.

MM CUL-7: **Unanticipated Discovery of Human Remains and Associated Funerary Objects.** Public Resources Code Section 5097.98(d)(1) defines Native American human remains as an inhumation or cremation in any state of decomposition or skeletal completeness. Consistent with MM CUL-3, in the event human skeletal material is discovered, excavation will be stopped, and the discovery will be immediately reported to the Los Angeles County Coroner consistent with Health and Safety Code 7050.5. If the County Coroner recognizes the human remains to be Native American or has reason to believe the remains are Native American, the County Coroner will contact the NAHC within 24 hours. Public Resources Code 5097.98 will be followed.

In the event human skeletal material is discovered, the following will occur:

- The Native American representative monitor will immediately redirect construction activity a minimum of 150 feet from the discovery and place an

exclusion zone around the discovery. The Native American representative will contact the construction manager who will then contact the Los Angeles County Coroner. The Native American representative will also contact the Gabrieleño Band of Mission Indians-Kizh Nation, a City-qualified archaeologist, the City, and the Zoo. Construction activity will continue to be redirected while the County Coroner determines whether the human skeletal material is Native American. The discovery will be kept confidential and secure to prevent further disturbance. If the human skeletal material is determined to be Native American, the County Coroner will notify the NAHC. The NAHC will then appoint a Most Likely Descendant.

- Funerary objects/associated grave goods will be treated in the same manner as bone fragments.
- If discovered human remains cannot be fully documented and recorded on the same day, the remains will be covered with muslin cloth. A steel plate will be placed over the discovery to protect the remains. If a steel plate is not available, a 24-hour guard will be present onsite outside of regular construction hours.
- Redirecting construction activities to protect the human remains in place will be recommended if feasible. If construction activities cannot be redirected, the burials may be removed. Cremations will be removed in bulk or by any means necessary to ensure complete recovery of all material. The Gabrieleño Band of Mission Indians-Kizh Nation will work closely with the City-qualified archaeologist to ensure that any excavation to remove human remains is conducted carefully, ethically, and respectfully.
- If the discovery of human remains includes four or more burials, the location will be considered a cemetery and a separate treatment plan will be prepared.
- If data recovery excavations are approved by the Gabrieleño Band of Mission Indians-Kizh Nation, documentation will include detailed descriptive notes and sketches at a minimum. Additional documentation will be approved by the Gabrieleño Band of Mission Indians-Kizh Nation
- All feasible care will be taken to avoid any unnecessary disturbance, physical modification, or separation of human remains and associated funerary objects.
- Scientific study of the human remains, including the use of invasive diagnostic procedures/techniques, will not be conducted.
- Each discovery of human remains or associated funerary objects will be stored in opaque cloth bags. All human remains, funerary objects, sacred objects, and objects of cultural patrimony will be removed to a secure container on-site if possible. These items will be retained and reburied within six months of discovery.
- Prior to the resumption of ground disturbing construction activities, the Zoo will designate a location within the Alternative 1.5 Project site for the respectful reburial of the human remains and/or funerary objects. The reburial/repatriation

site will be a location agreed upon between the Gabrieleño Band of Mission Indians-Kizh Nation and the Zoo to be protected in perpetuity.

- There will be no publicity regarding a discovery of human remains.
- A final report will be submitted to the Gabrieleño Band of Mission Indians-Kizh Nation and the NAHC.

6.4 ENERGY – STATE OR LOCAL PLAN FOR RENEWABLE ENERGY OR ENERGY EFFICIENCY CONSISTENCY

The Alternative 1.5 Project would not interfere with any statewide, regional, or local initiatives to expand renewable energy supply or improve energy efficiency. The Alternative 1.5 Project would be consistent with the stringent provisions of the LA Green Building Code and LEED Silver design standards and BMPs and would contribute to the expansion of renewable energy infrastructure. Additionally, the Project would enhance transportation sustainability by providing a more efficient internal circulation network, and improving pedestrian and bicyclist safety and public transit accessibility. However, implementation of the Alternative 1.5 Project has potential to conflict with regional plans and policies governing transportation energy initiatives due to the substantial increase in annual Zoo visitation and VMT generated by new Zoo visitors and employees. MM T-2-Alternative 1.5 would ensure consistency with these plans and policies by requiring the Zoo implement a Transportation Demand Management (TDM) Program to reduce single occupancy vehicle trips to the Zoo, thereby reducing demand for transportation fuels. Therefore, with implementation of these measures, the Alternative 1.5 Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of expanding renewable energy or improving energy efficiency and impacts would be less than significant with mitigation.

See discussion of *Energy* in Section 4.5.3 of the Revised Final EIR.

6.4.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, all reference documents, and the whole of the record, the City finds that the following mitigation measures shall be implemented to reduce potentially significant direct and cumulative energy impacts related to state or local plan for renewable energy or energy efficiency consistency to a less than significant level.

MM T-2-Alternative 1.5

The Zoo shall prepare and implement a comprehensive TDM program to provide trip reduction strategies for Zoo visitors and employees. The TDM Program shall be prepared by a qualified transportation planner and submitted by the Zoo to LADOT for review and approval prior to construction activity. The TDM Program shall be developed and approved prior to initiation of construction of Phase 1 of the Project and shall be maintained and adjusted as needed.

The TDM Program shall:

- Establish a baseline for Zoo VMT at Project initiation.

- Monitor and track VMT for Zoo visitors and employees with specific reduction goals to reduce overall VMT to a target ideally 15 percent below the TDM baseline conditions by 2040 or to achieve other specific reduction goals justified by the TDM Program.
- Include events held outside of normal business hours.
- Define and track peak hours and days of the week to inform the Peak Visitation Management Program.
- Annually report the number of private vehicles, ride-share (TNCs) vehicles, and chartered buses parking and picking up/dropping off at the Zoo facilities in collaboration with the LADOT.

The TDM Program shall be overseen by a Zoo TDM Coordinator and conducted in collaboration with LADOT. The Zoo TDM Coordinator shall be a qualified transportation planner and may be a City/Zoo employee or contractor. The Zoo TDM Coordinator shall monitor visitor and employee mode share with annual surveys, collect and analyze parking and transit use data, and develop annual reports for submittal to BOE and LADOT. The surveys shall capture trip origin data, travel mode, number of people in the party, and other key data and indicators for TDM program performance relative to VMT. The Zoo TDM Coordinator shall ensure that monitoring efforts capture all Zoo-related travel behavior. Annual monitoring reports shall include trip length surveys completed at least biannually by a sample of Zoo patrons and annually by Zoo employees (e.g., trip origin data collection). Monitoring results shall be used to determine the appropriate TDM measures to employ in the coming year to maximize reductions in VMT per capita, champion transit and active modes of transportation to the Zoo for visitors and employees, develop appropriate incentives to increase the Zoo's transit mode share incrementally over time, and develop effective marketing tools to advertise transit and non-vehicular travel mode availability and incentives.

Each annual TDM Program monitoring report shall:

- Describe the TDM efforts in place at the time to reduce vehicular trips;
- Summarize collected survey data and results;
- Evaluate parking utilization and transit use, comparing trends and annual changes;
- Report the peak hours and days of the week for each survey period based on visitation and travel patterns;
- Analyze the results of trip reduction measures in reducing VMT relative to projected VMT increases;
- Evaluate change in available transportation infrastructure and programs serving the Zoo,
- Report the effect on Zoo employee and visitor VMT per capita and compare to current Citywide VMT per capita; and
- Provide recommendations for adjustments to the TDM Program to adaptively manage VMT reductions for visitors and employees, such as increase the charges of paid parking or expand incentives associated with proposed programs, particularly on peak days.

The TDM Coordinator shall oversee annual monitoring and reporting to evaluate the effectiveness of the TDM measures being implemented at the Zoo and recommend adjustments as needed to the TDM Program on an annual basis. The annual report shall be submitted to LADOT for review.

The TDM measures shall be assessed and adapted as necessary based on the results of this review. Final annual reports and data (e.g., survey data) shall be shared with the City and made readily available for public review and use. The TDM Coordinator may reference the California Air Pollution Control Officers Association (CAPCOA) Quantifying Greenhouse Gas Mitigation Measures (2010) report and the Federal Highway Administration's (FHWA's) Integrating Demand Management into the Transportation planning Process: A Deck Reference (2012), among others, for potential additional measures or adjustments that are determined to be feasible based on the effectiveness of the TDM Program and future conditions.

The TDM Program shall be prepared consistent with the Mobility Element and in consultation with LADOT, as well as RAP, if required for measures affecting Griffith Park. Information regarding the TDM Program shall be distributed to all Zoo employees and shall be posted on the Zoo's website and other marketing materials for Zoo visitors and updated annually as needed based on the annual reports.

The TDM Coordinator shall consider a range of measures for the TDM Program to reduce employee and visitor VMT per capita, including, but not limited to, the following:

1. Measures to Reduce Zoo Employee VMT Per Capita

- Encourage employee participation in existing vanpool and car-sharing programs, including City employee and Metro vanpool programs, BlueLA, or develop/expand the Zoo vanpool program.
- Provide employee incentives to participate in a vanpool or car-sharing program, such as subsidized participant fees, offer in-kind services such as oil change discounts, and provide preferential parking for program participants, and regularly advertise the opportunities to vanpool or car-pool through a variety of employee communication formats.
- Implement a paid parking program to discourage employee vehicle trips to the Zoo and generate revenue that the Zoo may use to expand transit ridership for employee trips. Pricing options of onsite employee parking spaces include pay-per-use or weekly/monthly parking passes.
- Partner with rideshare companies to guarantee availability of an emergency ride home or provide access to City vehicles for this purpose.
- Offer employee TDM benefits for use of active transportation commuter modes, including transit, bicycling walking, carpool/vanpool, etc. Incentives for Zoo employees could include:
- Flexible scheduling or options for telecommuting,
- Discount transit passes such as Metro E-Pass Program transit passes
- Discounted equipment to employees who bike to work, or discounted equipment (e.g., walking shoes) to employees to walk to work.
- Maximize opportunities for Zoo employees to telecommute as part of regular scheduling.
- Provide a transportation information center and a commuter club to support a collaborative approach among employees to TDM.

- Provide onsite bicycle facilities (i.e., shower, racks, and lockers) for Zoo employees in an amount and location informed by annual employee surveys and monitoring reports.
- Encourage bicycles as a primary commute mode for employees and provide incentives for biking to work, including providing free or discounted equipment to employees such as helmets, locks, bicycle commuter gear, and bicycles (electric or non-electric).
- Coordinate with LARiverworks, RAP, LADOT, the City of Burbank, and the City of Glendale to identify and facilitate new bicycle and pedestrian linkages and bridges between the Zoo and neighboring communities, particularly linkages to the Los Angeles River Bike Path. The Zoo, RAP, and LADOT in consultation with the City of Glendale shall consider development of a new bicycle and pedestrian bridge across Colorado Boulevard, linking neighborhoods within the City of Glendale to Griffith Park, south of the Project site. The Zoo, RAP, and LADOT shall ensure that all bicycle and pedestrian linkages and bridges to Griffith Park are well-signed and provide lighting, and are regularly patrolled by law enforcement.
- Continue to seek grant funding to support expanded TDM measures to reduce employee VMT per capita.

2. Measures to Reduce Zoo Visitor VMT Per Capita

- Encourage visitors to travel to the Zoo through means other than private automobiles or ridesharing (i.e., active transportation modes like walking, cycling, transit, or car-sharing) through discounted pass programs and dedicated parking spaces reserved for car-sharing automobiles (e.g., BlueLA). In such cases, visitors could be required to provide proof of arrival via active transportation modes or car-sharing to receive a discounted entrance rate.
- Advertise the availability of ticket discounts for active transportation and car-sharing through social media and in coordination with RAP, LADOT, and Metro.
- Review the effect of ridesharing as a mode on VMT and consider if rideshare users should receive ticket discounts as an effective way of reducing VMT.
- Visitors could be required to provide proof of arrival via alternative modes of travel to receive a discounted entrance rate. Advertise the availability of ticket discounts for alternative modes of travel through social media and in coordination with RAP, LADOT, and Metro.
- Coordinate with Metro to increase bus service frequency to the Zoo bus stop, such as advocating for the implementation of Metro's proposed Line 501.
- Seek funding opportunities to provide proportional share funding for the following:
- Reestablish the Parkline DASH shuttle service in a proportion consistent with demands Zoo patrons will place on the service.
- Expand Parkline Shuttle service to connect to the Metro B Line Vermont/Sunset station in the south and the Metro B/G (formerly, Orange) Line North Hollywood station in the north. Shuttle routes should be coordinated with LADOT and RAP.
- Extend Parkline Shuttle service hours to begin at 9:30 AM, before the Zoo opens each day. This expanded service should first be targeted to occur during peak demand periods

such as Easter, Memorial Day, and during Los Angeles Unified School District (LAUSD) holidays, such as the week of spring break.

- Coordinate with RAP to monitor the success of the Parkline Shuttle during such peak periods and to fund expansion of the service over time, as needed, to facilitate and accommodate increased ridership. The program shall then be expanded to broaden the hours and days of operation as needed to meet demand.
- Coordinate with RAP on how best to advertise and perform outreach to user groups regarding the availability of this transit service and methods to increase ridership (e.g., social media outreach).
- Seek funding opportunities to provide proportional share funding in coordination with Metro, LADOT, and other regional transportation partners, to provide an express shuttle service to and from stations such as Los Angeles Union Station (Metro), Downtown Burbank Metrolink Station (Burbank Community Development/Transportation), the Metro Red (B) Line North Hollywood Station (Metro), or the Glendale Metrolink station (Glendale Public Works/Public Transportation and Metrolink).
- Provide Union Station shuttle during operating hours on weekends and legal holidays. This new service shall first be targeted as a pilot program to occur during peak demand periods such as Easter, Memorial Day, and during LAUSD holidays, such as spring break week. If successful, the program shall then be expanded to broaden hours and days of operation.
- Coordinate with Metro and LADOT on how best to advertise and perform outreach to user groups regarding the availability of this transit service and methods to increase ridership (e.g., social media outreach).
- Seek funding opportunities to provide proportional share funding in coordination with Metro and LADOT, for Metro's 96 bus line (Metro NextGen 296) service in a proportion consistent with demands Zoo patrons will place on the service.
- Maintain and expand onsite bicycle parking for Zoo visitors in an amount and location informed by visitor surveys and annual monitoring reports.
- Build out short and long-term bicycle parking within the Zoo to meet changing demands evaluated in the TDM Program annual reports.
- Provide well-lit, clearly signed, bicycle parking that is convenient and in close proximity to the Zoo Entry to encourage bicycling by visitors.
- Build out bicycle parking for cargo bicycles, long-tail bicycles, bicycles with trailers, and other family-friendly bicycle models.
- Build out access restricted, secure bicycle parking for visitors such as bike lockers, storage lockers, a new Metro Bike Hub location, other bicycle hub mode, or staffed bike valet. Funding shall be determined based on the area required for the bike station. The bike share station shall be well-lit and located at a safe and convenient location near the Zoo entrance.
- Design bicycle racks with space-efficient configurations, such as vertically staggered racks and two-tier racks.

- Develop and implement a paid parking program for Zoo visitors to discourage personal vehicle trips to the Zoo and provide a secure funding source to help subsidize TDM, transit improvement, and other trip reduction measures, considering the following options:
- A Peak Period Parking Program would charge for preferred parking during the highest visitation periods, including all weekends (Saturdays and Sundays), holidays, the spring months (April and May), and December, collecting fees for preferred parking on approximately 170 days of the year (based on the 2020 calendar year).
- An Everyday Parking Program would charge for preferred parking 364 days of the year (every day the Zoo is open).
- Maintain at least 15 percent of parking spaces as free parking to meet the needs of disadvantaged households and ensure that low-income visitors may continue to visit the Zoo.
- The Zoo's TDM Coordinator shall prepare a quarterly report on the effectiveness of the Paid Parking Program and monthly revenue generated.
- Continue to seek grant funding to support expanded TDM measures to reduce visitor VMT per capita.

6.5 URBAN FORESTRY RESOURCES – LOCAL TREE POLICY OR ORDINANCE CONSISTENCY / LOSS OF URBAN FOREST

A significant impact to urban forestry resources would occur if protected trees and shrubs, such as California live oaks, western sycamores, and toyons, or important trees such as mature Moreton bay figs and acacias, may also be removed or damaged to accommodate Alternative 1.5 Project improvements.

With the implementation of MM UF-1, impacts to protected and important trees and shrubs would be addressed consistent with applicable City tree protection policies, requiring replacement of removed protected and important trees at a 4:1 ratio as indicated by the City's Alternative 1.5 Protected Tree Preservation Ordinance amendment, notification of large-scale tree removal, acquisition of a necessary tree removal permit(s), and application of City tree removal procedures. Since significant trees impacted during Project implementation would be protected, relocated, or replaced, impacts would be less than significant with mitigation.

Project implementation would create a significant impact due to the Alternative 1.5 removal of substantial numbers of trees during construction, reducing the City's urban forest canopy. However, following completion of construction activities, tree cover and the urban canopy is Alternative 1.5 to be restored as part of a major landscaping and tree planting program, which would replace or improve the City's urban forest over the life of the Project. With implementation of MM UF-2, requiring preparation of a detailed landscape plan as part of each Alternative 1.5 phase, the Project area would be landscaped, irrigated, and maintained with a diverse mix of tree species that would individually and cumulatively provide significant urban forest value. Implementation of this measure would ensure recovery or even enhancement of the Zoo's, and

the City's, urban forest such that a net loss of urban forestry resources would not occur. Impacts would be less than significant with mitigation.

See discussion of *Urban Forestry Resources* in Section 4.5.3 of the Revised Final EIR.

6.5.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, all reference documents, and the whole of the record, the City finds that the following mitigation measures shall be implemented to reduce potentially significant direct and cumulative urban forestry resources impacts related to consistency with a local tree protection ordinance or other policy implemented for preventing the loss of urban forest resources to a less than significant level.

MM UF-1: **Protected Tree Plan.** To offset impacts to protected and important trees and shrubs resulting from Vision Plan implementation, the Zoo shall prepare and implement a Protected Tree Plan. The Protected Tree Plan shall identify measures for the protection, relocation, and/or replacement of protected and important significant trees and shrubs. The Protected Tree Plan shall outline and require that Project activities affecting protected trees and shrubs proceed as follows:

1. Preservation of Trees and Shrubs: Protected and important trees and shrubs shall be preserved in place to the maximum extent feasible. To ensure protection of native protected trees and shrubs, as part of final design of the California and Africa area exhibits, all protected trees and shrubs shall be mapped and incorporated into the exhibit to the maximum extent feasible. The Zoo shall hire a City-approved Tree Expert meeting the requirements of the City's Protected Tree Ordinance to evaluate the health and structure of protected and important trees and shrubs and make recommendations for avoidance of healthy specimens to the maximum extent feasible. The tree expert shall work with project designers during the final design of each phase to incorporate such trees into the exhibits in a manner that would ensure protection of the tree or shrub from damage by exhibit animals or exhibit maintenance activities. Each protected or important tree and shrub to be retained shall have a designated Protection Zone identifying the area sufficiently large enough to protect it and its roots from significant damage during construction. The designated Protection Zone of each specimen shall be protected with 5- to 6-foot-high chain link fences. Fences shall be mounted on 2-inch galvanized iron posts, driven into the ground to a depth of at least two feet and at no more than 10-foot centers, or similarly durable material. Tree and shrub fences shall be erected before demolition, grading, or construction begins and remain until final inspection of the project. Construction and demolition activities around protected trees shall follow all industry standards. Erosion control measures, tree pruning, soil compaction preventive measures, and a tree maintenance schedule shall be implemented and verified by the

BOE and a City-authorized tree expert. Following construction, each tree or shrub preserved shall be monitored for a minimum of 5 years to ensure their long-term survivability.

2. Relocation of Trees and Shrubs: Where protected and important trees cannot be avoided and preserved in place, individuals shall be transplanted elsewhere onsite to the extent feasible. If relocation onsite is not feasible, individuals shall be transplanted to an appropriate offsite location elsewhere within Griffith Park, pursuant to the approval of the City BOE and RAP. The City-approved Tree Expert shall identify the necessary measure to be taken to ensure the maximum survivability of the relocated specimens, including relocation method, placement, irrigation method, and maintenance. Relocated individuals shall be monitored for their success for a period of 5 years. The Tree Protection Plan shall identify performance standards for determining whether relocated specimens are healthy and growing normally and shall outline procedures for periodic monitoring and implementation of corrective measures in the event the health of relocated trees declines.
3. Replacement of Trees and Shrubs: Where the preservation or relocation of protected and important trees and shrubs is not feasible, or where the health of preserved or relocated specimens becomes compromised, as part of the final design of each exhibit or feature, the Zoo shall prepare and implement a replacement planting program. Replacement of protected and important trees and shrubs should follow guidelines described in the City's Protected Tree Ordinance adopted at the time, including requirements for relocated or removed trees or shrubs to be replaced by other species protected by the ordinance at a 4:1 ratio (number of individuals restored to number of individuals impacted). Replacement of oak trees shall be subject to replacement as follows: oak trees less than 12 inches DBH be replaced at 4:1; oak trees between 12 and 24 inches DBH be replaced at 5:1; and oak trees greater than 24 inches BDH be replaced at 10:1. The replacement planting program shall be prepared by a City-approved Tree Expert meeting the requirements of the City's Protected Tree Ordinance. The replacement planting program shall specify the location for replacement, tree or shrub size, planting specifications, and shall include a monitoring program to ensure that the replacement planting program is successful. To the extent feasible, protected, and important trees or shrubs removed within the California or Africa exhibits shall be replaced within each exhibit. Where this is not feasible, the Tree Protection Plan shall outline provisions and standards for replacement in areas outside of each exhibit. At a minimum, the monitoring program shall require monitoring of replacement individuals for a period of 5 years and shall include performance standards for determining whether replacement specimens are healthy and growing normally and procedures for periodic monitoring and implementation

of corrective measures in the event that the health of replacement trees declines.

Replacement of removed trees and shrubs should occur within the Zoo to the extent feasible. If replacement within the Zoo is not feasible, the Zoo should coordinate with RAP and the City Forester for replacement trees and shrubs to be planted on adjacent areas of Griffith Park, provided such locations can support the tree's or shrub's survival. Each replacement tree shall be at least 15-gallon, or larger, measuring one inch or more in diameter one foot above the base, and be not less than seven feet in height measured from the base. If use of similar sized replacement trees and shrubs is not possible, smaller sized replacements may be planted. In that event, a greater number of replacement trees or shrubs may be required.

MM UF-2: **Restoration Plan.** To offset impacts to urban forestry resources and ensure landscaping under the Vision Plan is planned to provide urban forest value, the Zoo shall retain a qualified landscape architect to prepare a landscaping plan. The Zoo landscape plan shall be subject to review and approval by City Bureau of Engineering and shall include the following:

1. Maximize protection of existing protected and important trees and shrubs consistent with the Zoo's Tree Protection Plan identified in MM UF-1.
2. Specify a plant palette and landscape plan that ensures establishment of tree canopy that is cohesive with and supports continuity with the surrounding canopy. The plant palette shall emphasize tree species which are considered to provide a healthy mix of visual and biological value and which offer greater shade cover and carbon sequestration.
3. Plantings shall include tree specimens and shrubs capable of reaching or exceeding the heights of the adjacent Alternative 1.5 structures and plantings.
4. Landscaping shall occur immediately following completion of construction of a Alternative 1.5 area of improvement. Planting would use a combination of small containers and larger containers with more mature specimens to ensure plant health while also expediting recovery of the urban forest and minimizing duration of heat island effects following construction.

6.6 GEOLOGY AND SOILS – SEISMIC RELATED GROUND FAILURE / LANDSLIDES / UNSTABLE GEOLOGIC UNIT / PALEONTOLOGICAL RESOURCES

Risk for differential settlement is low to moderate at the Alternative 1.5 Project site. However, individual projects may encounter increased expansion potential related to soil compaction levels based on site-specific soil conditions and testing results, especially where uncertified fills exist below a development site. The northwestern portion of the Zoo underlying the existing Papiano Play Park is also designated as an earthquake-induced liquefaction zone. The Project would

involve redevelopment of existing outdated facilities and facilitate the construction of new buildings and facilities that meet the most current and stringent seismic requirements, thus reducing the level of risk in each planning area and within the Zoo as a whole, compared to existing conditions. New construction and redevelopment would comply with the Los Angeles Building Code and CBC, and adhere to the design recommendations detailed in site-specific geotechnical studies thereby addressing potential impacts related to seismic-related ground failure, including liquefaction. With MM GEO-1 to ensure geotechnical investigations are completed for each phase of Alternative 1.5 Project development and that engineering techniques and technologies are integrated into final Zoo development plans, impacts related to ground failure would be less than significant with mitigation.

Several Alternative 1.5 Project components would involve excavation and building construction techniques that would produce vibrations (such as jackhammering, drilling, blasting, and pile installation). While the Alternative 1.5 Project site is not located in an area susceptible to large-scale landslides, the Zoo Entry and undeveloped hillside proposed for the California planning area are areas of landslide concern and some slopes along the western and northern portions of the site may be subject to small to moderate sized rock falls. Per MM GEO-1, these slopes would be observed, mapped, and further evaluated for Alternative 1.5 Project components proposed adjacent to exposed rock slopes or if cuts slopes are planned in bedrock areas (e.g., California planning area). Therefore, impacts related to landslide risks would be less than significant with mitigation.

Excavation activities associated with the Alternative 1.5 Project may loosen exposed soils or slopes causing instability within the excavation site or compromised stability for adjacent properties. All excavation activities in the Alternative 1.5 Project site would be required to adhere to mandatory regulations set forth by the California Occupational Safety and Hazard Administration (CalOSHA) to ensure the safety of construction workers during excavation, the Los Angeles Building Code and CBC, which includes requirements for safeguards at work sites to ensure stable excavations and cut or fill slopes, and the City's plan check process. The City is also required to prepare and submit a site-specific geotechnical report for review and approval by the Los Angeles Department of Building and Safety (LADBS) prior to the issuance of a grading or a building permit. Geotechnical reports would be prepared in accordance with the requirements of the County's Manual for Preparation of Geotechnical Reports and are required to evaluate site-specific geological hazards, including groundwater hazards.

Therefore, with MM GEO-1 to ensure geotechnical investigations are completed for each phase of Alternative 1.5 Project development and that engineering techniques and technologies are integrated into final Zoo development plans, geologic risks associated with unstable geology would be minimized and impacts would be less than significant with mitigation.

Due to the proposed excavation and ground disturbing activities into geologic units with high and moderate paleontological potential, Alternative 1.5 Project construction may directly impact previously unidentified paleontological resources. Per MM GEO-2 and MM GEO-3, implementation of combined paleontological resource mitigation plan with as-needed monitoring and worker training would reduce potentially significant impacts to paleontological resources

through the recovery, preparation, deposition, and maintenance of fossil specimens uncovered during ground disturbing activities in an appropriate museum repository. Thus, impacts would be less than significant with mitigation.

See discussion of *Geology and Soils* in Section 4.5.3 of the Revised Final EIR.

6.6.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, all reference documents, and the whole of the record, the City finds that the following mitigation measures shall be implemented to reduce potentially significant direct and cumulative geology and soils impacts to a less than significant level.

MM GEO-1: **Site-Specific Geotechnical Evaluation.** Prior to the design and construction of Alternative 1.5 improvements at in each phase of the Project, a detailed geotechnical evaluation, including subsurface exploration and laboratory testing, shall be performed, consistent with LADBS standards and approvals. The geotechnical evaluation shall 1) further evaluate the specific subsurface conditions, including liquefaction and landslide potential, at each development site, 2) provide site-specific data regarding potential geologic and geotechnical constraints, and 3) provide information pertaining to the engineering characteristics of earth materials with regard to the Alternative 1.5 Project. Recommendations for earthwork, excavations, foundations, shoring, pavements, and other pertinent geotechnical design considerations shall be formulated from the detailed geotechnical evaluation. In the California planning area, the Alternative 1.5 hillside cut, excavation, and reinforcement required for Condor Canyon and its potential bridges shall be evaluated and designed with appropriate shoring mechanisms to avoid landslide and soil instability during construction and operation. The recommendations of the geotechnical report shall be incorporated into the final design and construction of the Project components. The geotechnical reports shall analyze for the following hazards:

- If the site-specific geotechnical evaluation finds that slope instability is an issue in certain phases of development such as California and Africa planning area improvements, engineering techniques and technologies as retaining walls or graded soil buttresses, shall be employed during construction and/or operation.
- If the site-specific geotechnical evaluation finds that liquefaction is an issue in certain phases of development such as development of Zoo Entry, Nature Play Park, or Asia planning area improvements or the Alternative 1.5 parking structure, engineering techniques and technologies such as removal and recompaction, densification of existing soils, or deepened foundations shall be employed during construction and operation.
- If the site-specific geotechnical evaluation finds that expansive soils are an issue in certain phases of development such as development of Zoo Entry, Nature Play Park, or Asia planning area improvements, engineering

techniques and technologies such as removal and replacement with low expansive materials or special reinforced design of foundations and slabs shall be employed during construction and operation.

- If the site-specific geotechnical evaluation finds that dynamic compaction of dry soils is an issue in certain phases of development, engineering techniques and technologies such as removal and recompaction, densification of existing soils, or deepened foundations may be employed during construction and operation.

The Zoo shall prepare each geotechnical evaluation for each improvement in Phases 1 – 7 to inform final design and engineering of improvements. Each geotechnical investigation shall be reviewed and approved by LADBS and the City BOE prior to groundbreaking of each phase. LADBS and the City BOE shall review and approve all geotechnical investigations and review final Zoo development and engineering plans to ensure geotechnical recommendations are accurately incorporated prior to Project-related construction.

MM GEO-2: **Site-specific Paleontological Mitigation Plan.** A qualified paleontologist approved by the City of Los Angeles and the Los Angeles County Natural History Museum Vertebrate Paleontology Department shall be retained prior to earth-moving activities associated with construction of any individual Project phase. Prior to these earth-moving activities, the paleontologist shall determine if a site-specific mitigation plan is required for each phase based on the underlying geology and the Alternative 1.5 depths of excavation Alternative 1.5 by development and engineering plans for each phase. If a site-specific mitigation plan is required, the plan shall specify the level and types of mitigation efforts as set forth below, based on the types and depths of any ground disturbing activities and associated, impacted geological unit.

Where a site-specific mitigation plan is required, earth-moving activities shall be monitored by the paleontologist or a monitor. Monitoring is only required in those areas of the individual development phase where these activities would disturb previously undisturbed geological units and dependent upon the units present. Monitoring shall be conducted on a full-time basis in areas underlain by the Upper Topanga Formation, and at depths greater than 10 feet bgs in areas underlain by Quaternary alluvium. Monitoring shall consist of:

- Visually inspecting debris piles and freshly exposed cuts for larger fossil remains.
- Periodic dry screening sediment, rock, and debris for smaller fossil remains
- Recovery of all vertebrate fossil specimens, a representative sample of invertebrate or plant fossils, or any fossiliferous rock sample that may be easily recovered.

- Diversion of ground disturbing activities away from large or unusually productive fossil localities for the time that is required to recover the resource by the paleontologist or monitor(s).
- Notification of the paleontologist or monitor (if not on-site) by the construction crew of any unanticipated discoveries of fossil resources. Ground disturbing activities will be temporarily diverted while the paleontologist or monitor assess the resource and determine if recovery is warranted or if ground-disturbing activities may resume in the area.
- Collection of rock or sediment samples of the Upper Topanga Formation or Quaternary alluvium for each construction site for processing for small fossils. The total weight of all processed samples from either rock unit shall not exceed 1,000 pounds (2,000 pounds total). The results of processing initial 250-pound test samples shall be used by the paleontologist in determining how much of the remaining total samples shall be collected and processed. More of the samples shall be processed if the recovered remains are sufficiently concentrated (at least 4-5 identifiable specimens per sample), generally identified to genus or species level, and represent a taxonomically diverse faunal assemblage. With the development of each successive construction site, the paleontologist or monitor, may specify that less than 1,000 pounds shall be processed, based on the amount of excavation and other ground disturbing activities that would occur in areas underlain by the Quaternary alluvium, 10 feet bgs, or Upper Topanga Formation, and on the results of processing samples from the same rock unit at previous construction sites.
- Unless potentially fossilized remains are discovered at or near the surface, no paleontological monitoring of ground disturbing activities in the Quaternary alluvium at depths less than 10 feet bgs, and no samples shall be collected or processed.
- The paleontologist or monitor shall maintain daily monitoring logs that record the tasks accomplished, locations, where ground disturbing activities and monitoring were conducted, geological units encountered, any fossil specimen recovered, and associated specimen data and geologic and geographic site data.

If no fossil remains are found after 50 percent of ground-disturbing activities have been completed in an area underlain by Quaternary alluvium or Upper Topanga Formation, monitoring may be reduced or suspended in the remainder of that area with approval from the City of Los Angeles.

If a site-specific mitigation program is required, the paleontologist shall reach a formal agreement with a recognized museum repository, such as the Los Angeles County Natural History Museum, before the mitigation program begins. The agreement shall include specifications regarding final disposition and permanent storage and maintenance of any fossil specimens recovered as part of the

mitigation program as well as archiving associated fossil specimen data and corresponding geologic and geographic site data, and level of treatment/preparation of the fossil specimens. The fossil collection shall be donated to a public, nonprofit repository with a research interest in the collection. The costs to be charged by the repository for curating and permanently storing the collected fossil specimens shall be specified in the repository agreement.

If paleontological resources are discovered and curated as a result of a required site-specific mitigation program, a final technical report of results and findings shall be prepared by the paleontologist in accordance with City of Los Angeles requirements, as applicable. Copies of the final report and any supporting documentation, including the paleontologist's or monitor's field notes and fossil site maps shall be archived at the designated repository. The final report shall be prepared upon completion of ground disturbing activities for the first applicable phase of Project development. Subsequent reports for additional phases shall be issued as addenda to the first final report. Individual projects whose ground disturbing activities are completed within a single calendar year may be addressed collectively in one report or addendum, as applicable.

MM GEO-3: **Worker Paleontological Resource Awareness Program.** Prior to construction of each phase, workers shall receive education regarding the recognition of possible paleontological resources, during grading and excavation. Such training shall provide construction personnel with direction regarding the procedures to be followed in the unlikely event that previously unidentified paleontological materials are discovered during construction. Training shall also inform construction personnel that unauthorized collection or disturbance of paleontological resources is not allowed. The training shall be prepared by a City-approved paleontologist and shall provide a description of paleontological resources that may be encountered in the Project site, outline steps to follow in the event that a discovery is made, and provide contact information for the Project paleontologist and appropriate City personnel. The training shall be conducted concurrent with other environmental or safety awareness and education programs for the Project, provided that the program elements pertaining to paleontological resources is provided by a qualified instructor meeting applicable professional qualifications standards. To prevent inadvertent potential significant impacts to paleontological resources that may be encountered during ground disturbance or construction activities, in the event of any inadvertent discovery of paleontological resources during construction, all work within the vicinity of the resource established by the City-approved paleontologist shall temporarily cease. If a paleontological resource is discovered, the City-approved paleontologist shall be notified to assess the significance of the find and provide recommendations as necessary for its proper disposition and the need for a site-specific mitigation plan, consistent with MM GEO-2.

6.7 GREENHOUSE GAS EMISSIONS – CONSISTENCY WITH PLANS, POLICIES, OR REGULATIONS ADOPTED FOR THE PURPOSE OF REDUCING GHG EMISSIONS

The Alternative 1.5 Project would support the state's strategies in the 2017 Climate Change Scoping Plan to reduce GHG emissions. The 2017 Climate Change Scoping Plan relies on a broad array of GHG reduction strategies, which include direct regulations, alternative compliance mechanisms, incentives, voluntary actions, and market-based mechanisms, such as the Cap-and-Trade Program. These potential strategies include increasing the fuel economy of vehicles and the number of zero-emission or hybrid vehicles, reducing the rate of growth in VMT, supporting high speed rail and other alternative transportation options, and use of high efficiency appliances, water heaters, and heating, ventilation, and air conditioning (HVAC) systems. The Alternative 1.5 Project would benefit from statewide and City efforts towards increasing the portion of electricity provided from renewable resources. The Alternative 1.5 Project would also benefit from statewide efforts towards increasing the fuel economy standards of vehicles. The Alternative 1.5 Project would utilize energy efficient appliances and equipment, as well as electric-powered vehicles by providing electric vehicle (EV) spaces. The Alternative Project would be designed with up to 70,000 square feet (sf) of solar photovoltaic panels to reduce energy demand and increase use of renewably sourced energy. In addition, consistent with the City's Green Building Code, new development under the Alternative 1.5 Project would be designed to include green building measures and be equipped with energy and water efficient systems or appliances. While CARB is in the process of developing a framework for the 2030 reduction target in the Scoping Plan, the Alternative 1.5 Project would support or not impede implementation of these potential reduction strategies identified by CARB. The Alternative 1.5 Project would not introduce a new land use development outside of a High-Quality Transit Area, and implementation of the Alternative 1.5 Project would improve access to the site via alternative modes of travel by improving access to the site by transit and promoting pedestrian and bicycle access, consistent with the elements of the Southern California Association of Government's (SCAG's) Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS), which was derived to comply with Senate Bill (SB) 375 and determined to contain sufficient targets to meet statewide emissions reduction goals associated with regional transportation planning.

Further, the Alternative 1.5 Project would support the City's GHG reduction goals and policies established in the City's General Plan, Hollywood Community Plan, Sustainable City pLAn, and the City's Green New Deal. The Alternative 1.5 Project includes several sustainable design features and characteristics, such as the capture and reuse of stormwater runoff for irrigation, utilization of LADWP recycled water supplies to reduce demand for potable water supplies, efficient landscape irrigation systems, installation of up to 70,000 sf of rooftop solar electric photovoltaic panels, use of LEED Silver construction techniques, and various measures to reduce Project VMT. All these measures are either directly intended to or would indirectly reduce overall GHG impacts.

Thus, the Alternative 1.5 Project would be consistent with the City General Plan, Sustainability pLAn, Green New Deal, California Renewables Portfolio Standard, SB 350, SB 100, CCR Title

24, California Green Building Standards Code Requirements, SB 375, recommendations of the State Attorney General, OPR and Climate Action Team, and all applicable goals of the 2016-2040 RTP/SCS with implementation of mitigation requiring preparation of a SWPPP (MM HYD-2) and replacement of trees contributing to the urban forest (MM UF-1 and MM UF-2), and implementation of TDM measures for reducing Zoo VMT (MM T-2-Alternative 1.5). Therefore, the Project would be consistent with applicable local plans, policies, and regulations and impacts would be less than significant with mitigation.

See discussion of *Greenhouse Gas Emissions* in Section 4.5.3 of the Revised Final EIR.

6.7.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, all reference documents, and the whole of the record, the City finds that the following mitigation measures shall be implemented to ensure and enhance Alternative 1.5 Project consistency with applicable plans, policies, and regulations adopted with the intent of reducing GHG emissions and reduce potentially significant direct and cumulative GHG impacts to a less than significant level.

MM UF-1: **Protected Tree Plan.** To offset impacts to protected and important trees and shrubs resulting from Vision Plan implementation, the Zoo shall prepare and implement a Protected Tree Plan. The Protected Tree Plan shall identify measures for the protection, relocation, and/or replacement of protected and important significant trees and shrubs. The Protected Tree Plan shall outline and require that Project activities affecting protected trees and shrubs proceed as follows:

1. Preservation of Trees and Shrubs: Protected and important trees and shrubs shall be preserved in place to the maximum extent feasible. To ensure protection of native protected trees and shrubs, as part of final design of the California and Africa area exhibits, all protected trees and shrubs shall be mapped and incorporated into the exhibit to the maximum extent feasible. The Zoo shall hire a City-approved Tree Expert meeting the requirements of the City's Protected Tree Ordinance to evaluate the health and structure of protected and important trees and shrubs and make recommendations for avoidance of healthy specimens to the maximum extent feasible. The tree expert shall work with project designers during the final design of each phase to incorporate such trees into the exhibits in a manner that would ensure protection of the tree or shrub from damage by exhibit animals or exhibit maintenance activities. Each protected or important tree and shrub to be retained shall have a designated Protection Zone identifying the area sufficiently large enough to protect it and its roots from significant damage during construction. The designated Protection Zone of each specimen shall be protected with 5- to 6-foot-high chain link fences. Fences shall be mounted on 2-inch galvanized iron posts, driven into the ground to a depth of at least two feet and at no more than 10-foot centers, or similarly durable material. Tree

and shrub fences shall be erected before demolition, grading, or construction begins and remain until final inspection of the project. Construction and demolition activities around protected trees shall follow all industry standards. Erosion control measures, tree pruning, soil compaction preventive measures, and a tree maintenance schedule shall be implemented and verified by the BOE and a City-authorized tree expert. Following construction, each tree or shrub preserved shall be monitored for a minimum of 5 years to ensure their long-term survivability.

2. Relocation of Trees and Shrubs: Where protected and important trees cannot be avoided and preserved in place, individuals shall be transplanted elsewhere onsite to the extent feasible. If relocation onsite is not feasible, individuals shall be transplanted to an appropriate offsite location elsewhere within Griffith Park, pursuant to the approval of the City BOE and RAP. The City-approved Tree Expert shall identify the necessary measure to be taken to ensure the maximum survivability of the relocated specimens, including relocation method, placement, irrigation method, and maintenance. Relocated individuals shall be monitored for their success for a period of 5 years. The Tree Protection Plan shall identify performance standards for determining whether relocated specimens are healthy and growing normally and shall outline procedures for periodic monitoring and implementation of corrective measures in the event the health of relocated trees declines.
3. Replacement of Trees and Shrubs: Where the preservation or relocation of protected and important trees and shrubs is not feasible, or where the health of preserved or relocated specimens becomes compromised, as part of the final design of each exhibit or feature, the Zoo shall prepare and implement a replacement planting program. Replacement of protected and important trees and shrubs should follow guidelines described in the City's Protected Tree Ordinance adopted at the time, including requirements for relocated or removed trees or shrubs to be replaced by other species protected by the ordinance at a 4:1 ratio (number of individuals restored to number of individuals impacted). Replacement of oak trees shall be subject to replacement as follows: oak trees less than 12 inches DBH be replaced at 4:1; oak trees between 12 and 24 inches DBH be replaced at 5:1; and oak trees greater than 24 inches BDH be replaced at 10:1. The replacement planting program shall be prepared by a City-approved Tree Expert meeting the requirements of the City's Protected Tree Ordinance. The replacement planting program shall specify the location for replacement, tree or shrub size, planting specifications, and shall include a monitoring program to ensure that the replacement planting program is successful. To the extent feasible, protected, and important trees or shrubs removed within the California or Africa exhibits shall be replaced within each exhibit. Where this is not feasible, the Tree Protection Plan shall outline provisions and standards for replacement in areas outside of each

exhibit. At a minimum, the monitoring program shall require monitoring of replacement individuals for a period of 5 years and shall include performance standards for determining whether replacement specimens are healthy and growing normally and procedures for periodic monitoring and implementation of corrective measures in the event that the health of replacement trees declines.

Replacement of removed trees and shrubs should occur within the Zoo to the extent feasible. If replacement within the Zoo is not feasible, the Zoo should coordinate with RAP and the City Forester for replacement trees and shrubs to be planted on adjacent areas of Griffith Park, provided such locations can support the tree's or shrub's survival. Each replacement tree shall be at least 15-gallon, or larger, measuring one inch or more in diameter one foot above the base, and be not less than seven feet in height measured from the base. If use of similar sized replacement trees and shrubs is not possible, smaller sized replacements may be planted. In that event, a greater number of replacement trees or shrubs may be required.

MM UF-2: **Restoration Plan.** To offset impacts to urban forestry resources and ensure landscaping under the Vision Plan is planned to provide urban forest value, the Zoo shall retain a qualified landscape architect to prepare a landscaping plan. The Zoo landscape plan shall be subject to review and approval by City Bureau of Engineering and shall include the following:

1. Maximize protection of existing protected and important trees and shrubs consistent with the Zoo's Tree Protection Plan identified in MM UF-1.
2. Specify a plant palette and landscape plan that ensures establishment of tree canopy that is cohesive with and supports continuity with the surrounding canopy. The plant palette shall emphasize tree species which are considered to provide a healthy mix of visual and biological value and which offer greater shade cover and carbon sequestration.
3. Plantings shall include tree specimens and shrubs capable of reaching or exceeding the heights of the adjacent Alternative 1.5 structures and plantings.
4. Landscaping shall occur immediately following completion of construction of a Alternative 1.5 area of improvement. Planting would use a combination of small containers and larger containers with more mature specimens to ensure plant health while also expediting recovery of the urban forest and minimizing duration of heat island effects following construction.

MM HYD-2: **Preparation of a Storm Water Pollution Prevention Plan (SWPPP).** For each phase of construction, the City shall require the building contractor to prepare and submit a SWPPP as part of the City's NPDES Construction General Permit 45 days prior to the start of work for approval. The contractor is responsible for understanding the Construction General Permit and instituting the SWPPP during construction. A SWPPP for site construction shall be developed prior to the

initiation of grading and implemented for all construction activity on the Project site in excess of 1 acre, or where the area of disturbance is less than 1 acre but is part of the Project's plan of development that in total disturbs 1 or more acres. The SWPPP shall identify potential pollutant sources that may affect the quality of discharges to stormwater and shall include specific BMPs to control the discharge of material from the site, including, but not limited to:

- Temporary detention basins, straw bales, sand bagging, mulching, erosion control blankets, silt fencing, and soil stabilizers shall be used.
- Sufficient physical protection and pollution prevention measures to prevent sedimentation, siltation, and/or debris from entering the onsite storm drain system, Alternative 1.5 stormwater management system, and the Los Angeles River.
- Soil stockpiles and graded slopes shall be covered after 14 days of inactivity and 24 hours prior to and during inclement weather conditions.
- Fiber rolls shall be placed along the top of exposed slopes and at the toes of graded areas to reduce surface soil movement, as necessary.
- Sandbags, or other equivalent techniques, shall be utilized along graded areas to prevent siltation transport to the surrounding areas.
- A routine monitoring plan shall be implemented to ensure success of all onsite erosion and sedimentation control measures.
- Dust control measures shall be implemented to ensure success of all onsite activities to control fugitive dust.
- Streets, parking areas, and paved pathways affected by phased Project construction shall be cleaned daily or as necessary to remove sediment, soils, and other construction debris.
- BMPs shall be strictly followed to prevent spills and discharges of pollutants onsite (material and container storage, proper trash disposal, construction entrances, etc.); additional BMPs shall be implemented for any fuel storage or fuel handling that could occur onsite during construction.

The SWPPP must be prepared in accordance with the guidelines adopted by the State Water Resources Control Board (SWRCB). The SWPPP shall be submitted to the City BOE along with grading/development plans for review and approval. The SWPPP and notices shall be submitted to the SWRCB under their Stormwater Multi-Application, Reporting, and Tracking System (SMARTS). The SWPPP shall be designed to address erosion and sediment control during all phases of development of the site until all disturbed areas are permanently stabilized.

All development plans and permits shall reflect the approved erosion control plan and BMPs submitted to the SWRCB. The Zoo shall be responsible for ensuring all requirements are included in construction plans and implemented as part of construction. All construction activities shall be monitored by a City BOE staff to ensure compliance with the SWPPP.

All construction activities shall be monitored by City staff to ensure compliance with the SWPPP during grading and after conclusion of grading activities to monitor runoff. A Qualified SWPPP Practitioner shall be retained by the developer for overall management and reporting responsibility regarding the SWPPP and documentation under SMARTS in accordance with their permitting requirement. The City will keep a copy of the SWPPP on the Project site during grading and construction activities.

The City shall file a Notice of Completion once construction of each Project phase is complete, identifying that pollution sources were controlled during the construction of the Alternative 1.5 Project and implementing a closure SWPPP for the site.

MM T-2-Alternative 1.5

The Zoo shall prepare and implement a comprehensive TDM program to provide trip reduction strategies for Zoo visitors and employees. The TDM Program shall be prepared by a qualified transportation planner and submitted by the Zoo to LADOT for review and approval prior to construction activity. The TDM Program shall be developed and approved prior to initiation of construction of Phase 1 of the Project and shall be maintained and adjusted as needed.

The TDM Program shall:

- Establish a baseline for Zoo VMT at Project initiation.
- Monitor and track VMT for Zoo visitors and employees with specific reduction goals to reduce overall VMT to a target ideally 15 percent below the TDM baseline conditions by 2040 or to achieve other specific reduction goals justified by the TDM Program.
- Include events held outside of normal business hours.
- Define and track peak hours and days of the week to inform the Peak Visitation Management Program.
- Annually report the number of private vehicles, ride-share (TNCs) vehicles, and chartered buses parking and picking up/dropping off at the Zoo facilities in collaboration with the LADOT.

The TDM Program shall be overseen by a Zoo TDM Coordinator and conducted in collaboration with LADOT. The Zoo TDM Coordinator shall be a qualified transportation planner and may be a City/Zoo employee or contractor. The Zoo TDM Coordinator shall monitor visitor and employee mode share with annual surveys, collect and analyze parking and transit use data, and develop annual reports for submittal to BOE and LADOT. The surveys shall capture trip origin data, travel mode, number of people in the party, and other key data and indicators for TDM program performance relative to VMT. The Zoo TDM Coordinator shall ensure that monitoring efforts capture all Zoo-related travel behavior. Annual monitoring reports shall include trip length surveys completed at least biannually by a sample of Zoo patrons and annually by Zoo employees (e.g., trip origin data collection). Monitoring results shall be used to determine the appropriate TDM measures to employ in the coming year to maximize reductions in VMT per capita, champion transit and active modes of transportation to the Zoo for visitors and employees, develop

appropriate incentives to increase the Zoo's transit mode share incrementally over time, and develop effective marketing tools to advertise transit and non-vehicular travel mode availability and incentives.

Each annual TDM Program monitoring report shall:

- Describe the TDM efforts in place at the time to reduce vehicular trips;
- Summarize collected survey data and results;
- Evaluate parking utilization and transit use, comparing trends and annual changes;
- Report the peak hours and days of the week for each survey period based on visitation and travel patterns;
- Analyze the results of trip reduction measures in reducing VMT relative to projected VMT increases;
- Evaluate change in available transportation infrastructure and programs serving the Zoo,
- Report the effect on Zoo employee and visitor VMT per capita and compare to current Citywide VMT per capita; and
- Provide recommendations for adjustments to the TDM Program to adaptively manage VMT reductions for visitors and employees, such as increase the charges of paid parking or expand incentives associated with proposed programs, particularly on peak days.

The TDM Coordinator shall oversee annual monitoring and reporting to evaluate the effectiveness of the TDM measures being implemented at the Zoo and recommend adjustments as needed to the TDM Program on an annual basis. The annual report shall be submitted to LADOT for review. The TDM measures shall be assessed and adapted as necessary based on the results of this review. Final annual reports and data (e.g., survey data) shall be shared with the City and made readily available for public review and use. The TDM Coordinator may reference the California Air Pollution Control Officers Association (CAPCOA) Quantifying Greenhouse Gas Mitigation Measures (2010) report and the Federal Highway Administration's (FHWA's) Integrating Demand Management into the Transportation planning Process: A Deck Reference (2012), among others, for potential additional measures or adjustments that are determined to be feasible based on the effectiveness of the TDM Program and future conditions.

The TDM Program shall be prepared consistent with the Mobility Element and in consultation with LADOT, as well as RAP, if required for measures affecting Griffith Park. Information regarding the TDM Program shall be distributed to all Zoo employees and shall be posted on the Zoo's website and other marketing materials for Zoo visitors and updated annually as needed based on the annual reports.

The TDM Coordinator shall consider a range of measures for the TDM Program to reduce employee and visitor VMT per capita, including, but not limited to, the following:

1. Measures to Reduce Zoo Employee VMT Per Capita

- Encourage employee participation in existing vanpool and car-sharing programs, including City employee and Metro vanpool programs, BlueLA, or develop/expand the Zoo vanpool program.

- Provide employee incentives to participate in a vanpool or car-sharing program, such as subsidized participant fees, offer in-kind services such as oil change discounts, and provide preferential parking for program participants, and regularly advertise the opportunities to vanpool or car-pool through a variety of employee communication formats.
- Implement a paid parking program to discourage employee vehicle trips to the Zoo and generate revenue that the Zoo may use to expand transit ridership for employee trips. Pricing options of onsite employee parking spaces include pay-per-use or weekly/monthly parking passes.
- Partner with rideshare companies to guarantee availability of an emergency ride home or provide access to City vehicles for this purpose.
- Offer employee TDM benefits for use of active transportation commuter modes, including transit, bicycling walking, carpool/vanpool, etc. Incentives for Zoo employees could include:
- Flexible scheduling or options for telecommuting,
- Discount transit passes such as Metro E-Pass Program transit passes
- Discounted equipment to employees who bike to work, or discounted equipment (e.g., walking shoes) to employees to walk to work.
- Maximize opportunities for Zoo employees to telecommute as part of regular scheduling.
- Provide a transportation information center and a commuter club to support a collaborative approach among employees to TDM.
- Provide onsite bicycle facilities (i.e., shower, racks, and lockers) for Zoo employees in an amount and location informed by annual employee surveys and monitoring reports.
- Encourage bicycles as a primary commute mode for employees and provide incentives for biking to work, including providing free or discounted equipment to employees such as helmets, locks, bicycle commuter gear, and bicycles (electric or non-electric).
- Coordinate with LARiverworks, RAP, LADOT, the City of Burbank, and the City of Glendale to identify and facilitate new bicycle and pedestrian linkages and bridges between the Zoo and neighboring communities, particularly linkages to the Los Angeles River Bike Path. The Zoo, RAP, and LADOT in consultation with the City of Glendale shall consider development of a new bicycle and pedestrian bridge across Colorado Boulevard, linking neighborhoods within the City of Glendale to Griffith Park, south of the Project site. The Zoo, RAP, and LADOT shall ensure that all bicycle and pedestrian linkages and bridges to Griffith Park are well-signed and provide lighting, and are regularly patrolled by law enforcement.
- Continue to seek grant funding to support expanded TDM measures to reduce employee VMT per capita.

2. Measures to Reduce Zoo Visitor VMT Per Capita

- Encourage visitors to travel to the Zoo through means other than private automobiles or ridesharing (i.e., active transportation modes like walking, cycling, transit, or car-sharing) through discounted pass programs and dedicated parking spaces reserved for car-sharing automobiles (e.g., BlueLA). In such cases, visitors could be required to provide proof of

arrival via active transportation modes or car-sharing to receive a discounted entrance rate.

- Advertise the availability of ticket discounts for active transportation and car-sharing through social media and in coordination with RAP, LADOT, and Metro.
- Review the effect of ridesharing as a mode on VMT and consider if rideshare users should receive ticket discounts as an effective way of reducing VMT.
- Visitors could be required to provide proof of arrival via alternative modes of travel to receive a discounted entrance rate. Advertise the availability of ticket discounts for alternative modes of travel through social media and in coordination with RAP, LADOT, and Metro.
- Coordinate with Metro to increase bus service frequency to the Zoo bus stop, such as advocating for the implementation of Metro's proposed Line 501.
- Seek funding opportunities to provide proportional share funding for the following:
- Reestablish the Parkline DASH shuttle service in a proportion consistent with demands Zoo patrons will place on the service.
- Expand Parkline Shuttle service to connect to the Metro B Line Vermont/Sunset station in the south and the Metro B/G (formerly, Orange) Line North Hollywood station in the north. Shuttle routes should be coordinated with LADOT and RAP.
- Extend Parkline Shuttle service hours to begin at 9:30 AM, before the Zoo opens each day. This expanded service should first be targeted to occur during peak demand periods such as Easter, Memorial Day, and during Los Angeles Unified School District (LAUSD) holidays, such as the week of spring break.
- Coordinate with RAP to monitor the success of the Parkline Shuttle during such peak periods and to fund expansion of the service over time, as needed, to facilitate and accommodate increased ridership. The program shall then be expanded to broaden the hours and days of operation as needed to meet demand.
- Coordinate with RAP on how best to advertise and perform outreach to user groups regarding the availability of this transit service and methods to increase ridership (e.g., social media outreach).
- Seek funding opportunities to provide proportional share funding in coordination with Metro, LADOT, and other regional transportation partners, to provide an express shuttle service to and from stations such as Los Angeles Union Station (Metro), Downtown Burbank Metrolink Station (Burbank Community Development/Transportation), the Metro Red (B) Line North Hollywood Station (Metro), or the Glendale Metrolink station (Glendale Public Works/Public Transportation and Metrolink).
- Provide Union Station shuttle during operating hours on weekends and legal holidays. This new service shall first be targeted as a pilot program to occur during peak demand periods such as Easter, Memorial Day, and during LAUSD holidays, such as spring break week. If successful, the program shall then be expanded to broaden hours and days of operation.

- Coordinate with Metro and LADOT on how best to advertise and perform outreach to user groups regarding the availability of this transit service and methods to increase ridership (e.g., social media outreach).
- Seek funding opportunities to provide proportional share funding in coordination with Metro and LADOT, for Metro's 96 bus line (Metro NextGen 296) service in a proportion consistent with demands Zoo patrons will place on the service.
- Maintain and expand onsite bicycle parking for Zoo visitors in an amount and location informed by visitor surveys and annual monitoring reports.
- Build out short and long-term bicycle parking within the Zoo to meet changing demands evaluated in the TDM Program annual reports.
- Provide well-lit, clearly signed, bicycle parking that is convenient and in close proximity to the Zoo Entry to encourage bicycling by visitors.
- Build out bicycle parking for cargo bicycles, long-tail bicycles, bicycles with trailers, and other family-friendly bicycle models.
- Build out access restricted, secure bicycle parking for visitors such as bike lockers, storage lockers, a new Metro Bike Hub location, other bicycle hub mode, or staffed bike valet. Funding shall be determined based on the area required for the bike station. The bike share station shall be well-lit and located at a safe and convenient location near the Zoo entrance.
- Design bicycle racks with space-efficient configurations, such as vertically staggered racks and two-tier racks.
- Develop and implement a paid parking program for Zoo visitors to discourage personal vehicle trips to the Zoo and provide a secure funding source to help subsidize TDM, transit improvement, and other trip reduction measures, considering the following options:
- A Peak Period Parking Program would charge for preferred parking during the highest visitation periods, including all weekends (Saturdays and Sundays), holidays, the spring months (April and May), and December, collecting fees for preferred parking on approximately 170 days of the year (based on the 2020 calendar year).
- An Everyday Parking Program would charge for preferred parking 364 days of the year (every day the Zoo is open).
- Maintain at least 15 percent of parking spaces as free parking to meet the needs of disadvantaged households and ensure that low-income visitors may continue to visit the Zoo.
- The Zoo's TDM Coordinator shall prepare a quarterly report on the effectiveness of the Paid Parking Program and monthly revenue generated.
- Continue to seek grant funding to support expanded TDM measures to reduce visitor VMT per capita.

MM UT-1: **Recycled Water Use.** In accordance with the Green New Deal pLAn and One Water L.A. Plan, the Zoo shall work with LADPW and the Los Angeles Bureau of Sanitation (LASAN) to expand recycled water lines (purple pipe) to interior portions

of the Zoo. Recycled water shall be used to the maximum extent available for washdown of the animal holding areas, powerwashing walkways and plazas, and flushing toilets, and in the Zoo's exhibits (e.g., treatment systems, ponds, aesthetics, water features, etc.) if the recycled water is dechlorinated before use, and for fire suppression where feasible. Additionally, all irrigation water demand not covered by stormwater captured in the Alternative 1.5 stormwater collection system (i.e., during dry years), shall be covered by recycled water. The point of connection to the City's water recycling system would be at the existing 8-inch recycled water main at the west end of the Zoo parking lot in Griffith Park, subject to review and approval of LADPW, LASAN, and BOE. LASAN staff shall ensure the recycled water main connections are incorporated into the final building plans prior grading. City staff shall ensure measures are on all Project plans to ensure that these requirements are implemented.

6.8 HAZARDS AND HAZARDOUS MATERIALS – RELEASE OF HAZARDOUS MATERIALS / HAZARDOUS MATERIALS WITHIN ONE-QUARTER MILE OF A SCHOOL / LIST OF HAZARDOUS MATERIALS SITES

The Alternative 1.5 Project site is located near multiple regulated hazardous material sites, including one leaking underground storage tank (LUST) with a closed status and one Superfund cleanup site that was opened in January 1984, and is undergoing continuing cleanup and investigation activities. It is unlikely that existing contaminants identified on other nearby sites would have an impact on the Alternative 1.5 Project site, due to distance, hydraulic gradient in relation to the Alternative 1.5 Project site, or due to past cleanup efforts. In addition to existing hazardous materials sites in the vicinity of the Alternative 1.5 Project site, the Grayson Power Plant has the potential to affect the Project site due to the risk of release of hazardous materials. However, spills are limited to the immediate area and spill response plans would address containment and clean up; therefore, it is unlikely that the volume of spills will travel beyond the immediate area of the spill and impact offsite receptors such as the Zoo. The Alternative 1.5 Project would involve the demolition and renovation of several buildings at the Zoo that were constructed before 1970. Due to the age of the buildings, there is a potential for hazardous materials such as asbestos containing materials (ACM) and lead-based paint (LBP) to be present onsite. The Phase II Environmental Site Assessment (ESA) required under MM HAZ-1 would identify the potential presence of ACM and LBP in the buildings proposed for demolition or renovation under the Alternative 1.5. If asbestos is detected during the Phase II ESA, compliance with SCAQMD Rule 1403 would be required, which would require the abatement and control of ACM prior to demolition. Similarly, CCR Title 8, Industrial Relations would require the removal and control of LBP prior to demolition. Additionally, standard BMPs would be applied, as necessary (e.g., protective equipment, fugitive dust controls etc.). With the implementation of appropriate mitigation, impacts associated with ACM and LBP would be less than significant with mitigation.

Potential contamination from the underground storage tanks (USTs) located adjacent to the South Parking area and Autry Museum may be disturbed during implementation of the circulation improvements at Zoo Drive and Western Heritage Way during Alternative 1.5 Project. Implementation of MM HAZ-1 would require a Phase II ESA to evaluate the presence of hazardous soil contamination and vapor intrusion prior to demolition and grading activities. In the event that the Phase II ESA identifies soil and/or groundwater contamination at or above regulatory levels, implementation of MM HAZ-2 would require remediation activities prior to the issuance of grading permits to ensure no adverse impacts from exposure to soil contamination. Implementation of MM HAZ-1 and MM HAZ-2 would reduce potential impacts related to the recognized environmental condition and vapor encroachment condition at the fueling station to less than significant. Operational impacts related to hazardous materials, substances, and wastes are not considered significant as the types and amounts of potentially hazardous materials used and stored for operation of the Alternative 1.5 Project would not substantially change from existing conditions. Users of such materials are required to follow manufacturer instructions and dispose of excess solutions and empty containers properly.

The Alternative 1.5 Project proposes to construct updated animal enclosures and new animal enclosures would be constructed in compliance with current AZA structural engineering and design standards to include safety measures. The Zoo currently maintains operational procedures pursuant to the AZA Accreditation Standards and Related Policies in order to protect the safety of the animals, zookeepers, and Zoo visitors alike. Under operation of the Project, the Zoo would continue to comply with existing safety procedures. Therefore, safety hazards related to Zoo animals would not occur due to implementation of the Alternative 1.5 project, and safety impacts would be less than significant.

The North Hollywood High School Magnet Center is located within the 0.25 miles of the Alternative 1.5 Project site. Adverse impacts resulting from incidental hazardous spills during near-term and long-term construction activities may be potentially significant, however, all construction activities associated with the Alternative 1.5 Project components would comply with applicable federal, state, and local regulations relating to protection of the public and the environment from exposure to hazardous materials. Further, MM HAZ-1 would require the preparation of a Phase II ESA to ensure no adverse impacts related to hazardous emissions or spills would occur during implementation of the proposed near-term and long-term improvements. As such, construction impacts related to hazardous emissions and hazardous materials, substances, and waste within 0.25 miles of a school would be less than significant with mitigation. The Zoo would continue to use, store, and dispose of hazardous materials, substances, and waste in accordance with applicable federal, state, regional, and local policies and regulations. Therefore, operational impacts related to hazardous emissions and hazardous materials, substances, and waste within 0.25 miles of a school would be less than significant.

The Alternative Project site is located in proximity to one site listed on the SWRCB GeoTracker database and one site listed on the Department of Toxic Substances Control (DTSC) EnviroStor database. Ground-disturbing activities associated with grading for the reconfigured road would increase the risk of disturbing potentially contaminated soil. In the event that contamination is

observed during construction activities, implementation of MM HAZ-2 would be implemented to ensure contaminated soils are properly removed, handled, and transported to an appropriately licensed disposal facility, in accordance with local and state regulations. Therefore, impacts from implementation of near-term improvements included in the Alternative 1.5 Project would be less than significant with mitigation. Implementation of MM HAZ-2 would be implemented if contaminated soils are encountered during ground-disturbing activities associated with the Alternative 1.5 Project. Therefore, impacts from implementation of long-term improvements included in the Alternative 1.5 Project would be less than significant with mitigation.

See discussion of Hazards and Hazardous Materials in Section 4.5.3 of the Revised Final EIR.

6.8.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, all reference documents, and the whole of the record, the City finds that the following mitigation measures shall be implemented to reduce potentially significant direct and cumulative hazardous and hazardous materials impacts related to release of hazardous materials to a less than significant level.

MM HAZ-1: **Phase II Environmental Site Assessment (ESA).** Prior to Project implementation, the City shall prepare a Phase II ESA to address the following:

- Potential soil contamination around known USTs on site. Prior to ground-disturbance, a qualified environmental specialist (e.g., a licensed Professional Geologist [PG], a licensed Professional Engineer [PE] or similarly qualified individual) shall perform soil sampling and analysis to determine whether contamination exists and, if so, the extent of contamination from the following UST locations within the Project site; if contaminants are detected in soil at or above regulatory levels, then the results of the soil sampling shall be reviewed and acted upon by the LAFD and other regional or state regulatory agencies as needed:
  - The fueling station in the Zoo Construction Shop and Support area
  - West of the South Parking Area
  - North of the Autry Museum.
- ACM, LBP, and Molds in Buildings. Prior to any building demolition, the City shall conduct a comprehensive survey of ACM, LBP, and molds. If such hazardous materials are found to be present, the Zoo shall follow all applicable local, state and federal codes and regulations, as well as applicable BMPs, related to the treatment, handling, and disposal of ACM, LBP, and molds to ensure public safety.

If the Phase II ESA identifies contamination at or above regulatory levels, prior to the issuance of grading permits for development, it shall be the responsibility of the Zoo to conduct and conclude all investigation and/or remediation activities under the oversight of the applicable regulatory agency (e.g., LAFD, DTSC, SWRCB). Remediation shall be accomplished in accordance with the

requirements of the appropriate oversight agency. No Project construction shall occur in the affected area until case closure reports have been approved by the appropriate oversight agency.

MM HAZ-2: **Discovery of Contamination.** In the event that previously unknown or unidentified soil and/or groundwater contamination that could present a threat to human health or the environment is encountered during construction at a development site, construction activities in the immediate vicinity of the contamination shall cease immediately. At the start of construction, all construction contractors shall be instructed to immediately stop all subsurface activities in the event that potentially hazardous materials are encountered, an odor is identified, or significantly stained soil is visible. Contractors shall be instructed to follow all applicable regulations regarding discovery and response for hazardous materials encountered during the construction process. A qualified environmental specialist (e.g., a licensed PG, a licensed PE or similarly qualified individual) shall investigate to identify and determine the level of soil and/or groundwater contamination.

If contamination is encountered, a Human Health Risk Management Plan shall be prepared and implemented that: (1) identifies the contaminants of concern and the potential risk each contaminant would pose to human health and the environment during construction and post-development, and (2) describes measures to be taken to protect workers, and the public from exposure to potential site hazards. Such measures could include a range of options, including, but not limited to, physical site controls during construction, remediation, long-term monitoring, post-development maintenance or access limitations, or some combination thereof. Depending on the nature of contamination, if any, appropriate agencies shall be notified (e.g., LAFD). If needed, a Site Health and Safety Plan that meets Occupational Safety and Health Administration requirements shall be prepared and in place prior to commencement of work in any contaminated area.

6.9 HYDROLOGY AND WATER QUALITY – WATER QUALITY / GROUNDWATER SUPPLIES AND RECHARGE / DRAINAGE PATTERNS

Alternative 1.5 Project construction has the potential to create impacts to hydrology and water quality as a result of sediment transport into onsite storm drain inlets and potential contribution of polluted stormwater runoff as a result of delivery, handling, and storage of construction materials and wastes, as well as potential leakage and spills of construction materials. However, consistent with existing regulations, all Project components would be required to comply with the Stormwater and Urban Runoff Pollution Control Ordinance (Chapter VI Article 4.4 of the LAMC) to address soil erosion, including topsoil mobilization and loss, and urban runoff. Under this ordinance, construction projects in the City must follow additional specific BMPs. In addition, implementation of MM HYD-1 through MM HYD-3, requiring preparation of a stormwater management plan to

determine the appropriate sequencing of improvements, preparation of a SWPPP as part of acquisition of a NPDES Construction General Permit, implementation of standard construction BMPs, and timing of construction to avoid adverse effects of seasonal storms would reduce potential for mobilization of sediments and typical construction pollutants during all phases of Alternative 1.5 Project construction. As a result, potential sediments and contaminants would be controlled onsite and would not flow to stormwater management infrastructure or waterways, including the Los Angeles River. Therefore, implementation of these measures would reduce associated impacts on to surface and groundwater quality from earthwork and typical construction activities to less than significant with mitigation. Further, implementation of MM HYD-6 would require the Zoo install pre-treatment and LID features to treat water within the stormwater collection system and remove pollutants prior to reuse for irrigation. This measure would ensure that onsite recycled water would be high quality and would not create new water quality issues. With implementation of this measure, impacts to or from water quality would be less than significant with mitigation.

The Alternative 1.5 Project would increase impervious surfaces on the Project site from 51 percent to approximately 70 percent in the near-term (i.e., by 2030) but would not increase in impervious surfaces during the long-term as permeable pavement and other LID features would be expanded under Alternative 1.5 redevelopment. Therefore, Project implementation would not have an adverse effect on groundwater recharge. Groundwater at the Project site and immediate vicinity may be contaminated due to a historical LUST and Superfund cleanup site in proximity to the Zoo's parking lot and Western Heritage Way, as well as from fueling dispensers, USTs, and associated piping within the Zoo Construction Shop and Support area and existing storage yard. However, implementation of MM HAZ-1 would ensure impacts to groundwater contamination on- and offsite are less than significant. Under MM GEO-1, a geotechnical report would be prepared to identify measures to address groundwater impacts and any recommendations and design features identified would be applied. Therefore, impacts to groundwater quality and recharge from Project implementation would be less than significant with mitigation.

Alternative 1.5 construction activities would alter drainage on site, subject to requirements to control water quality and stormwater flows, but would not alter drainage patterns or amounts offsite to the Zoo Wastewater Facility or the Los Angeles River; therefore, construction activities associated with the Alternative 1.5 Project would result in a less than significant impact.

In addition to MM HYD-1 through MM HYD-3 and compliance with the Stormwater and Urban Runoff Pollution Control Ordinance, preparation of an Operations & Maintenance (O&M) Plan under MM HYD-4, application of gorilla mulch to landscaped areas under MM HYD-5, and pre-treatment, filtering, and other LID features installed as part of the stormwater collection system as required by MM HYD-6 would reduce soil erosion impacts to less than significant with mitigation.

The Alternative 1.5 Project would include substantial stormwater retention and treatment facilities onsite to accommodate stormwater runoff and the new impervious areas onsite to avoid onsite and offsite increases in flooding, consistent with the requirements of the City's Stormwater and Urban Runoff Pollution Control Ordinance (LAMC Article 4.4) and the SWRCB's Post-

Construction Requirements. Therefore, Project impacts to onsite and offsite flooding would be less than significant.

See discussion of *Hydrology and Water Quality* in Section 4.5.3 of the Revised Final EIR.

6.9.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, all reference documents, and the whole of the record, the City finds that the following mitigation measures shall be implemented to reduce potentially significant direct and cumulative hydrology and water quality impacts related to water quality, groundwater supplies and recharge, and drainage patterns to a less than significant level.

MM HYD-1: Construction Sequencing and Design of Onsite Stormwater Management System. The Zoo shall prepare a stormwater management plan prior to Phase 1 Project implementation. The stormwater management plan shall finalize the design of the subterranean stormwater management system with minimum capacity to capture the equivalent of 2-year, 24-hour storm events as Alternative 1.5 by the Project, and shall consider increased capacity to maximize rainfall capture and reuse. The stormwater management plan shall indicate the sizing and design of the underground stormwater collection system for all Alternative 1.5 drainage areas. The stormwater management plan shall also determine the appropriate sequencing of system installation relative to the Project's development phasing to provide continuous stormwater management throughout the 20-year implementation of the Alternative 1.5 Vision Plan. This sequencing plan shall ensure each phase of development has a functioning onsite stormwater system prior to operation to contain and convey all stormwater flows to the underground cistern(s), to onsite LIDs (e.g., bioswales), and/or to the Zoo's Wastewater Facility. Sequencing shall avoid or minimize sedimentation into Alternative 1.5 LID features and underground stormwater management system infrastructure, which could lead to a loss of capacity and decrease in water quality benefits. During phased construction of the Project, the City shall also install stormwater storage facilities to supplement the underground cisterns such as rain barrels if needed to temporarily manage stormwater flows. These can be integrated into the Vision Plan redevelopment to be thematically appropriate and visually reminding visitors of the Zoo's efforts for water conservation.

The Zoo shall prepare and submit the stormwater management plan to the City BOE for review and approval prior to issuance of grading permits for each Project phase. All development plans and permits shall reflect the approved sequencing and timing of implementation of stormwater management measures. The Zoo shall be responsible for ensuring all requirements are included in construction plans and implemented as part of construction. All construction activities shall be monitored by a City BOE staff to ensure compliance with the stormwater management plan.

MM HYD-2: **Preparation of a Storm Water Pollution Prevention Plan (SWPPP).** For each phase of construction, the City shall require the building contractor to prepare and submit a SWPPP as part of the City's NPDES Construction General Permit 45 days prior to the start of work for approval. The contractor is responsible for understanding the Construction General Permit and instituting the SWPPP during construction. A SWPPP for site construction shall be developed prior to the initiation of grading and implemented for all construction activity on the Project site in excess of 1 acre, or where the area of disturbance is less than 1 acre but is part of the Project's plan of development that in total disturbs 1 or more acres. The SWPPP shall identify potential pollutant sources that may affect the quality of discharges to stormwater and shall include specific BMPs to control the discharge of material from the site, including, but not limited to:

- Temporary detention basins, straw bales, sand bagging, mulching, erosion control blankets, silt fencing, and soil stabilizers shall be used.
- Sufficient physical protection and pollution prevention measures to prevent sedimentation, siltation, and/or debris from entering the onsite storm drain system, Alternative 1.5 stormwater management system, and the Los Angeles River.
- Soil stockpiles and graded slopes shall be covered after 14 days of inactivity and 24 hours prior to and during inclement weather conditions.
- Fiber rolls shall be placed along the top of exposed slopes and at the toes of graded areas to reduce surface soil movement, as necessary.
- Sandbags, or other equivalent techniques, shall be utilized along graded areas to prevent siltation transport to the surrounding areas.
- A routine monitoring plan shall be implemented to ensure success of all onsite erosion and sedimentation control measures.
- Dust control measures shall be implemented to ensure success of all onsite activities to control fugitive dust.
- Streets, parking areas, and paved pathways affected by phased Project construction shall be cleaned daily or as necessary to remove sediment, soils, and other construction debris.
- BMPs shall be strictly followed to prevent spills and discharges of pollutants onsite (material and container storage, proper trash disposal, construction entrances, etc.); additional BMPs shall be implemented for any fuel storage or fuel handling that could occur onsite during construction.

The SWPPP must be prepared in accordance with the guidelines adopted by the SWRCB. The SWPPP shall be submitted to the City BOE along with grading/development plans for review and approval. The SWPPP and notices shall be submitted to the SWRCB under their Stormwater Multi-Application, Reporting, and Tracking System (SMARTS). The SWPPP shall be designed to address

erosion and sediment control during all phases of development of the site until all disturbed areas are permanently stabilized.

All development plans and permits shall reflect the approved erosion control plan and BMPs submitted to the SWRCB. The Zoo shall be responsible for ensuring all requirements are included in construction plans and implemented as part of construction. All construction activities shall be monitored by a City BOE staff to ensure compliance with the SWPPP.

All construction activities shall be monitored by City staff to ensure compliance with the SWPPP during grading and after conclusion of grading activities to monitor runoff. A Qualified SWPPP Practitioner shall be retained by the developer for overall management and reporting responsibility regarding the SWPPP and documentation under SMARTS in accordance with their permitting requirement. The City will keep a copy of the SWPPP on the Project site during grading and construction activities.

The City shall file a Notice of Completion once construction of each Project phase is complete, identifying that pollution sources were controlled during the construction of the Alternative 1.5 Project and implementing a closure SWPPP for the site.

MM HYD-3: **Avoidance of the Seasonal Storms.** Ground disturbing activities such as excavation, grading, earthwork, and installation of the stormwater collection system shall occur during the dry season (May through October), including installation of the storm drains, underground cisterns, hydrological connections, and water pumps for irrigation use. Stormwater management system features shall be fully installed and restored to ensure soil stabilization and adequate stormwater conveyance capacity prior to the storm season (October through April).

The Zoo shall be responsible for ensuring all requirements are included in construction plans and implemented as part of construction. The City shall review grading and construction plans for all phases to ensure compliance. All construction activities shall be monitored by a City BOE staff to ensure compliance with the grading and construction phasing plans.

MM HYD-4: **Operation and Maintenance Manual.** The City shall prepare and submit an Operation and Maintenance (O&M) Manual to ensure LID features and the underground stormwater capture are maintained following installation under the Alternative 1.5 Project. Regular maintenance is critical for the proper operation and longevity of the LID features and stormwater collection system. For example, the O&M Manual would provide maintenance schedules for type and frequency for items such as replacing mulch, trash removal, or sediment removal for bioretention, permeable pavement, and the stormwater collection system. The O&M Manual shall also include guidelines for each LID life-cycle and appropriate reconstruction at the end of the life-cycle.

The Zoo shall prepare and submit the O&M Manual to the City BOE and Zoo planning staff for review and approval prior to issuance of grading permits. The Zoo shall be responsible for ensuring all requirements are included in O&M Manual and implemented as part of Zoo operations.

MM HYD-5: **Mulch. I**mmediately following the completion of landscaping installation, gorilla-mulch (i.e., shredded redwood) or similar non-animal waste mulch should be applied to landscaped and bioretention areas to minimize the risk of erosion and sedimentation. The application of mulch would also retain irrigated water within the soil, thereby reducing evaporation and irrigation requirements. Sedimentation in the stormwater collection system would result in degraded water quality, requiring additional treatment prior to stormwater reuse. Bark mulch is not recommended (especially in bioretention) as it tends to float and does not include the beneficial soil building properties of a shredded redwood or similar mulch. The Zoo shall be responsible for ensuring all landscaped areas are mulched as part of construction.

MM HYD-6: **Underground Stormwater Capture Pre-Treatment and Filtering.** The Zoo shall develop a pre-treatment and filtering plan and design for the stormwater collection system to ensure that captured water reused for irrigation does not unnecessarily contribute pollutants back into the Zoo's drainage system. At a minimum, the stormwater collection system must comply with SWRCB safety regulations and County Guidelines for Alternate Water Sources. Additionally, sediment and TSS shall be filtered out to the level required for the Alternative 1.5 irrigation system.

The Zoo shall submit pre-treatment and filtering plans to the City BOE and Zoo planning staff for review and approval prior to issuance of grading permits for each Project phase. All development plans and permits shall reflect the approved pre-treatment and filtering features. The Zoo shall be responsible for ensuring all requirements are included in construction plans and implemented as part of construction. All construction activities shall be monitored by City BOE staff to ensure compliance with the pre-treatment and filtering plans.

MM HYD-7: **Smart Irrigation and Irrigation Retrofits.** Existing irrigated areas within the Zoo shall be retrofitted with efficient irrigation systems as part of an overall water conservation program and should be implemented during redevelopment of the Alternative 1.5 planning areas. Smart controllers and efficient irrigation systems should be installed to avoid excess irrigation runoff that may contribute unfiltered pollutants back into the drainage system.

The Zoo shall indicate efficient irrigation systems in all landscape plans submitted to the City BOE and Zoo planning staff for review and approval prior to issuance of grading permits. All development plans and permits shall reflect the approved efficient irrigation features. The Zoo shall be responsible for ensuring all requirements are included in construction plans and implemented as part of

construction. All construction activities shall be monitored by a City staff to ensure compliance with the irrigation plans.

MM GEO-1: **Site-Specific Geotechnical Evaluation.** Prior to the design and construction of Alternative 1.5 improvements at in each phase of the Project, a detailed geotechnical evaluation, including subsurface exploration and laboratory testing, shall be performed, consistent with LADBS standards and approvals. The geotechnical evaluation shall 1) further evaluate the specific subsurface conditions, including liquefaction and landslide potential, at each development site, 2) provide site-specific data regarding potential geologic and geotechnical constraints, and 3) provide information pertaining to the engineering characteristics of earth materials with regard to the Alternative 1.5 Project. Recommendations for earthwork, excavations, foundations, shoring, pavements, and other pertinent geotechnical design considerations shall be formulated from the detailed geotechnical evaluation. In the California planning area, the Alternative 1.5 hillside cut, excavation, and reinforcement required for Condor Canyon and its potential bridges shall be evaluated and designed with appropriate shoring mechanisms to avoid landslide and soil instability during construction and operation. The recommendations of the geotechnical report shall be incorporated into the final design and construction of the Project components. The geotechnical reports shall analyze for the following hazards:

- If the site-specific geotechnical evaluation finds that slope instability is an issue in certain phases of development such as California and Africa planning area improvements, engineering techniques and technologies as retaining walls or graded soil buttresses, shall be employed during construction and/or operation.
- If the site-specific geotechnical evaluation finds that liquefaction is an issue in certain phases of development such as development of Zoo Entry, Nature Play Park, or Asia planning area improvements or the Alternative 1.5 parking structure, engineering techniques and technologies such as removal and recompaction, densification of existing soils, or deepened foundations shall be employed during construction and operation.
- If the site-specific geotechnical evaluation finds that expansive soils are an issue in certain phases of development such as development of Zoo Entry, Nature Play Park, or Asia planning area improvements, engineering techniques and technologies such as removal and replacement with low expansive materials or special reinforced design of foundations and slabs shall be employed during construction and operation.
- If the site-specific geotechnical evaluation finds that dynamic compaction of dry soils is an issue in certain phases of development, engineering techniques and technologies such as removal and recompaction, densification of existing soils, or deepened foundations may be employed during construction and operation.

The Zoo shall prepare each geotechnical evaluation for each improvement in Phases 1 – 7 to inform final design and engineering of improvements. Each geotechnical investigation shall be reviewed and approved by LADBS and the City BOE prior to groundbreaking of each phase. LADBS and the City BOE shall review and approve all geotechnical investigations and review final Zoo development and engineering plans to ensure geotechnical recommendations are accurately incorporated prior to Project-related construction.

MM HAZ-1: **Phase II Environmental Site Assessment (ESA).** Prior to Project implementation, the City shall prepare a Phase II ESA to address the following:

- Potential soil contamination around known USTs on site. Prior to ground-disturbance, a qualified environmental specialist (e.g., a licensed Professional Geologist [PG], a licensed Professional Engineer [PE] or similarly qualified individual) shall perform soil sampling and analysis to determine whether contamination exists and, if so, the extent of contamination from the following UST locations within the Project site; if contaminants are detected in soil at or above regulatory levels, then the results of the soil sampling shall be reviewed and acted upon by the LAFD and other regional or state regulatory agencies as needed:
  - The fueling station in the Zoo Construction Shop and Support area
  - West of the South Parking Area
  - North of the Autry Museum.
- ACM, LBP, and Molds in Buildings. Prior to any building demolition, the City shall conduct a comprehensive survey of ACM, LBP, and molds. If such hazardous materials are found to be present, the Zoo shall follow all applicable local, state and federal codes and regulations, as well as applicable BMPs, related to the treatment, handling, and disposal of ACM, LBP, and molds to ensure public safety.

If the Phase II ESA identifies contamination at or above regulatory levels, prior to the issuance of grading permits for development, it shall be the responsibility of the Zoo to conduct and conclude all investigation and/or remediation activities under the oversight of the applicable regulatory agency (e.g., LAFD, DTSC, SWRCB). Remediation shall be accomplished in accordance with the requirements of the appropriate oversight agency. No Project construction shall occur in the affected area until case closure reports have been approved by the appropriate oversight agency.

MM HAZ-2: **Discovery of Contamination.** In the event that previously unknown or unidentified soil and/or groundwater contamination that could present a threat to human health or the environment is encountered during construction at a development site, construction activities in the immediate vicinity of the contamination shall cease immediately. At the start of construction, all construction contractors shall be instructed to immediately stop all subsurface activities in the event that potentially

hazardous materials are encountered, an odor is identified, or significantly stained soil is visible. Contractors shall be instructed to follow all applicable regulations regarding discovery and response for hazardous materials encountered during the construction process. A qualified environmental specialist (e.g., a licensed PG, a licensed PE or similarly qualified individual) shall investigate to identify and determine the level of soil and/or groundwater contamination.

If contamination is encountered, a Human Health Risk Management Plan shall be prepared and implemented that: (1) identifies the contaminants of concern and the potential risk each contaminant would pose to human health and the environment during construction and post-development, and (2) describes measures to be taken to protect workers, and the public from exposure to potential site hazards. Such measures could include a range of options, including, but not limited to, physical site controls during construction, remediation, long-term monitoring, post-development maintenance or access limitations, or some combination thereof. Depending on the nature of contamination, if any, appropriate agencies shall be notified (e.g., LAFD). If needed, a Site Health and Safety Plan that meets Occupational Safety and Health Administration requirements shall be prepared and in place prior to commencement of work in any contaminated area.

6.10 LAND USE AND PLANNING – CONFLICT WITH LAND USE PLAN, POLICY, OR REGULATION

The Alternative 1.5 Project would be consistent with the SCAG RTP/SCS, Los Angeles General Plan, Hollywood Community Plan, Griffith Park Wildlife Management Plan, and the Griffith Park Master Plan, with application of mitigation measures described in other resource sections.

The Alternative 1.5 Project would not conflict with the Griffith Park Wildlife Management Plan, given that construction of the Alternative 1.5 Project would occur in the boundaries of the Zoo and not near undeveloped portions of Griffith Park that are more likely to serve as high value wildlife habitat or support wildlife corridors.

The Griffith Park Vision Plan does not apply to Zoo property, therefore, the Alternative 1.5 improvements within the Zoo would not conflict with this aspect from the Griffith Park Vision Plan. However, the Alternative 1.5 Project would potentially conflict with the Vision Plan for Griffith Park related to pedestrian accessibility and safety following improvements to the Zoo Drive/Western Heritage Way intersection due to potential increases in vehicular speeds, and over the long-term, possible impacts to the Main Trail. MM REC-1 would require the long-term Zoo Drive/Western Heritage Way intersection improvements be considerate of pedestrian, bicyclist, and equestrian safety with regard to the Main Trail and that use of this important trail is not hindered by implementation of the improvement. With implementation of MM REC-1, the Project would be consistent with this local policy.

Implementation of MM BIO-1 through MM BIO-6 and MM UF-1 and MM UF-2 would ensure that the Alternative 1.5 Project would be consistent with the Conservation Element of the City of Los

Angeles General Plan. Implementation of MM BIO-1 through MM BIO-6 would also ensure the Alternative 1.5 Project would be consistent with the Open Space Element of the General Plan.

MM T-2-Alternative 1.5 would be required to reduce transportation impacts and to ensure consistency with the SCAG RTP/SCS, the Griffith Park Vision Plan, and the General Plan's Mobility Element, Open Space Element, and Air Quality Element.

The Alternative 1.5 Project, with implementation of required mitigation measures identified in this EIR and required consistency with existing regulations, would be consistent with all applicable land use plans, policies, and regulations. The Alternative 1.5 Project would not cause significant environmental impacts due to conflicts and impacts would be less than significant with mitigation.

See discussion of *Land Use and Planning* in Section 4.5.3 of the Revised Final EIR.

6.10.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, all reference documents, and the whole of the record, the City finds that the following mitigation measures shall be implemented to reduce potentially significant direct and cumulative land use impacts to a less than significant level.

MM BIO-1: **Biological Resources Mitigation and Monitoring Program.** The Zoo shall prepare and implement a BRMMP to mitigate loss of native vegetation communities, habitat, and special-status species from each Project phase. The BRMMP shall be prepared after completion of 30 percent design plans for each phase and shall specify timing and implementation of required biological resource restoration, enhancement, or creation measures. The BRMMP shall be prepared by a City-approved biologist as part of planning, engineering, and site design for each Project phase under the direction of and approval by BOE and Zoo planning staff. The BRMMP shall be prepared in consultation with appropriate City departments and resource agencies such as the LAFD, RAP, and the CDFW. The BRMMP shall be updated prior to final designs and development plans for each phase. The Zoo shall be responsible for ensuring all BRMMP requirements are reflected in Project design/architectural, engineering, and grading plans. All plans for each Project phase shall be reviewed by the City to ensure compliance with the BRMMP.

The BRMMP shall require measures to avoid and mitigate impacts to biological resources onsite, including, but not limited to, the following:

1. At the 30 percent design plan stage for each Project phase, biological resource surveys shall be completed for areas of potential effect in that phase by a City-approved biologist, subject to the following requirements:
   a. The surveys shall refine the disturbance footprint of impacted habitats plus a buffer if recommended by the City-approved biologist.

b. The survey shall delineate native vegetation communities such as coast live oak woodland, laurel sumac shrubland, and coastal sage scrub, including maps of the extent and type.
c. The survey shall identify all special-status plant and animal species present or potentially present within the subject phase of Project development.
d. A summary of the results of the pre-construction survey shall be submitted to the City immediately upon completion of the survey. A survey report describing and delineating the extent and quality of native vegetation communities and the presence or potential presence of special-status plant or animal species shall be submitted to the City for review and approval prior to completion of 60 percent design plans for the subject Project phase; if no native vegetation communities or special-status species are present or potentially present, the survey report shall describe such findings based on evidence from the surveys.
e. The survey report shall map and describe the location and extent of native vegetation communities and observed special-status plant or animal species that would be impacted within the areas of potential effect for each Project phase, and require the following avoidance, minimization, and mitigation measures:
    i. To the maximum extent feasible, onsite native vegetation communities and special-status plant species shall be protected and preserved in place, and design plans shall be amended to avoid disturbance or loss of these biological resources. The City-approved biologist shall work with Project designers during design for each phase, as required, to incorporate existing native vegetation and special-status plant species, such as Nevin's barberry, and mature native trees, such as coast live oaks, into the Zoo landscaping and facilities (e.g., exhibits, visitor-serving spaces, service areas) in a manner that would ensure the livelihood and biological value of the natural community and/or individual plant. Construction techniques for Project development to avoid and protect special-status species shall be identified as part of a required construction mitigation plan (see MM BIO-2).
    ii. If avoidance or preservation in place cannot be achieved while meeting Project Objectives, the area of disturbed native vegetation communities and the total lost special-status plant species shall be mitigated onsite at a ratio of 2:1, as feasible given space limitation within the Zoo. To the extent feasible, native vegetation communities and special-status plant species shall be relocated or reestablished within disturbed, altered, and/or lost areas of coast live oak woodland, laurel sumac shrubland, and coastal sage scrub within the Project site. The BRMMP shall provide a description of the location and boundaries of the mitigation site and description of existing site conditions. The mitigation

area shall be incorporated into the final development plans for each phase of Project development.

iii. If native vegetation communities and/or special-status plant species cannot be protected and/or restored onsite, the Zoo and City shall work with RAP to identify an appropriate site(s) for restoration within Griffith Park to serve as a mitigation site. Offsite restoration of affected native vegetation communities and special-status plant species shall occur at a minimum ratio of 3:1. Ratios for the restoration of native vegetation communities and/or special-status species shall be based upon the vegetation composition, plant rarity, local demographics, and location of the mitigation site. The BRMMP shall provide a description of the location and boundaries of the offsite mitigation site. The City and City-approved biologist shall consult with CDFW to determine City-approved biologist shall consult with CDFW to determine additional measures for protection and restoration of habitats occupied by special-status species, including nesting birds.

iv. If onsite or offsite restoration is required, the BRMMP shall specify restoration plans and techniques, as recommended by a City-approved biologist, including, but not limited to:
    1. Identification of a suitable habitat compensation area of comparable size to be preserved and managed for lost habitat or species
    2. Site preparation
    3. Seed collection and/or plant salvage, designation, or establishment of offsite plant nursery facilities.
    4. Planting, hydroseeding, replanting or seeding activities.
    5. Success criteria
    6. Maintenance and monitoring program, for the short-term plant establishment period (i.e., 1-3 years), and over the long term (i.e., 5 years)
    7. Reporting Requirements

v. If onsite or offsite restoration is required, a binding long-term agreement with the Zoo to implement and maintain protected and restored habitats/communities shall be implemented with the City. The BRMMP shall identify typical performance and success criteria deemed acceptable by the City based on measurable goals and objectives. Minimum criteria for restored habitats shall be at least 70 percent survival of container plants and 70 percent relative vegetative cover by vegetation type. BRMMP mitigation elements that do not meet performance or final success criteria within 5 years shall be completed through an extension of the BRMMP for an additional 2 years or at the discretion of the City with the goal of completing all mitigation requirements. Monitoring of the mitigation and maintenance areas shall

occur for the period established in the BRMMP, or until success criteria are met. If success criteria cannot be met through the BRMMP, the City shall specify appropriate commensurate measures (e.g., additional onsite or offsite restoration).

vi. If special-status animal species are present or potentially present based on the survey, including bat, woodrats, Crotch's bumble bee, or legless lizard species, and migratory or nesting birds, the BRMMP shall include avoidance and minimization measures to avoid or relocate as part of a construction mitigation plan (see MM BIO-2) and management plans for migratory and nesting birds (see MM BIO-4) and bat colonies (MM BIO-5).

MM BIO-2: Construction Mitigation Plan for Biological Resources. The Zoo shall prepare and implement a Construction Mitigation Plan (CMP) that identifies avoidance, reduction, and mitigation measures for construction-related impacts to biological resources, including special-status species. The CMP shall be prepared by a City-approved and qualified biologist prior to initiation of construction activities for Phase 1 of the Project and updated prior to construction activities for each subsequent phase. The CMP shall be approved by BOE and Zoo planning staff. The Zoo shall be responsible for ensuring all CMP requirements are included in construction plans and implemented as part of construction. All construction activities shall be monitored by a City-approved biologist to ensure compliance with the CMP. The Zoo would coordinate with CDFW Region 5 prior to the start of any construction activities.

The CMP shall require:

1. Per MM BIO-1, the CMP shall incorporate and address data from biological resource surveys for each Project phase to avoid and protect special-status plant and animal species to the maximum extent feasible, as follows:
   a. Within six months prior to the start of construction of each Project phase, biological resource surveys shall be completed for areas affected in that phase by City-approved biologist, consistent with MM BIO-1.
   b. If the phase-specific survey identifies presence or potential presence of special-status species, within 14 days of the start of construction (including mobilization and staging), pre-construction clearance surveys shall be completed by a City-approved biologist to either confirm or update the BRMMP related to the location and extent of special-status species. A report of the pre-construction survey shall be submitted to BOE for review and approval prior to the start of construction.
2. Based on the BRMMP and the results of the pre-construction surveys, the CMP shall require measures to avoid or mitigate impacts to special-status species present or potentially present within the Project phase; if no sensitive species are present or potentially present, the CMP shall identify findings from the

surveys. If required based on the BRMMP's determination of biological resource sensitivity within each phase, the CMP shall include avoidance and minimization measures, including biological monitoring during construction, if needed. If determined appropriate based on the results of the BRMMP, a species-specific list (or plan) of proper handling and relocation protocols and a map of suitable and safe relocation areas shall be prepared by the City-approved biologist. The list or plan shall be submitted to the City for review and approval prior to implementing any Project-related ground-disturbing activities and vegetation removal. CMP avoidance and minimization measures shall be subject to review and approval by a City-approved biologist, including, but not limited to, the following:

a. If present, special-status animal species, such as woodrat, legless lizard, and bat species (see also MM BIO-5), shall be relocated from the Project site either through direct capture or through passive exclusion prior to construction activities. Pursuant to the CCR, Title 14, Section 650, the City-approved biologist must obtain appropriate handling permits to capture, temporarily process, and relocate wildlife to avoid harm or mortality in connection with Project construction and activities. With cooperation and authorization from CDFW, trapping may be employed to identify woodrat species that are inhabiting the site. If determined appropriate, woodrat middens should also be relocated by qualified biologists outside of construction areas.
b. If present, special-status plant species, such as Nevin's barberry, shall be avoided to the extent feasible through use of high visibility exclusion fencing and signage to protect vegetation and root systems from disturbance or compaction, consistent with the BRMMP. Lost special-status plant species shall be replaced consistent with the BRMMP.
c. If any SSC are harmed during relocation or a dead or injured animal is found, work in the immediate area shall stop immediately. The City-approved biologist shall be notified, and dead or injured wildlife documented. A formal report shall be sent to the City and CDFW within three (3) calendar days of the incident or finding. Work in the immediate area may only resume once the proper notifications have been made and additional mitigation measures have been identified to prevent injury or death.

3. The CMP shall include BMPs to avoid or minimize impacts to biological resources during construction, including, but not limited to, the following:
   a. Construction equipment and vehicles shall be stored within existing disturbed or developed areas within the Zoo to the maximum extent feasible to avoid impacts to natural areas. All construction vehicle maintenance shall be performed in a designated offsite vehicle storage and maintenance area approved by the City. All construction access roads and

staging areas shall be located to avoid known/mapped native vegetation and special-status species.

b. All construction materials (e.g., fuels, chemicals, building materials) shall be stored at designated construction staging areas, which shall be located outside of designated sensitive areas in the BRMMP and CMP. Should spills occur, materials and/or contaminants shall be cleaned immediately and recycled or disposed of to the satisfaction of the RWQCB.
c. All trash and construction debris shall be properly disposed at the end of each day. Dumpsters shall be covered either with locking lids or with plastic sheeting at the end of each workday and during storm events. All sheeting shall be carefully secured to withstand weather conditions.
d. Construction-related erosion shall be minimized to retain sediment within the area of potential effect, including installation of silt fencing, straw waddles, or other acceptable construction erosion control devices. Such measures shall be installed along the perimeter of disturbed areas.
e. Concrete truck and tool washout shall occur in a designated construction staging areas or other offsite location such that no runoff would flow to natural areas within the Zoo or to the Zoo's stormwater collection system.
f. All open trenches shall be constructed with appropriate exit ramps to allow species that incidentally fall into a trench to escape. All open trenches shall be inspected at the beginning of each workday to ensure that no wildlife species are present. Any wildlife species found during inspections shall be gently encouraged to leave the Project site by a qualified biologist or otherwise trained and City-approved personnel. Trenches shall remain open for the shortest period necessary to complete required work.
g. Construction shall be limited to daylight hours (7:00 AM to 7:00 PM or sunset, whichever is sooner).

MM BIO-3: **Worker Environmental Awareness Program.** The Zoo shall retain a qualified, City-approved biologist to prepare a WEAP that shall be implemented during all phases of construction. WEAP training shall be provided to all personnel working on the site by a qualified, City-approved biologist. The training should review the construction-related requirements of the BRMMP and the CMP, including all special-status species that occur or have potential to occur. Training should explain all mitigation and protection measures, responsibilities of each worker, and a reporting framework. The City-approved biologist shall communicate to all workers that upon encounter with an SSC (e.g., during construction or equipment inspections), work must stop, a qualified biologist much be notified, and work may only resume once a qualified biologist has determined that it is safe to do so. The WEAP shall be prepared and approved by BOE and Zoo planning staff prior to construction activities of Phase 1.

MM BIO-4: **Migratory and Nesting Bird Management.** Removal of trees and other vegetation shall be conducted outside of the breeding season (generally January

15 to August 31 for raptors, March 1 to August 31 for other bird species) to the extent feasible. If Project construction activities must be conducted during these period, pre-construction nesting bird surveys by a City-approved biologist shall take place within one week prior to ground disturbance and tree removal or trimming associated with each Project phase. If no active nests or nesting activity is found within or immediately adjacent to the phase work area, construction activities may proceed. If active nests are located during these surveys, the following measures shall be implemented:

1. A summary of the results of the pre-construction survey shall be submitted to the City immediately upon completion of the survey. Consistent with MM BIO-1 and MM BIO-2, the qualified biologist shall prepare a final report of the pre-construction survey to be submitted to BOE for review and approval prior to the start of construction. The report shall detail appropriate fencing or flagging of the buffer zone and make recommendations on additional monitoring requirements. A map of the area of potential effect and nest and roost locations shall be included with the report. If any special-status species are observed during pre-construction surveys, the Project biologist shall report the findings and coordinate with appropriate regulatory agencies to determine appropriate procedures for handling or avoidance of the specimen.
2. If the pre-construction surveys indicate presence of nesting or roosting birds, the construction activity shall be evaluated, and avoidance methods implemented as necessary at the discretion of the qualified biologist. Methods would vary based on bird species, site conditions, and type of work to be conducted, but could consist of limited or reduced construction access; reduced vehicle speeds; and/or noise attenuation.
3. At the discretion of the qualified biologist, construction activities within 300 feet of an active nest of passerine birds shall be restricted until chicks have fledged, unless the nest belongs to a raptor, in which case a 500-foot activity restriction buffer shall be observed to avoid noise, light, and direct disturbance. The Project biologist conducting the survey shall have the authority to reduce or increase the recommended buffer depending upon site conditions and the species involved. If during Project construction and ground disturbance activities an active nest is discovered, the City-approved biologist shall halt work immediately within the work area, activity restriction buffers shall be established, and avoidance methods shall be employed as necessary.
4. A report of findings and recommendations for bird protection shall be submitted to the City prior to vegetation removal.

MM BIO-5: **Bat Colony Management.** Removal of trees and older structures should be conducted outside of the maternity roost season (typically March 1 to August 31). Prior to removal of any trees over 20 inches DBH or demolition/relocation of existing onsite structures, a pre-construction acoustic and day/night roost survey shall be conducted by a qualified biologist to determine if any tree or structure

Alternative 1.5 for removal, trimming, demolition, or relocation harbors sensitive bat species or maternal bat colonies. If present, maternal bat colonies shall not be disturbed and grading and construction activities shall avoid the bat breeding season to the extent feasible. If disturbance of structures must occur during the bat breeding season, buildings and trees must be inspected and deemed clear of bat colonies/roosts within 7 days of demolition and an appropriately trained and approved biologist must conduct a daily site-clearance during demolition. If bats are roosting in a structure or tree in the Project site during the daytime but are not part of an active maternity colony, then exclusion measures shall be utilized and must include one-way valves that allow bats to leave but are designed so that the bats may not re-enter the structure. For each occupied roost removed, one bat box shall be installed in similar habitat as determined by the Project biologist and shall have similar cavities or crevices to those which are removed, including access, ventilation, dimensions, height above ground, and thermal conditions. If a bat colony would be eliminated from the Project site, appropriate alternate bat habitat shall be installed within the Project site. To the extent practicable, alternate bat house installation shall occur near onsite drainages.

MM CUL 1: **Pre-Construction Workshop.** Prior to any ground disturbance activities during construction of each Project phase, a City-qualified archaeologist and shall conduct a cultural resources workshop for all construction personnel. The City-qualified archaeologist must meet the Secretary of Interior standards for archaeology and have a minimum of 10 years of experience as a Principal Investigator working with Native American archaeological sites in southern California. The qualified archaeologist will ensure that all other personnel are appropriately trained and qualified. The workshop will inform all construction personnel of the types of cultural material that may be encountered, and of the proper procedures to be followed in the event of an unexpected discovery of cultural material or human remains. Appropriate documentation will be completed to demonstrate attendance.

MM CUL 2: **Unexpected Discovery of Cultural Material.** In the event unexpected cultural resource material - such as flaked or ground stone, historic debris, building foundations, or non-human bone - is discovered during Project-related ground disturbances, construction personnel will stop all work within 50 feet of the discovery until a City-qualified archaeologist can evaluate the discovery for significance. Construction personnel will contact the City and Zoo staff immediately. Activities that may adversely impact the discovery will not resume without written authorization from the City that construction may proceed. The nature, extent, and significance of the discovery will be evaluated by a City-qualified archaeologist, and a Native American representative if the discovered resource is prehistoric. If the discovery is determined to be a significant cultural resource under CEQA, avoidance is the primary method of mitigation. If avoidance is not feasible, the City-qualified archaeologist will prepare a treatment plan

consistent with CEQA Guidelines Section 15064.5(f) that addresses implementation of data recovery mitigation excavations. Treatment measures typically include development of avoidance strategies, capping with fill material, or mitigation of impacts through data recovery programs such as excavation or detailed documentation and public interpretation. A report of findings shall be prepared, and recovered materials curated, if needed, in an approved facility.

MM CUL-3: **Unexpected Discovery of Human Remains.** In the event human remains are encountered during Project-related ground disturbances, construction personnel will stop all work in the vicinity of the discovery and immediately contact the Los Angeles County Coroner in accordance with Public Resources Code Section 5097.98 and Health and Safety Code Section 7050.5. The City and Zoo staff will also be contacted. If the County Coroner determines the remains are prehistoric, the Coroner will contact the Native American Heritage Commission and the Native American Heritage Commission shall designate a Most Likely Descendant.

MM CUL-4: **Native American Monitoring.** A Native American representative approved by the Gabrieleño Band of Mission Indians-Kizh Nation Tribal Government and the NAHC will monitor ground disturbing construction activities. Ground disturbing construction activities are defined by the Gabrieleño Band of Mission Indians-Kizh Nation as activities that include, but are not limited to, pavement removal, pot-holing or augering, grubbing, tree removal, boring, grading, excavation, drilling, and trenching. The Native American representative will complete daily monitoring logs that will provide the location of construction activities, and a description of the soil and any cultural materials identified. Native American monitoring will be terminated when all ground disturbing construction activities are complete or when the Native American representative determines that the Alternative 1.5 Project site has a low potential for impacting Tribal Cultural Resources during each phase of Project implementation. Native American monitoring during ground disturbing construction activities will be conducted consistent with current professional standards.

MM CUL-5: **Unanticipated Discovery of Tribal Cultural and Archaeological Resources.** Pursuant to MM CUL-2, upon discovery of any archaeological resources, construction activities will cease in the immediate vicinity of the discovery until the discovery can be assessed. All archaeological resources identified during Alternative 1.5 Project construction activities will be evaluated by the Native American representative approved by the Gabrieleño Band of Mission Indians-Kizh Nation. If the resources are Native American in origin, the Gabrieleño Band of Mission Indians-Kizh Nation will coordinate with the City and the Zoo regarding treatment and curation of the resources including reburial or preservation for educational purposes. Per AR-2, if the discovery is a significant resource, avoidance measures or appropriate mitigation will be implemented.

MM CUL-6: **Preservation of Unique Archeological Resources.** If unique archaeological resources are discovered, preservation in place (i.e., avoidance) will be the preferred manner of treatment consistent with Public Resources Code Section 21083.2(b). If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resources and subsequent laboratory processing and analysis. Historic archaeological material that is not Native American in origin will be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, it will be offered to a local school or historical society for educational purposes.

MM CUL-7: **Unanticipated Discovery of Human Remains and Associated Funerary Objects.** Public Resources Code Section 5097.98(d)(1) defines Native American human remains as an inhumation or cremation in any state of decomposition or skeletal completeness. Consistent with MM CUL-3, in the event human skeletal material is discovered, excavation will be stopped, and the discovery will be immediately reported to the Los Angeles County Coroner consistent with Health and Safety Code 7050.5. If the County Coroner recognizes the human remains to be Native American or has reason to believe the remains are Native American, the County Coroner will contact the NAHC within 24 hours. Public Resources Code 5097.98 will be followed.

In the event human skeletal material is discovered, the following will occur:

- The Native American representative monitor will immediately redirect construction activity a minimum of 150 feet from the discovery and place an exclusion zone around the discovery. The Native American representative will contact the construction manager who will then contact the Los Angeles County Coroner. The Native American representative will also contact the Gabrieleño Band of Mission Indians-Kizh Nation, a City-qualified archaeologist, the City, and the Zoo. Construction activity will continue to be redirected while the County Coroner determines whether the human skeletal material is Native American. The discovery will be kept confidential and secure to prevent further disturbance. If the human skeletal material is determined to be Native American, the County Coroner will notify the NAHC. The NAHC will then appoint a Most Likely Descendant.
- Funerary objects/associated grave goods will be treated in the same manner as bone fragments.
- If discovered human remains cannot be fully documented and recorded on the same day, the remains will be covered with muslin cloth. A steel plate will be placed over the discovery to protect the remains. If a steel plate is not available, a 24-hour guard will be present onsite outside of regular construction hours.

- Redirecting construction activities to protect the human remains in place will be recommended if feasible. If construction activities cannot be redirected, the burials may be removed. Cremations will be removed in bulk or by any means necessary to ensure complete recovery of all material. The Gabrieleño Band of Mission Indians-Kizh Nation will work closely with the City-qualified archaeologist to ensure that any excavation to remove human remains is conducted carefully, ethically, and respectfully.
- If the discovery of human remains includes four or more burials, the location will be considered a cemetery and a separate treatment plan will be prepared.
- If data recovery excavations are approved by the Gabrieleño Band of Mission Indians-Kizh Nation, documentation will include detailed descriptive notes and sketches at a minimum. Additional documentation will be approved by the Gabrieleño Band of Mission Indians-Kizh Nation
- All feasible care will be taken to avoid any unnecessary disturbance, physical modification, or separation of human remains and associated funerary objects.
- Scientific study of the human remains, including the use of invasive diagnostic procedures/techniques, will not be conducted.
- Each discovery of human remains or associated funerary objects will be stored in opaque cloth bags. All human remains, funerary objects, sacred objects, and objects of cultural patrimony will be removed to a secure container on-site if possible. These items will be retained and reburied within six months of discovery.
- Prior to the resumption of ground disturbing construction activities, the Zoo will designate a location within the Alternative 1.5 Project site for the respectful reburial of the human remains and/or funerary objects. The reburial/repatriation site will be a location agreed upon between the Gabrieleño Band of Mission Indians-Kizh Nation and the Zoo to be protected in perpetuity.
- There will be no publicity regarding a discovery of human remains.
- A final report will be submitted to the Gabrieleño Band of Mission Indians-Kizh Nation and the NAHC.

MM UF-1: **Protected Tree Plan.** To offset impacts to protected and important trees and shrubs resulting from Vision Plan implementation, the Zoo shall prepare and implement a Protected Tree Plan. The Protected Tree Plan shall identify measures for the protection, relocation, and/or replacement of protected and important significant trees and shrubs. The Protected Tree Plan shall outline and require that Project activities affecting protected trees and shrubs proceed as follows:

1. Preservation of Trees and Shrubs: Protected and important trees and shrubs shall be preserved in place to the maximum extent feasible. To ensure protection of native protected trees and shrubs, as part of final design of the California and Africa area exhibits, all protected trees and shrubs shall be mapped and incorporated into the exhibit to the maximum extent feasible. The

Zoo shall hire a City-approved Tree Expert meeting the requirements of the City's Protected Tree Ordinance to evaluate the health and structure of protected and important trees and shrubs and make recommendations for avoidance of healthy specimens to the maximum extent feasible. The tree expert shall work with project designers during the final design of each phase to incorporate such trees into the exhibits in a manner that would ensure protection of the tree or shrub from damage by exhibit animals or exhibit maintenance activities. Each protected or important tree and shrub to be retained shall have a designated Protection Zone identifying the area sufficiently large enough to protect it and its roots from significant damage during construction. The designated Protection Zone of each specimen shall be protected with 5- to 6-foot-high chain link fences. Fences shall be mounted on 2-inch galvanized iron posts, driven into the ground to a depth of at least two feet and at no more than 10-foot centers, or similarly durable material. Tree and shrub fences shall be erected before demolition, grading, or construction begins and remain until final inspection of the project. Construction and demolition activities around protected trees shall follow all industry standards. Erosion control measures, tree pruning, soil compaction preventive measures, and a tree maintenance schedule shall be implemented and verified by the BOE and a City-authorized tree expert. Following construction, each tree or shrub preserved shall be monitored for a minimum of 5 years to ensure their long-term survivability.

2. Relocation of Trees and Shrubs: Where protected and important trees cannot be avoided and preserved in place, individuals shall be transplanted elsewhere onsite to the extent feasible. If relocation onsite is not feasible, individuals shall be transplanted to an appropriate offsite location elsewhere within Griffith Park, pursuant to the approval of the City BOE and RAP. The City-approved Tree Expert shall identify the necessary measure to be taken to ensure the maximum survivability of the relocated specimens, including relocation method, placement, irrigation method, and maintenance. Relocated individuals shall be monitored for their success for a period of 5 years. The Tree Protection Plan shall identify performance standards for determining whether relocated specimens are healthy and growing normally and shall outline procedures for periodic monitoring and implementation of corrective measures in the event the health of relocated trees declines.
3. Replacement of Trees and Shrubs: Where the preservation or relocation of protected and important trees and shrubs is not feasible, or where the health of preserved or relocated specimens becomes compromised, as part of the final design of each exhibit or feature, the Zoo shall prepare and implement a replacement planting program. Replacement of protected and important trees and shrubs should follow guidelines described in the City's Protected Tree Ordinance adopted at the time, including requirements for relocated or

removed trees or shrubs to be replaced by other species protected by the ordinance at a 4:1 ratio (number of individuals restored to number of individuals impacted). Replacement of oak trees shall be subject to replacement as follows: oak trees less than 12 inches DBH be replaced at 4:1; oak trees between 12 and 24 inches DBH be replaced at 5:1; and oak trees greater than 24 inches BDH be replaced at 10:1. The replacement planting program shall be prepared by a City-approved Tree Expert meeting the requirements of the City's Protected Tree Ordinance. The replacement planting program shall specify the location for replacement, tree or shrub size, planting specifications, and shall include a monitoring program to ensure that the replacement planting program is successful. To the extent feasible, protected, and important trees or shrubs removed within the California or Africa exhibits shall be replaced within each exhibit. Where this is not feasible, the Tree Protection Plan shall outline provisions and standards for replacement in areas outside of each exhibit. At a minimum, the monitoring program shall require monitoring of replacement individuals for a period of 5 years and shall include performance standards for determining whether replacement specimens are healthy and growing normally and procedures for periodic monitoring and implementation of corrective measures in the event that the health of replacement trees declines.

Replacement of removed trees and shrubs should occur within the Zoo to the extent feasible. If replacement within the Zoo is not feasible, the Zoo should coordinate with RAP and the City Forester for replacement trees and shrubs to be planted on adjacent areas of Griffith Park, provided such locations can support the tree's or shrub's survival. Each replacement tree shall be at least 15-gallon, or larger, measuring one inch or more in diameter one foot above the base, and be not less than seven feet in height measured from the base. If use of similar sized replacement trees and shrubs is not possible, smaller sized replacements may be planted. In that event, a greater number of replacement trees or shrubs may be required.

MM UF-2: **Restoration Plan.** To offset impacts to urban forestry resources and ensure landscaping under the Vision Plan is planned to provide urban forest value, the Zoo shall retain a qualified landscape architect to prepare a landscaping plan. The Zoo landscape plan shall be subject to review and approval by City Bureau of Engineering and shall include the following:

1. Maximize protection of existing protected and important trees and shrubs consistent with the Zoo's Tree Protection Plan identified in MM UF-1.
2. Specify a plant palette and landscape plan that ensures establishment of tree canopy that is cohesive with and supports continuity with the surrounding canopy. The plant palette shall emphasize tree species which are considered

to provide a healthy mix of visual and biological value and which offer greater shade cover and carbon sequestration.

3. Plantings shall include tree specimens and shrubs capable of reaching or exceeding the heights of the adjacent Alternative 1.5 structures and plantings.
4. Landscaping shall occur immediately following completion of construction of a Alternative 1.5 area of improvement. Planting would use a combination of small containers and larger containers with more mature specimens to ensure plant health while also expediting recovery of the urban forest and minimizing duration of heat island effects following construction.

MM REC-1: Consideration of the Main Trail in Intersection Designs. Should the Zoo pursue improvements to the intersection of Zoo Drive/Western Heritage Way to include a roundabout or grade-separated intersection, the design of the Alternative 1.5 improvements shall be considerate of pedestrian, bicyclist, and equestrian mobility and safety along the Main Trail and ensure that the use of this trail is not hindered. All Alternative 1.5 intersection improvements, including those for design for the mobility and safety of pedestrians, bicyclists, and equestrians shall be incorporated into final plans and reviewed and approved by the City of Los Angeles BOE and the City of Los Angeles Department of Transportation prior to the issuance of permits for these improvements.

MM T-2-Alternative 1.5

The Zoo shall prepare and implement a comprehensive TDM program to provide trip reduction strategies for Zoo visitors and employees. The TDM Program shall be prepared by a qualified transportation planner and submitted by the Zoo to LADOT for review and approval prior to construction activity. The TDM Program shall be developed and approved prior to initiation of construction of Phase 1 of the Project and shall be maintained and adjusted as needed.

The TDM Program shall:

- Establish a baseline for Zoo VMT at Project initiation.
- Monitor and track VMT for Zoo visitors and employees with specific reduction goals to reduce overall VMT to a target ideally 15 percent below the TDM baseline conditions by 2040 or to achieve other specific reduction goals justified by the TDM Program.
- Include events held outside of normal business hours.
- Define and track peak hours and days of the week to inform the Peak Visitation Management Program.
- Annually report the number of private vehicles, ride-share (TNCs) vehicles, and chartered buses parking and picking up/dropping off at the Zoo facilities in collaboration with the LADOT.

The TDM Program shall be overseen by a Zoo TDM Coordinator and conducted in collaboration with LADOT. The Zoo TDM Coordinator shall be a qualified transportation planner and may be a City/Zoo employee or contractor. The Zoo TDM Coordinator shall monitor visitor and employee mode share with annual surveys, collect and analyze parking and transit use data, and develop

annual reports for submittal to BOE and LADOT. The surveys shall capture trip origin data, travel mode, number of people in the party, and other key data and indicators for TDM program performance relative to VMT. The Zoo TDM Coordinator shall ensure that monitoring efforts capture all Zoo-related travel behavior. Annual monitoring reports shall include trip length surveys completed at least biannually by a sample of Zoo patrons and annually by Zoo employees (e.g., trip origin data collection). Monitoring results shall be used to determine the appropriate TDM measures to employ in the coming year to maximize reductions in VMT per capita, champion transit and active modes of transportation to the Zoo for visitors and employees, develop appropriate incentives to increase the Zoo's transit mode share incrementally over time, and develop effective marketing tools to advertise transit and non-vehicular travel mode availability and incentives.

Each annual TDM Program monitoring report shall:

- Describe the TDM efforts in place at the time to reduce vehicular trips;
- Summarize collected survey data and results;
- Evaluate parking utilization and transit use, comparing trends and annual changes;
- Report the peak hours and days of the week for each survey period based on visitation and travel patterns;
- Analyze the results of trip reduction measures in reducing VMT relative to projected VMT increases;
- Evaluate change in available transportation infrastructure and programs serving the Zoo,
- Report the effect on Zoo employee and visitor VMT per capita and compare to current Citywide VMT per capita; and
- Provide recommendations for adjustments to the TDM Program to adaptively manage VMT reductions for visitors and employees, such as increase the charges of paid parking or expand incentives associated with proposed programs, particularly on peak days.

The TDM Coordinator shall oversee annual monitoring and reporting to evaluate the effectiveness of the TDM measures being implemented at the Zoo and recommend adjustments as needed to the TDM Program on an annual basis. The annual report shall be submitted to LADOT for review. The TDM measures shall be assessed and adapted as necessary based on the results of this review. Final annual reports and data (e.g., survey data) shall be shared with the City and made readily available for public review and use. The TDM Coordinator may reference the California Air Pollution Control Officers Association (CAPCOA) Quantifying Greenhouse Gas Mitigation Measures (2010) report and the Federal Highway Administration's (FHWA's) Integrating Demand Management into the Transportation planning Process: A Deck Reference (2012), among others, for potential additional measures or adjustments that are determined to be feasible based on the effectiveness of the TDM Program and future conditions.

The TDM Program shall be prepared consistent with the Mobility Element and in consultation with LADOT, as well as RAP, if required for measures affecting Griffith Park. Information regarding the TDM Program shall be distributed to all Zoo employees and shall be posted on the Zoo's website and other marketing materials for Zoo visitors and updated annually as needed based on the annual reports.

The TDM Coordinator shall consider a range of measures for the TDM Program to reduce employee and visitor VMT per capita, including, but not limited to, the following:

1. Measures to Reduce Zoo Employee VMT Per Capita

- Encourage employee participation in existing vanpool and car-sharing programs, including City employee and Metro vanpool programs, BlueLA, or develop/expand the Zoo vanpool program.
- Provide employee incentives to participate in a vanpool or car-sharing program, such as subsidized participant fees, offer in-kind services such as oil change discounts, and provide preferential parking for program participants, and regularly advertise the opportunities to vanpool or car-pool through a variety of employee communication formats.
- Implement a paid parking program to discourage employee vehicle trips to the Zoo and generate revenue that the Zoo may use to expand transit ridership for employee trips. Pricing options of onsite employee parking spaces include pay-per-use or weekly/monthly parking passes.
- Partner with rideshare companies to guarantee availability of an emergency ride home or provide access to City vehicles for this purpose.
- Offer employee TDM benefits for use of active transportation commuter modes, including transit, bicycling walking, carpool/vanpool, etc. Incentives for Zoo employees could include:
- Flexible scheduling or options for telecommuting,
- Discount transit passes such as Metro E-Pass Program transit passes
- Discounted equipment to employees who bike to work, or discounted equipment (e.g., walking shoes) to employees to walk to work.
- Maximize opportunities for Zoo employees to telecommute as part of regular scheduling.
- Provide a transportation information center and a commuter club to support a collaborative approach among employees to TDM.
- Provide onsite bicycle facilities (i.e., shower, racks, and lockers) for Zoo employees in an amount and location informed by annual employee surveys and monitoring reports.
- Encourage bicycles as a primary commute mode for employees and provide incentives for biking to work, including providing free or discounted equipment to employees such as helmets, locks, bicycle commuter gear, and bicycles (electric or non-electric).
- Coordinate with LARiverworks, RAP, LADOT, the City of Burbank, and the City of Glendale to identify and facilitate new bicycle and pedestrian linkages and bridges between the Zoo and neighboring communities, particularly linkages to the Los Angeles River Bike Path. The Zoo, RAP, and LADOT in consultation with the City of Glendale shall consider development of a new bicycle and pedestrian bridge across Colorado Boulevard, linking neighborhoods within the City of Glendale to Griffith Park, south of the Project site. The Zoo, RAP, and LADOT shall ensure that all bicycle and pedestrian linkages and bridges to Griffith Park are well-signed and provide lighting, and are regularly patrolled by law enforcement.

- Continue to seek grant funding to support expanded TDM measures to reduce employee VMT per capita.

2. Measures to Reduce Zoo Visitor VMT Per Capita

- Encourage visitors to travel to the Zoo through means other than private automobiles or ridesharing (i.e., active transportation modes like walking, cycling, transit, or car-sharing) through discounted pass programs and dedicated parking spaces reserved for car-sharing automobiles (e.g., BlueLA). In such cases, visitors could be required to provide proof of arrival via active transportation modes or car-sharing to receive a discounted entrance rate.
- Advertise the availability of ticket discounts for active transportation and car-sharing through social media and in coordination with RAP, LADOT, and Metro.
- Review the effect of ridesharing as a mode on VMT and consider if rideshare users should receive ticket discounts as an effective way of reducing VMT.
- Visitors could be required to provide proof of arrival via alternative modes of travel to receive a discounted entrance rate. Advertise the availability of ticket discounts for alternative modes of travel through social media and in coordination with RAP, LADOT, and Metro.
- Coordinate with Metro to increase bus service frequency to the Zoo bus stop, such as advocating for the implementation of Metro's proposed Line 501.
- Seek funding opportunities to provide proportional share funding for the following:
- Reestablish the Parkline DASH shuttle service in a proportion consistent with demands Zoo patrons will place on the service.
- Expand Parkline Shuttle service to connect to the Metro B Line Vermont/Sunset station in the south and the Metro B/G (formerly, Orange) Line North Hollywood station in the north. Shuttle routes should be coordinated with LADOT and RAP.
- Extend Parkline Shuttle service hours to begin at 9:30 AM, before the Zoo opens each day. This expanded service should first be targeted to occur during peak demand periods such as Easter, Memorial Day, and during Los Angeles Unified School District (LAUSD) holidays, such as the week of spring break.
- Coordinate with RAP to monitor the success of the Parkline Shuttle during such peak periods and to fund expansion of the service over time, as needed, to facilitate and accommodate increased ridership. The program shall then be expanded to broaden the hours and days of operation as needed to meet demand.
- Coordinate with RAP on how best to advertise and perform outreach to user groups regarding the availability of this transit service and methods to increase ridership (e.g., social media outreach).
- Seek funding opportunities to provide proportional share funding in coordination with Metro, LADOT, and other regional transportation partners, to provide an express shuttle service to and from stations such as Los Angeles Union Station (Metro), Downtown Burbank Metrolink Station (Burbank Community Development/Transportation), the Metro

Red (B) Line North Hollywood Station (Metro), or the Glendale Metrolink station (Glendale Public Works/Public Transportation and Metrolink).

- Provide Union Station shuttle during operating hours on weekends and legal holidays. This new service shall first be targeted as a pilot program to occur during peak demand periods such as Easter, Memorial Day, and during LAUSD holidays, such as spring break week. If successful, the program shall then be expanded to broaden hours and days of operation.
- Coordinate with Metro and LADOT on how best to advertise and perform outreach to user groups regarding the availability of this transit service and methods to increase ridership (e.g., social media outreach).
- Seek funding opportunities to provide proportional share funding in coordination with Metro and LADOT, for Metro's 96 bus line (Metro NextGen 296) service in a proportion consistent with demands Zoo patrons will place on the service.
- Maintain and expand onsite bicycle parking for Zoo visitors in an amount and location informed by visitor surveys and annual monitoring reports.
- Build out short and long-term bicycle parking within the Zoo to meet changing demands evaluated in the TDM Program annual reports.
- Provide well-lit, clearly signed, bicycle parking that is convenient and in close proximity to the Zoo Entry to encourage bicycling by visitors.
- Build out bicycle parking for cargo bicycles, long-tail bicycles, bicycles with trailers, and other family-friendly bicycle models.
- Build out access restricted, secure bicycle parking for visitors such as bike lockers, storage lockers, a new Metro Bike Hub location, other bicycle hub mode, or staffed bike valet. Funding shall be determined based on the area required for the bike station. The bike share station shall be well-lit and located at a safe and convenient location near the Zoo entrance.
- Design bicycle racks with space-efficient configurations, such as vertically staggered racks and two-tier racks.
- Develop and implement a paid parking program for Zoo visitors to discourage personal vehicle trips to the Zoo and provide a secure funding source to help subsidize TDM, transit improvement, and other trip reduction measures, considering the following options:
- A Peak Period Parking Program would charge for preferred parking during the highest visitation periods, including all weekends (Saturdays and Sundays), holidays, the spring months (April and May), and December, collecting fees for preferred parking on approximately 170 days of the year (based on the 2020 calendar year).
- An Everyday Parking Program would charge for preferred parking 364 days of the year (every day the Zoo is open).
- Maintain at least 15 percent of parking spaces as free parking to meet the needs of disadvantaged households and ensure that low-income visitors may continue to visit the Zoo.
- The Zoo's TDM Coordinator shall prepare a quarterly report on the effectiveness of the Paid Parking Program and monthly revenue generated.

- Continue to seek grant funding to support expanded TDM measures to reduce visitor VMT per capita.

6.11 NOISE – AMBIENT NOISE LEVELS

Alternative 1.5 construction activity would result in temporary increases in ambient noise levels in the Alternative 1.5 Project site on an intermittent basis. Equipment noise levels during general construction activities would exceed 75 decibel average (dBA) Equivalent Noise Level (Leq) at nearby sensitive receptors during Phases 1, 2, 3, 5, and 6. At the loudest phase of construction, construction activity would generate a noise level of approximately 86.2 dBA Leq at 50 feet during the most noise intensive activities such as pile driving and blasting (if these activities are required).. Blasting activity associated with the Alternative 1.5 Condor Canyon would result in the exceedance of 75 dBA Maximum Noise Level (Lmax) at the Skyline Trail in Griffith Park. Blasting noise would be an instantaneous event and would not result in extended noise impacts over the duration of construction activity. Receptors would only include hikers and equestrians on trails immediately adjacent to the Zoo.

MM NOI-1 through MM NOI-5 would substantially reduce construction noise levels. The equipment mufflers associated with MM NOI-1 would reduce construction noise levels by approximately 3 dBA. MM NOI-2 through MM NOI-4, although difficult to quantify, would also reduce and/or control construction noise levels. MM NOI-4 would require coordination with the construction contractor and the coordinator of the North Hollywood High School Zoo Magnet Center to avoid disruption to classroom instruction. MM NOI-5 would reduce construction noise levels by approximately 10 dBA at North Hollywood High School Zoo Magnet Center by installing temporary noise barriers around the property boundary. With implementation of these measures, noise levels would be reduced to approximately 66 dBA Leq at the exterior of the school, which would be below the 75 dBA Leq standard. Therefore, Alternative 1.5 Project impacts related to construction noise would be less than significant with mitigation.

Off-site haul trucks associated with construction would generate an audible increase of approximately 0.8 dBA Leq. This increase would not represent a substantial increase in noise for an extended period. Therefore, haul truck noise impacts associated with the Alternative 1.5 Project would result in a less than significant.

Stationary operational noise sources introduced under the Alternative 1.5 Project would be similar to existing noise sources; however, increased attendance due to Zoo expansion, new Zoo facilities, and Zoo programming may result in increased noise levels and expanded duration of operational noise, including after-hours noise from evening special events. However, private event noise and increases in the number of seasonal event noise and the attendance of seasonal events is not anticipated to result in a 5 dBA or more increase in Community Noise Equivalent Level (CNEL). As such, impacts associated with event noise would be less than significant. Alternative 1.5 parking improvements are not anticipated to result in a 5 dBA CNEL increase.

The proposed new service area in the southern perimeter of the Zoo would use a variety of pneumatic and electric equipment to complete various Zoo maintenance tasks. The nearest

sensitive use is the Wilson and Harding Golf Course located adjacent to the south of the service area. At this distance noise levels generated by service facilities would be approximately 76.5 dBA Leq. The analysis conservatively assumes that shop faces would be facing the golf course. The existing CNEL at the adjacent portion of the golf course is estimated to be approximately 55.9 dBA CNEL, based on 24-hour measurements taken in the interior of the Zoo. Service facility noise would increase the CNEL to approximately 71.8 dBA CNEL. Therefore, a potentially significant impact could result. MM NOI-6, which would require the Zoo to orient shop faces inwards toward Zoo property, is intended to reduce service area noise through thoughtful design. This would reduce noise levels at the golf course. Therefore, Project impacts associated with service area noise would be less than significant with mitigation.

See discussion of *Noise and Vibration* in Section 4.5.3 of the Revised Final EIR.

6.11.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, all reference documents, and the whole of the record, the City finds that the following mitigation measures shall be implemented to reduce potentially significant direct and cumulative noise impacts related to ambient noise levels to a less than significant level.

MM NOI-1: **Equipment Mufflers.** The City and its contractors and subcontractors shall ensure that all construction equipment is operated with closed engine doors and is properly muffled according to manufactures specifications or as required by LADBS, whichever is the more stringent. Use of manufacturer-certified mufflers associated with construction equipment has been shown to reduce noise levels by a minimum of 8 dBA and up to 10 dBA. These requirements shall be included in all final Project plans and permit documents.

MM NOI-2: **Rubber Tired Equipment.** The City and its contractors and subcontractors shall use rubber-tired equipment to the maximum extent feasible during grading, excavation, and building construction activities, rather than metal-tracked equipment, to reduce noise and vibration levels. These requirements shall be included in all final Project plans and permit documents.

MM NOI-3: **Equipment Idling.** California State law prohibits heavy-duty diesel motor vehicles from idling for longer than five minutes (Title 13 CCR Section 2485). Under this mitigation, all construction equipment shall be turned off when not in use for an excess of five minutes, except for equipment that requires idling to maintain performance.

MM NOI- 4: **Notification Requirements and Coordination with Neighboring Properties.** At least one month prior to the initiation of construction -related activities, the City Zoo shall prepare and distribute notices to property owners within 500 feet of the Project site, including the Wilson and Harding Golf Courses, RAP, North Hollywood High School Zoo Magnet Center, and the Autry Museum of the American West, as well as affected commercial businesses and residences along the haul truck route. Additional construction-related noise and disturbance signages shall be posted at

or along recreational trails in the vicinity of the Zoo and at the Los Angeles Equestrian Center located in the City of Burbank, noticing the public who may use the trails at Griffith Park of future construction activities related to the Alternative 1.5 Project. At a minimum the notices and signages shall describe the overall construction schedule, advise residents, business owners, and employees, and trail users of increased construction-related noise, and provide a non-automated telephone number to call to submit complaints associated with construction noise.

- The Zoo shall retain a Noise Disturbance Coordinator for the duration of Project construction activities. The Noise Disturbance Coordinator shall be responsible for responding to local complaints about construction noise. The Noise Disturbance Coordinator shall determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall be required to implement reasonable measures such that the complaint is resolved. All notices that are sent to sensitive receptors within 500 feet of the construction site and all signs posted at the construction site shall list the telephone number for the Noise Disturbance Coordinator.
- Prior to initiating construction activity, the BOE's construction contractor shall coordinate with the site administrator for the North Hollywood High School Zoo Magnet Center to discuss construction activities that generate high noise levels. Coordination between the site administrator and the construction contractor shall continue on an as-needed basis throughout construction of the Alternative 1.5 Project to mitigate potential disruption of classroom activities.

MM NOI-5: **Temporary Noise Barriers.** The City and its contractors and subcontractors shall implement noise attenuation measures to the satisfaction of the LADBS. Prior to the initiation of the Alternative 1.5 realignment of Crystal Springs Drive/Western Heritage Way and south parking area improvements (Phase 1), a solid noise barrier wall shall be erected around the property boundary of North Hollywood High School Zoo Magnet Center. The noise barrier wall shall be designed to achieve the maximum sound attenuation feasible by breaking the line of site to the Project site. The noise barrier wall shall be based on a site-specific acoustic analysis prepared by a qualified acoustic engineer to be approved by the BOE. The noise barrier wall shall be designed to reduce construction-related noise by a minimum of 10 dBA; however, it is expected that the noise barrier wall could decrease construction-related noise levels by up to 15 dBA during certain phases of construction. The noise barrier wall design shall be subject to City staff approval and shall include an art installation (e.g., painting, adhesive pattern design, etc.) that provides visual relief during the Phase 1 construction period.

MM NOI-6: **Noise Reduction Through Design.** The City shall design the Zoo's planning areas to reduce operational noise levels. For example, buildings and noise generating uses, such as the Alternative 1.5 Service Center and Zoo Entry shops, should be oriented such that the open faces of these buildings are facing inwards

towards the center of the Zoo. Additionally, noise generators for operational equipment, including but not limited to the aerial tram and funicular motors and generators shall be enclosed to reduce noise exposure.

6.12 PUBLIC SERVICES – FIRE PROTECTION / POLICE PROTECTION / SCHOOLS

The Alternative 1.5 Project would not create any new homes or businesses. The Alternative 1.5 Project would involve circulation improvements including realignment of Crystal Springs Drive, improvements to the intersection of Zoo Drive and Western Heritage Way, and internal improvements. The fire station serving the Project site is LAFD Station 56, located approximately 3.06 miles southeast. The Alternative 1.5 Project would not generate a need for additional firefighting or emergency medical services (EMS) personnel or new or expanded fire protection facilities. The Alternative 1.5 Project would not induce residential or direct population growth but would increase annual Zoo attendance and staff. Operation of the Alternative 1.5 Project would not exceed the capacity for LAFD service. Construction activities would comply with Occupational Safety and Health Administration, LAMC Fire Code, and CBC regulations pertaining to application of BMPs and other measures for reducing risks associated with construction. During construction, LAFD, including Fire Station 56, would be notified of any Project traffic control plans implemented during construction of external roadway improvements (e.g., Crystal Springs Drive/Western Heritage Way) to coordinate emergency response routing. Implementation of MM T-1, requiring a Construction Traffic & Access Management Plan with measures for controlling and ensuring continued access to the Zoo and through the interior of the Zoo circulation system, and coordination with the LAFD would ensure that impacts to emergency response times and access during construction would be less than significant with mitigation.

The Alternative 1.5 Project would increase annual Zoo visitation and may increase demand for law enforcement services. The Alternative 1.5 Project would include construction of a security and first aid center within the proposed entry plaza and the hiring of additional security personnel to address the anticipated increase in demand for law enforcement services. Because Zoo security would be provided onsite, the Alternative 1.5 Project would not generate a need for new or altered police protection facilities. The Alternative 1.5 Proposed modernization of security systems and implementation of MM PS-1, requiring the Zoo implement measures to increase security of the Zoo's parking lot areas would help to reduce LAPD and Zoo security demands. Construction activities would apply crime-deterrent strategies such as security fencing, nighttime lighting, and periodic patrol by Zoo security personnel. During construction, the LAPD would be notified to ensure construction would not impact emergency response. Implementation of the TMP and coordination with the LAPD would ensure that impacts to emergency response times and access during construction would be less than significant.

As stated previously, the Alternative 1.5 Project does not include development of any residential uses and therefore, would not generate an increased demand for public school services or need for new or physically altered school facilities. Projected increase in Zoo visitation following

Alternative 1.5 Project implementation could reduce parking availability for the Zoo Magnet Center, located within the Zoo's southern parking lot. To ensure parking availability remains for Zoo Magnet Center visitors, MM PS-2 would require designated parking spaces for Zoo Magnet Center school buses be included in the southern parking lot and the implementation of parking hour limitations to accommodate Zoo Magnet Center staff and visitors. With implementation of this measure, Alternative 1.5 Project impacts to schools would be less than significant with mitigation.

See discussion of *Public Services* in Section 4.5.3 of the Revised Final EIR.

6.12.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revise Final EIR, all reference documents, and the whole of the record, the City finds that the following mitigation measures shall be implemented to reduce potentially significant direct and cumulative public service impacts to a less than significant level.

MM PS-1: **Zoo Parking Lot Security Improvements.** In coordination with the City and LAPD, the Zoo shall prepare a Parking Lot Security Plan. The Plan shall identify and implement strategies to improve security within the Zoo's parking areas to reduce vehicle theft/break in or other crimes. Strategies may include but not be limited to installation of surveillance cameras to provide 24-hour video coverage of all Zoo parking areas and frequent foot- or bicycle-based patrolling of the Zoo parking areas by Zoo Security personnel. LAPD shall review and approve the Plan and parking lot security improvements shall be implemented prior to completion of Phase 1. The parking structure improvements Alternative 1.5 as Phase 7 shall be equipped with video surveillance.

MM PS-2: **Zoo Magnet Center Parking Restrictions.** The City and Zoo shall work with the LAUSD North Hollywood High School Zoo Magnet Center to coordinate improvements to the southern Zoo parking lot in Phase 1 of the Alternative 1.5 Project. Parking lot design and management shall ensure adequate provision of parking for the Zoo Magnet Center during peak Zoo attendance days. Measures may include, but not be limited to, reserved parking spaces for Zoo Magnet Center school buses and adequate spaces to accommodate teachers, the office administrator, and campus counselor, with an additional reserve space for visitors. Reserved parking stalls shall be in effect during hours of Zoo Magnet Center operation. Signage shall indicate all restrictions on public parking within the southern parking lot. All Alternative 1.5 parking improvements shall be noted on final plans and reviewed and approved by BOE and the LAUSD prior to Project construction of Phase 1.

6.13 RECREATION – DETERIORATION OF PARKS AND RECREATIONAL FACILITIES

The Alternative 1.5 Project would increase the annual visitation and use of the Zoo to approximately 1,165,00 guests; however, the Alternative 1.5 Project would simultaneously increase the physical capacity of the Zoo to accommodate more guests and provide additional unique recreational opportunities within the City. As such, the Alternative 1.5 Project would effectively accommodate this increase in visitation and expand recreational facilities. However, park and recreational facility accessibility would still be maintained through street parking and other parking facilities within Griffith Park. Circulation improvements included in the Alternative 1.5 Project has the potential to affect the mobility of pedestrians, bicyclists, and equestrians along the Main Trail. MM REC-1 would require Zoo Drive/Western Heritage Way intersection improvements be considerate of pedestrian, bicyclist, and equestrian safety with regard to the Main Trail and that use of this important trail is not hindered by implementation of the improvement. With implementation of MM REC-1, impacts to mobility and safety along the Main Trail from the Alternative 1.5 Project would be less than significant with mitigation.

See discussion of *Recreation* in Section 4.5.3 of the Revised Final EIR.

6.13.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, all reference documents, and the whole of the record, the City finds that the following mitigation measures shall be implemented to reduce potentially significant recreation direct and cumulative impacts related to the potential deterioration of parks and recreational facilities levels to a less than significant level.

MM REC-1: **Consideration of the Main Trail in Intersection Designs.** Should the Zoo pursue improvements to the intersection of Zoo Drive/Western Heritage Way to include a roundabout or grade-separated intersection, the design of the Alternative 1.5 improvements shall be considerate of pedestrian, bicyclist, and equestrian mobility and safety along the Main Trail and ensure that the use of this trail is not hindered. All Alternative 1.5 intersection improvements, including those for design for the mobility and safety of pedestrians, bicyclists, and equestrians shall be incorporated into final plans and reviewed and approved by BOE and LADOT prior to the issuance of permits for these improvements.

6.14 TRANSPORTATION – PROJECT CONSISTENCY WITH APPLICABLE TRANSPORTATION PLANS, POLICIES, AND REGULATIONS / HAZARDOUS DESIGN FEATURES / EMERGENCY ACCESS

Th Alternative 1.5 Project has the potential to substantially increase traffic and VMT with associated potential impacts to transportation, related facilities, and potential conflicts with adopted policy. The prepared analysis examines the Alternative 1.5 Project's consistency with

applicable plans, policies, programs, and ordinances, consistent with CEQA and the Transportation Assessment Guidelines (TAG), this analysis considers both City documents and applicable regional transportation and circulation documents that relate to the Zoo. Based upon this analysis, the Alternative 1.5 Project, with implementation of mitigation measures and required consistency with existing regulations, would be consistent with the SCAG RTP/SCS, Los Angeles General Plan, Hollywood Community Plan, Griffith Park Vision Plan, and Plan for a Healthy Los Angeles. The Alternative 1.5 Project would not cause significant environmental impacts due to conflicts with any transportation plan, policy, or regulation, and the Alternative 1.5 Project would not preclude the City's implementation of any adopted policy and/or program. Therefore, impacts would be less than significant with mitigation.

Construction activities would create potential conflicts between vehicles, bicycles, pedestrians, and equestrians within Griffith Park would be potentially significant. Although operational impacts of Project implementation would include increased traffic volumes and vehicle trips to surrounding roadways, such increases would be distributed among multiple streets and would not be considered to substantially increase traffic hazards. Alternative 1.5 Project improvements to the Zoo's internal circulation would result in minor beneficial and less than significant operational impacts to transportation safety hazards.

Emergency access to the Zoo is currently available via Crystal Springs Drive, Zoo Drive, and Griffith Park Drive. Access into the Zoo is available at the employee and service entrance located south of the Zoo Entry from Crystal Springs Drive and at the Gottlieb Animal Health and Conservation building from Griffith Park Drive. Construction activities would result in temporary changes to roadways, access points, and staging areas that currently provide emergency access to the Zoo and nearby areas in Griffith Park. Throughout construction, internal rerouting and temporary closures of the Alternative 1.5 planning areas may block evacuation routes or cause circuitous or inefficient evacuation, as well as limit emergency access to internal areas of the Zoo.

Emergency vehicle access to the interior of the Zoo would be expanded and enhanced by the Alternative 1.5 improvements to the Project site's internal circulatory system, including the reconfiguration of internal pedestrian and non-pedestrian service roads, improvements to existing perimeter roads, service roads, and installation of a perimeter tram road would provide improved emergency vehicle access to high fire hazard areas along the Zoo's perimeter. In addition, Alternative 1.5 realignment of Crystal Springs Drive and improvement of the Crystal Springs Drive & Zoo Drive intersection would reduce congestion and improve emergency vehicle response to the Zoo. Alternative 1.5 improvements to site circulation and access would maintain or improve emergency access to the site. Therefore, Project operational impacts to emergency access would be less than significant.

See discussion of *Transportation* in Section 4.5.3 of the Revised Final EIR.

6.14.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, all reference documents, and the whole of the record, the City finds that the following mitigation measures shall be implemented to reduce potentially significant transportation direct and

cumulative impacts to plan, policy, and regulation consistency, hazardous design features, and emergency access.

MM T-1: **Construction Traffic & Access Management Plan.** The Zoo shall prepare, implement, and maintain a Construction Traffic & Access Management Plan during the pre-construction design and permitting for each Project phase to address traffic management during construction. The Construction Traffic & Access Management Plan shall be subject to LADOT approval, submitted for Caltrans review, and designed to:

- Minimize traffic impacts on the surrounding street network within Griffith Park and surrounding areas to the maximum extent feasible during each construction phase;
- Minimize impacts to existing public recreational uses and parking to the greatest extent practicable;
- Ensure safety for both those constructing the Alternative 1.5 Project and the surrounding community;
- Minimize the impacts of truck traffic within Griffith Park;
- Avoid conflicts with planned events and festivals within Griffith Park to the greatest extent possible; and
- Provide for coordination with adjacent or nearby construction projects.

To achieve these outcomes, the Plan shall, at a minimum, include the following:

1. Ongoing Requirements throughout the Duration of Construction

- A detailed Construction Traffic & Access Management Plan for work zones shall be maintained. At a minimum, this shall include parking and travel lane configurations; warning, regulatory, guide, and directional signage; and area sidewalks, bicycle lanes, and parking lanes. The plan shall include specific information regarding the Alternative 1.5 Project's construction activities that may disrupt normal pedestrian and traffic flow and the measures to address these disruptions.
- Work within the public right-of-way (i.e., road realignment, intersection improvements, construction of the Alternative 1.5 parking structure) that is performed before 9:00 AM and after 2:00 PM on weekdays during the school year shall require flaggers and traffic controls to avoid conflicts with pick-up and drop-off at the North Hollywood High School Magnet Center.
- Any requests for work before or after normal construction hours within the public right-of-way shall be subject to review and approval through the After-Hours Permit process administered by the Los Angeles Department of Building and Safety.
- A Zoo-funded on-site construction monitor shall be present to ensure safety when work occurs within the public right-of-way (i.e., road realignment, intersection improvements, construction of the Alternative 1.5 parking

structure), or when more hazardous activities are occurring such as heavy-haul materials delivery or oversize transport. The Construction Traffic & Access Management Plan shall identify the activities that would prompt the presence of an on-site monitor.

- Trucks shall only travel on a City-approved construction route. Construction routes shall avoid Griffith Park roads to the maximum extent feasible. Truck queuing/staging shall not be allowed on City streets. Limited queuing may occur on the construction site itself.
- Staging areas for construction materials and equipment shall be limited to fenced-off areas within the Zoo campus (with the exception of the road realignment and intersection improvements during Phase 1 and construction of the parking structure during Phase 7).
- Materials and equipment shall be minimally visible to the public; the preferred location for materials is to be onsite, with a minimum amount of materials within a work area in the public right-of-way.
- Off-street parking shall be provided for construction workers, which may include the use of a remote location with shuttle transport to the site, if determined necessary by the City.
- At the discretion of the City, construction work shall not be permitted during City-approved or RAP-sponsored large events or festivals (e.g., Griffith Park Trail Race, Harvest Festival, concerts at the Greek Theatre) within Griffith Park.

2. Project Coordination Elements That Shall Be Implemented Prior to Commencement of Construction

- The Zoo shall advise the traveling public of impending construction activities through active outreach measures (e.g., information signs, portable message signs, media listing/notification, social media, and implementation of an approved Construction Traffic & Access Management Plan).
- The Zoo shall obtain needed City permits (e.g., Use of Public Property Permit, Oversize Load Permit), as well as any Caltrans permits required, for any construction work requiring encroachment into public rights-of-way, detours, or any other work within the public right-of-way.
- The Zoo shall provide timely notification of construction schedules to all affected agencies (e.g., Metro, RAP, LAFD, LAPD, LADPW, and BOE), as well as adjacent facilities (e.g., Autry Museum of the American West, Zoo Magnet School, Wilson-Harding Golf Course).
- The Zoo shall coordinate construction work with affected agencies in advance of start of work. Coordination with Metro regarding construction activities that may impact Metro bus lines (e.g., Metro Line 96) or result in closures lasting over 6 months shall be initiated at least 30 days in advance of construction activities.

- The Zoo shall obtain LADOT approval of any haul routes for earth, concrete, or construction materials and equipment hauling.

6.15 UTILITIES – WATER / STORMWATER DRAINAGE

Construction of the Alternative 1.5 Project would require approximately 2,000 gpd of water during for dust control, equipment cleaning, soil excavation and export, and re-compaction and grading activities which can be accommodated by existing infrastructure. The Alternative 1.5 Project would also require the expansions of existing and installation of new water lines. Water would continue to be supplied from existing mains. Implementation of the Alternative 1.5 Project is expected to increase annual demand for potable water to 120,758,342 gallons per year (371 AFY). However, the Alternative 1.5 Project includes a stormwater management system to capture surface runoff for onsite reuse as landscaping water, offsetting annual irrigation water demands by approximately 35,000,000 gallons per year (107 AFY). The City would be able to serve the Alternative 1.5 Project without additional unplanned new or expanded entitlements. The Alternative 1.5 Project would be required to comply with the City's Water Efficiency Requirements and Green Building Code. Under implementation of MM UT-1, recycled water lines would be extended within the Zoo would be used to further reduce overall water demand associated with operational activities. Further, implementation of MM HYD-7 would require the City to install efficient irrigation systems for all existing and proposed new landscaped areas within the Zoo. While not required, MM UT-2 is also recommended. MM UT-2 would implement all recommended civil engineering and water efficiency measures recommended in the Appendix (*New Infrastructure: Plumbing*) of the Vision Plan thereby further reducing impacts on the Zoo's potable water demand. Therefore, with implementation of this mitigation, Alternative 1.5 Project impacts on the City's potable water supplies would be less than significant with mitigation.

The City has available capacity to adequately serve the increased recycled water demands of the Alternative 1.5 Project. Nonetheless, in accordance with the One Water L.A. Plan, MM UT-1 would require the Zoo to extend recycled water lines throughout the interior areas of the Zoo to prevent the need for expansion of the City's recycled water system or major construction activities, thereby further reducing the Zoo's dependence on potable water supplies and securing implementation of the Green New Deal pLAn and One Water L.A. Plan.

The Alternative Project proposes the construction and operation of a new stormwater collection system. Project implementation, along with installation of the stormwater collection system would result in or contribute to construction-related impacts which are analyzed in each of the respective resources sections of Final EIR and Revised Final EIR. Mitigation measures necessary to reduce Alternative 1.5 Project impacts associated with installation of the new stormwater collection system are also identified therein and would be capable of reducing impacts to less than significant with mitigation.

See discussion of *Utilities* in Section 4.5.3 of the Revised Final EIR.

6.15.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, all reference documents, and the whole of the record, the City finds that the following mitigation measures shall be implemented to reduce potentially significant direct and cumulative utility impacts related to water and stormwater drainage to a less than significant level.

MM UT-1: **Recycled Water Use.** In accordance with the Green New Deal pLAn and One Water L.A. Plan, the Zoo shall work with LADPW and LASAN to expand recycled water lines (purple pipe) to interior portions of the Zoo. Recycled water shall be used to the maximum extent available for washdown of the animal holding areas, powerwashing walkways and plazas, and flushing toilets, and in the Zoo's exhibits (e.g., treatment systems, ponds, aesthetics, water features, etc.) if the recycled water is dechlorinated before use, and for fire suppression where feasible. Additionally, all irrigation water demand not covered by stormwater captured in the Alternative 1.5 stormwater collection system (i.e., during dry years), shall be covered by recycled water. The point of connection to the City's water recycling system would be at the existing 8-inch recycled water main at the west end of the Zoo parking lot in Griffith Park, subject to review and approval of LADPW, LASAN, and BOE. LASAN staff shall ensure the recycled water main connections are incorporated into the final building plans prior grading. City staff shall ensure measures are on all Project plans to ensure that these requirements are implemented.

MM UT-2: **Vision Plan Recommendations.** Project components designed and engineered to implement the Vision Plan shall follow all recommendations and guidelines for water, wastewater, and stormwater utilities provided in the Appendix of the Vision Plan. As recommended in the Vision Plan Appendix (New Infrastructure: Plumbing), the Alternative 1.5 Project must provide the following features to reduce maintenance and conserve water:

- Restrooms
  - Shut-off valve for all fixtures in each restroom, located above the upper terminal water closet and behind a locked access panel.
  - Water-saving battery-operated infrared-sensored flush valves, with manual override on all water closets.
  - Push-button, ADA-metered, self-closing faucets on lavatories.
  - Hose-bibb with vacuum breaker in recessed box with locking cover.
  - Floor drains with trap primers with floors sloped to drain.
  - Clean-outs above all urinals, lavatories, and water closets.
- Public Restrooms
  - Shut-off valve for all fixtures located above the upper terminal water closet and behind a locked access panel.
  - Floor drains with trap primers sloped to drain.
  - Clean-outs above all urinals, lavatories, and water closets.

  - ADA compliant floor-mounted water closet and countertop lavatory.
- Sewer Lines
  - Cast iron soil pipe at all following locations:
    - Within the building and 5 feet outside the building line.
    - Running parallel to and within 2 feet of any building or structure.
    - 6-inch sewer lateral to fire station.
  - Provide clean-outs above all urinals, lavatories, upper terminal water closets, and sinks.
  - Provide uniform slope of 0.25-inch fall per foot whenever possible, but never less than 0.125-inch per foot.
  - Indicate invert elevations of new sewer lines at buildings, changes in direction, locations where sewer lines join and at property lines.
  - Review existing sewer pipe's capacities, conditions, and materials.
- Floor Drains, Area Drains and Floor Sinks
  - Where drains or sinks are required, slope floor to drain at 0.125 inch per foot.
  - Floor drains with trap primers are required at restrooms. One floor drain shall be provided front and center for two or more urinals. One floor drain is required for water closets in all restrooms with an additional floor drain when a total of four or more water closets are provided. One floor drain shall be provided for a combination of one water closet and one urinal.
- Utility/Service Sink Room
  - Provide wall-mounted stainless-steel mop sink, with floor drain.
  - Floor sinks with trap primers are required at:
    - Utility/Service sink room.
    - Kitchens, and where preparation sinks have an indirect waste drain rather than a direct connection.
    - Trench drain.
    - Wherever required by the California Plumbing Code or the City Plumbing Code.
- Water Systems
  - Use Type L hard copper pipe inside buildings.
  - Do not run water lines under slab if at all possible.
  - Provide a shut-off valve to isolate all fixtures in each restroom, kitchens, and any other room with multiple fixtures.
  - Slope pipes up in direction of water flow to air-elimination devices, or up to a nearby expansion tank, to provide for air elimination from water lines.
  - Water hammer arrestors are required for lavatories, sinks, fountains, water closets, urinal headers, and other fixtures.
- Water Valves and Other Devices
  - Uninterrupted Service:

  - All domestic water supply mains shall be designed in an above-ground valve station with a minimum of two parallel branch lines – a primary and secondary – to provide for uninterrupted service to the site during maintenance of a backflow preventer or a pressure regulating valve. Each branch shall include a backflow preventer with strainer and when the street pressure exceeds 80 psi, a pressure regulator with strainer.
  - A separate service shall be provided for landscape irrigation, with an above-ground valve station that includes a backflow preventer and a pressure regulator with strainer when the street pressure exceeds manufacturer's or design suggested range.
- Shut-off Valves:
  - All shut-off valves shall be accessible from the room in which fixtures are installed, and shall be located at approximately 3 feet, but not more than 7 feet, from the floor. These valves shall control only fixtures in the room in which they are installed.
- Provide shut-off valves for:
  - Each group of fixtures.
  - Each restroom.

The City is required to include the above standard recommended measures from the Vision Plan's Appendix in the final building plans prior to approval. City staff shall ensure measures are on all Project plans to ensure that these requirements are implemented.

6.16 WILDFIRE – EMERGENCY RESPONSE AND EMERGENCY EVACUATION PLANS / EXACERBATED WILDFIRE RISK / ASSOCIATED INFRASTRUCTURE

The Alternative 1.5 Project would potentially impair existing adopted emergency response and evacuation plans during phased construction. Implementation of MM T-1, requiring a Construction Traffic & Access Management Plan with measures for controlling and ensuring continued access to the Zoo and through the interior of the Zoo circulation system, would address impacts from construction of proposed improvements on emergency access and evacuation of the Zoo in response to a wildfire. The Alternative 1.5 Project would include improvements to existing roadways and circulatory systems both within and surrounding the Zoo that would improve emergency response and access, including improved vehicle entry at the Gottlieb Animal Health and Conservation Center, a new vehicle entrance emergency vehicle access from Zoo Drive, realignment of Crystal Springs Drive, and improvement of the Crystal Springs Drive/Griffith Park Drive intersection. Proposed improvements to internal service roads and pedestrian paths and installation of a perimeter tram road would expand emergency vehicle site accessibility. Therefore, the Alternative 1.5 Project would not impair emergency response and access, and associated impacts would be less than significant.

Alternative 1.5 Project implementation would expand annual visitation and employment at the Zoo and potentially, total resident animals housed at the Zoo. Proposed circulation improvements would enhance emergency evacuation routes by creating direct routes and permitting some degree of widening of internal service roads. With implementation of MM WF-2, updates to the Los Angeles Zoo Procedures Manual and the City Emergency Operations Plan would reflect changes made to the internal circulation system with each phase of Alternative 1.5 Project implementation and integrate requirements for wayfinding and evacuation assistance for visitors, as well as refreshed requirements for Zoo animal protection and evacuation, during a wildfire in Griffith Park. Operational impacts on emergency evacuation and shelter in place of select species would be less than significant with mitigation.

Per MM WF-2, the Zoo would be required to update these plans as appropriate based on Alternative 1.5 improvements and changes in site access and circulation through Project implementation. Therefore, with the application of existing regulations and requirements to update wildfire management and evacuation plans, the Alternative 1.5 Project would not significantly exacerbate wildfire risks resulting in the exposure of Zoo staff and visitors to wildfire hazards, and impacts would be less than significant with mitigation.

The Alternative Project site is located within a Very High Fire Hazard Severity Zone. New ignition sources introduced under the Alternative 1.5 Project could include heavy machinery and fuels during construction and increased visitation and new exhibits. To manage and reduce wildfire risks, the Zoo would continue to implement several procedures for managing fuels, ensuring adequate evacuation of the Zoo, and providing appropriate forms of access to the Zoo and surrounding Wildland Urban Interface, including compliance with applicable measures provided by the City's Fire Code and LAFD and application of emergency management and evacuation plans per both City and AZA regulations. Alternative Project implementation would develop hillside areas within the Zoo that currently acts as fuel breaks between the Zoo and wildland areas. It is likely that new fuel breaks would be located along the perimeter of the California and Africa planning areas in compliance with existing City Fire Code and LAFD regulations. With implementation of MM BIO-2 and MM WF-1, adverse impacts to biological resources as a result of installation and maintenance of these fuel breaks would be reduced through maximum avoidance of native vegetation and appropriate restoration offsite. Therefore, impacts would be less than significant with mitigation.

6.16.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Focused Recirculated EIR, Revised Final EIR, all reference documents, and the whole of the record, the City finds that the following mitigation measures shall be implemented to reduce potentially significant direct and cumulative wildfire impacts to a less than significant level.

MM WF-1: **Wildfire Fuel Management Plan.** The Zoo shall retain a City-qualified specialists (i.e., fire management professionals) and City-approved biologist to prepare a WFMP to design the creation and maintenance of required fire buffers and fuel management zones around the Project site while preserving the integrity of

existing native oak woodland, chaparral and coastal sage scrub habitats to the maximum extent feasible. To the maximum extent feasible, native trees and shrubs, such as coast live oak, coastal scrub, and grassland shall be thinned and limbed up but left in place. The WFMP shall be prepared consistent with the requirements of Public Resources Code Section 4291 and also detail methods for achieving fire safety around new and existing structures. The WFMP shall incorporate management strategies in coordination with RAP and LAFD to address any needed future management actions in Griffith Park buffering the Project site. Vegetation and other fuels with the management zone(s) shall be maintained by the Zoo in a manner consistent with existing CFC and LAFD regulations to reduce fuel loading in vulnerable areas and to avoid the buildup of deadwood and leaf litter and/or inappropriate storage of flammable materials. Specifically, the WFMP shall describe at least the following elements:

- Vegetation coverage and type within and adjacent to the vegetation management zone(s);
- Sensitive species identification, mapping, and avoidance;
- Setbacks between structures, Project site boundaries, and access routes;
- Location and management procedure for flammable materials use and storage; and
- Development plan landscaping and planting standards within the setback areas.

The Zoo shall submit the WFMP to BOE, Emergency Management Department, RAP, LAFD, and CDFW for review and approval prior to issuance of any grading and development plans for improvements under the Alternative 1.5 Project.

MM WF-2: **Zoo Evacuation and Fire Response Access Plan.** Prior to initiation of each phase of Project implementation, the Zoo shall prepare and implement an Evacuation and Fire Response Access Plan (EFRAP), which shall address conditions and requirements for both construction and operation of the Zoo area affected by the Alternative 1.5 Project. The EFRAP shall be prepared in coordination with the LAFD and RAP. The Zoo Department shall oversee implementation of the EFRAP, including updates of the Los Angeles Zoo Procedures Manual and coordination with the City Emergency Management Department – Planning Division for updates of the City Emergency Operations Plan. The EFRAP shall include, but not be limited to:

- Evacuation of Visitors and Employees
  - Designated evacuation routes and exits within the Zoo for Zoo visitors and employees;
  - Wayfinding and signage to assist with route, exits, and meeting area identification during evacuation;
  - Special considerations and requirements for nighttime evacuations;

  - Accommodations for special care or disabled guests or employees;
  - Specified egress points for transportation vehicles and traffic controls to help efficiently evacuate the Zoo's parking lot;
  - Contingency plans for changes to the construction schedule or phasing plan that would affect the primary evacuation plan and routes; and
  - Regular practice drills (e.g., one per year) for implementation of the EFRAP.
- Fire Response Access within the Zoo
  - Specified at least two dedicated ingress points for emergency responders;
  - Specified firefighter staging or command locations within the Zoo (e.g., northern parking lot or Gottlieb Animal Health Center); and
  - Traffic controls at gates and intersections to balance ingress/egress needs during evacuation.
- Zoo Animal Shelter in Place and Evacuation
  - Shelter-in-place accommodations; and
  - A relocation plan from the Project site to a secondary location or facility, with associated transportation.

7.0 FINDINGS OF SIGNIFICANT ENVIRONMENTAL EFFECTS

The Final EIR and Revised Final EIR determined that the Alternative 1.5 Project would result in potentially significant environmental effects related to aesthetics and visual resources (consistency with applicable zoning and land use regulations) and transportation (VMT generation). The Final EIR and Revised Final EIR identified feasible mitigation measures to reduce the severity of environmental effects related to these impacts. However, even with the implementation of mitigation measures, impacts would remain significant and unavoidable.

The City also finds that the Alternative 1.5 Project would cause cumulatively considerable impacts in aesthetics and visual resources (visual character) and transportation (VMT).

7.1 AESTHETICS AND VISUAL RESOURCES – CONSISTENCY WITH APPLICABLE ZONING AND LAND USE REGULATIONS

The Alternative 1.5 Project would facilitate redevelopment of the Zoo, as well as the expansion of visitor-serving and animal environment space into approximately 16 acres of existing undeveloped areas characterized mainly by vegetated ridges and hillsides. Given the existing developed nature of the site as a Zoo, Alternative 1.5 development would not drastically change the character of the Zoo. The Zoo would remain a zoo with rich animal environments and lively, engaging visitor areas. Development would remain low density and integrated with lush, diverse landscaping. The Alternative 1.5 Project would modernize existing Zoo facilities to become more visually consistent and interesting. Further, although altering natural topography and features, expansions into undeveloped areas within the Zoo would develop unique and visually desirable facilities, particularly within the California planning areas where modern visitor centers would be developed, set amongst engaging animal environments, walking paths, and wayfinding signage.

Alternative 1.5 would reduce development in the Africa area, and eliminate the aerial tram and parking structure.

The greatest change in visual character within internal areas of the Alternative 1.5 Project site would result from temporary removal of substantial areas of the urban forest (e.g., mixed eucalyptus woodland; specimen trees), grading and terrain reshaping to recreate animal environments and visitor amenities such as Condor Canyon, and construction on undeveloped hillsides within the California and Africa planning areas. Visual changes would occur incrementally and sequentially over seven phases of development through 2040. Each phase of development would entail closure of an area of the Zoo using fencing and signage to prevent public access. As a result, construction, including equipment, demolition, and vegetation removal, would not be highly visible to the public within the Zoo. Incidental views of the construction would potentially occur as Zoo patrons move long walkway sand visit new and remodeled animal environments, but these effects would be temporary and minor. Further, these changes to the interior of the Zoo would not be highly visible from outside of the Zoo.

Visual changes from loss of vegetation and tree canopy would potentially be inconsistent with the City's General Plan Conservation Element, Framework Element, and 1998 Hollywood Community Plan goals and policies to retain significant landforms, unique scenic features, and natural viewsheds. However, extensive new landscaping and tree replanting throughout the Zoo would maintain and expand the dense urban forest present within the Zoo's interior over the long term, which would maintain and improve the existing visual character of the site. Changes to existing trees and vegetation would be substantial, but the Alternative 1.5 Project would include replanting mature vegetation, trees, and landscaping for each phase throughout the Zoo similar to the existing condition. This impact is further mitigated with preservation in place or replacement of mature trees as part of Alternative 1.5 Project landscaping with implementation of MM UF-1 and MM UF-2. These measures would also ensure regeneration of the visual quality of the Zoo as a rich, urban forest canopy and lush landscape, further ensuring that impacts to visual character within the Zoo and associated impacts to policy consistency would be less than significant with mitigation.

The features that would be visible through the tree canopy would not substantially alter visual character or aesthetic quality of the site. Instead, Alternative 1.5 development may incrementally transition undeveloped portions of the site to developed Zoo facilities, set in lush, landscaped grounds. This transition would be consistent with the existing character of the Zoo and would support long-term improvements to that character and history as an iconic, modern Zoo. With completion and operation of all seven phases of the development, the Alternative 1.5 Project would have a beneficial effect on the visual character and quality of the Zoo, particularly as vegetation installed as part of landscape plans becomes mature and reestablishes the urban forest within the Zoo. Much of the existing development within the Zoo is antiquated, and due to gradual redevelopment of the Zoo over the years, has resulted in a built environment that does not share a consistent aesthetic theme or design. The Alternative 1.5 Project would guide development uniformity in design of Alternative 1.5 improvements, along with planned improvements to landscaping and the urban forest would improve the quality of design and visual character of the Zoo's interior areas as viewed by Zoo patrons over the long term. Therefore, with landscaping and mitigation to preserve and replant trees, interior improvements within the Zoo would be consistent with applicable policies governing scenic quality from the Conservation Element, Framework Element, and the 1998 Hollywood Community Plan.

The Alternative 1.5 Project would also result in major changes to exterior public areas fronting the Zoo, including the Zoo Drive gateway to Griffith Park through the proposed roadway, intersection, and parking improvements. However, the Alternative 1.5 Project does not include a parking structure and would therefore be substantially consistent with visual resource policies of the Conservation Element, Framework Element, and 1998 Hollywood Community Plan policies to retain views of the natural ridge lines and trees. Therefore, implementation of the Alternative 1.5 improvements within the Zoo property would be consistent with applicable zoning and other regulations governing scenic quality.

Alternative 1.5 Project improvements outside of the Zoo property, namely roadway improvements, would substantially change the urban wilderness character of the Zoo Drive gateway area and

may affect viewsheds of natural topography and resources across the park to the west and south. The Alternative 1.5 Project presents three options for improving traffic flows and reducing or eliminating vehicle queueing at the congested Zoo Drive/Western Heritage Way/Zoo entrance intersection: 1) installation of traffic signals, 2) a roundabout, or 3) a below-grade crossing of Zoo Drive, allowing Western Heritage Way to pass under a new bridge. Signalization would occur during Phase 1 of the Project and, if needed, either a roundabout or below-grade crossing would replace the intersection in Phase 7. Installation of traffic signals or a roundabout would not substantially alter existing visual character of this intersection in context of the Zoo or Griffith Park, although roundabout construction may require expansion outside of existing paved roadways and removal of mature eucalyptus, western sycamore, and other trees. Alternately, new bridge construction and an on- and off-ramp configuration for access between Zoo Drive, North Zoo Drive, and Western Heritage Way would require extensive grading and removal of a substantial number of existing street trees and roadside vegetation. Short-term construction impacts on visual character would be substantial as dozens of trees would likely be removed and such construction would also extend over a period of two or more years. Improvements would likely extend into Zoo and Autry Museum of the American West parking lots, eliminating or substantially altering existing landscaping and mature trees.

If installed, the grade-change and interchange improvement at Zoo Drive/Western Heritage Way would dramatically transform the visual character of this intersection and entrance to the Zoo, as well as the Zoo Drive gateway to Griffith Park. Travelers entering from North Zoo Drive would proceed over the new bridge to the Zoo parking lot, while those accessing Zoo Drive or Western Heritage Way would use an on- and off-ramp system with those proceeding along Zoo Drive and Western Heritage Way would pass under a new bridge. This envisioned infrastructure project would dramatically change this travel corridor, from what currently feels visually like a “country road” with a 4-way stop to a concrete interchange with dramatic terrain modification. The improvement would alleviate congestion at the intersection, which is the intent of the Project in Phase 7, but would increase travel speeds and separate travelers from views of the Zoo Drive gateway and the Zoo entrance, potentially diminishing the sense of arrival currently afforded by the local roadways, open sky views, and iconic Zoo entrance sign setback from the street. The visual character of the adjacent Main Trail could also be altered due to vegetation removal and users may experience increased noise and exposure to traffic. While the roundabout or grade change, bridge and interchange option may have long-term visual benefits, because plans are entirely conceptual, the potential remains for significant visual impacts to community character. Therefore, these improvements outside of Zoo property would conflict with the goals and policies of the Conservation Element, Framework Element, 1998 Hollywood Community Plan, and Griffith Park Vision Plan to maintain the wilderness character of Griffith Park and the Zoo Drive gateway, as well as views of ridgelines, vegetation, and iconic structures.

Alternative 1.5 Project implementation would also include realignment of approximately 1,200 feet of Western Heritage Way and Crystal Springs Drive to pass east and south of Zoo open storage areas in the southern parking lot along an existing 15+ foot-wide service road, which is a continuation of Western Heritage Way south of the Zoo Magnet Center, then rejoining the existing alignment of Crystal Springs Road. This realignment may require widening of this road from its

current 15+ feet to the typical 30- to 35-foot cross section of Crystal Springs Drive. Although no conceptual designs are available, realignment of this road could potentially impact dozens of roadside trees, diminishing the rural visual character of an adjacent park trail that would become exposed to vehicular traffic, similar to that associated within its southward continuation along Crystal Springs Drive. However, the visual character of the realigned roadway would be similar or improved as the Zoo southern parking to the north is Alternative 1.5 for major new landscaping and the Wilson and Harding Golf Course, which lies to the south, would provide visual relief. However, uncertainty over design, potential for tree removal and impacts to views from the existing trail may create potentially significant impacts to community character.

For Alternative 1.5 Project elements occurring in the public right of way, MM VIS-1 would ensure the Zoo Drive/Western Heritage Way intersection improvements would be designed to maximize visual compatibility with Griffith Park and the Zoo entrance and retain the wilderness identity of the park. MM VIS-1 would require intersection improvements to be designed with stone or other natural materials and sized consistent with surrounding structures and facilities in Griffith Park to the extent feasible, as well as incorporating iconic design elements, signage, and art/decorations that reflect the gateway to both the Zoo and Griffith Park. Even with these required mitigation measures, the visual changes proposed under Alternative 1.5 would be substantial and would not be consistent with the visual character of the Zoo Drive gateway and existing Zoo entrance or the urban wilderness identity of Griffith Park, as defined in the Griffith Park Vision Plan. For example, intersection improvements would substantially alter the Zoo Drive gateway, creating a more urban, engineered intersection with increased speeds, which would continue to substantially change the visual character of the Griffith Park Zoo Drive gateway area. Consequently, with mitigation, the Alternative 1.5 intersection and roadway improvements outside of Zoo property, with the compounding effect of the Alternative 1.5 parking structure within the Zoo that would be visible from these roadways, would not be consistent with the Conservation Element, Framework Element, 1998 Hollywood Community Plan, and Griffith Park Vision Plan goals and policies to retain viewsheds of topography and natural resources (e.g., trees) and preserve the urban wilderness identity of Griffith Park and the Zoo Drive gateways. Therefore, the Alternative 1.5 Project's exterior circulation improvements would not be consistent with applicable regulations governing scenic quality, and impacts would be significant and unavoidable.

7.1.1 Findings

Based on the Initial Study, Draft EIR, Final EIR, Revised Final EIR, all reference documents, and the whole of the record, the City finds that implementation of the Alternative 1.5 Project would result in significant direct and cumulative aesthetic and visual impacts related to consistency with applicable zoning and land use regulations, even with the incorporation of the following mitigation measures.

MM VIS-1: **Roadway and Parking Lot Improvement Design.** Improvements to the intersection of Zoo Drive/North Zoo Drive/Western Heritage Way and the main Zoo entrance, Zoo parking lots, and the realignment of Crystal Springs Drive shall be designed to respect and enhance the visual quality and natural character of Griffith Park, especially designated gateways to Griffith Park as follows:

- A licensed landscape architect experienced with road and infrastructure design within highly scenic parks shall be part of any design team and charged with maintaining and enhancing visual quality and natural character of the public spaces fronting the Zoo, including the parking, roadways, intersections and trails.
- For improvements at the intersection of Zoo Drive/North Zoo Drive/Western Heritage Way and the main Zoo entrance, major structural changes, including but not limited to a new bridge, below-grade crossing, and slip ramps or a roundabout, a licensed architect experienced with road and infrastructure design within highly scenic parks shall be part of any design team and charged with creating a scenic and iconic gateway feature, including:
    - Use of stone or other natural materials consistent with surrounding structures and facilities in Griffith Park.
    - Minimize size, bulk, scale of structures to the extent feasible while also adhering to required engineering standards for safety and operations.
    - Installation of iconic design elements, signage, and art/decorations (e.g., emblematic animals or habitats, sculpture, topiary/vegetation, water feature) that reflect the gateway to both the Zoo and Griffith Park such that the bridge or roundabout become beneficial visual features.
- All improvements to access roads and intersections shall be designed to preserve existing vegetation, particularly healthy mature trees, and characteristic park features (e.g., split rail fences), and to protect views from these roads and adjacent trails.
- As part of design of these road and intersection improvement projects, a master landscape plan shall be prepared to guide tree and landscape retention and protection along these road corridors along with tree replanting and replacement landscaping.
- The Zoo shall coordinate with RAP on design of all road and intersection improvements, and parking lot perimeter plantings.

MM UF-1: **Protected Tree Plan.** To offset impacts to protected and important trees and shrubs resulting from Vision Plan implementation, the Zoo shall prepare and implement a Protected Tree Plan. The Protected Tree Plan shall identify measures for the protection, relocation, and/or replacement of protected and important significant trees and shrubs. The Protected Tree Plan shall outline and require that Project activities affecting protected trees and shrubs proceed as follows:

1. Preservation of Trees and Shrubs: Protected and important trees and shrubs shall be preserved in place to the maximum extent feasible. To ensure protection of native protected trees and shrubs, as part of final design of the California and Africa area exhibits, all protected trees and shrubs shall be mapped and incorporated into the exhibit to the maximum extent feasible. The

Zoo shall hire a City-approved Tree Expert meeting the requirements of the City's Protected Tree Ordinance to evaluate the health and structure of protected and important trees and shrubs and make recommendations for avoidance of healthy specimens to the maximum extent feasible. The tree expert shall work with project designers during the final design of each phase to incorporate such trees into the exhibits in a manner that would ensure protection of the tree or shrub from damage by exhibit animals or exhibit maintenance activities. Each protected or important tree and shrub to be retained shall have a designated Protection Zone identifying the area sufficiently large enough to protect it and its roots from significant damage during construction. The designated Protection Zone of each specimen shall be protected with 5- to 6-foot-high chain link fences. Fences shall be mounted on 2-inch galvanized iron posts, driven into the ground to a depth of at least two feet and at no more than 10-foot centers, or similarly durable material. Tree and shrub fences shall be erected before demolition, grading, or construction begins and remain until final inspection of the project. Construction and demolition activities around protected trees shall follow all industry standards. Erosion control measures, tree pruning, soil compaction preventive measures, and a tree maintenance schedule shall be implemented and verified by the BOE and a City-authorized tree expert. Following construction, each tree or shrub preserved shall be monitored for a minimum of 5 years to ensure their long-term survivability.

2. Relocation of Trees and Shrubs: Where protected and important trees cannot be avoided and preserved in place, individuals shall be transplanted elsewhere onsite to the extent feasible. If relocation onsite is not feasible, individuals shall be transplanted to an appropriate offsite location elsewhere within Griffith Park, pursuant to the approval of the City BOE and RAP. The City-approved Tree Expert shall identify the necessary measure to be taken to ensure the maximum survivability of the relocated specimens, including relocation method, placement, irrigation method, and maintenance. Relocated individuals shall be monitored for their success for a period of 5 years. The Tree Protection Plan shall identify performance standards for determining whether relocated specimens are healthy and growing normally and shall outline procedures for periodic monitoring and implementation of corrective measures in the event the health of relocated trees declines.
3. Replacement of Trees and Shrubs: Where the preservation or relocation of protected and important trees and shrubs is not feasible, or where the health of preserved or relocated specimens becomes compromised, as part of the final design of each exhibit or feature, the Zoo shall prepare and implement a replacement planting program. Replacement of protected and important trees and shrubs should follow guidelines described in the City's Protected Tree Ordinance adopted at the time, including requirements for relocated or

removed trees or shrubs to be replaced by other species protected by the ordinance at a 4:1 ratio (number of individuals restored to number of individuals impacted). Replacement of oak trees shall be subject to replacement as follows: oak trees less than 12 inches DBH be replaced at 4:1; oak trees between 12 and 24 inches DBH be replaced at 5:1; and oak trees greater than 24 inches BDH be replaced at 10:1. The replacement planting program shall be prepared by a City-approved Tree meeting the requirements of the City's Protected Tree Ordinance. The replacement planting program shall specify the location for replacement, tree or shrub size, planting specifications, and shall include a monitoring program to ensure that the replacement planting program is successful. To the extent feasible, protected, and important trees or shrubs removed within the California or Africa exhibits shall be replaced within each exhibit. Where this is not feasible, the Tree Protection Plan shall outline provisions and standards for replacement in areas outside of each exhibit. At a minimum, the monitoring program shall require monitoring of replacement individuals for a period of 5 years and shall include performance standards for determining whether replacement specimens are healthy and growing normally and procedures for periodic monitoring and implementation of corrective measures in the event that the health of replacement trees declines.

Replacement of removed trees and shrubs should occur within the Zoo to the extent feasible. If replacement within the Zoo is not feasible, the Zoo should coordinate with RAP and the City Forester for replacement trees and shrubs to be planted on adjacent areas of Griffith Park, provided such locations can support the tree's or shrub's survival. Each replacement tree shall be at least 15-gallon, or larger, measuring one inch or more in diameter one foot above the base, and be not less than seven feet in height measured from the base. If use of similar sized replacement trees and shrubs is not possible, smaller sized replacements may be planted. In that event, a greater number of replacement trees or shrubs may be required.

MM UF-2: **Restoration Plan.** To offset impacts to urban forestry resources and ensure landscaping under the Vision Plan is planned to provide urban forest value, the Zoo shall retain a qualified landscape architect to prepare a landscaping plan. The Zoo landscape plan shall be subject to review and approval by City Bureau of Engineering and shall include the following:

1. Maximize protection of existing protected and important trees and shrubs consistent with the Zoo's Tree Protection Plan identified in MM UF-1.
2. Specify a plant palette and landscape plan that ensures establishment of tree canopy that is cohesive with and supports continuity with the surrounding canopy. The plant palette shall emphasize tree species which are considered

to provide a healthy mix of visual and biological value and which offer greater shade cover and carbon sequestration.

3. Plantings shall include tree specimens and shrubs capable of reaching or exceeding the heights of the adjacent Alternative 1.5 structures and plantings.
4. Landscaping shall occur immediately following completion of construction of a Alternative 1.5 area of improvement. Planting would use a combination of small containers and larger containers with more mature specimens to ensure plant health while also expediting recovery of the urban forest and minimizing duration of heat island effects following construction.

7.2 TRANSPORTATION – VMT

Construction activities associated with development of the Alternative 1.5 Project would result in additional short-term, intermittent VMT in the Project vicinity and on the I-5 and SR-134 freeways. Operation following Project implementation would substantially increase daily VMT due to the addition of new employees and an increase of approximately 1.2 million new annual visitors. At Project buildout in 2040, daily visitor VMT is projected to increase 72 percent and daily employee VMT is projected to increase by up to 93 percent. OPR's Guidelines recommend that a significant impact would occur when a residential or office project's VMT exceeds a level of 15 percent below the existing regional or city VMT per capita and per employee, respectively. The Zoo's projected 2040 visitor VMT (11.92 VMT per capita) would be 28 percent above the City's average daily VMT per capita. Zoo employee daily VMT projected for 2040 (19.23 VMT per employee) would be 49 percent above the City' current average daily VMT per employee. Therefore, projected VMT would be greater than the City and regional averages and would exceed City transportation thresholds. The increase in VMT under the Alternative 1.5 Project would be inconsistent with the adopted City Thresholds of Significance, as well as state, regional and local planning goals for VMT and GHG reduction. While MM T-2-Alternative 1.5 would substantially reduce Project VMT, feasible mitigation does not exist which could ensure Project increases in VMT are reduced below the City's established VMT threshold, which stipulates that any net increase in VMT for event centers and regional-serving entertainment venues would be significant. Therefore, the projected increase in Project VMT would be significant and unavoidable even with preparation of the Alternative 1.5 TDM program which would help the Zoo achieve at least a 10 percent reduction of existing employee VMT and a measurable reduction of projected visitor VMT, transportation impacts would be significant and unavoidable.

Findings

Based on the Initial Study, Draft EIR, Final EIR, Revised Final EIR, all reference documents, and the whole of the record, the City finds that implementation of the Alternative 1.5 Project would result in significant and unavoidable direct and cumulative transportation impacts related to VMT generation, even with the incorporation of the mitigation measure discussed below.

As discussed in Section 4.5.3, Alternative 1.5 – California Focused Conservation Alternative above, Alternative 1.5 include the PVMP, which, unlike the proposed Project, would manage annual Zoo visitation to control maximum daily Zoo attendance, and in some cases, hourly

attendance within the capacity of the Zoo's existing surface parking lot. The 2,000-space parking garage would not be constructed under Alternative 1.5, limiting the number of parking spaces available for Zoo visitors to 2,444 spaces. The PVMP is driven by a limited parking supply and would employ the Zoo's ticket reservation system to ensure visitors can be accommodated. This system has proved highly effective during the COVID-19 pandemic to limit total visitors within the Zoo at any time. As the PVMP affects VMT, required mitigation to reduce VMT must recognize the PVMP. Accordingly, MM T-2-Alternative 1.5 below amends MM T-2 (Zoo TDM Program), to address the relationship between the PVMP and the required TDM Program. MM T-2-Alternative 1.5 would apply only to Alternative 1.5 and would better integrate the proposed PVMP with monitoring, reporting, and adaptive response strategies of the TDM Program. Specifically, MM T-2 has been revised to require that the TDM Program define and track peak visitation hours and days of the week to inform the PVMP. This would allow the Zoo to adaptively manage the TDM Program based on the success of the PVMP, and better integrate the two programs during the implementation of the Vision Plan. MM T-2-Alternative 1.5, as it would apply to Alternative 1.5 only, is provided below.

MM T-2-Alternative 1.5

The Zoo shall prepare and implement a comprehensive TDM program to provide trip reduction strategies for Zoo visitors and employees. The TDM Program shall be prepared by a qualified transportation planner and submitted by the Zoo to LADOT for review and approval prior to construction activity. The TDM Program shall be developed and approved prior to initiation of construction of Phase 1 of the Project and shall be maintained and adjusted as needed.

The TDM Program shall:

- Establish a baseline for Zoo VMT at Project initiation.
- Monitor and track VMT for Zoo visitors and employees with specific reduction goals to reduce overall VMT to a target ideally 15 percent below the TDM baseline conditions by 2040 or to achieve other specific reduction goals justified by the TDM Program.
- Include events held outside of normal business hours.
- Define and track peak hours and days of the week to inform the Peak Visitation Management Program.
- Annually report the number of private vehicles, ride-share (TNCs) vehicles, and chartered buses parking and picking up/dropping off at the Zoo facilities in collaboration with the LADOT.

The TDM Program shall be overseen by a Zoo TDM Coordinator and conducted in collaboration with LADOT. The Zoo TDM Coordinator shall be a qualified transportation planner and may be a City/Zoo employee or contractor. The Zoo TDM Coordinator shall monitor visitor and employee mode share with annual surveys, collect and analyze parking and transit use data, and develop annual reports for submittal to BOE and LADOT. The surveys shall capture trip origin data, travel

mode, number of people in the party, and other key data and indicators for TDM program performance relative to VMT. The Zoo TDM Coordinator shall ensure that monitoring efforts capture all Zoo-related travel behavior. Annual monitoring reports shall include trip length surveys completed at least biannually by a sample of Zoo patrons and annually by Zoo employees (e.g., trip origin data collection). Monitoring results shall be used to determine the appropriate TDM measures to employ in the coming year to maximize reductions in VMT per capita, champion transit and active modes of transportation to the Zoo for visitors and employees, develop appropriate incentives to increase the Zoo's transit mode share incrementally over time, and develop effective marketing tools to advertise transit and non-vehicular travel mode availability and incentives.

Each annual TDM Program monitoring report shall:

- Describe the TDM efforts in place at the time to reduce vehicular trips;
- Summarize collected survey data and results;
- Evaluate parking utilization and transit use, comparing trends and annual changes;
- Report the peak hours and days of the week for each survey period based on visitation and travel patterns;
- Analyze the results of trip reduction measures in reducing VMT relative to projected VMT increases;
- Evaluate change in available transportation infrastructure and programs serving the Zoo,
- Report the effect on Zoo employee and visitor VMT per capita and compare to current Citywide VMT per capita; and
- Provide recommendations for adjustments to the TDM Program to adaptively manage VMT reductions for visitors and employees, such as increase the charges of paid parking or expand incentives associated with proposed programs, particularly on peak days.

The TDM Coordinator shall oversee annual monitoring and reporting to evaluate the effectiveness of the TDM measures being implemented at the Zoo and recommend adjustments as needed to the TDM Program on an annual basis. The annual report shall be submitted to LADOT for review. The TDM measures shall be assessed and adapted as necessary based on the results of this review. Final annual reports and data (e.g., survey data) shall be shared with the City and made readily available for public review and use. The TDM Coordinator may reference the California Air Pollution Control Officers Association (CAPCOA) Quantifying Greenhouse Gas Mitigation Measures (2010) report and the Federal Highway Administration's (FHWA's) Integrating Demand Management into the Transportation planning Process: A Deck Reference (2012), among others, for potential additional measures or adjustments that are determined to be feasible based on the effectiveness of the TDM Program and future conditions.

The TDM Program shall be prepared consistent with the Mobility Element and in consultation with LADOT, as well as RAP, if required for measures affecting Griffith Park. Information regarding the TDM Program shall be distributed to all Zoo employees and shall be posted on the Zoo's website and other marketing materials for Zoo visitors and updated annually as needed based on the annual reports.

The TDM Coordinator shall consider a range of measures for the TDM Program to reduce employee and visitor VMT per capita, including, but not limited to, the following:

1. Measures to Reduce Zoo Employee VMT Per Capita

- Encourage employee participation in existing vanpool and car-sharing programs, including City employee and Metro vanpool programs, BlueLA, or develop/expand the Zoo vanpool program.
- Provide employee incentives to participate in a vanpool or car-sharing program, such as subsidized participant fees, offer in-kind services such as oil change discounts, and provide preferential parking for program participants, and regularly advertise the opportunities to vanpool or car-pool through a variety of employee communication formats.
- Implement a paid parking program to discourage employee vehicle trips to the Zoo and generate revenue that the Zoo may use to expand transit ridership for employee trips. Pricing options of onsite employee parking spaces include pay-per-use or weekly/monthly parking passes.
- Partner with rideshare companies to guarantee availability of an emergency ride home or provide access to City vehicles for this purpose.
- Offer employee TDM benefits for use of active transportation commuter modes, including transit, bicycling walking, carpool/vanpool, etc. Incentives for Zoo employees could include:
- Flexible scheduling or options for telecommuting,
- Discount transit passes such as Metro E-Pass Program transit passes
- Discounted equipment to employees who bike to work, or discounted equipment (e.g., walking shoes) to employees to walk to work.
- Maximize opportunities for Zoo employees to telecommute as part of regular scheduling.
- Provide a transportation information center and a commuter club to support a collaborative approach among employees to TDM.
- Provide onsite bicycle facilities (i.e., shower, racks, and lockers) for Zoo employees in an amount and location informed by annual employee surveys and monitoring reports.
- Encourage bicycles as a primary commute mode for employees and provide incentives for biking to work, including providing free or discounted equipment to employees such as helmets, locks, bicycle commuter gear, and bicycles (electric or non-electric).
- Coordinate with LARiverworks, RAP, LADOT, the City of Burbank, and the City of Glendale to identify and facilitate new bicycle and pedestrian linkages and bridges between the Zoo and neighboring communities, particularly linkages to the Los Angeles River Bike Path. The Zoo, RAP, and LADOT in consultation with the City of Glendale shall consider development of a new bicycle and pedestrian bridge across Colorado Boulevard, linking neighborhoods within the City of Glendale to Griffith Park, south of the Project site. The Zoo, RAP, and LADOT shall ensure that all bicycle and pedestrian linkages and bridges to Griffith Park are well-signed and provide lighting, and are regularly patrolled by law enforcement.

- Continue to seek grant funding to support expanded TDM measures to reduce employee VMT per capita.

2. Measures to Reduce Zoo Visitor VMT Per Capita

- Encourage visitors to travel to the Zoo through means other than private automobiles or ridesharing (i.e., active transportation modes like walking, cycling, transit, or car-sharing) through discounted pass programs and dedicated parking spaces reserved for car-sharing automobiles (e.g., BlueLA). In such cases, visitors could be required to provide proof of arrival via active transportation modes or car-sharing to receive a discounted entrance rate.
- Advertise the availability of ticket discounts for active transportation and car-sharing through social media and in coordination with RAP, LADOT, and Metro.
- Review the effect of ridesharing as a mode on VMT and consider if rideshare users should receive ticket discounts as an effective way of reducing VMT.
- Visitors could be required to provide proof of arrival via alternative modes of travel to receive a discounted entrance rate. Advertise the availability of ticket discounts for alternative modes of travel through social media and in coordination with RAP, LADOT, and Metro.
- Coordinate with Metro to increase bus service frequency to the Zoo bus stop, such as advocating for the implementation of Metro's proposed Line 501.
- Seek funding opportunities to provide proportional share funding for the following:
- Reestablish the Parkline DASH shuttle service in a proportion consistent with demands Zoo patrons will place on the service.
- Expand Parkline Shuttle service to connect to the Metro B Line Vermont/Sunset station in the south and the Metro B/G (formerly, Orange) Line North Hollywood station in the north. Shuttle routes should be coordinated with LADOT and RAP.
- Extend Parkline Shuttle service hours to begin at 9:30 AM, before the Zoo opens each day. This expanded service should first be targeted to occur during peak demand periods such as Easter, Memorial Day, and during Los Angeles Unified School District (LAUSD) holidays, such as the week of spring break.
- Coordinate with RAP to monitor the success of the Parkline Shuttle during such peak periods and to fund expansion of the service over time, as needed, to facilitate and accommodate increased ridership. The program shall then be expanded to broaden the hours and days of operation as needed to meet demand.
- Coordinate with RAP on how best to advertise and perform outreach to user groups regarding the availability of this transit service and methods to increase ridership (e.g., social media outreach).
- Seek funding opportunities to provide proportional share funding in coordination with Metro, LADOT, and other regional transportation partners, to provide an express shuttle service to and from stations such as Los Angeles Union Station (Metro), Downtown Burbank Metrolink Station (Burbank Community Development/Transportation), the Metro

Red (B) Line North Hollywood Station (Metro), or the Glendale Metrolink station (Glendale Public Works/Public Transportation and Metrolink).

- Provide Union Station shuttle during operating hours on weekends and legal holidays. This new service shall first be targeted as a pilot program to occur during peak demand periods such as Easter, Memorial Day, and during LAUSD holidays, such as spring break week. If successful, the program shall then be expanded to broaden hours and days of operation.
- Coordinate with Metro and LADOT on how best to advertise and perform outreach to user groups regarding the availability of this transit service and methods to increase ridership (e.g., social media outreach).
- Seek funding opportunities to provide proportional share funding in coordination with Metro and LADOT, for Metro's 96 bus line (Metro NextGen 296) service in a proportion consistent with demands Zoo patrons will place on the service.
- Maintain and expand onsite bicycle parking for Zoo visitors in an amount and location informed by visitor surveys and annual monitoring reports.
- Build out short and long-term bicycle parking within the Zoo to meet changing demands evaluated in the TDM Program annual reports.
- Provide well-lit, clearly signed, bicycle parking that is convenient and in close proximity to the Zoo Entry to encourage bicycling by visitors.
- Build out bicycle parking for cargo bicycles, long-tail bicycles, bicycles with trailers, and other family-friendly bicycle models.
- Build out access restricted, secure bicycle parking for visitors such as bike lockers, storage lockers, a new Metro Bike Hub location, other bicycle hub mode, or staffed bike valet. Funding shall be determined based on the area required for the bike station. The bike share station shall be well-lit and located at a safe and convenient location near the Zoo entrance.
- Design bicycle racks with space-efficient configurations, such as vertically staggered racks and two-tier racks.
- Develop and implement a paid parking program for Zoo visitors to discourage personal vehicle trips to the Zoo and provide a secure funding source to help subsidize TDM, transit improvement, and other trip reduction measures, considering the following options:
- A Peak Period Parking Program would charge for preferred parking during the highest visitation periods, including all weekends (Saturdays and Sundays), holidays, the spring months (April and May), and December, collecting fees for preferred parking on approximately 170 days of the year (based on the 2020 calendar year).
- An Everyday Parking Program would charge for preferred parking 364 days of the year (every day the Zoo is open).
- Maintain at least 15 percent of parking spaces as free parking to meet the needs of disadvantaged households and ensure that low-income visitors may continue to visit the Zoo.
- The Zoo's TDM Coordinator shall prepare a quarterly report on the effectiveness of the Paid Parking Program and monthly revenue generated.

- Continue to seek grant funding to support expanded TDM measures to reduce visitor VMT per capita.

8.0 FINDINGS OF PROJECT ALTERNATIVES

The Final EIR and Revised Final EIR discuss the alternatives considered in order to present a reasonable range of options. For alternatives considered but eliminated from further analysis, see Section 4.4.1 of the Final EIR. The City considered three build alternatives for the reduction to identified impacts, especially aesthetics, air quality, urban forestry, noise, and transportation impacts. Additionally, the No Project Alternative was analyzed in the EIR pursuant to Section 15126.6(e) of the CEQA Guidelines. This resulted in the analysis of three alternatives in the EIR, including the No Project Alternative, Alternative 1 – The Reduced Project Alternative, Alternative 1.5 – The California Focused Conservation, and Alternative 2 – The Multi-Modal Transpiration Alternative

8.1 NO PROJECT ALTERNATIVE

The evaluation of the No Project Alternative is required under CEQA. Under this alternative, the Alternative 1.5 Project would not be implemented in any manner. The No Project Alternative would not result in any changes to existing conditions at the Zoo. No construction activity would occur and there would be no ground-disturbing activities.

8.1.1 Environmental Effects

Under the No Project Alternative (see Section 4.3.1, 4.4 and 4.5.1 of the Revised Final EIR), a number of environmental impacts would be avoided or reduced compared to the Alternative 1.5 Project, although beneficial impacts to recreation from development of a new public park would not occur (see *Recreation* in Section 4.5.1 of the Revised Final EIR). Impacts to aesthetics and visual resources, air quality, biological resources, cultural and tribal cultural resources, noise, and transportation and circulation would be substantially less when compared to the Alternative 1.5 Project, due to the absence of construction activities and lack of significant increase in annual visitation under the No Project Alternative (see *Aesthetics and Visual Resources*, *Air Quality*, *Biological Resources*, *Cultural and Tribal Cultural Resources*, and *Transportation* in Section 4.5.1 of the Revised Final EIR). Mitigation measures would not be necessary for these resource areas to avoid significant impacts under this alternative. However, the Zoo would not benefit from some of the improvements proposed under the Alternative 1.5 Project, such as the improvement and expansion of space for animals, redevelopment of outdated exhibit structures (e.g., round houses), addition of parking, improvement of the Zoo's stormwater system for onsite reuse, expansion of solar PV systems onsite to offset Zoo energy demands, and improvement of offsite roadways (see *Potential Impacts to Resource Areas* in Section 4.5.1 of the Revised Final EIR) .

8.1.2 Findings

The City finds this alternative less desirable than the Alternative 1.5 Project. Though the No Project Alternative would avoid or reduce a number of environmental impacts when compared to the Project, implementation of the No Project Alternative would not meet any of the Project Objectives related to improving Zoo services, facilities, and operation.

8.2 ALTERNATIVE 1 – REDUCED PROJECT ALTERNATIVE

The Reduced Project Alternative (see Sections 4.3.2, 4.4 and 4.5.2 of the Revised Final EIR) would substantially avoid development within approximately 21 acres of the existing undeveloped areas of the Zoo property where protected trees, native habitats, and other special-status plant species are present. The Reduced Project Alternative would also generate a smaller increase in visitation, thereby reducing projected VMT and reducing the size of the parking structure or eliminating the need for it entirely.

8.2.1 Environmental Effects

This alternative would reduce potentially significant impacts to biological and urban forestry resources, as well as aesthetics, air quality and GHG emissions, energy, noise, transportation, and utilities. With mitigations required for the Alternative 1.5 Project, Alternative 1 would reduce one significant and unavoidable impact (Impact VIS-2) related to aesthetic impacts to the visual character of the Zoo in context of the Zoo Drive gateway to Griffith Park to a less than significant level (see *Aesthetics and Visual Resources* in Section 4.5.2 of the Revised Final EIR). However, Alternative 1 would still generate VMTs that exceed the City's TAG threshold of net-zero VMT for regional attractions like the Zoo and impacts related to Zoo would remain significant and unavoidable under Alternative 1 (see *Transportation* in Section 4.5.2 of the Revised Final EIR).

Alternative 1 would continue to support long-term redevelopment of the existing Zoo to be partially consistent with several of the Project Objectives, including improvement of animal welfare and care (Project Objective No. 1) though to a lesser extent, modernization of exhibit spaces (Project Objective No. 2), improvement of the visual appearance of the Zoo (Project Objective No. 11), and incorporation of sustainable design practices (Project Objective No. 13) (see *Conclusion and Relationship to Project Objectives* in Section 4.5.2 of the Revised Final EIR). However, due to the reduced footprint of the Zoo and smaller increase in visitation over time, this alternative would likely not generate as much revenue as the Alternative 1.5 Project and could undermine the economic viability of the Vision Plan. Therefore, this alternative may not be able to support expansion of conservation efforts, education, or enhanced visual appearance to the same extent as the Alternative 1.5 Project. Likewise, with less area contributing to the design and function of a redeveloped zoo, this alternative would not utilize all of the Zoo property to maximize immersive experiences for visitors or expand visitor-serving features (Project Objectives Nos. 5, 6, and 7). Further, elimination of Condor Canyon would inhibit the creation of an efficient and accessible internal loop circulation system with a Primary Loop Path (Project Objective No. 8). This feature is key to improving not only visitor experience but also to visitor safety and operational excellence (Project Objective Nos. 9 and 14). This alternative would include some improvements to the secondary/exhibit pathways and would implement the Alternative 1.5 Zoo aerial tram to improve access; however, a funicular would not be developed and many of the Zoo's pathways would remain inaccessible for ADA visitors and potentially difficult to navigate, similar to the existing setting at the Zoo. As a result, Alternative 1 would not meet or only partially several Project objectives (see *Conclusion and Relationship to Project Objectives* in Section 4.5.2 of the Revised Final EIR).

8.2.2 Findings

The City finds this alternative less desirable than the Alternative 1.5 Project. Although Alternative 1 would reduce one significant and unavoidable impact (Impact VIS-2) related to aesthetic impacts to a less than significant level with mitigation and result in a slight reduction of potentially significant impacts to biological and urban forestry resources, as well as aesthetics, air quality and GHG emissions, energy, noise, transportation, and utilities, significance findings would largely remain similar to the Project. In addition, Alternative 1 would continue to result in significant and unavoidable transportation impacts related to increases in VMT. Additionally, Alternative 1 would not meet or only partially meet most the Project objectives compared to the Alternative 1.5 Project.

8.3 ALTERNATIVE 2 – MULTI-MODAL TRANSPORTATION ALTERNATIVE

Under the Multi-modal Transportation Alternative (see Sections 4.3.2, 4.4 and 4.5.4 of the Revised Final EIR), the Zoo would implement measures that would go beyond the state and regional goals and policies for reducing VMT and increasing multi-modal transportation. Alternative 2 would incorporate Project mitigation measures and additional measures for reducing VMT into the design of the project. This would involve additional measures to increase active transportation and transit to and from the Zoo by coordinating with local and responsible agencies, providing funding for key improvements, and incentivizing alternative modes of travel. Under Alternative 2, all transportation, circulation, and parking improvements proposed under the Alternative 1.5 Project would continue to be implemented. However, Alternative 2, unlike Alternative 1.5, includes a new parking structure, which would be reduced in size commensurate to the reduced demand for parking resulting from increased use of alternate modes of transportation.

8.3.1 Environmental Effects

Alternative 2 would substantially expand multi-modal transportation opportunities for the Zoo to give visitors and employees the option to use transit, bicycles, walking, and ridesharing as a viable and attractive travel mode. In doing so, Alternative 2 would substantially reduce total Zoo VMT to a greater extent than the Project. As a result, this alternative would reduce potentially significant impacts to aesthetics, air quality and GHG emissions, energy, land use and planning, and transportation. VMT is the metric by which transportation impacts are measured in the City, per the 2020 TAG and consistent with state law. Alternative 2 would result in a greater level of consistency with state and regional goals for reducing VMT and associated vehicle GHG emissions, slightly reducing impacts compared to the Project; however, due to the City's adopted thresholds for regional serving retail projects, impacts would remain significant and unavoidable. Similar to the Alternative 1.5, Alternative 2 would achieve all of the Project Objectives (see Conclusion and Relationship to Project Objectives in Section 4.5.4 of the Revised Final EIR).

8.3.2 Findings

The City finds this alternative less desirable than the Alternative 1.5 Project. Although Alternative 2 would achieve all of the Project Objectives, substantially reduce total Zoo VMT, and result in a greater level of consistency with state and regional goals for reducing VMT and associated vehicle GHG emissions, impacts would remain significant and unavoidable. Additionally, the possibility of funding from multiple stakeholders, and the amount of funding required for new transit facilities and services, bicycle and pedestrian bridges and connections, and multi-modal incentives for employees and visitors would be costly and present challenges in terms of economic feasibility.

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9.0 FINDINGS ON MITIGATION MONITORING PROGRAM

Pursuant to Section 15091 (a)(1) of the CEQA Guidelines, the City finds that implementation of the mitigation measures, BMPs, and project design standards specified in the Final EIR would substantially lessen the significant environmental effects resulting from the implementation of the Alternative 1.5 Project. These mitigation measures, BMPs, and design features have been required in, or incorporated into the Alternative 1.5 Project. In accordance with Section 15091 (d), and Section 15097 of the CEQA Guidelines, which require a public agency to adopt a program for reporting or monitoring required changes or conditions of approval to substantially lessen significant environmental effects, the Mitigation Monitoring Program provided in the Final EIR is hereby adopted as the mitigation monitoring program for the Alternative 1.5 Project.

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10.0 FINDINGS ON CHANGES TO THE DRAFT EIR AND THE FOCUSED RECIRCULATED EIR

10.1 CHANGES TO THE DRAFT EIR AND FOCUSED RECIRCULATED EIR

In response to comments from the public and other public agencies, the Alternative 1.5 Project includes changes subsequent to publication of the Draft EIR and the Focused Recirculated EIR.

To analyze Alternative 1.5 pursuant to CEQA, Sections 1.0 and 4.0 of the Draft EIR were revised and recirculated as a Focused Recirculated EIR. Comments on the Focused Recirculated EIR were incorporated, along with responses to those comments, into the Revised Final EIR.

10.2 FINDINGS REGARDING FINAL EIR

Pursuant to CEQA, on the basis of the review and consideration of the Final EIR and Revised Final EIR, the City finds:

1. Factual corrections and minor changes have been set forth as clarifications and modifications to the Draft EIR and Focused Recirculated EIR;
2. The factual corrections and minor changes to the Draft EIR and Focused Recirculated EIR are not substantial changes in the Draft EIR and Focused Recirculated EIR that would deprive the public of a meaningful opportunity to comment on a substantial adverse environmental effect of the Alternative 1.5 Project, a feasible way to mitigate or avoid such an effect, or a feasible project alternative;
3. The factual corrections and minor changes to the Draft EIR and Focused Recirculated EIR will not result in new significant environmental effects or substantially increase the severity of the previously identified significant effects disclosed in the Draft EIR or Focused Recirculated EIR;
4. The factual corrections and minor changes in the Draft EIR and Focused Recirculated EIR will not involve mitigation measures or alternatives which are considerably different from those analyzed in the Draft EIR and Focused Recirculated EIR that would substantially reduce one or more significant effect on the environment; and
5. The factual corrections and minor changes to the Draft EIR and Focused Recirculated EIR do not render the Draft EIR so fundamentally inadequate and conclusory in nature that meaningful public review and comment would be precluded.

Thus, none of the conditions set forth in CEQA requiring recirculation of a Draft EIR or Focused Recirculated EIR have been met. Incorporation of the factual corrections and minor changes to the Draft EIR into the Final EIR and the Focused Recirculated EIR into the Revised Final EIR does not require the Final EIR or Revised Final EIR be recirculated for public comment.

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11.0 STATEMENT OF OVERRIDING CONSIDERATIONS

Pursuant to CEQA Section 21081(b) and the CEQA Guidelines Section 15093, the City has balanced the benefits of the Alternative 1.5 Vision Plan against the unavoidable adverse impacts associated with the Alternative 1.5 Project and has adopted all feasible mitigation measures. The City has also examined alternatives, and has determined that adoption and implementation of the Alternative 1.5 Project is the most desirable, feasible, and appropriate action.

11.1 SIGNIFICANT UNAVOIDABLE IMPACTS

Based on the information and analysis set forth in the Draft EIR, Final EIR, responses to comments, and the record of proceedings, implementation of the Alternative 1.5 Project would result in significant impacts after mitigation related to aesthetics and transportation.

Construction of the Alternative 1.5 improvements to the Zoo Drive/Western Heritage Way, particularly construction of a roundabout or below-grade crossing, would substantially change the visual character of the Zoo Drive gateway to Griffith Park, inconsistent with applicable regulations governing scenic quality, which would result in significant and unavoidable impacts to aesthetic and visual resources.

Existing and projected VMT would be greater than the City and regional averages and would exceed City transportation thresholds. However, a TDM program would help the Zoo achieve at least a 10 percent reduction of existing employee VMT and a measurable reduction of projected visitor VMT to help achieve measurable GHG reductions consistent with the goals of the California Climate Change Scoping Plan and local GHG plans. Even with robust mitigation, VMT transportation impacts would be significant and unavoidable.

11.2 PROJECT BENEFITS

The City has balanced the Alternative 1.5 Project's benefits against the significant and unavoidable impact identified for the Alternative 1.5 Project. The City finds that the benefits of implementing the Alternative 1.5 Project outweigh the significant and unavoidable impact, and the impact, therefore, is considered acceptable in light of the Alternative 1.5 Project's benefits. The City finds that each of the following benefits is an overriding consideration, independent of the other benefits, that warrants approval of the Alternative 1.5 Project notwithstanding the significant and unavoidable aesthetic and transportation impacts. The Alternative 1.5 Project would provide several public benefits, as described below, and discussed in Sections 4.4 and 4.5.3 of the Revised Final EIR:

- Improve the quality and extent of animal habitats within the Zoo, improving the livelihood of resident Zoo animals and the capabilities of the Zoo's service centers and veterinary facilities (see also Appendix Q of the Focused Recirculated EIR).
- Raise the quality of the visitor experience and visitor-serving facilities and exhibits.

- Redevelop the Zoo as a world class destination to provide unique recreational opportunities to both residents and tourists.
- Expand facilities to support the Zoo's conservation actions to protect and grow animal populations and habitats.
- Provide immersive habitats, hands-on learning opportunities, improved facilities, and other visitor amenities to enhance visitor experience and promote public education and interest in nature and conservation.
- Promote understanding of California habitats, wildlife species and unique natural systems through development of the California Exhibit.
- Reduce fire hazards through improved fire management, upgrade or replacement of existing outdated structures to current California Building Code and Fire Code standards, replacement of high fire hazard trees (e.g., eucalyptus) with a range of tree species, and maintenance or enhancement of emergency access to the Zoo and perimeter areas
- Provide expanded event facilities to support more evening uses to make use of the Zoo's facilities for a broader range of activities.
- Improve environmental sustainability of Zoo operations, including substantial onsite solar power generation, rainwater capture, and water recycling by incorporating sustainable design practices consistent with the City's Sustainable City pLAn, One Water L.A. Plan, and Resilient Los Angeles Plan.
- Establish operational excellence at the Zoo by providing facilities and resources that allow Zoo staff and emergency responders to safely and efficiently support Zoo operations.

11.3 CONCLUSION

Based on the foregoing findings and the information contained in the record, it is hereby determined that:

a) All significant effects on the environment due to approval of the Alternative 1.5 Project have been eliminated or substantially lessened where feasible, and
b) Any remaining significant effects on the environment found to be unavoidable are acceptable due to the factors described in the Statement of Overriding Considerations above.

Mitigation Monitoring Program
for the
Los Angeles Zoo Vision Plan

May 2023

MITIGATION MONITORING PROGRAM

The following Mitigation Monitoring Program (MMP) provides a summary of each Mitigation Measure (MM) for the proposed Los Angeles Zoo (Zoo) Vision Plan (Vision Plan; Project) and alternatives, and identifies the parties responsible for implementing that measure. The MMP would apply through all phases of implementation, including design, construction, and operation.

PURPOSE

The purpose of the MMP is to ensure that measures provided in the EIR to minimize or avoid significant adverse effects are implemented. The MMP can also act as a working guide to facilitate not only the implementation of MMs by the project proponent, but also the monitoring and compliance activities of the implementing agency and any monitors it may designate.

RESPONSIBILITIES

It is expected that the City of Los Angeles (City) Department of Public Works, Bureau of Engineering (BOE) would act as the design and construction manager for the implementation of the Vision Plan (with the Zoo as its client) and would be responsible for the implementation of the MMP related to design and construction activities. For each MMP activity, the City BOE would either implement the activity or delegate it to other City departments (e.g., Zoo, Department of Recreation and Parks [RAP], Department of Building and Safety, etc.), to consultants, or to contractors. The BOE would also ensure that monitoring is documented as required and that deficiencies are promptly corrected. The party designated as environmental monitor (e.g., City building inspector, project contractor, certified professionals, etc.) would track and document compliance with mitigation measures, note any problems that may result, and take appropriate action to remedy problems. The City BOE or its designee(s) would ensure that each person delegated any duties or responsibilities is qualified to monitor compliance.

The Zoo would be responsible for funding the MMs identified in the MMP, and would work with the BOE to assure that the MMP requirements are met by all of its consultants and contractors. Standards for successful mitigation of impacts are implicit in many MMs that include such requirements as obtaining permits or avoiding a specific impact entirely. Other MMs specify detailed success criteria. Additional mitigation success thresholds would be established by applicable agencies with jurisdiction through the permit process and through the review and approval of project specific plans for the implementation of MMs. For operations, the Zoo has the primary responsibility for implementation and ensuring all parties comply with the mitigation measures. The Zoo may delegate monitoring responsibilities to staff, consultants, or contractors.

MONITORING PROCEDURES

This MMP shall be enforced throughout the design, construction, and operation of the proposed Project or selected project alternative. Many of the monitoring procedures would be conducted during the construction phase of the proposed Project. The City BOE or its designee(s) and the environmental monitor(s) are responsible for integrating the mitigation monitoring procedures into the construction process in coordination with the Zoo. To oversee the monitoring procedures and to ensure success, the environmental monitor assigned to a monitoring action must be on site during the applicable portion of construction that has the potential to create a significant environmental impact or other impact for which mitigation is required. The environmental monitor would be responsible for ensuring that all procedures specified in the monitoring program are followed.

Site visits and specified monitoring procedures performed by other individuals would be reported to the environmental monitor assigned to the relevant construction phase. A monitoring record form would be submitted to the environmental monitor by the individual conducting the visit or procedure so that details of the visit can be documented and progress tracked by the environmental monitor. A checklist would be developed and maintained by the environmental monitor to track all procedures required for each mitigation measure and to ensure compliance with the timing specified for the procedures. The environmental monitor would note any problems that may occur and take appropriate action as directed by the City BOE to rectify the problem.

MITIGATION MONITORING TABLE

For each MM, Table 1 identifies 1) the full text of the MM; 2) the action(s) that needs to be performed, including the applicable timing; 3) the entity responsible for performing the action; 4) the agency responsible for verifying compliance; and 5) whether the MM applies to the proposed Project, Alternative 1 – Reduced Project Alternative, Alternative 1.5 – California Focused Conservation Alternative, and/or Alternative 2 – Multi-modal Transportation Alternative.

Table 1. Mitigation Monitoring Program

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
Aesthetics and Visual Resources					
MM VIS-1 Roadway and Parking Lot Improvement Design. Improvements to the intersection of Zoo Drive/North Zoo Drive/Western Heritage Way and the main Zoo entrance, Zoo parking lots, and the realignment of Crystal Springs Drive shall be designed to respect and enhance the visual quality and natural character of Griffith Park, especially designated gateways to Griffith Park as follows: • A licensed landscape architect experienced with road and infrastructure design within highly scenic parks shall be part of any design team and charged with maintaining and enhancing visual quality and natural character the public spaces fronting the Zoo, including the parking, roadways, intersections and trails. • For improvements at the intersection of Zoo Drive/North Zoo Drive/Western Heritage Way and the main Zoo entrance, major structural changes, including but not limited to a new bridge, below-grade crossing, and slip ramps or a roundabout, a licensed architect experienced with road and infrastructure design within highly scenic parks shall be part of any design team and charged with creating a scenic and iconic gateway feature, including: • Use of stone or other natural materials consistent with surrounding structures and facilities in Griffith Park.	Design Phase - Roadway and parking lot design improvements; preparation of a master landscape plan City BOE Project Engineer shall include requirement in design contract, specifications and plans.	Zoo; landscape architect; road/ infrastructure architect	City BOE; City RAP	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
◦ Minimize size, bulk, scale of structures to the extent feasible while also adhering to required engineering standards for safety and operations. ◦ Installation of iconic design elements, signage, and art/decorations (e.g., emblematic animals or habitats, sculpture, topiary/vegetation, water feature) that reflect the gateway to both the Zoo and Griffith Park such that the bridge or roundabout become beneficial visual features. • All improvements to access roads and intersections shall be designed to preserve existing vegetation, particularly healthy mature trees, and characteristic park features (e.g., split rail fences) and to protect views from these roads and adjacent trails. • As part of design of these road and intersection improvement projects, a master landscape plan shall be prepared to guide tree and landscape retention and protection along these road corridors along with tree replanting and replacement landscaping. • The Zoo shall coordinate with RAP on design of all road and intersection improvements, and parking lot perimeter plantings.					
MM VIS-2 Parking Structure Design and Screening. The proposed parking structure shall be designed in such a manner as to limit size, bulk, and scale and to reduce visibility of this new parking structure. The goal for redesign of the parking structure should be reduce the structure height as	Design Phase- Design of parking structure and associated screening	Zoo; City BOE	City BOE	Yes	No

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
much as possible. Possible ways to reduce impacts of views of the structure from adjacent roadways and public areas may include: • Siting the parking structure in the far western corner of the parking lot as far from Zoo Drive as possible; • Design of the structure to a height no greater than three stories above grade with development of additional subterranean construction levels as necessary to achieve the intended number of new parking spaces; • Screening of the structure through planting of dense stands of trees and landscaping around the exterior of the structure; • Installation of lattices or climbing vines along the exterior of the structure and; • Use of natural materials (e.g., stone facing) or earth-tone colors to reduce the urban character of the structure. Proposed plans for the parking structure shall demonstrate screening and compatible design with Griffith Park and the intended goal of reducing structure height to the extent feasible. If the design of the structure within the proposed footprint identified in the Vision Plan and with a reduced structure height is determined to be infeasible due to cost or other environmental factors (e.g., shallow groundwater), redesign of the structure to achieve a reduced structure height may include consideration of a design of a structure within a larger footprint and no subterranean levels. All plans for the proposed parking structure shall be subject to review and approval by	City BOE Project Engineer shall include requirement in design contract, specifications and plans.				

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
the City Bureau of Engineering prior to approval of permits.					
MM VIS-3 Aerial Tram Glare Reduction. The proposed aerial tram support structures and gondolas shall have matte-finishing and painted with earth-tone colors to blend with the landscape. All glass features of the gondolas shall utilize non-reflective or low-reflectivity glass or film covers to avoid any potential for glare. Requirements for the use of no or low reflective materials shall be indicated on all plans for the aerial tram and be subject to review and approval by City Bureau of Engineering prior to approval of permits.	Use of matte-finishing, earth-tone paint, and non-reflective or low-reflectivity glass or film covers	Zoo; City BOE	City BOE	Yes	No
Air Quality					
MM AQ-1 Off-Road Construction Equipment Meeting Tier 4 Final Emissions Standards. All off-road diesel-powered construction equipment greater than 50 horsepower used for Project construction shall meet, at a minimum, Tier 4 Final off-road emissions standards. Construction contractors shall ensure that all off-road equipment meet the standards prior to deployment at the Project site and the Zoo shall demonstrate compliance with this measure to the City Bureau of Engineering prior to the start of construction. The City Bureau of Engineering shall monitor for continual compliance with these requirements throughout the course of construction.	Construction Phase: Use of off-road diesel-powered construction equipment meeting Tier 4 Final off-road emissions standards	Zoo; City BOE	City BOE	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
Biological Resources					
MM BIO-1 Biological Resources Mitigation and Monitoring Program. The Zoo shall prepare and implement a Biological Resources Mitigation and Monitoring Plan (BRMMP) to mitigate loss of native vegetation communities, habitat, and special-status species from each Project phase. The BRMMP shall be prepared after completion of 30 percent design plans for each phase and shall specify timing and implementation of required biological resource restoration, enhancement, or creation measures. The BRMMP shall be prepared by a City-approved biologist as part of planning, engineering, and site design for each Project phase under the direction of and approval by the City Bureau of Engineering and Zoo planning staff. The BRMMP shall be prepared in consultation with appropriate City departments and resource agencies such as the Los Angeles Fire Department, Recreation and Parks Department, and the CDFW. The BRMMP shall be updated prior to final designs and development plans for each phase. The Zoo shall be responsible for ensuring all BRMMP requirements are reflected in Project design/architectural, engineering, and grading plans. All plans for each Project phase shall be reviewed by the City to ensure compliance with the BRMMP. The BRMMP shall require measures to avoid and mitigate impacts to biological resources onsite, including, but not limited to, the following: 1. At the 30 percent design plan stage for each Project phase, biological resource surveys shall be completed for areas of potential effect in that	Design Phase: Preparation and implementation of a Biological Resources Mitigation and Monitoring Plan (BRMMP)	Zoo, City-approved biologist, City BOE, City RAP; Los Angeles Fire Department; California Department of Fish and Wildlife	City BOE	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
phase by a City-approved biologist, subject to the following requirements: a) The surveys shall refine the disturbance footprint of impacted habitats plus a buffer if recommended by the City-approved biologist. b) The survey shall delineate native vegetation communities such as coast live oak woodland, laurel sumac shrubland, and coastal sage scrub, including maps of the extent and type. c) The survey shall identify all special-status plant and animal species present or potentially present within the subject phase of Project development. d) A summary of the results of the pre-construction survey shall be submitted to the City immediately upon completion of the survey. A survey report describing and delineating the extent and quality of native vegetation communities and the presence or potential presence of special-status plant or animal species shall be submitted to the City for review and approval prior to completion of 60 percent design plans for the subject Project phase; if no native vegetation communities or special-status species are present or potentially present, the survey report shall describe such findings based on evidence from the surveys. e) The survey report shall map and describe the location and extent of native vegetation communities and observed special-status plant or animal species that would be					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
impacted within the areas of potential effect for each Project phase, and require the following avoidance, minimization, and mitigation measures: i) To the maximum extent feasible, onsite native vegetation communities and special-status plant species shall be protected and preserved in place, and design plans shall be amended to avoid disturbance or loss of these biological resources. The City-approved biologist shall work with Project designers during design for each phase, as required, to incorporate existing native vegetation and special-status plant species, such as Nevin's barberry, and mature native trees, such as coast live oaks, into the Zoo landscaping and facilities (e.g., exhibits, visitor-serving spaces, service areas) in a manner that would ensure the livelihood and biological value of the natural community and/or individual plant. Construction techniques for Project development to avoid and protect special-status species shall be identified as part of a required construction mitigation plan (see **MM BIO-2**). ii) If avoidance or preservation in place cannot be achieved while meeting Project Objectives, the area of disturbed native vegetation communities and the total lost special-status plant species shall be mitigated onsite at a ratio of 2:1, as					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
feasible given space limitation within the Zoo. To the extent feasible, native vegetation communities and special-status plant species shall be relocated or reestablished within disturbed, altered, and/or lost areas of coast live oak woodland, laurel sumac shrubland, and coastal sage scrub within the Project site. The BRMMP shall provide a description of the location and boundaries of the mitigation site and description of existing site conditions. The mitigation area shall be incorporated into the final development plans for each phase of Project development. iii) If native vegetation communities and/or special-status plant species cannot be protected and/or restored onsite, the Zoo and City shall work with RAP to identify an appropriate site(s) for restoration within Griffith Park to serve as a mitigation site. Offsite restoration of affected native vegetation communities and special-status plant species shall occur at a minimum ratio of 3:1. Ratios for the restoration of native vegetation communities and/or special-status species shall be based upon the vegetation composition, plant rarity, local demographics, and location of the mitigation site. The BRMMP shall provide a description of the location and					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
boundaries of the offsite mitigation site. The City and City-approved biologist shall consult with CDFW to determine City-approved biologist shall consult with CDFW to determine additional measures for protection and restoration of habitats occupied by special-status species, including nesting birds. iv) If onsite or offsite restoration is required, the BRMMP shall specify restoration plans and techniques, as recommended by a City-approved biologist, including, but not limited to: (1) Identification of a suitable habitat compensation area of comparable size to be preserved and managed for lost habitat or species. (2) Site preparation. (3) Seed collection and/or plant salvage, designation, or establishment of offsite plant nursery facilities. (4) Planting, hydroseeding, replanting or seeding activities. (5) Success criteria. (6) Maintenance and monitoring program, for the short-term plant establishment period (i.e., 1-3 years), and over the long term (i.e., 5 years). (7) Reporting Requirements. v) If onsite or offsite restoration is required, a binding long-term agreement with the Zoo to implement and maintain protected and restored habitats/communities shall					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
be implemented with the City. The BRMMP shall identify typical performance and success criteria deemed acceptable by the City based on measurable goals and objectives. Minimum criteria for restored habitats shall be at least 70 percent survival of container plants and 70 percent relative vegetative cover by vegetation type. BRMMP mitigation elements that do not meet performance or final success criteria within 5 years shall be completed through an extension of the BRMMP for an additional 2 years or at the discretion of the City with the goal of completing all mitigation requirements. Monitoring of the mitigation and maintenance areas shall occur for the period established in the BRMMP, or until success criteria are met. If success criteria cannot be met through the BRMMP, the City shall specify appropriate commensurate measures (e.g., additional onsite or offsite restoration). vi) If special-status animal species are present or potentially present based on the survey, including bat, woodrats, Crotch's bumble bee, or legless lizard species, and migratory or nesting birds, the BRMMP shall include avoidance and minimization measures to avoid or relocate as part of a construction mitigation plan (see **MM BIO-2**) and management plans for					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
migratory and nesting birds (see **MM BIO-4**) and bat colonies (**MM BIO-5**).					
MM BIO-2 Construction Mitigation Plan for Biological Resources. The Zoo shall prepare and implement a Construction Mitigation Plan (CMP) that identifies avoidance, reduction, and mitigation measures for construction-related impacts to biological resources, including special-status species. The CMP shall be prepared by a City-approved and qualified biologist prior to initiation of construction activities for Phase 1 of the Project and updated prior to construction activities for each subsequent phase. The CMP shall be approved by the City Bureau of Engineering and Zoo planning staff. The Zoo shall be responsible for ensuring all CMP requirements are included in construction plans and implemented as part of construction. All construction activities shall be monitored by a City-approved biologist to ensure compliance with the CMP. The Zoo would coordinate with CDFW Region 5 prior to the start of any construction activities. The CMP shall require: 1. Per **MM BIO-1**, the CMP shall incorporate and address data from biological resource surveys for each Project phase to avoid and protect special-status plant and animal species to the maximum extent feasible, as follows: a) Within six months prior to the start of construction of each Project phase, biological resource surveys shall be completed for areas affected in that phase by City-approved biologist, consistent with **MM BIO-1**.	Construction Phase: Preparation and implementation of Construction Mitigation Plan (CMP) City BOE Project Engineer shall include requirement in contract, specifications and plans. Construction contractor and City-approved biologist shall prepare CMP for City approval prior to start of construction.	Zoo, City-approved biologist, City BOE, California Department of Fish and Wildlife	City BOE	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
b) If the phase-specific survey identifies presence or potential presence of special-status species, within 14 days of the start of construction (including mobilization and staging), pre-construction clearance surveys shall be completed by a City-approved biologist to either confirm or update the BRMMP related to the location and extent of special-status species. A report of the pre-construction survey shall be submitted to the City Bureau of Engineering for review and approval prior to the start of construction. 2. Based on the BRMMP and the results of the pre-construction surveys, the CMP shall require measures to avoid or mitigate impacts to special-status species present or potentially present within the Project phase; if no sensitive species are present or potentially present, the CMP shall identify findings from the surveys. If determined appropriate based on the results of the BRMMP, a species-specific list (or plan) of proper handling and relocation protocols and a map of suitable and safe relocation areas shall be prepared by the City-approved biologist. The list or plan shall be submitted to the City for review and approval prior to implementing any Project-related ground-disturbing activities and vegetation removal. CMP avoidance and minimization measures shall be subject to review and approval by a City-approved biologist, including, but not limited to, the following:					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
a) If present, special-status animal species, such as woodrat, legless lizard, and bat species (see also **MM BIO-5**), shall be relocated from the Project site either through direct capture or through passive exclusion prior to construction activities. Pursuant to the California Code of Regulations, Title 14, Section 650, the City-approved biologist must obtain appropriate handling permits to capture, temporarily process, and relocate wildlife to avoid harm or mortality in connection with Project construction and activities. With cooperation and authorization from CDFW, trapping may be employed to identify woodrat species that are inhabiting the site. If determined appropriate, woodrat middens should also be relocated by qualified biologists outside of construction areas. b) If present, special-status plant species, such as Nevin's barberry, shall be avoided to the extent feasible through use of high visibility exclusion fencing and signage to protect vegetation and root systems from disturbance or compaction, consistent with the BRMMP. Lost special-status plant species shall be replaced consistent with the BRMMP. c) If any SSC are harmed during relocation or a dead or injured animal is found, work in the immediate area shall stop immediately. The City-approved biologist shall be notified, and dead or injured wildlife documented. A formal report shall be sent to the City and CDFW within three (3) calendar days of the incident					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
or finding. Work in the immediate area may only resume once the proper notifications have been made and additional mitigation measures have been identified to prevent injury or death. 3. The CMP shall include BMPs to avoid or minimize impacts to biological resources during construction, including, but not limited to, the following: a) Construction equipment and vehicles shall be stored within existing disturbed or developed areas within the Zoo to the maximum extent feasible to avoid impacts to natural areas. All construction vehicle maintenance shall be performed in a designated offsite vehicle storage and maintenance area approved by the City. All construction access roads and staging areas shall be located to avoid known/mapped native vegetation and special-status species. b) All construction materials (e.g., fuels, chemicals, building materials) shall be stored at designated construction staging areas, which shall be located outside of designated sensitive areas in the BRMMP and CMP. Should spills occur, materials and/or contaminants shall be cleaned immediately and recycled or disposed of to the satisfaction of the RWQCB. c) All trash and construction debris shall be properly disposed at the end of each day. Dumpsters shall be covered either with locking lids or with plastic sheeting at the end of each					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
workday and during storm events. All sheeting shall be carefully secured to withstand weather conditions. d) Construction-related erosion shall be minimized to retain sediment within the area of potential effect, including installation of silt fencing, straw waddles, or other acceptable construction erosion control devices. Such measures shall be installed along the perimeter of disturbed areas. e) Concrete truck and tool washout shall occur in a designated construction staging areas or other offsite location such that no runoff would flow to natural areas within the Zoo or to the Zoo's stormwater collection system. f) All open trenches shall be constructed with appropriate exit ramps to allow species that incidentally fall into a trench to escape. All open trenches shall be inspected at the beginning of each workday to ensure that no wildlife species are present. Any wildlife species found during inspections shall be gently encouraged to leave the Project site by a qualified biologist or otherwise trained and City-approved personnel. Trenches shall remain open for the shortest period necessary to complete required work. g) Construction shall be limited to daylight hours (7:00 AM to 7:00 PM or sunset, whichever is sooner).					
MM BIO-3 Worker Environmental Awareness Program. The Zoo shall retain a qualified, City-	Construction Phase:	Zoo; City BOE and City-	City BOE	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
approved biologist to prepare a Worker Environmental Awareness Program (WEAP) that shall be implemented during all phases of construction. WEAP training shall be provided to all personnel working on the site by a qualified, City-approved biologist. The training should review the construction-related requirements of the BRMMP and the CMP, including all special-status species that occur or have potential to occur. Training should explain all mitigation and protection measures, responsibilities of each worker, and a reporting framework. The City-approved biologist shall communicate to all workers that upon encounter with an SCC (e.g., during construction or equipment inspections), work must stop, a qualified biologist much be notified, and work may only resume once a qualified biologist has determined that it is safe to do so. The WEAP shall be prepared and approved by the City Bureau of Engineering and Zoo planning staff prior to construction activities of Phase 1.	Preparation and implementation of a Worker Environmental Awareness Program (WEAP) City BOE Project Engineer shall include requirement in contract, specifications and plans. Construction contractor and City-approved biologist shall implement prior to start of construction	approved biologist			
MM BIO-4 Migratory and Nesting Bird Management. Removal of trees and other vegetation shall be conducted outside of the breeding season (generally January 15 to August 31 for raptors, March 1 to August 31 for other bird species) to the extent feasible. If Project construction activities must be conducted during these period, pre-construction nesting bird surveys by a City-approved biologist shall take place within one week prior to ground	Construction Phase: Migratory and nesting bird management; Pre-construction nesting bird survey	Zoo; City BOE; City-approved biologist	City BOE	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
disturbance and tree removal or trimming associated with each Project phase. If no active nests or nesting activity is found within or immediately adjacent to the phase work area, construction activities may proceed. If active nests are located during these surveys, the following measures shall be implemented: 1. A summary of the results of the pre-construction survey shall be submitted to the City immediately upon completion of the survey. Consistent with **MM BIO-1** and **MM BIO-2**, the qualified biologist shall prepare a final report of the pre-construction survey to be submitted to the City Bureau of Engineering for review and approval prior to the start of construction. The report shall detail appropriate fencing or flagging of the buffer zone and make recommendations on additional monitoring requirements. A map of the area of potential effect and nest and roost locations shall be included with the report. If any special-status species are observed during pre-construction surveys, the Project biologist shall report the findings and coordinate with appropriate regulatory agencies to determine appropriate procedures for handling or avoidance of the specimen. 2. If the pre-construction surveys indicate presence of nesting or roosting birds, the construction activity shall be evaluated, and avoidance methods implemented as necessary at the discretion of the qualified biologist. Methods would vary based on bird species, site conditions, and type of work to be conducted, but could consist of limited or	City BOE Construction Manager, Construction contractor and City-approved biologist shall implement.				

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
reduced construction access; reduced vehicle speeds; and/or noise attenuation. 3. At the discretion of the qualified biologist, construction activities within 300 feet of an active nest of passerine birds shall be restricted until chicks have fledged, unless the nest belongs to a raptor, in which case a 500-foot activity restriction buffer shall be observed to avoid noise, light, and direct disturbance (see Section 3.12, *Noise and Vibration*). The Project biologist conducting the survey shall have the authority to reduce or increase the recommended buffer depending upon site conditions and the species involved. If during Project construction and ground disturbance activities an active nest is discovered, the City-approved biologist shall halt work immediately within the work area, activity restriction buffers shall be established, and avoidance methods shall be employed as necessary. 4. A report of findings and recommendations for bird protection shall be submitted to the City prior to vegetation removal.					
MM BIO-5 Bat Colony Management. Removal of trees and older structures should be conducted outside of the maternity roost season (typically March 1 to August 31). Prior to removal of any trees over 20 inches diameter-at-breast-height (DBH) or demolition/relocation of existing onsite structures, a pre-construction acoustic and day/night roost survey shall be conducted by a qualified biologist to determine if any tree or structure proposed for removal, trimming, demolition, or relocation harbors	Construction Phase: Bat colony management; Pre-construction acoustic and day/night roost survey	Zoo; City-approved biologist	City BOE	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
sensitive bat species or maternal bat colonies. If present, maternal bat colonies shall not be disturbed and grading and construction activities shall avoid the bat breeding season to the extent feasible. If disturbance of structures must occur during the bat breeding season, buildings and trees must be inspected and deemed clear of bat colonies/roosts within 7 days of demolition and an appropriately trained and approved biologist must conduct a daily site-clearance during demolition. If bats are roosting in a structure or tree in the Project site during the daytime but are not part of an active maternity colony, then exclusion measures shall be utilized and must include one-way valves that allow bats to leave but are designed so that the bats may not re-enter the structure. For each occupied roost removed, one bat box shall be installed in similar habitat as determined by the Project biologist and shall have similar cavities or crevices to those which are removed, including access, ventilation, dimensions, height above ground, and thermal conditions. If a bat colony would be eliminated from the Project site, appropriate alternate bat habitat shall be installed within the Project site. To the extent practicable, alternate bat house installation shall occur near onsite drainages.	City BOE Construction Manager, Construction contractor and City-approved biologist shall implement.				
Cultural and Tribal Cultural Resources					
MM CUL-1 Pre-Construction Workshop. Prior to any ground disturbance activities during construction of each Project phase, a City-qualified archaeologist and shall conduct a cultural resources workshop for all construction personnel. The City-qualified archaeologist must meet the Secretary of Interior	Construction Phase: Cultural resources workshop conducted by a City-qualified	Zoo and construction contractor; City-qualified archaeologist	City BOE	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
standards for archaeology and have a minimum of 10 years of experience as a Principal Investigator working with Native American archaeological sites in southern California. The qualified archaeologist will ensure that all other personnel are appropriately trained and qualified. The workshop will inform all construction personnel of the types of cultural material that may be encountered, and of the proper procedures to be followed in the event of an unexpected discovery of cultural material or human remains. Appropriate documentation will be completed to demonstrate attendance.	archaeologist for all construction personnel				
MM CUL-2 Unexpected Discovery of Cultural Material. In the event unexpected cultural resource material - such as flaked or ground stone, historic debris, building foundations, or non-human bone - is discovered during Project-related ground disturbances, construction personnel will stop all work within 50 feet of the discovery until a City-qualified archaeologist can evaluate the discovery for significance. Construction personnel will contact the City and Zoo staff immediately. Activities that may adversely impact the discovery will not resume without written authorization from the City that construction may proceed. The nature, extent, and significance of the discovery will be evaluated by a City-qualified archaeologist, and a Native American representative if the discovered resource is prehistoric. If the discovery is determined to be a significant cultural resource under CEQA, avoidance is the primary method of mitigation. If avoidance is not feasible, the City-qualified archaeologist will prepare a treatment plan	Construction Phase: Evaluation of cultural resource material by a City-qualified archaeologist if uncovered during construction; Treatment Plan; Final Report	City-qualified archaeologist; Native American representative	City BOE	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
consistent with CEQA Guidelines Section 15064.5(f) that addresses implementation of data recovery mitigation excavations. Treatment measures typically include development of avoidance strategies, capping with fill material, or mitigation of impacts through data recovery programs such as excavation or detailed documentation and public interpretation. A report of findings shall be prepared, and recovered materials curated, if needed, in an approved facility.					
MM CUL-3 Unexpected Discovery of Human Remains. In the event human remains are encountered during Project-related ground disturbances, construction personnel will stop all work in the vicinity of the discovery and immediately contact the Los Angeles County Coroner in accordance with Public Resources Code Section 5097.98 and Health and Safety Code Section 7050.5. The City and Zoo staff will also be contacted. If the County Coroner determines the remains are prehistoric, the Coroner will contact the Native American Heritage Commission and the Native American Heritage Commission shall designate a Most Likely Descendant.	Construction Phase: Cease work; evaluation by the County Coroner and contacting of Native American Heritage Commission if findings are prehistoric	Zoo and construction contractor; County Coroner; Native American Representative	City BOE	Yes	Yes
MM CUL-4 Native American Monitoring. A Native American representative approved by the Gabrieleño Band of Mission Indians-Kizh Nation Tribal Government and the NAHC will monitor ground disturbing construction activities. Ground disturbing construction activities are defined by the Gabrieleño Band of Mission Indians-Kizh Nation as activities that include, but are not limited to, pavement removal, pot-holing or augering, grubbing, tree removal, boring, grading, excavation, drilling, and	Construction Phase: Native American representative monitoring during ground-breaking construction activities	Zoo and construction contractor; Native American representative	City BOE	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
trenching. The Native American representative will complete daily monitoring logs that will provide the location of construction activities, and a description of the soil and any cultural materials identified. Native American monitoring will be terminated when all ground disturbing construction activities are complete or when the Native American representative determines that the proposed Project site has a low potential for impacting Tribal Cultural Resources during each phase of Project implementation. Native American monitoring during ground disturbing construction activities will be conducted consistent with current professional standards.					
MM CUL-5 Unanticipated Discovery of Tribal Cultural and Archaeological Resources. Pursuant to **MM CUL-2**, upon discovery of any archaeological resources, construction activities will cease in the immediate vicinity of the discovery until the discovery can be assessed. All archaeological resources identified during Project construction activities will be evaluated by the Native American representative approved by the Gabrieleño Band of Mission Indians-Kizh Nation. If the resources are Native American in origin, the Gabrieleño Band of Mission Indians-Kizh Nation will coordinate with the City and the Zoo regarding treatment and curation of the resources including reburial or preservation for educational purposes. Per AR-2, if the discovery is a significant resource, avoidance measures or appropriate mitigation will be implemented.	Construction Phase: Cease work; evaluation of archaeological resource by a Native American representative; Treatment Plan and curation	Zoo and construction contractor; Native American representative	City BOE	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
MM CUL-6 Preservation of Unique Archeological Resources. If unique archaeological resources are discovered, preservation in place (i.e., avoidance) will be the preferred manner of treatment consistent with Public Resources Code Section 21083.2(b). If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resources and subsequent laboratory processing and analysis. Historic archaeological material that is not Native American in origin will be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, it will be offered to a local school or historical society for educational purposes.	Construction Phase: Preservation in place; archaeological data recovery excavations; curation	Zoo and construction contractor; City-approved archaeologist	City BOE	Yes	Yes
MM CUL-7 Unanticipated Discovery of Human Remains and Associated Funerary Objects. PRC Section 5097.98(d)(1) defines Native American human remains as an inhumation or cremation in any state of decomposition or skeletal completeness. Consistent with MM CUL-3, in the event human skeletal material is discovered, excavation will be stopped, and the discovery will be immediately reported to the Los Angeles County Coroner consistent with Health and Safety Code 7050.5. If the County Coroner recognizes the human remains to be Native American or has reason to believe the remains are Native American, the County Coroner will contact the NAHC within 24	Construction Phase: Cease excavation; evaluation by County Coroner; contact NAHC; Native American representative construction monitoring; Treatment Plan	Zoo and construction contractor; County Coroner; Native American representative	City BOE	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
hours. Public Resources Code 5097.98 will be followed. In the event human skeletal material is discovered, the following will occur: • The Native American representative monitor will immediately redirect construction activity a minimum of 150 feet from the discovery and place an exclusion zone around the discovery. The Native American representative will contact the construction manager who will then contact the Los Angeles County Coroner. The Native American representative will also contact the Gabrieleño Band of Mission Indians-Kizh Nation, a City-qualified archaeologist, the City, and the Zoo. Construction activity will continue to be redirected while the County Coroner determines whether the human skeletal material is Native American. The discovery will be kept confidential and secure to prevent further disturbance. If the human skeletal material is determined to be Native American, the County Coroner will notify the NAHC. The NAHC will then appoint a Most Likely Descendant. • Funerary objects/associated grave goods will be treated in the same manner as bone fragments. • If discovered human remains cannot be fully documented and recorded on the same day, the remains will be covered with muslin cloth. A steel plate will be placed over the discovery to protect the remains. If a steel plate is not available, a 24-hour guard will be present onsite outside of regular construction hours.					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
• Redirecting construction activities to protect the human remains in place will be recommended if feasible. If construction activities cannot be redirected, the burials may be removed. Cremations will be removed in bulk or by any means necessary to ensure complete recovery of all material. The Gabrieleño Band of Mission Indians-Kizh Nation will work closely with the City-qualified archaeologist to ensure that any excavation to remove human remains is conducted carefully, ethically, and respectfully. • If the discovery of human remains includes four or more burials, the location will be considered a cemetery and a separate treatment plan will be prepared. • If data recovery excavations are approved by the Gabrieleño Band of Mission Indians-Kizh Nation, documentation will include detailed descriptive notes and sketches at a minimum. Additional documentation will be approved by the Gabrieleño Band of Mission Indians-Kizh Nation • All feasible care will be taken to avoid any unnecessary disturbance, physical modification, or separation of human remains and associated funerary objects. • Scientific study of the human remains, including the use of invasive diagnostic procedures/techniques, will not be conducted. • Each discovery of human remains or associated funerary objects will be stored in opaque cloth bags. All human remains, funerary objects, sacred objects, and objects of cultural patrimony will be					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
removed to a secure container on-site if possible. These items will be retained and reburied within six months of discovery. • Prior to the resumption of ground disturbing construction activities, the Zoo will designate a location within the proposed Project site for the respectful reburial of the human remains and/or funerary objects. The reburial/repatriation site will be a location agreed upon between the Gabrieleño Band of Mission Indians-Kizh Nation and the Zoo to be protected in perpetuity. • There will be no publicity regarding a discovery of human remains. • A final report will be submitted to the Gabrieleño Band of Mission Indians-Kizh Nation and the NAHC.					
Energy					
No avoidance and minimization measures for this impact area.	N/A	N/A	N/A	N/A	N/A
Urban Forestry Resources					
MM UF-1 Protected Tree Plan. To offset impacts to protected and important trees and shrubs resulting from Vision Plan implementation, the Zoo shall prepare and implement a Protected Tree Plan. The Protected Tree Plan shall identify measures for the protection, relocation, and/or replacement of protected and important significant trees and shrubs. The Protected Tree Plan shall outline and require that Project activities affecting protected trees and shrubs proceed as follows:	Design Phase: Preparation and implementation of a Protected Tree Plan	Zoo and Construction contractor; City-approved Tree Expert; City Forester; City BOE and City RAP	City BOE	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
1. Preservation of Trees and Shrubs: Protected and important trees and shrubs shall be preserved in place to the maximum extent feasible. To ensure protection of native protected trees and shrubs, as part of design of the California and Africa area exhibits, all protected trees and shrubs shall be mapped and incorporated into the exhibit to the maximum extent feasible. The Zoo shall hire a City-approved Tree Expert meeting the requirements of the City's Protected Tree Ordinance to evaluate the health and structure of protected and important trees and shrubs and make recommendations for avoidance of healthy specimens to the maximum extent feasible. The tree expert shall work with project designers during the final design of each phase to incorporate such trees into the exhibits in a manner that would ensure protection of the tree or shrub from damage by exhibit animals or exhibit maintenance activities. Each protected or important tree and shrub to be retained shall have a designated Protection Zone identifying the area sufficiently large enough to protect it and its roots from significant damage during construction. The designated Protection Zone of each specimen shall be protected with 5- to 6-foot-high chain link fences. Fences shall be mounted on 2-inch galvanized iron posts, driven into the ground to a depth of at least two feet and at no more than 10-foot centers, or similarly durable material. Tree and shrub fences shall be erected before demolition, grading, or construction begins and remain until final inspection of the project.					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
Construction and demolition activities around protected trees shall follow all industry standards. Erosion control measures, tree pruning, soil compaction preventive measures, and a tree maintenance schedule shall be implemented and verified by the Bureau of Engineering and a City-authorized tree expert. Following construction, each tree or shrub preserved shall be monitored for a minimum of 5 years to ensure their long-term survivability. 2. Relocation of Trees and Shrubs: Where protected and important trees cannot be avoided and preserved in place, individuals shall be transplanted elsewhere onsite to the extent feasible. If relocation onsite is not feasible, individuals shall be transplanted to an appropriate offsite location elsewhere within Griffith Park, pursuant to the approval of the City Bureau of Engineering and RAP. The City-approved Tree Expert shall identify the necessary measure to be taken to ensure the maximum survivability of the relocated specimens, including relocation method, placement, irrigation method, and maintenance. Relocated individuals shall be monitored for their success for a period of 5 years. The Tree Protection Plan shall identify performance standards for determining whether relocated specimens are healthy and growing normally and shall outline procedures for periodic monitoring and implementation of corrective measures in the event the health of relocated trees declines.					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
3. <u>Replacement of Trees and Shrubs</u>: Where the preservation or relocation of protected and important trees and shrubs is not feasible, or where the health of preserved or relocated specimens becomes compromised, as part of the final design of each exhibit or feature, the Zoo shall prepare and implement a replacement planting program. Replacement of protected and important trees and shrubs should follow guidelines described in the City's Protected Tree Ordinance adopted at the time, including requirements for relocated or removed trees or shrubs to be replaced by other species protected by the ordinance at a 4:1 ratio (number of individuals restored to number of individuals impacted). Replacement of oak trees shall be subject to replacement as follows: oak trees less than12 inches diameter at breast height (DBH) be replaced at 4:1; oak trees between 12 and 24 inches DBH be replaced at 5:1; and oak trees greater than 24 inches BDH be replaced at 10:1. The replacement planting program shall be prepared by a City-approved Tree Expert meeting the requirements of the City's Protected Tree Ordinance. The replacement planting program shall specify the location for replacement, tree or shrub size, planting specifications, and shall include a monitoring program to ensure that the replacement planting program is successful. To the extent feasible, protected and important trees or shrubs removed within the California or Africa exhibits shall be replaced within each exhibit. Where this is not feasible, the Tree Protection Plan					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
shall outline provisions and standards for replacement in areas outside of each exhibit. At a minimum, the monitoring program shall require monitoring of replacement individuals for a period of 5 years and shall include performance standards for determining whether replacement specimens are healthy and growing normally and procedures for periodic monitoring and implementation of corrective measures in the event that the health of replacement trees declines. Replacement of removed trees and shrubs should occur within the Zoo to the extent feasible. If replacement within the Zoo is not feasible, the Zoo should coordinate with RAP and the City Forester for replacement trees and shrubs to be planted on adjacent areas of Griffith Park, provided such locations can support the tree's or shrub's survival. Each replacement tree shall be at least 15-gallon, or larger, measuring one inch or more in diameter one foot above the base, and be not less than seven feet in height measured from the base. If use of similar sized replacement trees and shrubs is not possible, smaller sized replacements may be planted. In that event, a greater number of replacement trees or shrubs may be required.					
MM UF-2 Restoration Plan. To offset impacts to urban forestry resources and ensure landscaping under the Vision Plan is planned to provide urban forest value, the Zoo shall retain a qualified landscape architect to prepare a landscaping plan. The Zoo landscape plan shall be subject to review and approval	Design Phase: Preparation of a landscaping plan	Zoo; qualified landscape architect	City BOE	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
by City Bureau of Engineering and shall include the following: 1. Maximize protection of existing protected and important trees and shrubs consistent with the Zoo's Tree Protection Plan identified in **MM UF-1**. 2. Specify a plant palette and landscape plan that ensures establishment of tree canopy that is cohesive with and supports continuity with the surrounding canopy. The plant palette shall emphasize tree species which are considered to provide a healthy mix of visual and biological value and which offer greater shade cover and carbon sequestration. 3. Plantings shall include tree specimens and shrubs capable of reaching or exceeding the heights of the adjacent proposed structures and plantings. 4. Landscaping shall occur immediately following completion of construction of a proposed area of improvement. Planting would use a combination of small containers and larger containers with more mature specimens to ensure plant health while also expediting recovery of the urban forest and minimizing duration of heat island effects following construction.					
Geology and Soils					
MM GEO-1 Site-Specific Geotechnical Evaluation. Prior to the design and construction of proposed improvements at in each phase of the Project, a detailed geotechnical evaluation, including subsurface exploration and laboratory testing, shall be performed, consistent with LADBS standards and approvals. The geotechnical evaluation shall 1) further	Design Phase: Preparation of a geotechnical evaluation; incorporation of the study recommendations	Zoo; Los Angeles Department of Building and Safety; City BOE	City BOE	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
evaluate the specific subsurface conditions, including liquefaction and landslide potential, at each development site, 2) provide site-specific data regarding potential geologic and geotechnical constraints, and 3) provide information pertaining to the engineering characteristics of earth materials with regard to the proposed Project. Recommendations for earthwork, excavations, foundations, shoring, pavements, and other pertinent geotechnical design considerations shall be formulated from the detailed geotechnical evaluation. In the California planning area, the proposed hillside cut, excavation, and reinforcement required for Condor Canyon and its potential bridges shall be evaluated and designed with appropriate shoring mechanisms to avoid landslide and soil instability during construction and operation. The recommendations of the geotechnical report shall be incorporated into the final design and construction of the Project components. The geotechnical reports shall analyze for the following hazards: • If the site-specific geotechnical evaluation finds that slope instability is an issue in certain phases of development such as California and Africa planning area improvements, engineering techniques and technologies as retaining walls or graded soil buttresses, shall be employed during construction and/or operation. • If the site-specific geotechnical evaluation finds that liquefaction is an issue in certain phases of development such as development of Zoo Entry, Nature Play Park, or Asia planning area improvements or the proposed parking structure,	into the final design and construction of the Project.				

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
engineering techniques and technologies such as removal and recompaction, densification of existing soils, or deepened foundations shall be employed during construction and operation. • If the site-specific geotechnical evaluation finds that expansive soils are an issue in certain phases of development such as development of Zoo Entry, Nature Play Park, or Asia planning area improvements, engineering techniques and technologies such as removal and replacement with low expansive materials or special reinforced design of foundations and slabs shall be employed during construction and operation. • If the site-specific geotechnical evaluation finds that dynamic compaction of dry soils is an issue in certain phases of development, engineering techniques and technologies such as removal and recompaction, densification of existing soils, or deepened foundations may be employed during construction and operation. The Zoo shall prepare each geotechnical evaluation for each improvement in Phases 1 – 7 to inform final design and engineering of improvements. Each geotechnical investigation shall be reviewed and approved by LADBS and the City Bureau of Engineering prior to groundbreaking of each phase. LADBS and the City of Bureau of Engineering shall review and approve all geotechnical investigations and review final Zoo development and engineering plans to ensure geotechnical recommendations are accurately incorporated prior to Project-related construction.					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
MM GEO-2 Site-specific Paleontological Mitigation Plan. A qualified paleontologist approved by the City of Los Angeles and the Los Angeles County Natural History Museum Vertebrate Paleontology Department shall be retained prior to earth-moving activities associated with construction of any individual Project phase. Prior to these earth-moving activities, the paleontologist shall determine if a site-specific mitigation plan is required for each phase based on the underlying geology and the proposed depths of excavation proposed by development and engineering plans for each phase. If a site-specific mitigation plan is required, the plan shall specify the level and types of mitigation efforts as set forth below, based on the types and depths of any ground disturbing activities and associated, impacted geological unit. Where a site-specific mitigation plan is required, earth-moving activities shall be monitored by the paleontologist or a monitor. Monitoring is only required in those areas of the individual development phase where these activities would disturb previously undisturbed geological units and dependent upon the units present. Monitoring shall be conducted on a full-time basis in areas underlain by the Upper Topanga Formation, and at depths greater than 10 feet bgs in areas underlain by Quaternary alluvium. Monitoring shall consist of: • Visually inspecting debris piles and freshly exposed cuts for larger fossil remains • Periodic dry screening sediment, rock, and debris for smaller fossil remains	Design Phase: Site-specific paleontological mitigation plan	Zoo and design consultation and/or construction contractor; qualified paleontologist approved by the City and the Los Angeles County Natural History Museum	City BOE	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
• Recovery of all vertebrate fossil specimens, a representative sample of invertebrate or plant fossils, or any fossiliferous rock sample that may be easily recovered • Diversion of ground disturbing activities away from large or unusually productive fossil localities for the time that is required to recover the resource by the paleontologist or monitor(s) • Notification of the paleontologist or monitor (if not on-site) by the construction crew of any unanticipated discoveries of fossil resources. Ground disturbing activities will be temporarily diverted while the paleontologist or monitor assess the resource and determine if recovery is warranted or if ground-disturbing activities may resume in the area. • Collection of rock or sediment samples of the Upper Topanga Formation or Quaternary alluvium for each construction site for processing for small fossils. The total weight of all processed samples from either rock unit shall not exceed 1,000 pounds (2,000 pounds total). The results of processing initial 250-pound test samples shall be used by the paleontologist in determining how much of the remaining total samples shall be collected and processed. More of the samples shall be processed if the recovered remains are sufficiently concentrated (at least 4-5 identifiable specimens per sample), generally identified to genus or species level, and represent a taxonomically diverse faunal assemblage. With the development of each successive construction					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
site, the paleontologist or monitor, may specify that less than 1,000 pounds shall be processed, based on the amount of excavation and other ground disturbing activities that would occur in areas underlain by the Quaternary alluvium, 10 feet bgs, or Upper Topanga Formation, and on the results of processing samples from the same rock unit as previous construction sites. • Unless potentially fossilized remains are discovered at or near the surface, no paleontological monitoring of ground disturbing activities in the Quaternary alluvium at depths less than 10 feet bgs, and no samples shall be collected or processed. • The paleontologist or monitor shall maintain daily monitoring logs that record the tasks accomplished, locations, where ground disturbing activities and monitoring were conducted, geological units encountered, any fossil specimen recovered, and associated specimen data and geologic and geographic site data. If no fossil remains are found after 50 percent of ground-disturbing activities have been completed in an area underlain by Quaternary alluvium or Upper Topanga Formation, monitoring may be reduced or suspended in the remainder of that area with approval from the City of Los Angeles Bureau of Engineering. If a site-specific mitigation program is required, the paleontologist shall reach a formal agreement with a recognized museum repository, such as the Los Angeles County Natural History Museum, before the					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
mitigation program begins. The agreement shall include specifications regarding final disposition and permanent storage and maintenance of any fossil specimens recovered as part of the mitigation program as well as archiving associated fossil specimen data and corresponding geologic and geographic site data, and level of treatment/preparation of the fossil specimens. The fossil collection shall be donated to a public, nonprofit repository with a research interest in the collection. The costs to be charged by the repository for curating and permanently storing the collected fossil specimens shall be specified in the repository agreement. If paleontological resources are discovered and curated as a result of a required site-specific mitigation program, a final technical report of results and findings shall be prepared by the paleontologist in accordance with City of Los Angeles requirements, as applicable. Copies of the final report and any supporting documentation, including the paleontologist's or monitor's field notes and fossil site maps shall be archived at the designated repository. The final report shall be prepared upon completion of ground disturbing activities for the first applicable phase of Project development. Subsequent reports for additional phases shall be issued as addenda to the first final report. Individual projects whose ground disturbing activities are completed within a single calendar year may be addressed collectively in one report or addendum, as applicable.					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
MM GEO-3 Worker Paleontological Resource Awareness Program. Prior to construction of each phase, workers shall receive education regarding the recognition of possible paleontological resources, during grading and excavation. Such training shall provide construction personnel with direction regarding the procedures to be followed in the unlikely event that previously unidentified paleontological materials are discovered during construction. Training shall also inform construction personnel that unauthorized collection or disturbance of paleontological resources is not allowed. The training shall be prepared by a City-approved paleontologist and shall provide a description of paleontological resources that may be encountered in the Project site, outline steps to follow in the event that a discovery is made, and provide contact information for the Project paleontologist and appropriate City personnel. The training shall be conducted concurrent with other environmental or safety awareness and education programs for the Project, provided that the program elements pertaining to paleontological resources is provided by a qualified instructor meeting applicable professional qualifications standards. To prevent inadvertent potential significant impacts to paleontological resources that may be encountered during ground disturbance or construction activities, in the event of any inadvertent discovery of paleontological resources during construction, all work within the vicinity of the resource established by the City-approved paleontologist shall temporarily cease. If a paleontological resource is discovered, the City-	Construction Phase: Worker paleontological resource training program	Zoo and construction contractor; City-approved paleontologist	City BOE	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
approved paleontologist shall be notified to assess the significance of the find and provide recommendations as necessary for its proper disposition and the need for a site-specific mitigation plan, consistent with **MM GEO-2.**					
Greenhouse Gas Emissions					
No avoidance and minimization measures for this impact area.	N/A	N/A	N/A		
Hazards and Hazardous Materials					
MM HAZ-1 Phase II Environmental Site Assessment (ESA). Prior to Project implementation, the City shall prepare a Phase II ESA to address the following: • **Potential soil contamination around known USTs on site**. Prior to ground-disturbance, a qualified environmental specialist (e.g., a licensed Professional Geologist [PG], a licensed Professional Engineer [PE] or similarly qualified individual) shall perform soil sampling and analysis to determine whether contamination exists and, if so, the extent of contamination from the following UST locations within the Project site; if contaminants are detected in soil at or above regulatory levels, then the results of the soil sampling shall be reviewed and acted upon by the LAFD and other regional or state regulatory agencies as needed:	Design Phase: Preparation of a Phase II ESA; soil sampling and analysis; comprehensive survey of ACM, LBP, and molds prior to building demolition	Zoo; qualified environmental specialist; Los Angeles Fire Department	City BOE; Los Angeles Fire Department	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
• The fueling station in the Zoo Construction Shop and Support area • West of the South Parking Area • North of the Autry Museum. • **ACM, LBP, and Molds in Buildings**. Prior to any building demolition, the City shall conduct a comprehensive survey of ACM, LBP, and molds. If such hazardous materials are found to be present, the Zoo shall follow all applicable local, state and federal codes and regulations, as well as applicable best management practices, related to the treatment, handling, and disposal of ACM, LBP, and molds to ensure public safety. If the Phase II ESA identifies contamination at or above regulatory levels, prior to the issuance of grading permits for development, it shall be the responsibility of the Zoo to conduct and conclude all investigation and/or remediation activities under the oversight of the applicable regulatory agency (e.g., LAFD, DTSC, SWRCB). Remediation shall be accomplished in accordance with the requirements of the appropriate oversight agency. No Project construction shall occur in the affected area until case closure reports have been approved by the appropriate oversight agency.					
MM HAZ-2 Discovery of Contamination. In the event that previously unknown or unidentified soil and/or groundwater contamination that could present a threat to human health or the environment is encountered during construction at a development site, construction activities in the immediate vicinity of	Construction Phase: If contamination is encountered: cease construction activities, a site	Zoo and licensed contractor(s); qualified environmental specialist	City BOE; Los Angeles Fire Department	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
the contamination shall cease immediately. At the start of construction, all construction contractors shall be instructed to immediately stop all subsurface activities in the event that potentially hazardous materials are encountered, an odor is identified, or significantly stained soil is visible. Contractors shall be instructed to follow all applicable regulations regarding discovery and response for hazardous materials encountered during the construction process. A qualified environmental specialist (e.g., a licensed PG, a licensed PE or similarly qualified individual) shall investigate to identify and determine the level of soil and/or groundwater contamination. If contamination is encountered, a Human Health Risk Management Plan shall be prepared and implemented that: (1) identifies the contaminants of concern and the potential risk each contaminant would pose to human health and the environment during construction and post-development, and (2) describes measures to be taken to protect workers, and the public from exposure to potential site hazards. Such measures could include a range of options, including, but not limited to, physical site controls during construction, remediation, long-term monitoring, post-development maintenance or access limitations, or some combination thereof. Depending on the nature of contamination, if any, appropriate agencies shall be notified (e.g., LAFD). If needed, a Site Health and Safety Plan that meets Occupational Safety and Health Administration requirements shall be prepared and in place prior to commencement of work in any contaminated area.	investigation would be conducted; preparation of a Human Health Risk Management Plan and/or Site Health and Safety Plan, if necessary				

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
Hydrology and Water Quality					
MM HYD-1 Construction Sequencing and Design of Onsite Stormwater Management System. The Zoo shall prepare a stormwater management plan prior to Phase 1 Project implementation. The stormwater management plan shall finalize the design of the subterranean stormwater management system with minimum capacity to capture the equivalent of 2-year, 24-hour storm events as proposed by the Project, and shall consider increased capacity to maximize rainfall capture and reuse. The stormwater management plan shall indicate the sizing and design of the underground stormwater collection system for all proposed drainage areas. The stormwater management plan shall also determine the appropriate sequencing of system installation relative to the Project's development phasing to provide continuous stormwater management throughout the 20-year implementation of the proposed Vision Plan. This sequencing plan shall ensure each phase of development has a functioning onsite stormwater system prior to operation to contain and convey all stormwater flows to the underground cistern(s), to onsite LIDs (e.g., bioswales), and/or to the Zoo's Wastewater Facility. Sequencing shall avoid or minimize sedimentation into proposed LID features and underground stormwater management system infrastructure, which could lead to a loss of capacity and decrease in water quality benefits. During phased construction of the Project, the City shall also install stormwater storage	Design Phase: Preparation of a stormwater management plan prior to Phase 1 Project implementation	Zoo and construction contractors	City BOE	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
facilities to supplement the underground cisterns such as rain barrels if needed to temporarily manage stormwater flows. These can be integrated into the Vision Plan redevelopment to be thematically appropriate and visually reminding visitors of the Zoo's efforts for water conservation. The BOE Project Engineer and Zoo shall prepare and submit the stormwater management plan to the City BOE for review and approval prior to issuance of grading permits for each Project phase. All development plans and permits shall reflect the approved sequencing and timing of implementation of stormwater management measures. The BOE Project Engineer and Construction Manager, on behalf of the Zoo, shall be responsible for ensuring all requirements are included in construction plans and implemented as part of construction. All construction activities shall be monitored by a City BOE staff to ensure compliance with the stormwater management plan.					
MM HYD-2 Preparation of a Storm Water Pollution Prevention Plan (SWPPP). For each phase of construction, the City shall require the building contractor to prepare and submit a SWPPP as part of the City's NPDES Construction General Permit 45 days prior to the start of work for approval. The contractor is responsible for understanding the Construction General Permit and instituting the SWPPP during construction. A SWPPP for site construction shall be developed prior to the initiation of grading and implemented for all construction activity on the Project site in excess of 1 acre, or where the area of disturbance is less than 1 acre but is part of	Construction Phase: Preparation and submittal of a SWPPP prior to start of construction	Zoo and construction contractor; Qualified SWPPP Practitioner	City BOE	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
the Project's plan of development that in total disturbs 1 or more acres. The SWPPP shall identify potential pollutant sources that may affect the quality of discharges to stormwater and shall include specific BMPs to control the discharge of material from the site, including, but not limited to: • Temporary detention basins, straw bales, sand bagging, mulching, erosion control blankets, silt fencing, and soil stabilizers shall be used. • Sufficient physical protection and pollution prevention measures to prevent sedimentation, siltation, and/or debris from entering the onsite storm drain system, proposed stormwater management system, and the Los Angeles River. • Soil stockpiles and graded slopes shall be covered after 14 days of inactivity and 24 hours prior to and during inclement weather conditions. • Fiber rolls shall be placed along the top of exposed slopes and at the toes of graded areas to reduce surface soil movement, as necessary. • Sandbags, or other equivalent techniques, shall be utilized along graded areas to prevent siltation transport to the surrounding areas. • A routine monitoring plan shall be implemented to ensure success of all onsite erosion and sedimentation control measures. • Dust control measures shall be implemented to ensure success of all onsite activities to control fugitive dust.					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
• Streets, parking areas, and paved pathways affected by phased Project construction shall be cleaned daily or as necessary to remove sediment, soils, and other construction debris. • BMPs shall be strictly followed to prevent spills and discharges of pollutants onsite (material and container storage, proper trash disposal, construction entrances, etc.); additional BMPs shall be implemented for any fuel storage or fuel handling that could occur onsite during construction. The SWPPP must be prepared in accordance with the guidelines adopted by the SWRCB. The SWPPP shall be submitted to the City BOE along with grading/development plans for review and approval. The SWPPP and notices shall be submitted to the SWRCB under their Stormwater Multi-Application, Reporting, and Tracking System (SMARTS). The SWPPP shall be designed to address erosion and sediment control during all phases of development of the site until all disturbed areas are permanently stabilized. All development plans and permits shall reflect the approved erosion control plan and BMPs submitted to the SWRCB. The Zoo shall be responsible for ensuring all requirements are included in construction plans and implemented as part of construction. All construction activities shall be monitored by a City BOE staff to ensure compliance with the SWPPP. All construction activities shall be monitored by City staff to ensure compliance with the SWPPP during grading and after conclusion of grading activities to					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
monitor runoff. A Qualified SWPPP Practitioner shall be retained by the developer for overall management and reporting responsibility regarding the SWPPP and documentation under SMARTS in accordance with their permitting requirement. The City will keep a copy of the SWPPP on the Project site during grading and construction activities. The City shall file a Notice of Completion once construction of each Project phase is complete, identifying that pollution sources were controlled during the construction of the Project and implementing a closure SWPPP for the site.					
MM HYD-3 Avoidance of the Seasonal Storms. Ground disturbing activities such as excavation, grading, earthwork, and installation of the stormwater collection system shall occur during the dry season (May through October), including installation of the storm drains, underground cisterns, hydrological connections, and water pumps for irrigation use. Stormwater management system features shall be fully installed and restored to ensure soil stabilization and adequate stormwater conveyance capacity prior to the storm season (October through April). BOE Project Engineer and Construction Manager shall be responsible for ensuring all requirements are included in construction plans and implemented as part of construction. The City shall review grading and construction plans for all phases to ensure compliance. All construction activities shall be monitored by a City BOE staff to ensure compliance with the grading and construction phasing plans.	Construction Phase: Ground disturbing activities during the dry season; monitoring by City BOE staff to ensure compliance	Zoo; City BOE	City BOE	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
MM HYD-4 Operation and Maintenance Manual. The City shall prepare and submit an Operation and Maintenance (O&M) Manual to ensure LID features and the underground stormwater capture are maintained following installation under the Project. Regular maintenance is critical for the proper operation and longevity of the LID features and stormwater collection system. For example, the O&M Manual would provide maintenance schedules for type and frequency for items such as replacing mulch, trash removal, or sediment removal for bioretention, permeable pavement, and the stormwater collection system. The O&M Manual shall also include guidelines for each LID life-cycle and appropriate reconstruction at the end of the life-cycle. The Zoo shall prepare and submit the O&M Manual to the City BOE and Zoo planning staff for review and approval prior to issuance of grading permits. The Zoo shall be responsible for ensuring all requirements are included in O&M Manual and implemented as part of Zoo operations.	Design Phase: Preparation of an Operation and Maintenance (O&M) Manual	Zoo; City BOE	City BOE	Yes	Yes
MM HYD-5 Mulch. Immediately following the completion of landscaping installation, gorilla-mulch (i.e., shredded redwood) or similar non-animal waste mulch should be applied to landscaped and bioretention areas to minimize the risk of erosion and sedimentation. The application of mulch would also retain irrigated water within the soil, thereby reducing evaporation and irrigation requirements. Sedimentation in the stormwater collection system would result in degraded water quality, requiring additional treatment prior to stormwater reuse. Bark	Construction Phase: Application of mulch following the completion of landscaping installation	Zoo	City BOE	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
mulch is not recommended (especially in bioretention) as it tends to float and does not include the beneficial soil building properties of a shredded redwood or similar mulch. The Zoo shall be responsible for ensuring all landscaped areas are mulched as part of construction.					
MM HYD-6 Underground Stormwater Capture Pre-Treatment and Filtering. The Zoo shall develop a pre-treatment and filtering plan and design for the stormwater collection system to ensure that captured water reused for irrigation does not unnecessarily contribute pollutants back into the Zoo's drainage system. At a minimum, the stormwater collection system must comply with SWRCB safety regulations and County Guidelines for Alternate Water Sources. Additionally, sediment and TSS shall be filtered out to the level required for the proposed irrigation system. The Zoo shall submit pre-treatment and filtering plans to the City BOE and Zoo planning staff for review and approval prior to issuance of grading permits for each Project phase. All development plans and permits shall reflect the approved pre-treatment and filtering features. The Zoo shall be responsible for ensuring all requirements are included in construction plans and implemented as part of construction. All construction activities shall be monitored by City BOE staff to ensure compliance with the pre-treatment and filtering plans.	Design Phase: Preparation of a pre-treatment and filtering plan and design for stormwater collection system	Zoo; City BOE	City BOE	Yes	Yes
Land Use and Planning					
No avoidance and minimization measures for this impact area.					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
Noise and Vibration					
MM NOI-1 Equipment Mufflers. The City and its contractors and subcontractors shall ensure that all construction equipment is operated with closed engine doors and is properly muffled according to manufactures specifications or as required by the City Department of Building and Safety (LADBS), whichever is the more stringent. Use of manufacturer-certified mufflers associated with construction equipment has been shown to reduce noise levels by a minimum of 8 dBA and up to 10 dBA. These requirements shall be included in all final Project plans and permit documents.	Construction Phase: Use of mufflers on construction equipment	Zoo; construction contractors and subcontractors	City BOE; City Department of Building and Safety	Yes	Yes
MM NOI-2 Rubber Tired Equipment. The City and its contractors and subcontractors shall use rubber-tired equipment to the maximum extent feasible during grading, excavation, and building construction activities, rather than metal-tracked equipment, to reduce noise and vibration levels. These requirements shall be included in all final Project plans and permit documents.	Construction Phase: Use of rubber-tired equipment during construction	Zoo; City BOE; contractors and subcontractors	City BOE	Yes	Yes
MM NOI-3 Equipment Idling. California State law prohibits heavy-duty diesel motor vehicles from idling for longer than five minutes (Title 13 CCR Section 2485). Under this mitigation, all construction equipment shall be turned off when not in use for an excess of five minutes, except for equipment that requires idling to maintain performance.	Construction Phase: Turning off construction equipment when not in use for an excess of five minutes	Zoo; contractors and subcontractors	City BOE	Yes	Yes
MM NOI-4 Notification Requirements and Coordination with Neighboring Properties. At least one month prior to the initiation of construction	Construction Phase: Preparation and	Zoo; City BOE; Noise	City BOE	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
related activities, the Zoo shall prepare and distribute notices to property owners within 500 feet of the Project site, including the Wilson and Harding Golf Courses, Los Angeles Department of Recreation and Parks (RAP), North Hollywood High School Zoo Magnet Center, and the Autry Museum of the American West, as well as affected commercial businesses and residences along the haul truck route. Additional construction-related noise and disturbance signages shall be posted at or along recreational trails in the vicinity of the Zoo and at the Los Angeles Equestrian Center located in the City of Burbank, noticing the public who may use the trails at Griffith Park of future construction activities related to the Project. At a minimum, the notices and signages shall describe the overall construction schedule, advise residents, business owners, employees, and trail users of increased construction-related noise, and provide a non-automated telephone number to call to submit complaints associated with construction noise. • The Zoo shall retain a Noise Disturbance Coordinator for the duration of Project construction activities. The Noise Disturbance Coordinator shall be responsible for responding to local complaints about construction noise. The Noise Disturbance Coordinator shall determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall be required to implement reasonable measures such that the complaint is resolved. All notices that are sent to sensitive receptors within 500 feet of the construction site and all signs posted at the	distribution of notices to surrounding property owners, detailing construction schedule	Disturbance Coordinator			

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
construction site shall list the telephone number for the Noise Disturbance Coordinator. Prior to initiating construction activity, the BOE's construction contractor shall coordinate with the site administrator for the North Hollywood High School Zoo Magnet Center to discuss construction activities that generate high noise levels. Coordination between the site administrator and the construction contractor shall continue on an as-needed basis throughout construction of the proposed Project to mitigate potential disruption of classroom activities.					
MM NOI-5 Temporary Noise Barriers. The City and its contractors and subcontractors shall implement noise attenuation measures to the satisfaction of the LADBS. Prior to the initiation of the proposed realignment of Crystal Springs Drive/Western Heritage Way and south parking area improvements (Phase 1), a solid noise barrier wall shall be erected around the property boundary of North Hollywood High School Zoo Magnet Center. The noise barrier wall shall be designed to achieve the maximum sound attenuation feasible by breaking the line of site to the Project site. The noise barrier wall shall be based on a site-specific acoustic analysis prepared by a qualified acoustic engineer to be approved by the BOE. The noise barrier wall shall be designed to reduce construction-related noise by a minimum of 10 dBA; however, it is expected that the noise barrier wall could decrease construction-related noise levels by up to 15 dBA during certain phases of construction. The noise barrier wall design shall be subject to City staff approval and shall include an art	Construction Phase: Implementation of noise attenuation measures, including noise barrier wall	Zoo; City BOE; Community Development Director; Los Angeles Department of Building and Safety	City BOE	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
installation (e.g., painting, adhesive pattern design, etc.) that provides visual relief during the Phase 1 construction period.					
MM NOI-6 Noise Reduction Through Design. The City shall design the Zoo's planning areas to reduce operational noise levels. For example, buildings and noise generating uses, such as the proposed Service Center and Zoo Entry shops, should be oriented such that the open faces of these buildings are facing inwards towards the center of the Zoo. Additionally, noise generators for operational equipment, including but not limited to the aerial tram and funicular motors and generators shall be enclosed to reduce noise exposure.	Design Phase: Project design to reduce operational noise levels; enclosure of certain noise-generating equipment	Zoo; City BOE	City BOE	Yes	Yes
Public Services					
MM PS-1 Zoo Parking Lot Security Improvements. In coordination with the City and LAPD, the Zoo shall prepare a Parking Lot Security Plan. The Plan shall identify and implement strategies to improve security within the Zoo's parking areas to reduce vehicle theft/break in or other crimes. Strategies may include but not be limited to installation of surveillance cameras to provide 24-hour video coverage of all Zoo parking areas and frequent foot- or bicycle-based patrolling of the Zoo parking areas by Zoo Security personnel. LAPD shall review and approve the Plan and parking lot security improvements shall be implemented prior to completion of Phase 1. The parking structure improvements proposed as Phase 7 shall be equipped with video surveillance.	Operations: Preparation and implementation of a Parking Lot Security Plan	Zoo; City BOE; Los Angeles Police Department	City BOE; Los Angeles Police Department	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
MM PS-2 Zoo Magnet Center Parking Restrictions. The City and Zoo shall work with the LAUSD North Hollywood High School Zoo Magnet Center to coordinate improvements to the southern Zoo parking lot in Phase 1 of the Project. Parking lot design and management shall ensure adequate provision of parking for the Zoo Magnet Center during peak Zoo attendance days. Measures may include, but not be limited to, reserved parking spaces for Zoo Magnet Center school buses and adequate spaces to accommodate teachers, the office administrator, and campus counselor, with an additional reserve space for visitors. Reserved parking stalls shall be in effect during hours of Zoo Magnet Center operation. Signage shall indicate all restrictions on public parking within the southern parking lot. All proposed parking improvements shall be noted on final plans and reviewed and approved by the City Bureau of Engineering and the LAUSD prior to Project construction of Phase 1.	Design Phase: Zoo Magnet Center parking restrictions during Phase 1 of the Project	Zoo; City BOE; Los Angeles Union School District	City BOE		
Recreation					
MM REC-1 Consideration of the Main Trail in Intersection Designs. Should the Zoo pursue improvements to the intersection of Zoo Drive/Western Heritage Way to include a roundabout or grade-separated intersection, the design of the proposed improvements shall be considerate of pedestrian, bicyclist, and equestrian mobility and safety along the Main Trail and ensure that the use of this trail is not hindered. All proposed intersection improvements, including those for design for the mobility and safety of pedestrians, bicyclists, and	Design Phase: Consideration of the Main Trail in intersection designs	Zoo; City BOE; City of Los Angeles Department of Transportation	City BOE	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
equestrians shall be incorporated into final plans and reviewed and approved by the City of Los Angeles Bureau of Engineering and the City of Los Angeles Department of Transportation prior to the issuance of permits for these improvements.					
Transportation					
MM T-1 Construction Traffic & Access Management Plan. The Zoo shall prepare, implement, and maintain a Construction Traffic & Access Management Plan during the pre-construction design and permitting for each Project phase to address traffic management during construction. The Construction Traffic & Access Management Plan shall be subject to LADOT approval, submitted for Caltrans review, and designed to: • Minimize traffic impacts on the surrounding street network within Griffith Park and surrounding areas to the maximum extent feasible during each construction phase; • Minimize impacts to existing public recreational uses and parking to the greatest extent practicable; • Ensure safety for both those constructing the proposed Project and the surrounding community; • Minimize the impacts of truck traffic within Griffith Park; • Avoid conflicts with planned events and festivals within Griffith Park to the greatest extent possible; and	Construction Phase: Preparation and implementation of a Construction Traffic & Access Management Plan	Zoo; City BOE; Los Angeles Department of Transportation	City BOE	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
• Provide for coordination with adjacent or nearby construction projects. To achieve these outcomes, the Plan shall, at a minimum, include the following: **1. Ongoing Requirements throughout the Duration of Construction** • A detailed Construction Traffic & Access Management Plan for work zones shall be maintained. At a minimum, this shall include parking and travel lane configurations; warning, regulatory, guide, and directional signage; and area sidewalks, bicycle lanes, and parking lanes. The plan shall include specific information regarding the Project's construction activities that may disrupt normal pedestrian and traffic flow and the measures to address these disruptions. • Work within the public right-of-way (i.e., road realignment, intersection improvements, construction of the proposed parking structure) that is performed before 9:00 AM and after 2:00 PM on weekdays during the school year shall require flaggers and traffic controls to avoid conflicts with pick-up and drop-off at the North Hollywood High School Magnet Center. • Any requests for work before or after normal construction hours within the public right-of-way shall be subject to review and approval through the After-Hours Permit process administered by the Los Angeles Department of Building and Safety.					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
• A Zoo-funded on-site construction monitor shall be present to ensure safety when work occurs within the public right-of-way (i.e., road realignment, intersection improvements, construction of the proposed parking structure), or when more hazardous activities are occurring such as heavy-haul materials delivery or oversize transport. The Construction Traffic & Access Management Plan shall identify the activities that would prompt the presence of an on-site monitor. • Trucks shall only travel on a City-approved construction route. Construction routes shall avoid Griffith Park roads to the maximum extent feasible. Truck queuing/staging shall not be allowed on City streets. Limited queuing may occur on the construction site itself. • Staging areas for construction materials and equipment shall be limited to fenced-off areas within the Zoo campus (with the exception of the road realignment and intersection improvements during Phase 1 and construction of the parking structure during Phase 7). • Materials and equipment shall be minimally visible to the public; the preferred location for materials is to be onsite, with a minimum amount of materials within a work area in the public right-of-way. • Off-street parking shall be provided for construction workers, which may include the					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
use of a remote location with shuttle transport to the site, if determined necessary by the City. • At the discretion of the City, construction work shall not be permitted during City-approved or RAP-sponsored large events or festivals (e.g., Griffith Park Trail Race, Harvest Festival, concerts at the Greek Theatre) within Griffith Park. **2. Project Coordination Elements That Shall Be Implemented Prior to Commencement of Construction** • The Zoo shall advise the traveling public of impending construction activities through active outreach measures (e.g., information signs, portable message signs, media listing/notification, social media, and implementation of an approved Construction Traffic & Access Management Plan). • The Zoo shall obtain needed City permits (e.g., Use of Public Property Permit, Oversize Load Permit), as well as any Caltrans permits required, for any construction work requiring encroachment into public rights-of-way, detours, or any other work within the public right-of-way. • The Zoo shall provide timely notification of construction schedules to all affected agencies (e.g., Metro, RAP, LAFD, LAPD, Public Works Department, and BOE), as well as adjacent facilities (e.g., Autry Museum of the American West, Zoo Magnet School, Wilson-Harding Golf Course).					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
• The Zoo shall coordinate construction work with affected agencies in advance of start of work. Coordination with Metro regarding construction activities that may impact Metro bus lines (e.g., Metro Line 96) or result in closures lasting over 6 months shall be initiated at least 30 days in advance of construction activities. • The Zoo shall obtain LADOT approval of any haul routes for earth, concrete, or construction materials and equipment hauling.					
MM T-2 Zoo Transportation Demand Management (TDM) Program (Proposed Project). The Zoo shall prepare and implement a comprehensive TDM program to provide trip reduction strategies for Zoo visitors and employees. The TDM program shall be prepared by a qualified transportation planner and submitted by the Zoo to LADOT for review and approval prior to construction activity. The goal of the TDM Program shall be to reduce Zoo employee VMT by 10 percent below existing conditions by 2040. The TDM Program shall also apply all feasible VMT reduction strategies for visitor vehicle trips to reduce visitor VMT below projected conditions to the maximum extent feasible. The TDM Program shall be developed and approved prior to operation of Phase 1 of the Project and shall be maintained and adjusted as needed continuously. The TDM Program shall be overseen by a Zoo TDM Coordinator. The Zoo TDM Coordinator shall be qualified transportation planner and may be a City/Zoo employee or contractor. The Zoo TDM	Design & Operations: Preparation and implementation of a TDM program	Zoo; City of Los Angeles Department of Transportation, Department of Recreation and Parks; Zoo TDM Coordinator; Los Angeles Union School District	City BOE	Yes	No

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
Coordinator shall monitor visitor and employee mode share with annual surveys, collect and analyze parking and transit use data, and develop annual reports for submittal to BOE and LADOT. The surveys shall capture trip origin data, travel mode, number of people in the party, and other key data and indicators for TDM program performance relative to VMT. The Zoo TDM Coordinator shall ensure that monitoring efforts capture all Zoo-related travel behavior. Annual monitoring reports shall include trip length surveys completed at least biannually by a sample of Zoo patrons and annually by Zoo employees (e.g., trip origin data collection). Monitoring results shall be used to determine the appropriate TDM measures to employ in the coming year to maximize reductions in VMT per capita, champion transit and alternative mode transportation to the Zoo for visitors and employees, develop appropriate incentives to increase the Zoo's transit mode share incrementally over time, and develop effective marketing tools to advertise transit and non-vehicular travel mode availability and incentives. Each annual TDM Program monitoring report shall: • Describe the TDM efforts in place at the time to reduce vehicular trips; • Summarize collected survey data and results; • Evaluate parking utilization and transit use, comparing trends and annual changes; • Analyze the results of trip reduction measures in reducing VMT relative to projected VMT increases;					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
• Evaluate change in available transportation infrastructure and programs serving the zoo, • Report the effect on zoo employee and visitor VMT per capita and compare to current citywide VMT per capita; and • Provide recommendations for adjustments to the tdm program to adaptively manage VMT reductions for visitors and employees, such as increase the charges of paid parking or expand incentives associated with proposed programs, particularly on peak days. The TDM Coordinator shall oversee annual monitoring and reporting to evaluate the effectiveness of the TDM measures being implemented at the Zoo and recommend adjustments as needed to the TDM Program on an annual basis. The annual report shall be submitted to LADOT for review. The TDM measures shall be assessed and adapted as necessary based on the results of this review. Final annual reports and data (e.g., survey data) shall be shared with the City and made readily available for public review and use. The TDM Coordinator may reference the California Air Pollution Control Officers Association (CAPCOA) *Quantifying Greenhouse Gas Mitigation Measures* (2010) report and the Federal Highway Administration's (FHWA's) *Integrating Demand Management into the Transportation planning Process: A Deck Reference* (2012), among others, for potential additional measures or adjustments that are determined to be feasible based					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
on the effectiveness of the TDM Program and future conditions. The TDM Program shall be prepared consistent with the Mobility Element and in consultation with LADOT, as well as RAP, if required for measures affecting Griffith Park. Information regarding the TDM program shall be distributed to all Zoo employees and shall be posted on the Zoo's website and other marketing materials for Zoo visitors and updated annually as needed based on the annual reports. The TDM Coordinator shall consider a range of measures for the TDM Program to reduce employee and visitor VMT per capita, including, but not limited to, the following: **1. Measures to Reduce Zoo Employee VMT Per Capita** • Encourage employee participation in existing vanpool programs, including City employee and Metro vanpool programs, or develop/expand the Zoo vanpool program. • Provide employee incentives to participate in a vanpool program, such as subsidized participant fees, offer in-kind services such as oil change discounts, and provide preferential parking for program participants, and regularly advertise the opportunities to vanpool through a variety of employee communication formats. • Implement a paid parking program to discourage employee vehicle trips to the Zoo and generate revenue that the Zoo may use to expand transit ridership for employee trips.					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
Pricing options of onsite employee parking spaces include pay-per-use or weekly/monthly parking passes. • Partner with rideshare companies such as Uber or Lyft to guarantee availability of an emergency ride home or provide access to City vehicles for this purpose. • Offer employee TDM benefits for use of active transportation commuter modes, including ridesharing, transit, bicycling walking, carpool/vanpool, etc. Incentives for Zoo employees could include flexible scheduling or options for telecommuting, discount transit passes, discounted equipment to employees who bike to work, or discounted equipment (e.g., walking shoes) to employees to walk to work. • Maximize opportunities for Zoo employee to telecommute as part of regular scheduling. • Provide a transportation information center and a commuter club to support a collaborative approach among employees to TDM. • Provide onsite bicycle facilities (i.e., shower, racks, and lockers) for Zoo employees in an amount and location informed by annual employee surveys and monitoring reports. • Encourage bicycles as a primary commute mode for employees and provide incentives for biking to work, including providing free or discounted equipment to employees such as					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
helmets, locks, bicycle commuter gear, and bicycles (electric or non-electric). • Coordinate with LARiverworks, RAP, LADOT, the City of Burbank, and the City of Glendale to identify and facilitate new bicycle and pedestrian linkages and bridges between the Zoo and neighboring communities, particularly linkages to Los Angeles River Bike Path. The Zoo, RAP, and LADOT in consultation with the City of Glendale shall consider development of a new bicycle and pedestrian bridge across Colorado Boulevard, linking neighborhoods within the City of Glendale to Griffith Park, south of the Project site. The Zoo, RAP, and LADOT shall ensure that all bicycle and pedestrian linkages and bridges to Griffith Park are well-signed and provide lighting, are regularly patrolled by law enforcement. • Continue to seek grant funding to support expanded TDM measures to reduce employee VMT per capita. **2. Measures to Reduce Zoo Visitor VMT Per Capita** • Offer discounted Zoo entrance tickets for patrons who bike or use transit to visit the Zoo. Visitors must provide proof of arrival via transit to receive discounted rate. Advertise the availability of ticket discounts for transit through social media and in coordination with RAP, LADOT, and Metro.					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?

• Coordinate with Metro to increase bus service frequency to the Zoo bus stop, such as advocating for the implementation of Metro's proposed Line 501.
• Seek funding opportunities to provide proportional share funding in coordination with RAP to expand Parkline Shuttle service to increase access to Griffith Park and Zoo from nearby Metro light rail stations, as follows:
  • Expand Parkline Shuttle service to connect to the Metro B Line Vermont/Sunset station in the south and the Metro B/G (formerly, Orange) Line North Hollywood station in the north. Shuttle routes should be coordinated with LADOT and RAP.
  • Extend Parkline Shuttle service hours to begin at 9:30 AM, before the Zoo opens each day. This expanded service should first be targeted to occur during peak demand periods such as Easter, Memorial Day, and during Los Angeles Unified School District (LAUSD) holidays, such as the week of spring break.
  • Coordinate with RAP to monitor the success of the Parkline Shuttle during such peak periods and to fund expansion of the service over time, as needed, to facilitate and accommodate increased ridership. The program shall then be expanded to broaden the hours and days of operation as needed to meet demand.					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
• Coordinate with RAP on how best to advertise and perform outreach to user groups regarding the availability of this transit service and methods to increase ridership (e.g., social media outreach). • Seek funding opportunities to provide proportional share funding in coordination with Metro and LADOT to provide an express shuttle service to and from Los Angeles Union Station and the Zoo or a connection between the Glendale Metrolink station and the Zoo. • Provide Union Station shuttle during operating hours on weekends and legal holidays. This new service shall first be targeted as a pilot program to occur during peak demand periods such as Easter, Memorial Day, and during LAUSD holidays, such as spring break week. If successful, the program shall then be expanded to broaden hours and days of operation. • Coordinate with Metro and LADOT on how best to advertise and perform outreach to user groups regarding the availability of this transit service and methods to increase ridership (e.g., social media outreach). • Maintain and expand onsite bicycle parking for Zoo visitors in an amount and location informed by visitor surveys and annual monitoring reports. • Maintain and expand short-term bicycle parking within the Zoo to meet changing					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
demands evaluated in the TDM Program annual reports. • Provide well-lit, clearly signed, bicycle parking that is convenient and in close proximity to the Zoo Entry to encourage bicycling by visitors. • Provide secure short-term bicycle parking and/or a bicycle parking attendant, bicycle valet, or indoor bicycle parking facility to prevent theft and ensure parking availability for Zoo visitors. • Design bicycle racks with space-efficient configurations, such as vertically staggered racks and two-tier racks. • Provide a bike share station at the Zoo as a part of the Metro Bike Share, Ofo, or a new bike share program specific to Griffith Park. Funding shall be determined based on the area required for the bike station. The bike share station shall be well-lit and located at a safe and convenient location adjacent to the Zoo entrance. • Develop and implement a paid parking program for Zoo visitors to discourage personal vehicle trips to the Zoo and provide a secure funding source to help subsidize TDM, transit improvement, and other trip reduction measures, considering the following options: • A Peak Period Parking Program would charge for preferred parking during the highest visitation periods, including all weekends (Saturdays and Sundays),					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
holidays, the spring months (April and May), and December, collecting fees for preferred parking on approximately 170 days of the year (based on the 2020 calendar year). • An Everyday Parking Program would charge for preferred parking 364 days of the year (every day the Zoo is open). • Maintain at least 15 percent of parking spaces as free parking to meet the needs of disadvantaged households and ensure that low-income visitors may continue to visit the Zoo. • The Zoo's TDM Coordinator shall prepare a quarterly report on the effectiveness of the Paid Parking Program and monthly revenue generated. • Continue to seek grant funding to support expanded TDM measures to reduce visitor VMT per capita.					
MM T-2 Zoo Transportation Demand Management (TDM) Program (Alternative 1.5). The Zoo shall prepare and implement a comprehensive TDM program to provide trip reduction strategies for Zoo visitors and employees. The TDM program shall be prepared by a qualified transportation planner and submitted by the Zoo to LADOT for review and approval prior to construction activity. The TDM Program shall be developed and approved prior to initiation of construction of Phase 1 of the Project and	Design and Operations Phases: Preparation and implementation of a TDM program	Zoo; City of Los Angeles Department of Transportation, City RAP; Zoo TDM Coordinator; Los Angeles Union School District	City BOE	No	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
shall be maintained and adjusted as needed. The TDM Program shall: • Establish a baseline for Zoo VMT at Project initiation. • Monitor and track VMT for Zoo visitors and employees with specific reduction goals to reduce overall VMT to a target ideally 15 percent below the TDM baseline conditions by 2040 or to achieve other specific reduction goals justified by the TDM Program. • Include events held outside of normal business hours. • Define and track peak hours and days of the week to inform the Peak Visitation Management Program. • Annually report the number of private vehicles, ride-share (TNCs) vehicles, and chartered buses parking and picking up/dropping off at the Zoo facilities in collaboration with the LADOT. The goal of the TDM Program shall be to reduce Zoo employee VMT by 10 percent below existing conditions by 2040. The TDM Program shall also apply all feasible VMT reduction strategies for visitor vehicle trips to reduce visitor VMT below projected conditions to the maximum extent feasible. The TDM Program shall be developed and approved prior to operation of Phase 1 of the Project and shall be maintained and adjusted as needed continuously. The TDM Program shall be overseen by a Zoo TDM Coordinator and conducted in collaboration with					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
LADOT. The Zoo TDM Coordinator shall be a qualified transportation planner and may be a City/Zoo employee or contractor. The Zoo TDM Coordinator shall monitor visitor and employee mode share with annual surveys, collect and analyze parking and transit use data, and develop annual reports for submittal to BOE and LADOT. The surveys shall capture trip origin data, travel mode, number of people in the party, and other key data and indicators for TDM program performance relative to VMT. The Zoo TDM Coordinator shall ensure that monitoring efforts capture all Zoo-related travel behavior. Annual monitoring reports shall include trip length surveys completed at least biannually by a sample of Zoo patrons and annually by Zoo employees (e.g., trip origin data collection). Monitoring results shall be used to determine the appropriate TDM measures to employ in the coming year to maximize reductions in VMT per capita, champion transit and alternative active modes of transportation to the Zoo for visitors and employees, develop appropriate incentives to increase the Zoo's transit mode share incrementally over time, and develop effective marketing tools to advertise transit and non-vehicular travel mode availability and incentives. Each annual TDM Program monitoring report shall: • Describe the TDM efforts in place at the time to reduce vehicular trips; • Summarize collected survey data and results; • Evaluate parking utilization and transit use, comparing trends and annual changes;					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
• Report the peak hours and days of the week for each survey period based on visitation and travel patterns; • Analyze the results of trip reduction measures in reducing VMT relative to projected VMT increases; • Evaluate change in available transportation infrastructure and programs serving the zoo, • Report the effect on zoo employee and visitor VMT per capita and compare to current citywide VMT per capita; and • Provide recommendations for adjustments to the tdm program to adaptively manage VMT reductions for visitors and employees, such as increase the charges of paid parking or expand incentives associated with proposed programs, particularly on peak days. The TDM Coordinator shall oversee annual monitoring and reporting to evaluate the effectiveness of the TDM measures being implemented at the Zoo and recommend adjustments as needed to the TDM Program on an annual basis. The annual report shall be submitted to LADOT for review. The TDM measures shall be assessed and adapted as necessary based on the results of this review. Final annual reports and data (e.g., survey data) shall be shared with the City and made readily available for public review and use. The TDM Coordinator may reference the California Air Pollution Control Officers Association (CAPCOA) *Quantifying Greenhouse Gas Mitigation Measures* (2010) report and the Federal					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
Highway Administration's (FHWA's) *Integrating Demand Management into the Transportation planning Process: A Deck Reference* (2012), among others, for potential additional measures or adjustments that are determined to be feasible based on the effectiveness of the TDM Program and future conditions. The TDM Program shall be prepared consistent with the Mobility Element and in consultation with LADOT, as well as RAP, if required for measures affecting Griffith Park. Information regarding the TDM program shall be distributed to all Zoo employees and shall be posted on the Zoo's website and other marketing materials for Zoo visitors and updated annually as needed based on the annual reports. The TDM Coordinator shall consider a range of measures for the TDM Program to reduce employee and visitor VMT per capita, including, but not limited to, the following: **3. Measures to Reduce Zoo Employee VMT Per Capita** • Encourage employee participation in existing vanpool and car-sharing programs, including City employee and Metro vanpool programs, BlueLA, or develop/expand the Zoo vanpool program. • Provide employee incentives to participate in a vanpool or car-sharing program, such as subsidized participant fees, offer in-kind services such as oil change discounts, and provide preferential parking for program participants, and regularly advertise the					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?

opportunities to vanpool or car-pool through a variety of employee communication formats.
• Implement a paid parking program to discourage employee vehicle trips to the Zoo and generate revenue that the Zoo may use to expand transit ridership for employee trips. Pricing options of onsite employee parking spaces include pay-per-use or weekly/monthly parking passes.
• Partner with rideshare companies such as Uber or Lyft to guarantee availability of an emergency ride home or provide access to City vehicles for this purpose.
• Offer employee TDM benefits for use of active transportation commuter modes, including ridesharing, transit, bicycling walking, carpool/vanpool, etc. Incentives for Zoo employees could include:
  • Flexible scheduling or options for telecommuting;
  • Discount transit passes such as Metro E-Pass Program transit passes; and,
  • Discounted equipment to employees who bike to work, or discounted equipment (e.g., walking shoes) to employees to walk to work.
• Maximize opportunities for Zoo employee to telecommute as part of regular scheduling.
• Provide a transportation information center and a commuter club to support a					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
collaborative approach among employees to TDM. • Provide onsite bicycle facilities (i.e., shower, racks, and lockers) for Zoo employees in an amount and location informed by annual employee surveys and monitoring reports. • Encourage bicycles as a primary commute mode for employees and provide incentives for biking to work, including providing free or discounted equipment to employees such as helmets, locks, bicycle commuter gear, and bicycles (electric or non-electric). • Coordinate with LARiverworks, RAP, LADOT, the City of Burbank, and the City of Glendale to identify and facilitate new bicycle and pedestrian linkages and bridges between the Zoo and neighboring communities, particularly linkages to the Los Angeles River Bike Path. The Zoo, RAP, and LADOT in consultation with the City of Glendale shall consider development of a new bicycle and pedestrian bridge across Colorado Boulevard, linking neighborhoods within the City of Glendale to Griffith Park, south of the Project site. The Zoo, RAP, and LADOT shall ensure that all bicycle and pedestrian linkages and bridges to Griffith Park are well-signed and provide lighting, and are regularly patrolled by law enforcement. • Continue to seek grant funding to support expanded TDM measures to reduce employee VMT per capita.					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
4. Measures to Reduce Zoo Visitor VMT Per Capita • Encourage visitors to travel to the Zoo through means other than private automobiles or ridesharing (i.e., active transportation modes like walking, cycling, transit, or car-sharing) through discounted pass programs and dedicated parking spaces reserved for car-sharing automobiles (e.g., BlueLA). In such cases, visitors could be required to provide proof of arrival via active transportation modes or car-sharing to receive a discounted entrance rate. • Advertise the availability of ticket discounts for active transportation and car-sharing through social media and in coordination with RAP, LADOT, and Metro. • Review the effect of ridesharing as a mode on VMT and consider if ride-share users should receive ticket discounts as an effective way of reducing VMT. • Offer discounted Zoo entrance tickets for patrons who bike or use transit to visit the Zoo. Visitors must provide proof of arrival via transit to receive discounted rate. Advertise the availability of ticket discounts for transit through social media and in coordination with RAP, LADOT, and Metro. • Coordinate with Metro to increase bus service frequency to the Zoo bus stop, such as advocating for the implementation of Metro's proposed Line 501.					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?

• Seek funding opportunities to provide proportional share funding in coordination with RAP to expand Parkline Shuttle service to increase access to Griffith Park and Zoo from nearby Metro light rail stations, for the following:
  • Reestablish the Parkline DASH shuttle service in a proportion consistent with demands Zoo patrons will place on the service.
  • Expand Parkline Shuttle service to connect to the Metro B Line Vermont/Sunset station in the south and the Metro B/G (formerly, Orange) Line North Hollywood station in the north. Shuttle routes should be coordinated with LADOT and RAP.
  • Extend Parkline Shuttle service hours to begin at 9:30 AM, before the Zoo opens each day. This expanded service should first be targeted to occur during peak demand periods such as Easter, Memorial Day, and during Los Angeles Unified School District (LAUSD) holidays, such as the week of spring break.
  • Coordinate with RAP to monitor the success of the Parkline Shuttle during such peak periods and to fund expansion of the service over time, as needed, to facilitate and accommodate increased ridership. The program shall then be expanded to broaden the hours and days of operation as needed to meet demand.					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
◦ Coordinate with RAP on how best to advertise and perform outreach to user groups regarding the availability of this transit service and methods to increase ridership (e.g., social media outreach). • Seek funding opportunities to provide proportional share funding in coordination with Metro, and LADOT, and other regional transportation partners to provide an express shuttle service to and from stations such as Los Angeles Union Station (Metro), Downtown Burbank Metrolink Station (Burbank Community Development/Transportation), the Metro Red (B) Line North Hollywood Station (Metro), or and the Zoo or a connection between the Glendale Metrolink station and the Zoo (Glendale Public Works/Public Transportation and Metrolink). ◦ Provide Union Station shuttle during operating hours on weekends and legal holidays. This new service shall first be targeted as a pilot program to occur during peak demand periods such as Easter, Memorial Day, and during LAUSD holidays, such as spring break week. If successful, the program shall then be expanded to broaden hours and days of operation. ◦ Coordinate with Metro and LADOT on how best to advertise and perform outreach to user groups regarding the availability of this					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?

transit service and methods to increase ridership (e.g., social media outreach).
• Seek funding opportunities to provide proportional share funding in coordination with Metro and LADOT, for Metro's 96 bus line (Metro NextGen 296) service in a proportion consistent with demands Zoo patrons will place on the service.
• Maintain and expand onsite bicycle parking for Zoo visitors in an amount and location informed by visitor surveys and annual monitoring reports.
  • Maintain and expand short and long-term bicycle parking within the Zoo to meet changing demands evaluated in the TDM Program annual reports.
  • Provide well-lit, clearly signed, bicycle parking that is convenient and in close proximity to the Zoo Entry to encourage bicycling by visitors.
  • Build out bicycle parking for cargo bicycles, long-tail bicycles, bicycles with trailers, and other family-friendly bicycle modes.
  • Build out access restricted, secure bicycle parking for visitors such as bike lockers, storage lockers, a new Metro Bike Hub location, other bicycle hub mode, or staffed bike valet. Funding shall be determined based on the area required for the bike station. The bike share station shall be well-lit and located at a safe and convenient location near the Zoo entrance.					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
• Provide secure short-term bicycle parking and/or a bicycle parking attendant, bicycle valet, or indoor bicycle parking facility to prevent theft and ensure parking availability for Zoo visitors. • Design bicycle racks with space-efficient configurations, such as vertically staggered racks and two-tier racks. • Provide a bike share station at the Zoo as a part of the Metro Bike Share, Ofo, or a new bike share program specific to Griffith Park. Funding shall be determined based on the area required for the bike station. The bike share station shall be well-lit and located at a safe and convenient location adjacent to the Zoo entrance. • Develop and implement a paid parking program for Zoo visitors to discourage personal vehicle trips to the Zoo and provide a secure funding source to help subsidize TDM, transit improvement, and other trip reduction measures, considering the following options: • A Peak Period Parking Program would charge for preferred parking during the highest visitation periods, including all weekends (Saturdays and Sundays), holidays, the spring months (April and May), and December, collecting fees for preferred parking on approximately 170 days of the year (based on the 2020 calendar year).					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
• An Everyday Parking Program would charge for preferred parking 364 days of the year (every day the Zoo is open). • Maintain at least 15 percent of parking spaces as free parking to meet the needs of disadvantaged households and ensure that low-income visitors may continue to visit the Zoo. • The Zoo's TDM Coordinator shall prepare a quarterly report on the effectiveness of the Paid Parking Program and monthly revenue generated. • Continue to seek grant funding to support expanded TDM measures to reduce visitor VMT per capita.					
Utilities					
MM UT-1 Recycled Water Use. In accordance with the Green New Deal pLAn and One Water L.A. Plan, the Zoo shall work with LADPW and LASAN to expand recycled water lines (purple pipe) to interior portions of the Zoo. Recycled water shall be used to the maximum extent available for washdown of the animal holding areas, powerwashing walkways and plazas, and flushing toilets, and in the Zoo's exhibits (e.g., treatment systems, ponds, aesthetics, water features, etc.) if the recycled water is dechlorinated before use, and for fire suppression where feasible. Additionally, all irrigation water demand not covered by stormwater captured in the proposed stormwater collection system (i.e., during dry years), shall be covered by recycled water. The point of connection to the City's water recycling system would be at the existing 8-inch	Design Phase: Expansion of recycled water use to interior portions of the Zoo	Zoo; City BOE; City of Los Angeles Department of Public Works; City of Los Angeles Bureau of Sanitation	City BOE	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
recycled water main at the west end of the Zoo parking lot in Griffith Park, subject to review and approval of LADPW, LASAN, and BOE. LASAN staff shall ensure the recycled water main connections are incorporated into the final building plans prior grading. City staff shall ensure measures are on all Project plans to ensure that these requirements are implemented.					

MM UT-2 Vision Plan Recommendations. Project components designed and engineered to implement the Vision Plan shall follow all recommendations and guidelines for water, wastewater, and stormwater utilities provided in the Appendix of the Vision Plan. As recommended in the Vision Plan Appendix (New Infrastructure: Plumbing), the Project must provide the following features to reduce maintenance and conserve water:
• Restrooms
  • Shut-off valve for all fixtures in each restroom, located above the upper terminal water closet and behind a locked access panel.
  • Water-saving battery-operated infrared-sensored flush valves, with manual override on all water closets.
  • Push-button, ADA-metered, self-closing faucets on lavatories.
  • Hose-bibb with vacuum breaker in recessed box with locking cover.
  • Floor drains with trap primers with floors sloped to drain.
  • Clean-outs above all urinals, lavatories, and water closets.
	Design Phase: Implementation of Vision Plan recommendations and guidelines for water, wastewater, and stormwater utilities	Zoo; City BOE	City BOE	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?

• Public Restrooms
  • Shut-off valve for all fixtures located above the upper terminal water closet and behind a locked access panel.
  • Floor drains with trap primers sloped to drain.
  • Clean-outs above all urinals, lavatories, and water closets.
  • ADA compliant floor-mounted water closet and countertop lavatory.
• Sewer Lines
  • Cast iron soil pipe at all following locations:
  • Within the building and 5 feet outside the building line.
  • Running parallel to and within 2 feet of any building or structure.
  • 6-inch sewer lateral to fire station.
  • Provide clean-outs above all urinals, lavatories, upper terminal water closets, and sinks.
  • Provide uniform slope of 0.25-inch fall per foot whenever possible, but never less than 0.125-inch per foot.
  • Indicate invert elevations of new sewer lines at buildings, changes in direction, locations where sewer lines join and at property lines.
  • Review existing sewer pipe's capacities, conditions, and materials.
• Floor Drains, Area Drains and Floor Sinks
  • Where drains or sinks are required, slope floor to drain at 0.125 inch per foot.
  • Floor drains with trap primers are required at restrooms. One floor drain shall be provided					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?

front and center for two or more urinals. One floor drain is required for water closets in all restrooms with an additional floor drain when a total of four or more water closets are provided. One floor drain shall be provided for a combination of one water closet and one urinal.
• Utility/Service Sink Room
  • Provide wall-mounted stainless-steel mop sink, with floor drain.
  • Floor sinks with trap primers are required at:
  • Utility/Service sink room.
  • Kitchens, and where preparation sinks have an indirect waste drain rather than a direct connection.
  • Trench drain.
  • Wherever required by the California Plumbing Code or the City Plumbing Code.
• Water Systems
  • Use Type L hard copper pipe inside buildings.
  • Do not run water lines under slab if at all possible.
  • Provide a shut-off valve to isolate all fixtures in each restroom, kitchens, and any other room with multiple fixtures.
  • Slope pipes up in direction of water flow to air-elimination devices, or up to a nearby expansion tank, to provide for air elimination from water lines.					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
• Water hammer arrestors are required for lavatories, sinks, fountains, water closets, urinal headers, and other fixtures. • Water Valves and Other Devices • Uninterrupted Service: • All domestic water supply mains shall be designed in an above-ground valve station with a minimum of two parallel branch lines – a primary and secondary – to provide for uninterrupted service to the site during maintenance of a backflow preventer or a pressure regulating valve. Each branch shall include a backflow preventer with strainer and when the street pressure exceeds 80 psi, a pressure regulator with strainer. • A separate service shall be provided for landscape irrigation, with an above-ground valve station that includes a backflow preventer and a pressure regulator with strainer when the street pressure exceeds manufacturer's or design suggested range. • Shut-off Valves: • All shut-off valves shall be accessible from the room in which fixtures are installed, and shall be located at approximately 3 feet, but not more than 7 feet, from the floor. These valves shall control only fixtures in the room in which they are installed. • Provide shut-off valves for:					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
• Each group of fixtures. • Each restroom. *The City is required to include the above standard recommended measures from the Vision Plan's Appendix in the final building plans prior to approval. City staff shall ensure measures are on all Project plans to ensure that these requirements are implemented.*					
Wildfire					
MM WF-1 Wildfire Fuel Management Plan. The Zoo shall retain a City-qualified specialist (i.e., fire management professionals) and City-approved biologist to prepare a Wildfire Fuel Management Plan (WFMP) to design the creation and maintenance of required fire buffers and fuel management zones around the Project site while preserving the integrity of existing native oak woodland, chaparral and coastal sage scrub habitats to the maximum extent feasible. To the maximum extent feasible, native trees and shrubs, such as coast live oak, coastal scrub, and grassland shall be thinned and limbed up but left in place. The WFMP shall be prepared consistent with the requirements of PRC Section 4291 and also detail methods for achieving fire safety around new and existing structures. The WFMP shall incorporate management strategies in coordination with RAP and LAFD to address any needed future management actions in Griffith Park buffering the Project site. Vegetation and other fuels with the management zone(s) shall be maintained by the Zoo in a manner consistent with existing CFC and LAFD regulations to	Design Phase: Preparation and implementation of a Wildfire Fuel Management Plan	Zoo; City-qualified specialists (i.e., fire management professionals, City-approved biologist); Los Angeles Fire Department; City RAP; California Department of Fish and Wildlife; City of Los Angeles Emergency Management Department	City BOE	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
reduce fuel loading in vulnerable areas and to avoid the buildup of deadwood and leaf litter and/or inappropriate storage of flammable materials. Specifically, the WFMP shall describe at least the following elements: • Vegetation coverage and type within and adjacent to the vegetation management zone(s); • Sensitive species identification, mapping, and avoidance; • Setbacks between structures, Project site boundaries, and access routes; • Location and management procedure for flammable materials use and storage; and • Development plan landscaping and planting standards within the setback areas. The Zoo shall submit the WFMP to the City Bureau of Engineering, Emergency Management Department, RAP, LAFD, and California Department of Fish and Wildlife (CDFW) for review and approval prior to issuance of any grading and development plans for improvements under the Project.					
MM WF-2 Evacuation and Fire Response Access Plan. Prior to initiation of each phase of Project implementation, the Zoo shall prepare and implement an Evacuation and Fire Response Access Plan (EFRAP), which shall address conditions and requirements for both construction and operation of the Zoo area affected by the Project. The EFRAP shall be prepared in coordination with the LAFD and RAP. The Zoo Department shall oversee implementation of the EFRAP, including updates of the Los Angeles Zoo	Operations: Preparation and implementation of an Evacuation and Fire Response Access Plan	Zoo; City BOE; Los Angeles Fire Department; City RAP	City BOE	Yes	Yes

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?

Procedures Manual and coordination with the City Emergency Management Department – Planning Division for updates of the City Emergency Operations Plan. The EFRAP shall include, but not be limited to:
• Evacuation of Visitors and Employees
  • Designated evacuation routes and exits within the Zoo for Zoo visitors and employees;
  • Wayfinding and signage to assist with route, exits, and meeting area identification during evacuation;
  • Special considerations and requirements for nighttime evacuations;
  • Accommodations for special care or disabled guests or employees;
  • Specified egress points for transportation vehicles and traffic controls to help efficiently evacuate the Zoo's parking lot;
  • Contingency plans for changes to the construction schedule or phasing plan that would affect the primary evacuation plan and routes; and
  • Regular practice drills (e.g., one per year) for implementation of the EFRAP.
• Fire Response Access within the Zoo
  • Specified at least two dedicated ingress points for emergency responders;
  • Specified firefighter staging or command locations within the Zoo (e.g., northern parking lot or Gottlieb Animal Health Center); and					

Mitigation Measure	Monitoring Action	Monitoring Party	Responsible Agency	Applies to Proposed Project, Alternative 1, and/or Alternative 2?	Applies to Alternative 1.5?
• Traffic controls at gates and intersections to balance ingress/egress needs during evacuation. • Zoo Animal Shelter in Place and Evacuation Shelter-in-place accommodations; and • A relocation plan from the Project site to a secondary location or facility, with associated transportation.					

TOC

FIGURES

No table of figures entries found.

TABLES

APPENDIX O

Alternative 1.5 Project Description

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Alternative 1.5 – California Focused Conservation Alternative Description

Under Alternative 1.5, the California Focused Conservation Alternative, 6 acres of undeveloped hillsides in the Africa planning area would remain as undeveloped native habitat and would be managed as a restoration and ecological education area of the Zoo. Within these 6 acres, approximately 5 acres supports sensitive native coast live oak woodland habitat, 20 Southern California black walnuts, 113 coast live oaks, 15 toyon, and 21 elderberry shrubs, which are City protected trees. Alternative 1.5 would reduce impacts on these resources by redesigning the proposed Vision Plan land use plan to avoid this area. To support biodiversity conservation within the Zoo, this area would be the focus of concerted native habitat restoration and any public access would be related to the restoration of the area and/or education about the restoration of the area. Some visitor-serving uses (e.g., safari picnic area) envisioned under the proposed Project in the Africa planning area would be eliminated to protect undeveloped native vegetation. Instead, similar visitor-serving uses would be provided at the Zoo Entry Garden and Park proposed within an underutilized, disturbed area adjacent to the Zoo Entry in Phase 1 of the Vision Plan. As with the proposed Project, animal welfare would continue to be substantially improved under this alternative, with space devoted to Zoo animals increasing from 20.8 acres to 54.5 acres, a 162.1% increase. Alternative 1.5 would also preserve views from public roadways inside Griffith Park, such as Zoo Drive and Western Heritage Way, by eliminating the multi-story parking structure proposed in the northern Zoo parking lot under the Project. Alternative 1.5 would substantially reduce annual Zoo visitation due to implementation of the Peak Visitation Management Program. To manage visitation within the capacity of the Zoo's surface parking lots, the Peak Visitation Management Program would control daily visitation on high-demand days and manage parking supply, which would decrease VMT, energy demand, and air pollutant and GHG emissions compared to the Project. All development would be designed according to proposed development design guidelines that would ensure the use of California native vegetation and stormwater best management practices. Under this alternative, the Vision Plan is estimated to be implemented over 18 years, which is 2 years less than the proposed Project.

The California Focused Conservation Alternative (Alternative 1.5) would guide long-term redevelopment and operations of the Zoo similar to the Project but under a revised land use plan that would avoid the development of approximately 6 acres of an undeveloped hillside within the Africa planning area that supports sensitive biological resources. Instead, Alternative 1.5 would include ongoing restoration of the area to improve its ecosystem health. This alternative would also modify other elements of planned site design, eliminate the Zoo aerial tram, eliminate the parking structure and public park in the Zoo's northern parking lot, implement the Peak Visitation Management Program, implement design guidelines that would ensure use of California native vegetation in landscaping, provide accessible visitor-

serving and special event space near the Zoo Entry, and implement design and operation measures to manage visitation as described further herein.

Alternative 1.5 Land Use Plan and Site Design

Alternative 1.5 would reconfigure the Vision Plan's proposed land use plan to make several changes, particularly avoiding the development of the undeveloped hillsides containing native habitat and sensitive biological resources within the Africa planning area (Figure 1; Table 1)).

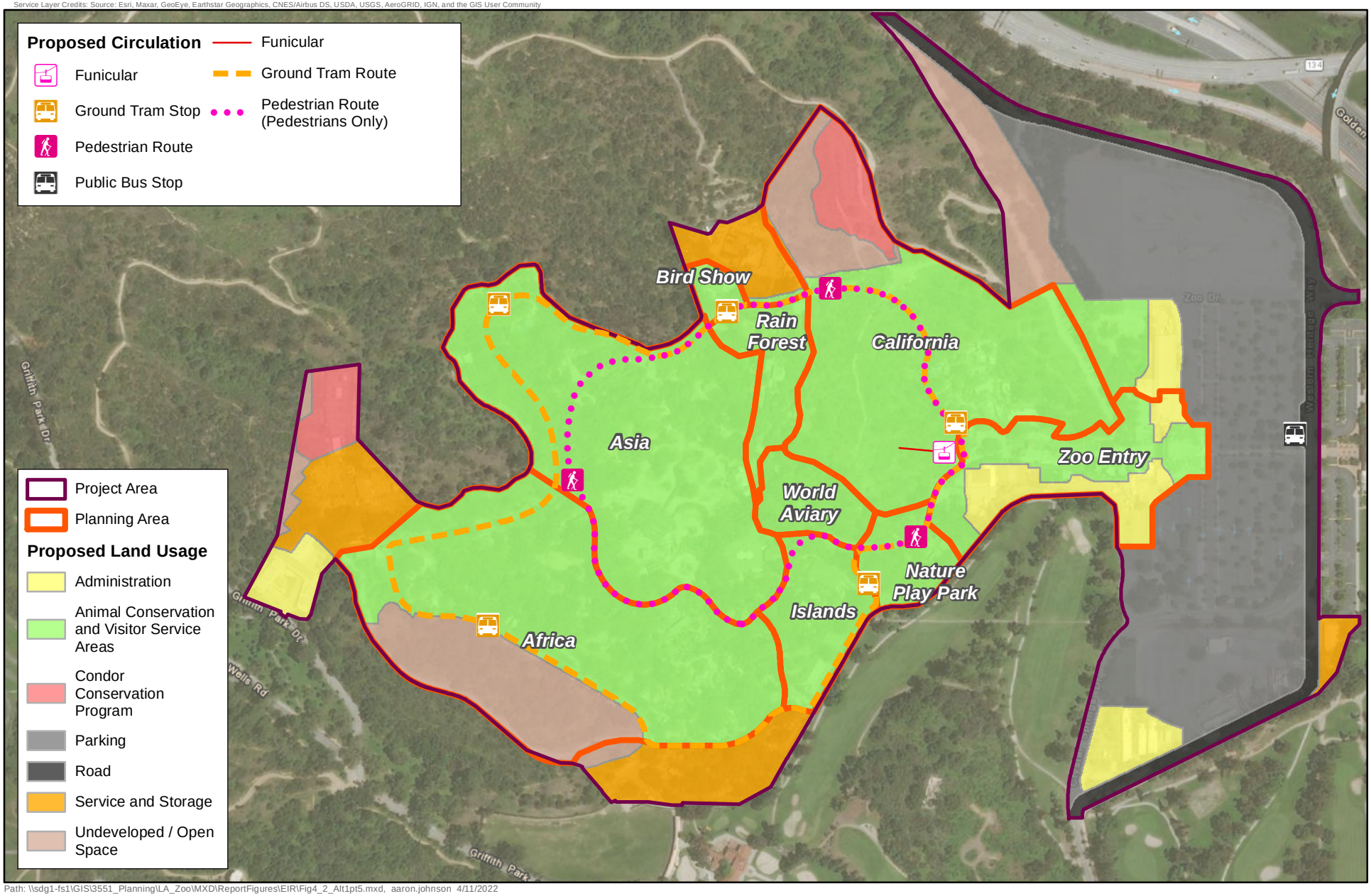
Compared to the Project, while Alternative 1.5 would expand space dedicated solely to animal welfare, it would incrementally reduce acreage dedicated to Animal Conservation and Visitor Service Areas by 6 acres and instead increase Undeveloped/Open Space Areas by 6 acres (Figure 1). As Alternative 1.5 also excludes the 2-acre public park in the northern parking lot from the Project, 2 acres of parking would be retained similar to existing conditions.

As a result of land use changes, Alternative 1.5 would have a smaller development footprint than the Project, which would substantially reduce direct and indirect disturbance of habitats and natural resources in the Africa planning area. The overall development footprint within the Zoo would be reduced by 6 acres, a 7.6 percent decrease from the Project. As a result, this alternative would protect sensitive biological resources within Africa while retaining key Vision Plan features, Project objectives, and improvements such as the proposed looping circulation system with Condor Canyon.

Table 1. Comparison of Land Use Under Alternative 1.5 and Proposed Project

Land Use	Proposed Project (acres)	Alternative 1.5 (acres)	Difference (acres)
Animal Conservation & Visitor Service Areas	79	73	-6
Administration	7	7	0
Service & Storage	10	10	0
Condor Conservation Program	3	3	0
Public Park	2	0	-2
Undeveloped/Open Space	7	13	6
Parking	29	31	2
Realigned Crystal Springs Drive	5	5	0
Total	142	142	0

Note: Land use acreages are approximate due to rounding based on GIS analysis.



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1 inch = 500 feet
0 250 500 Feet

FIGURE 1

wood.

Alternative1.5
Los Angeles Zoo Vision Plan EIR
Los Angeles, CA

Under this alternative, the Zoo land use plan would be adjusted to reduce potential impacts on sensitive native California habitats with the planned Africa and California exhibits, while continuing the Project's emphasis on improving animal welfare. Areas dedicated to animal welfare, including Zoo animal habitats, enclosures, health care, feeding/bathing, and sleeping areas, would continue to be maintained and developed throughout the Zoo and would be separated from areas serving guests and Zoo staff. A detailed assessment of animal welfare space under the Project and the alternatives analyzed in this EIR sets forth such changes (see Appendix O). Similar to the proposed Project, Alternative 1.5 would substantially increase space for animal welfare within the Zoo compared to the current setting. Under the land use plan for Alternative 1.5 (Figure 1), animal welfare space would increase by 33.7 acres (162.1 percent) compared to the existing Zoo configuration. Because of the reduction of the 6 acres of Animal Conservation and Visitor Service Area in the Africa planning area, this alternative would reduce the number of Zoo animal habitats and the size and complexity of their animal habitats in the Africa planning area compared to the Project. Specifically, the amount of space dedicated to animal welfare would be reduced by 5.2 acres (8.8 percent) compared to the proposed Project. However, these changes would reduce environmental impacts associated with the development and loss of native habitat, sensitive plant species, and protected trees within these areas.

Similar to the proposed Project, redevelopment would occur within existing developed areas of the Zoo. Alternative 1.5 would also continue to develop the California planning area similar to the proposed Project and retain the proposed loop circulation system and ADA-accessible paths through the Zoo, which would be possible through the development of Condor Canyon. However, this alternative would emphasize use of native plants throughout newly developed areas, including elimination of the proposed vineyard feature within the California planning area under the Project and instead landscape the proposed ADA access pathway with California native species. Additionally, the proposed Zoo aerial tram would be eliminated, including the upper terminal in the Africa planning area, the lower terminal in the Zoo Entry area, and all footings.

Under Alternative 1.5, the 2,000-space parking structure and associated 2.0-acre public park proposed as part of the Project under Phase 7 would be eliminated. Under Alternative 1.5, the Zoo's northern parking lot would remain designated for surface parking similar to existing conditions. This alternative would retain that area as surface parking with stormwater improvements described in EIR Section 2.0, *Project Description*. All other parking and roadway improvements (e.g., relocation of Crystal Springs Drive and addition of 300 guest surface parking spaces north and east of the North Hollywood High School Zoo Magnet Center as part of Phase 1) proposed under the Project would be implemented, resulting in a total of 2,500 surface parking spaces within the Zoo's surface parking lot.

Further, Alternative 1.5 would refine the proposed use and development of a 1.87-acre area adjacent to the Zoo Entry and the California planning area. This area would continue to be designated for Animal Conservation and Visitor Serving Uses (Figure 1), similar to the

Project, and would be developed similar to the Project's conceptual plan (see Figure 2-4). This area is the same site as Cumulative Project No. 1 (the Angela Collier Gardens project) analyzed in this EIR (see EIR Section 3.18, *Cumulative Impacts*). Instead of developing Cumulative Project No. 1 at this location within the Zoo, Alternative 1.5 would develop a publicly accessible garden and special event space to provide a range of visitor-serving uses that would also effectively replace those lost by the reduction of development in the Africa planning area, such as the safari picnic area. Landscaping would involve native, water-wise plantings and landscaping that is attractive to local wildlife, consistent with the goals of the Vision Plan and proposed development design guidelines to promote the use of California native plant species under this alternative (see below).

All other elements of the proposed Project not associated with the development of these areas would remain generally consistent with the Project under this alternative, including the Africa Visitor Center, Treetops Visitor Center, California Visitor Center, and hillside funicular in the California planning area. Table 2 summarizes the changes to components of the Project under Alternative 1.5.

Table 2. Key Land Use and Design Revisions to the Project Proposed Under Alternative 1.5

Phase	Planning Area/ Improvement	Description of Modified Project Improvements
1	California	• Eliminate vineyard landscape feature of ADA pathway • Replace vineyard features with native vegetation to showcase the value of pollinators in the ecosystem and support Zoo animal habitat spaces
	Zoo Entry	• Eliminate Zoo aerial tram, including the lower terminal in the Zoo orientation plaza
	Zoo Entry Garden and Park	• Improve existing underutilized, disturbed areas with public gathering and special event space • Install wildlife habitat gardens and native "water wise" drought-tolerant landscaping • Designed to provide recycled water for irrigation
3	Africa	• Retain 6 acres of hillside native habitats as undeveloped open space • Undertake restoration and habitat maintenance program to enhance the native habitat and provide for interpretive and educational experiences • Eliminate Zoo aerial tram, including upper terminal at Africa Visitor Center
7	Parking Structure*	• Eliminate the multi-level parking structure within the Zoo's northern parking lot and associated excavation and grading • Eliminate the proposed 2-acre public park in the northern parking lot

Alternative 1.5 provides a more precise description of proposed development of the Zoo Entry Garden and Park in this area. The Zoo Entry Garden and Park would be implemented in Phase

1 concurrent with the redevelopment of the Zoo Entry and would entail the development of this unimproved dirt lot into a new 1.87-acre public gathering space to include approximately 60,000 sf of new visitor-services space, including:

- An ADA-compliant entryway with grades not exceeding 5 percent slope
- A main gate designed to either be open to Zoo guests or closed to create a special event area with a separate entrance from Zoo parking lots;
- Outdoor gathering spaces composed of permeable paving or water-wise turf/lawn with native plant gardens;
- Indoor gathering space served by public restrooms and storage rooms.

Landscaping within the Zoo Entry Garden and Park would include all native trees, shrubs, and flowering plants designed to demonstrate wildlife habitat gardens, provide interactive learning opportunities for children and adults, and supplement the Zoo's education program curricula focused on fields such as biology, wildlife, conservation, and environmental resource stewardship. Improvements would be designed to incorporate several established native trees, avoiding the removal of any existing native specimens and incorporating those specimens into the landscaping plan.

Similar to the proposed Project, infrastructure improvements would include underground sewer, electric utility, and potable water infrastructure connected to the main Zoo utility lines (see EIR Section 2.3.7, *Proposed Utility Infrastructure*). The Zoo Entry Garden and Park would be connected to recycled water and utilize recycled water for 100 percent of irrigation needs for the proposed landscaped areas and lawns. Stormwater would be managed onsite with the installation of a stormwater detention and infiltration system. All pedestrian pathways and hardscape areas would be constructed consistent with the Vision Plan's stormwater management system.

The Zoo Entry Garden and Park would be a community resource to meet a need for outdoor gathering space that became evident during the COVID-19 pandemic. The Zoo Entry Garden and Park would be a newly accessible area for Zoo visitors for picnics, recreation, and relaxation during visits to the Zoo, but would also be flexible for use as a private space to accommodate special events. This venue would support interpretive elements from the Zoo and allow event guests easy access to and from the rest of the Zoo while also locating special events in an area away from Zoo animal habitats. Children participating in education programs in the adjacent Children's Discovery Center classrooms and Witherbee Auditorium would also have access to this space for educational programs and outdoor recreation.

The Zoo Entry Garden and Park would be open to all Zoo patrons during operating hours daily unless the area is programmed for special events. Attendance at special events taking place in the Zoo Entry Garden and Park space during the daytime while the Zoo is open to the public would be subject to the proposed Peak Visitation Management Program, described below. The area would also accommodate evening events outside of Zoo daytime operating hours, similar to the proposed Project (see EIR Section 2.3.9, *Project Operation*).

Proposed Vision Plan Programs

In addition to the land use and design elements discussed above, Alternative 1.5 would implement Development Design Guidelines and a Peak Visitation Management Program, described herein.

Development Design Guidelines

Under Alternative 1.5, the Zoo would create and implement a new set of design guidelines to guide future development and upgrades. These additional design guidelines would build on the goals and objectives included in the Vision Plan (see EIR Section 2.0, *Project Description*). Design guidelines would include landscape design guidelines that prioritize the use of native plant species, especially preserving existing specimens and habitats with protected status and significant ecological function/importance and planting additional native plants species. For example, in the proposed Africa and California planning areas, existing specimen or sensitive native species and protected trees and shrubs per the City Tree Preservation Ordinance and Protected Tree Code Amendment would be preserved and incorporated into proposed landscaping and new native species planting used throughout the new exhibits. These guidelines would also prioritize planting of drought-tolerant species compatible with native plant species in balance with Zoo animal habitat needs where non-native species may be required or desirable. The goal would be to nurture the natural ecosystem of Griffith Park and the Los Angeles Basin and support regional biodiversity while providing immersive, safe, and dynamic habitats for Zoo animals. These guidelines would apply Zoo-wide to all proposed phases of redevelopment throughout Vision Plan implementation.

Peak Visitation Management Program

Under Alternative 1.5, the Zoo would implement a "Peak Visitation Management Program" (PVMP) to ensure the existing and expanded surface parking lots would be utilized as efficiently as possible through improved visitor demand management. The Zoo currently provides 2,144 surface parking spaces, including 2,081 regular spaces, 55 standard handicap accessible spaces, and 8 handicap van spaces, in four distinct parking areas: the north main parking lot, the south main parking lot, the far north parking lot, and the far south parking lot. Similar to the proposed Project, Alternative 1.5 would add 300 spaces to the existing surface parking lot for a total capacity of 2,444 visitor spaces. Alternative 1.5 would exclude the 2,000-space parking structure envisioned under the proposed Project. The Zoo does not have offsite or overflow parking so all parking demand for visitation under Alternative 1.5 must be met by the 2,444-space parking lot.

As described in Appendix N, growth in annual visitation projected for Alternative 1.5 would periodically exceed the capacity of the parking lot on peak visitation days. Based on the growth in capacity, the parking demand model indicates that demand will exceed capacity on days when attendance is 12,600 or higher. Using the parking demand model, Zoo parking

demand is expected to exceed supply for at least a portion of one hour on 15 days in 2025, 25 days in 2027, 42 days in 2030, and 53 days in 2040. Detailed parking calculations are presented in Appendix N.

During the COVID-19 pandemic, the Zoo developed and employed an Advanced Online Reservation system to regulate daily ticket sales and coordinate guest arrival times to limit Zoo capacity and achieve public health objectives. This system also helped the Zoo better manage the utilization of the Zoo parking lot to avoid exceeding parking lot capacity. Under Alternative 1.5, the PVMP would continue the use of the Zoo's online reservation system to manage Zoo visitation during peak times. This program would also optimize visitation during non-peak conditions to support the Zoo's goals for annual visitation through Vision Plan implementation. Techniques that could be employed to shift visitor demand away from peak periods to times when the Zoo's parking lot would have capacity include the following:

- Mandatory ticket reservation system to issue a limited number of tickets during peak days or timeframes (e.g., April – September) similar to the system employed during the COVID-19 pandemic to control the total number of people in the Zoo.
- Dynamic (non-peak) pricing discounts and incentives
- Incentives for shoulder season attendance
- Extended evening or morning hours
- Non-peak special events (e.g., after-hours events)
- Discounted tickets with proof of use of public transit or non-vehicular modes
- Tickets with no parking guarantee with potential discount; ticket requires drop-off/pick-up (i.e., rideshare, non-vehicular)

Annual Attendance and Special Events

Under Alternative 1.5, annual attendance at the Zoo would be substantially lower than under the proposed Project due to elimination of the parking structure and implementation of the PVMP, which would limit visitation capacity and optimize visitation outside of peak conditions at the Zoo. Annual visitation would also be reduced commensurate to the reduced physical capacity of the Zoo resulting from decreases of visitor-serving amenities in Africa, including the elimination of 6 acres of proposed animal conservation space and visitor-serving spaces (refer also to EIR Section 3.0.3, *Assessment Methodology*). Elimination of the aerial tram would also incrementally reduce visitation through provision of one less attraction at the Zoo under this alternative. Similar to the proposed Project, annual growth in visitation would be driven by improvements during Phases 1, 2, 3, 4, and 5 due to expansion or replacement of existing features and attractions associated with proposed Vision Plan improvements.

As the California planning area is developed and other areas such as the Zoo Entry redeveloped, parking limitations and implementation of the PVMP would begin to limit increases in visitor capacity as parking becomes less readily available on peak days, resulting in Zoo visitors being unable to gain entry on an estimated 53 days per year over the Vision

Plan's implementation. Annual growth projections for Phases 4 through 7 would also be substantially reduced from those projected under the proposed Project due to more frequent exceedances of parking availability with visitors being turned away or being unable to obtain reservations on more than 50 peak days per year. Phase 3 would also result in 6 acres less developed space for Animal Conservation and Visitor Serving Uses within the 23-acre Africa planning area, a 26.1 percent reduction. With the PVMP, the Zoo would optimize visitation during non-peak times to maximize visitation within the constraints of the existing parking lot. As such, the total estimated annual attendance of 2,500,000 visitors at the buildout of Alternative 1.5 would be a reduction of roughly 16.7 percent compared to the proposed Project's visitation goal of 3,000,000 visitors annually. Alternative 1.5 would also reduce employment needs to 861 employees, a 21.8 percent reduction compared to the Project.

Table 3. Projected Growth at the Zoo Under Alternative 1.5

	Phase 1	**Phase 2**	**Phase 3**	**Phase 4**	**Phase 5**	**Phase 6**	**Phase 7**
Operational Year	2025	2027	2029	2031	2033	2036	2038
Annual Attendance	1,910,771	2,095,689	2,334,726	2,451,555	2,500,000	2,500,000	2,500,000
% Change in Annual Attendance from Baseline Attendance	9.6%	10.6%	13.7%	6.7%	2.8%	0.0%	0.0%
Visitor Origin							
Resident	*85%*	*85%*	*80%*	*80%*	*80%*	*80%*	*80%*
Tourist	*15%*	*15%*	*20%*	*20%*	*20%*	*20%*	*20%*
Total Employees by Phase	625	691	786	838	861	861	861

Source: Draft Los Angeles Zoo Vision Plan; AECOM 2017
Notes:
Baseline annual attendance = 1,743,800 (2017) per Draft Vision Plan
Phase 1 assumes growth projected by the AECOM Financial Feasibility Study for Circulation/Parking improvements, California, Zoo Entry, and Sea Lions (Phase 1 and 2 per the Draft Vision Plan).
Phase 2 assumes growth projected by the AECOM Financial Feasibility Study for Asia, Nature Play, and Rainforest (Phase 4 in the Draft Vision Plan).
Phase 3 assumes reduced growth projections for Africa and southern service areas due to the reduction of 6 acres (26.1 percent) of animal exhibit and visitor-serving areas in the Africa planning area (Phase 3 in Draft Vision Plan).
Phase 4 assumes growth projections for World Aviary (Phase 5 in Draft Vision Plan, and formerly included the Water exhibit, which was eliminated from the Project through EIR scoping).
Phase 5 assumes growth projections for Islands (Phase 6 in the Draft Vision Plan).
Phases 6 and 7 do not incite or facilitate attendance growth.
Visitor Origin assumes an uptick in tourism following the implementation of Phase 2.
Baseline employment = 570 (2019)
See Appendix N for detailed description of the growth assumptions for Alternative 1.5

The proposed Zoo Entry Garden and Park under Alternative 1.5 would help to accommodate the growth in annual visitation and special events projected for the Vision Plan and described in EIR Section 2.3.9, *Project Operation*, particularly with the reduced visitor-serving space in the Africa planning area. Implementation of this improvement would not substantially affect attendance growth projections. As described in EIR Section 3.0, this EIR evaluates an extremely conservative annual attendance increase under the proposed Project of 3 million, which is approximately 523,500 annual visitors more than estimated in the 2017 AECOM economic analysis prepared to inform the 2018 Vision Plan (Appendix A). Projected visitation associated with the proposed Zoo Entry Garden and Park would fall well below the conservative EIR growth projections for the overall Vision Plan and the estimated annual demand for special events.

Construction and Phasing

Implementation of Alternative 1.5 would occur on a slightly shortened schedule compared to the proposed Project due to reduced development of the Africa planning area and elimination of the parking structure, public park, and aerial tram. Alternative 1.5 is projected to require roughly 18 years over seven phases, which would be reduced from 20 years under the proposed Project. Phases of Zoo development would continue to occur sequentially. All phases would be guided by the Vision Plan's guiding principles (see EIR Sections 2.3.2, *Project Objectives*, and Section 2.3.3, *Vision Plan Guiding Principles*). The timing and components of each of the near-term phases are presented in Table 4. The Zoo Entry Garden and Park would be implemented concurrently with the development of the Zoo Entry planning area in Phase 1, over approximately 18 months. As such, the duration of Phase 1 would remain unchanged. Improvements associated with the Africa planning area would be reduced due to the lack of required excavation and development of the hillside area and would occur over a slightly shorter time frame (2 years). Overall, implementation of the near-term improvements for Alternative 1.5 would occur over nine years for this EIR analysis and consistent with the proposed Project.

Table 4. Alternative 1.5 Phases 1 - 3: Near-Term Project Components through 2029

Phase (Year Completed)	Project Components
1 (2025)	**Zoo Entry** • Excavate outdated utility lines • Install utility trunk lines at the Zoo entry • Grade entry corridor at 5 percent slope or less • Construct a new gift shop, security and first aid center, public programming space, restaurant, and administration buildings • Expand Sea Life Cliffs exhibit • Install water collection lines for subsurface cisterns • Landscape at the entrance and around buildings
	Zoo Entry Garden and Park

Phase (Year Completed)	Project Components
	• Grade 1.87-acre space at 5 percent slope or less • Install utility connecting to main Zoo utilities (water, sewer, energy) • Install onsite stormwater management (detention and infiltration) • Install a recycled water irrigation system • Construct gathering areas and pedestrian pathways • Construct an amenity building • Install fencing and service access gates • Landscape at the entry gate with wildlife habitat gardens
	California Planning Area • Demolish existing buildings • Excavate Condor Canyon • Construct with the California Condor Rescue Zone • Construct expanded animal facilities • Construct the California Visitor Center • Construct the funicular • Plant new native vegetation
	Circulation and Parking • Install signal at the intersection of I-5 and Western Heritage Way • Remove or relocate the Zoo planning trailer in the southern parking lot • Grade and reconfigure Crystal Springs Drive • Repave the southern parking lot and paint parking space lines to add additional parking spaces
2 (2027)	**Asia Planning Area** • Demolish existing outdated buildings and exhibits • Expand elephant exhibit space • Construct the Asian Forest with a lagoon and exhibit island • Renovate and expand existing animal exhibits and habitats • Install new underwater viewing for tiger and gharial exhibits and new water elements • Grade and construct new pathways with neighboring exhibits • Reconstruct Treetops Visitor Center into food service and gathering space • Install water feature (i.e., Splash Area)
	Rainforest Planning Area • Demolish the existing Zoopendous Park • Construct a Rainforest Interpretive Center • Construct expanded animal exhibits • Construct cafe and restrooms • Plant vegetation, including dense rainforest trees
	Nature Play Park • Construct a natural play area to relocate and replace the existing Papiano play area • Construct a food service structure • Construct new restrooms

Phase (Year Completed)	Project Components
3 (2029)	**Africa Planning Area** • Demolish existing outdated buildings and exhibits • Construct the Africa Visitor Center • Construct expanded animal exhibits and habitats • Install Zoo animal habitat water features • Maintain 6 acres of hillside area as a restoration and education open space
	Service Areas • Demolish outdated exhibit buildings • Construct a new service area with additional employee parking

Alternative 1.5 would involve the same long-term elements proposed under the Project but would exclude the parking structure and public park in Phase 7 (Table 5). These long-term improvements would be initiated following the completion of Phase 3 improvements, anticipated to be completed one year sooner (2029) than the Project, and implemented through Alternative 1.5's horizon (2038).

Table 5. Alternative 1.5 Phases 4 - 7: Long-term Project Components

Phase	Project Components
4 (2031)	**World Aviary Planning Area** • Renovate the existing aviary to meet ADA requirements • Construct a new bird rearing complex • Construct new paths connecting to *Rainforest* and *California*
	Bird Show and Animal Programs • Renovate the existing amphitheater area with shade structures • Construct specialized animal care facilities • Renovate service space behind amphitheater for operations
	Service Areas (Condor West) • Construct two aviaries and one new conservation/classroom building at the Condor West exhibit • Create a new animal feed storage and commissary operations structure • Reconfigure truck access to the construction services area
5 (2033)	**Islands** • Renovate and expand the existing Australia House • Install new pathways and landscaping
6 (2036)	**Administration Building** • Construct a new Administration Building
7 (2038)*	**Intersection Improvements** • Excavation and grading • Replace signalized intersection at Zoo Drive/Western Heritage Way with either a roundabout or subgrade bypass, if needed

* Phase 7 would only occur if needed to accommodate demand from increased visitation. If not required, Phase 7 would not occur.

Similar to the Project, each phase under Alternative 1.5 would entail the same stages of construction, including pre-construction design and permitting; demolition and grading; site preparation (including installation of utilities and stormwater infrastructure); construction; architectural coatings/finishing; and final landscaping. Each phase would also require the temporary relocation of Zoo animals displaced during construction (see EIR Section 2.2.3, *Existing Zoo Operations* for the Zoo's Animal Welfare Best Management Practices). Building construction, paving, and architectural coating activities would occur within each phase, sequentially. All construction Best Management Practices proposed or required under the Project would continue to be implemented under Alternative 1.5.

Due to the reduced amount of construction proposed under Alternative 1.5, the amount and intensity of grading activities would be incrementally reduced compared to the proposed Project. Alternative 1.5 would not involve grading of hillsides in the Africa planning area, reducing the anticipated volume of fill material necessary under Alternative 1.5 by at least 10,000 cubic yards (cy) (Table 6). Further, Alternative 1.5 excludes the soil excavation and construction associated with the footings and terminals of the Zoo aerial tram in the Africa, Asia, and Zoo Entry planning areas, as well as the multi-story parking structure in the Zoo's northern parking lot. All other infrastructure improvements and building construction activities would continue to be implemented as described for the Project (refer to the discussion of *Infrastructure Improvements* and *Building Construction* in EIR Section 2.4.2, *Construction Activities*).

Table 6. Alternative 1.5 Grading Estimates by Phase

Phase	Cut (cy)	Fill (cy)	Export/Import (cy)
1	74,000	0	74,000 (export/stockpile)
2	0	0	0
3	0	0	0
4-7	0	38,000	38,000 (import/stockpile)
Grading Total	**74,000**	**38,000**	**36,000 (net export)**

LOS ANGELES ZOO DRAFT PLAN | 2022

ALTERNATIVE 1.5: The California Focused Conservation Alternative

Creating a just and sustainable world where people and wildlife thrive, together

Preface

The Zoo recommends Alternative 1.5: The California Focused Conservation Alternative in 2022

In 2016, the Los Angeles Zoo began the process of reimagining its 133-acre campus for the future. We engaged the public to understand and consider what Angelenos wanted their Zoo to be. By 2018, we had created the Zoo's *Vision Plan for 2028 and Beyond*, which became the Proposed Project for an Environmental Impact Report (EIR) developed to evaluate the plan as required by the California Environmental Quality Act (CEQA). In 2021, the Project's final EIR was published by the City's Bureau of Engineering, which was developed with a public feedback process. The EIR was transmitted to the Los Angeles City Council for approval and public feedback continued with more than 300 comments submitted to the public City Council file records on the Vision Plan. In addition to the Proposed Project, the EIR fully evaluated three alternatives: a no project alternative, Alternative 1, and Alternative 2.

Because of the ongoing feedback, the Zoo decided to continue listening, engage key stakeholders, and reflect on how to honor these comments. As a result, the Zoo collectively created a new, fourth alternative: Project Alternative 1.5, the California Focused Conservation Alternative.

This document, the *2022 Los Angeles Zoo Draft Plan ALTERNATIVE 1.5: The California Focused Conservation Alternative*, describes the new alternative in detail. It prioritizes California biodiversity and best demonstrates the Zoo's values and mission, creating a place to save wildlife, enrich our communities, and create connections to nature for Angelenos today and in the future.

Letter from the Chief Executive Officer & Zoo Director

Creating a just and sustainable world where people and wildlife thrive, together.

This is the vision that guides your Los Angeles Zoo, and this Plan — Alternative 1.5, the California Focused Conservation Alternative — outlines our next chapter. Expanded habitats will provide our animals with the highest level of care and welfare in the Zoo's history. For the first time, guests will experience the incomparable California condor and learn about the amazing conservation work that takes place right here in Griffith Park to save them from extinction. This Plan will allow the Zoo to help lead Los Angeles's efforts in reaching net-zero carbon emissions and creating a more sustainable City where everyone has equitable access to the outdoors and nature that surrounds us. And all of this will be accomplished while protecting and restoring native habitat within the Zoo's existing 133 acre footprint.

This Plan envisions a Zoo designed to meet the needs of all of the communities of Los Angeles — a place where people of all ages, backgrounds, identities, and abilities are welcomed and have equitable access to the plants and animals that call the Zoo and Griffith Park home. It is about connecting with nature and each other. It is about the collective impact that we can have on global conservation when we create space for all people to be a part of the conversations and solutions.

Our effort is also rooted in justice, acknowledging the land on which the Los Angeles Zoo exists as the ancestral lands and home of the Gabrielino Tongva peoples, who are the original stewards and custodians of this territory. We recognize their continuing connection to the land, waters, and culture, and pay respects to their Elders past, present, and emerging.

Since 1966, the Los Angeles Zoo has welcomed over 80 million visitors and provided Angelenos with the unique opportunity to connect with a variety of rare and endangered species and with nature. Yet nothing could have truly prepared us for the last few years — a global pandemic, calls for action around social justice, and rapidly advancing climate change have brought immense loss and heartache, as well as increased awareness and resilience. It is with this new lens that we approach our next chapter, and commit to expanding our efforts as global leaders in conservation, animal welfare, sustainability, and equity.

I look forward to taking this next step on our journey to excellence and beyond in animal welfare, conservation, sustainability and regeneration, learning and engagement, accessibility and equity with all of you.

Denise Verret

Denise M. Verret
CEO & Zoo Director, Los Angeles Zoo

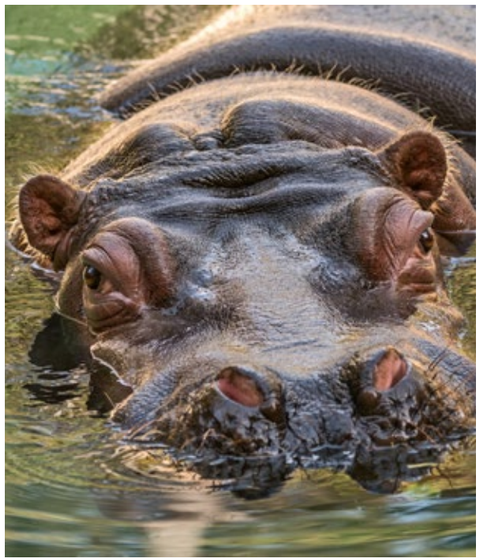
01 | A ZOO FOR LOS ANGELES

Zoos help make nature more accessible for millions of people around the world

Even as our relationship to nature is changing, most Americans value nature in "remarkably broad, diverse ways" and place a high value on "contact with the natural world."[2]

For the first time in human history, the majority of us live in urban areas, often separated from daily reminders of nature's staggering beauty — and, increasingly, its alarming fragility. Human actions have dramatically altered our planet's climate. Many of the world's natural habitats are shrinking, endangering the plants and animals that call them home.

Many Americans face gaps between their interests in nature and their opportunities to pursue those interests in their lives.[1] Zoos accredited by the Association of Zoos and Aquariums (AZA) in urban centers can help bridge these gaps. They provide access to nature for everyone and create connections to nature that last a lifetime.



Underwater viewing opportunities and up-close hippo encounters are part of the Plan's Africa *experience.*

The AZA is dedicated to the advancement of zoos and aquariums in the areas of conservation, education, science, and recreation. AZA represents more than 235 institutions in the United States and overseas — including the L.A. Zoo — which collectively draw more than 200 million visitors every year worldwide (exceeding the annual attendance of the NFL, NBA, and MLB combined). AZA institutions meet the highest standards in animal care, spend more than $200 million on field conservation annually, and enhance the public's understanding of wildlife and the need to conserve the places animals live.

The only zoo in the nation's second-largest city

Located near the heart of downtown Los Angeles in Griffith Park, the Los Angeles Zoo provides the nation's second most populous city with an outdoor refuge, a community hub, a gateway to nature, and a global conservation organization — all in one location. For millions of visitors, the Zoo embodies the values of caring for one another, our planet, and our shared resources.

Thirty-six percent of Angelenos do not have immediate access to a park.[3]

Serving a regional population of 18.7 million people, Griffith Park is the most-visited park in the City of Los Angeles, placing the L.A. Zoo at the epicenter of outdoor activities for Angelenos.[4]

Left: *82 percent of North America's population lives in an urban area.[5]*

Above: *At 4,310 acres, Griffith Park is among the largest urban parks in the continental U.S.[6]*

Footnotes:
1. https://natureofamericans.org/findings/interest-action-gap
2. https://natureofamericans.org/findings/valuing-nature
3. http://www.latimes.com/opinion/livable-city/la-ol-childhood-development-green-space-20160219-story.html
4. http://cloud.tpl.org/pubs/ccpe-largest-oldest-most-visited-parks-4-2011-update.pdf
5. https://esa.un.org/unpd/wup/publications/files/wup2014-highlights.pdf
6. https://www.kcet.org/shows/lost-la/how-la-got-one-of-the-countrys-largest-urban-parks

"Mother Earth is not a resource, she is an heirloom."

— DAVID IPINA, YUROK ARTIST

The Los Angeles Zoo meets local and global needs

A NATURE EXPERIENCE FOR MILLIONS

The Los Angeles Zoo provides fun, safe, and meaningful outdoor experiences to millions of visitors. We foster lasting relationships between people and wildlife, at a time when many species are threatened in the wild. And we are an oasis for local residents and tourists to relax, recharge, and renew their connections to nature.

From up-close encounters to free nature play programs, the Los Angeles Zoo makes nature accessible to millions of area residents of all ages.

A HUB FOR ENVIRONMENTAL SUSTAINABILITY

The Los Angeles Zoo is a hub for showcasing the economic, cultural, and social benefits of environmental sustainability. The Zoo's 133-acre campus demonstrates to millions of visitors that healthy ecosystems are key not just to our communities, but also to thriving cities and natural areas everywhere.

Electric vehicle charging stations, drought tolerant landscaping, permeable pavement, and storm water management practices are already features of the Los Angeles Zoo.

A REGIONAL GATEWAY TO NATURE

The Los Angeles Zoo is strategically located at the crossroads of the L.A. River, the I-5 corridor, and Griffith Park, providing a gateway to nature. Proximity to hiking trails in Griffith Park and bike paths along the L.A. River — and accessible public parking — ensures that the Zoo serves a community that is much broader than our annual visitorship alone.

Cyclists, kayakers, runners, hikers, horseback riders, and local residents are part of the diverse community that enjoys greater access to the revitalized L.A. River corridor.

A GLOBAL CONSERVATION LEADER

The Los Angeles Zoo is leading the charge on global conservation efforts, from repopulating mountain yellow-legged frogs to their native range in the San Gabriel Mountains to addressing human-elephant conflict in Cambodia. The Association of Zoos and Aquariums (AZA) gave special recognition to the Zoo's efforts in 2016 and 2017, and our 2021 Conservation Strategic Plan guides our efforts today and into the future.

Hundreds of California condors again fly freely over the skies of California, Arizona, Utah, and Mexico, thanks to the efforts of the Los Angeles Zoo and its partners in this unprecedented endeavor.

02 | GUIDING PRINCIPLES

OUR MISSION

Through the passion of our team, the Los Angeles Zoo is leading the way in saving wildlife and connecting Angelenos to the natural world by providing exemplary animal care, delivering distinctive and diverse learning opportunities, and creating unforgettable experiences.

Saving Wildlife.
Enriching Our Communities.
Creating Connections to Nature.

OUR VISION

Creating a just and sustainable world where people and wildlife thrive, together

Six guiding principles inform our daily actions and shape our long-term strategic vision

The Los Angeles Zoo is fully committed to embodying these six fundamental principles every day as well as making them the foundation to this Plan.

ANIMAL CARE
Achieve the highest level of animal welfare

CONSERVATION
Advance conservation efforts locally and globally

VISITOR EXPERIENCE
Create meaningful, safe, and fun experiences for our visitors and our communities

EQUITABLE ACCESS
Ensure our facility, operations, and outreach are for all Angelenos

ENVIRONMENTAL SUSTAINABILITY
Demonstrate environmental sustainability and best practices

OPERATIONAL EXCELLENCE
Embody operational excellence at every level

Achieve the highest level of animal welfare

CARING FOR INDIVIDUALS, SAVING ENTIRE SPECIES
We are passionate about, and dedicated to, providing the highest level of welfare for each and every animal in our care. We will fulfill this vision with state-of-the-art facilities for our animals and the comprehensive and diverse resources our staff needs to ensure that the animals' medical, nutritional, behavioral, and environmental needs are met on a daily basis.

Top right: *Skilled Zoo staff examine a California condor.*

Bottom left: *The giant river otters' naturalistic habitat is a model for future exhibits.*

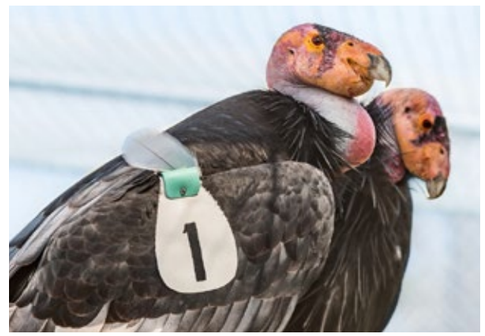
ENRICHING ANIMALS' LIVES AND PROTECTING ENDANGERED SPECIES
We will create facilities that provide enriched environments for all of our animals; invest in night quarters suited to each species' unique needs; and construct back-of-house spaces that support our conservation programs.

SUPPORTING OUR STAFF'S QUEST TO BE THE BEST
Our veterinary services are second to none, and our dedicated keepers provide the care and enrichment that animals need to thrive. We will support our staff through programs and facilities that help them grow professionally, including opportunities to continually learn through shared experiences and field conservation projects.

NATURAL SETTINGS WITH MIXED-SPECIES HABITATS
Building upon our previous success with Elephants of Asia *and* Rainforest of the Americas, *we will create natural settings for each animal habitat. Mixed-species habitats will create enriched environments for animals as well as engaging experiences for Zoo guests.*

Advance conservation efforts locally and globally

SAVING ANIMALS FROM CALIFORNIA TO CAMBODIA
The Los Angeles Zoo helped change the course of history when it partnered with other agencies and zoos to rescue the California condor from extinction. We will expand upon this legacy by creating facilities and programs that support conservation action around the world.



Top right: *Through the efforts of the Los Angeles Zoo and its partners, the California condor population has increased from just 22 individuals in the 1980s to nearly 500 birds today.*

Bottom left: *The Zoo supports conservation programs in Cambodia to protect Asian elephants in the wild.*

SHARING OUR WORK
To advance our work with endangered species, we will create facilities that support the full range of our conservation and breeding programs and that meet our commitment to transparency, inviting guests behind the scenes to learn about these programs firsthand.

ACHIEVING STRATEGIC GOALS
Launched in 2021, the L.A. Zoo Conservation Strategic plan provides increased focus and direction to expand our positive impact on biodiversity conservation and human livelihoods. This includes new programs to make conservation more accessible to youth from communities all across Los Angeles, directly engage in local conservation efforts, and strengthen global efforts to save species and the habitats we share.

PARTNERS IN THE FIELD
We will continue to partner with groups such as the Gorilla Rehabilitation and Conservation Education (GRACE) Center in the Democratic Republic of Congo. Our shared goal is to help wild animal populations survive threats such as human-animal conflict and habitat destruction in ways that are compatible with local economies and personal livelihoods.

Create meaningful, safe, and fun experiences for our visitors and our communities

NATURE FOR ALL OF US
Being in nature reduces stress and promotes physical, emotional, and mental well-being. The Zoo will create immersive nature experiences that will improve the quality of life for all.

Top right: *A family explores during the Zoo's free program* Family Nature Club*, creating life-long connections to nature*

Bottom left: *Zoo guests connect with a chimpanzee — an only-at-the-Zoo experience for many Angelenos*

UNIVERSAL ACCESS IS UNIVERSALLY BETTER
The Los Angeles Zoo welcomes a diverse audience and strives to make each visit safe, inclusive, and accessible. Our goal is to foster lasting relationships between animals, nature, and guests of all ages, backgrounds, identities, and abilities.

A LIVING CLASSROOM
The Zoo provides a living classroom and inspiring place for informal and formal learning. We are committed to integrating interpretive exhibits, engaging learning opportunities, and group activity spaces throughout the Zoo.

SOMETHING FOR EVERYONE
The Zoo offers opportunities for everyone, from quiet animal observations to facilitated adventures to taking action in actual conservation programs. We envision a Zoo where these opportunities are supported by a campus that is accessible for all.

Ensure our facility, operations, and outreach are for all Angelenos

AN ACCESSIBLE ZOO FOR ALL ANGELENOS

The Los Angeles Zoo is a place for all Angelenos to gather and connect to animals and nature. We will create an accessible campus designed to proactively meet the needs of visitors of all ages, backgrounds, identities, and abilities.

Top right: *The Zoo is a certified sensory inclusive venue with KultureCity, helping guests who have challenges with sensory regulation to successfully navigate a visit.*

Bottom left: *The Zoo greets 1.8 million visitors every year from communities throughout Los Angeles. The Zoo is a partner in the LA For All campaign to help foster a safe and welcoming environment for everyone.*

RESTROOMS

To ensure the Zoo is a place for everyone, we will include fully accessible non-gendered restrooms with adult changing tables and sensory friendly features.

GETTING AROUND

An accessible loop throughout the campus will help guests access all parts of the Zoo more easily and separate pedestrian traffic from Zoo vehicles and the tram. The campus design will offer various sensory spaces as well as viewing opportunities that meet the needs of all abilities.

Demonstrate environmental sustainability and best practices

EXEMPLIFYING L.A.'S GREEN NEW DEAL
The Los Angeles Zoo is committed to achieving greater environmental sustainability and to sharing stories of our past successes and future challenges with visitors. The entire Zoo campus will demonstrate the values and best practices set forth in the City of Los Angeles' Green New Deal.

Top right: Inspired by Thai architecture and built to LEED Silver standards, the elephant barn demonstrates the Zoo's commitment to environmental sustainability.

Bottom left: The Zoo is working with its City partners to install solar panels that will both feed the grid and supply the Zoo itself with power and battery backups to replace fossil fuel-based generators.

LEED STANDARDS
We have adopted LEED Silver standards or better for all new construction envisioned in this Plan. Each of the Zoo's structures added since 1998 already meet this standard, including the entry complex, the elephant barn, the L.A.I.R., *and* Gottlieb Animal Health and Conservation Center. *This is in alignment with the City's goal of being a leader on environmental, economic, and social equity issues.*

DEMONSTRATING ENVIRONMENTAL JUSTICE, BUILDING GREENER NEIGHBORHOODS
The Los Angeles Zoo provides access to nature that works in conjunction with the greener neighborhoods that the City is seeking to foster. The Zoo is a partner with the City to advocate for environmental justice for all of our residents. With nearly two million annual visitors, we are in a unique position to be a hub and showcase for the City's sustainability initiatives.

THE ENVIRONMENTALLY SUPERIOR OPTION
Evaluated in the Vision Plan's Environmental Impact Report as Alternative 1.5, this Plan is considered the Environmentally Superior Alternative.

Embody operational excellence at every level

OPERATING WITH EXCELLENCE AND EFFICIENCY
We will create facilities and systems that support staff in creating a world-class zoo experience for animals and visitors alike. Our physical campus and operational practices will empower the highest and best levels of safety, accessibility, efficiency, and customer service.

Top right: Providing staff with the robust facilities and support they need to excel at their jobs is central to the Plan.

Bottom left: Facility age and design impact operational efficiency. Collaboration, such as between vet and animal care teams during this seal exam, will be improved with the Plan.

OPERATIONAL EXCELLENCE
We will ensure that we have the facilities necessary to support a 133-acre Zoo, from retail shops and animal service areas to accessible restrooms and inviting cafes and restaurants with food options for the diverse dietary needs of our communities. We will provide robust facilities to support staff in all facets of their work, ensuring the Zoo is clean, efficient, well-maintained, and supportive of a thriving organizational culture.

OPERATIONAL EFFICIENCY
We will enhance our facilities, infrastructure, and operations to achieve maximum efficiency at all levels. Examples we envision include enlarged service and food storage areas for more efficient bulk purchasing, and separation of service traffic from visitor areas for more efficient flow.

03 | PUBLIC ENGAGEMENT

Public participation

"This is a fantastic vision of what our zoo can become. I truly hope that the vision's realized as the zoo is such an incredible asset to the community."

— COMMENT DURING PUBLIC FEEDBACK

In an effort to truly reach out to the community, public engagement and participation was made integral to our process at the beginning, middle, and end.

In 2016-2017, during the original Vision Plan's creation:

- Three public meetings were held to receive input from community members.
- An interactive website (microsite) allowed those who could not attend the public meetings to give input and ideas.

In 2019-2021, during the initial Environmental Impact Report process:

- Public meetings with proper prior notice were held during the draft and final Environmental Impact Review phases.

In 2021-2022, during the development of the Alternative 1.5 Plan:

- Zoo staff conducted listening sessions and tours with key stakeholders, including neighborhood councils, elected officials, City partners, community thought leaders, and non-profit organizations.

All suggestions, concerns, and compliments were evaluated throughout the process and formed the basis of Alternative 1.5, the California Focused Conservation Alternative Plan.

Public meetings and online survey

PUBLIC FEEDBACK TO THE PLAN

"Looks very good from an animal collection/welfare point of view. Please keep that up. I am pleased with the plan."

"We all need a place to see animals and nature working together."

"We especially liked the focus on sustainability, improved visitor circulation, and expanded California habitats."

"We need those canyon oaks and black walnut trees more than we can even imagine.... Restoration of these habitats and expansion of those trees should be the priority, not the other way around!"

"Citizens of LA will be provided an appreciation of the environment of our total world at the renovated zoo."

The Los Angeles Zoo conducted two public meetings and one public open house (December 2016, February 2017, December 2017).

- Combined attendance: 254
- Total comments received: 367

For those that couldn't attend in person, a website and online survey were created. An important takeaway from the online survey was the ranking of key values to inform the plan:

1. Animal Care and Welfare
2. Conservation
3. Education
4. Guest Experience
5. Veterinary Science
6. Sustainability
7. Community Resource

Left: Members of the public discuss the Vision Plan with Zoo staff.

Right: Former Zoo Director John Lewis presents the plan at the December 2017 public meeting.

Public feedback

PUBLIC FEEDBACK TO THE PLAN

"Can't wait for the work to start. Everything is really well thought out and this will really make the LA Zoo World-Class."

"I love how it connects humans more to nature rather than the main focus to be the animals. I love how it equally focuses on both."

"Do not kill trees; do not add more parking. We need more trees and fewer cars."

"Something the Zoo and the City need."

"Amazing vision."

During the Plan's Environmental Impact Report (EIR) process, public agencies, organizations, and individuals have given comments about the Plan through a process in compliance with the California Environmental Quality Act (CEQA).

Approximately 83 sets of comments from individuals, organizations, and agencies were received during the initial EIR process in 2019-2021.

In 2021, the Zoo held additional onsite meetings with stakeholders to better understand and address public input. The result is the 2022 Alternative 1.5 Plan, which is now the EIR's Environmentally Superior Alternative.

__Left:__ The project's Environmental Impact Report process has been conducted in compliance with the California Environmental Quality Act (CEQA).

__Right:__ People who attended an open house at the Zoo had the opportunity to complete surveys in person.

04 | THE PLAN: ALTERNATIVE 1.5, THE CALIFORNIA FOCUSED CONSERVATION ALTERNATIVE

"Without zoos to provide opportunities for young people to see and learn about animals so that they will grow up to become the conservationists of tomorrow — the world will be a pretty sad place."

— BETTY WHITE

ENVIRONMENTALLY SUPERIOR
Evaluated in the Vision Plan's Focused Recirculated Environmental Impact Report as Alternative 1.5, this Plan is considered the Environmentally Superior Alternative.

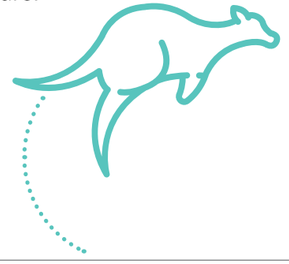
A transformational vision for animals, nature, and our communities

Our vision for your Los Angeles Zoo is transformative — for the animals in our care, for everyone who spends time at the Zoo, and the natural world we share. This Plan touches every aspect of the Zoo — from entry to exit, from underground infrastructure to rooftop solar, and from consolidated behind-the-scenes operations to strategically located visitor amenities throughout the campus. This Plan is comprehensive for each of the Zoo's 2,100-plus animals as well as for each of our 1.8 million annual visitors from Los Angeles and around the world.

A TRANSFORMATIONAL VISION FOR ANIMALS

162% MORE SPACE

Space dedicated solely to animals and their welfare is increased by 162%, giving more room to meet the individual needs of each animal in our care.



A TRANSFORMATIONAL VISION FOR NATURE

95% TREES PROTECTED

Six acres of Coast Live Oak Woodland inside the Zoo are designated for protection, **preserving over 100 California live oak and Southern California black walnut trees.** With this action, we will protect 95% percent of all native, significant trees on the Zoo's undeveloped land.

A TRANSFORMATIONAL VISION FOR OUR COMMUNITIES

ZERO EXPANSION

The future of Los Angeles is green, so the Plan achieves its goals for increased animal space while saving habitat with **zero expansion into Griffith Park.** Rainwater and runoff is captured to reduce water consumption by 44%, while integrated solar systems power 45% of the Zoo's energy use.


CONDOR EAST
ZOO BOUNDARY (EXISTING)
SERVICE
BIRD SHOW AND ANIMAL PROGRAMS
CONDOR CORRIDOR
ZOO BOUNDARY (EXISTING)
SOLAR PANELS
RAINFOREST INTERPRETIVE CENTER
ENTRY GARDEN & PARK
ASIA FOREST
CHILDREN'S DISCOVERY CENTER
CONDOR WEST
CALIFORNIA
RAINFOREST
ENTRY WALK
ENTRY
ANIMAL HEALTH, ANIMAL CARE & SERVICE
STAFF SUPPORT
ASIA
CALIFORNIA OVERLOOK
WORLD AVIARY
NEW ADMIN.
TREETOPS OF ASIA
STAFF SUPPORT
AFRICA VISTA
NATURE PLAY PARK
LAIR
OAK WOODLAND CONSERVATION AREA
AFRICA
ISLANDS
ZOO BOUNDARY (EXISTING)
STAFF SUPPORT
EXPANDED PARKING AND CIRCULATION IMPROVEMENTS
SERVICE CENTER

Animal welfare

PRIORITIZING ANIMAL WELFARE AT EVERY STEP

Previous Master Plans have addressed discrete sections of the Zoo and made improvements for one or two species at a time, such as the chimpanzees, elephants, gorillas, and orangutans. For the first time in the Zoo's history, this Plan dramatically expands spaces and services dedicated to the care and welfare of every animal in our charge. The magnitude of this change not only fulfills our vision of being one of the best zoos in the world for the animals that live here, it dramatically transforms the visitor experience as well.

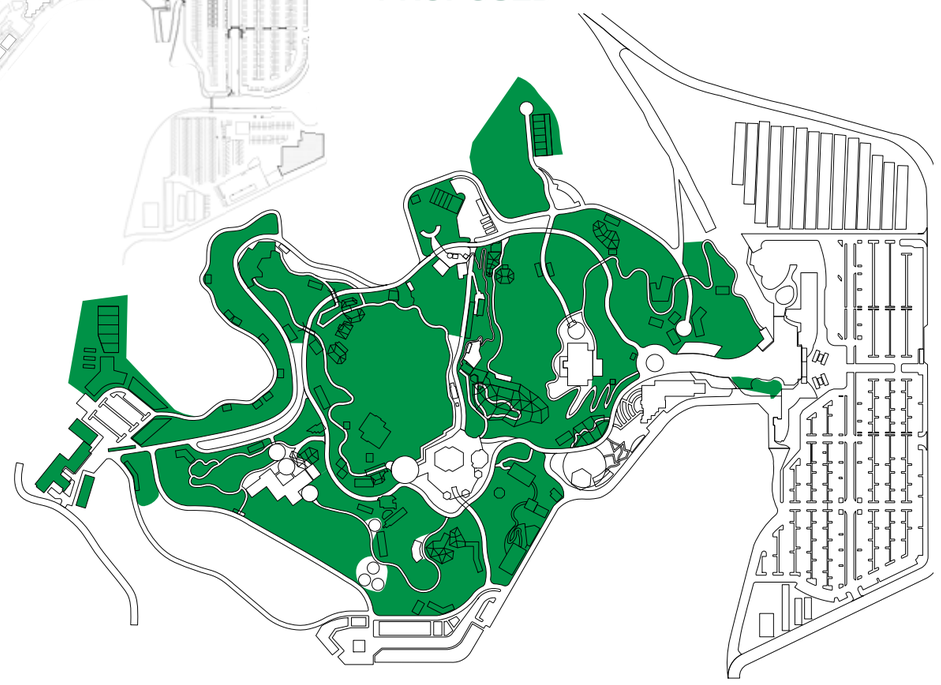
1. The Zoo's spaces dedicated solely to animals and their welfare increases by 162%, from 20.8 acres to 54.5 acres.

2. The Zoo's Plan creates spaces for animals that prioritize discrete and varied animal welfare needs, ranging from habitat to enrichment — decisions that benefit **animal care** and create a better visitor experience at the same time.

3. Animal spaces include multi-species yards or yards that multiple species rotate through individually at different times of the day or the year.

4. Behind-the-scenes areas and night quarters are designed to meet specific animal needs throughout their entire lives, from birth to advanced age and from daily enrichment to access for on-site veterinary care.

20.8
ACRES
EXISTING



54.5
ACRES
PROPOSED

By replacing 1966-era roundhouses and fully utilizing available acreage, the Plan dramatically transforms the spaces and facilities devoted to animal care.

Building a sustainable Zoo

UPDATED INFRASTRUCTURE AND PRACTICES

To fight climate change and ensure that future generations of Angelenos are able to embrace the Zoo as a valuable part of their daily lives, the Zoo will commit to wiser use of water and energy resources and will reduce waste, consistent with the City's Green New Deal. This means the Zoo will update its facilities and utilities in a way that minimizes its Greenhouse Gas (GHG) emissions and ensures its operation and maintenance practices are sustainable, too.

To do this, the Zoo will convert its landscape irrigation to recycled water and its exhibits' use of water to recycled, treated and recirculated. The Zoo will also implement landscape care practices that result in an increase in the amount of native plants campus-wide and establish landscape and building design guidelines that 1) maximize the reuse of green materials, and 2) reduce its carbon footprint by using renewable energy sources, such as by installing solar power generation in the parking lot and on rooftops, and reducing heat by planting more trees and installing cooler walkway materials.

As the Zoo upgrades its facilities to be more accessible and welcoming to people of all abilities, it will ensure those improvements simultaneously achieve sustainability outcomes, such as changing the grading levels of pathways and ensuring stormwater runoff from those pathways is directed to new subterranean cisterns for storage and reuse.

Top: *Solar panels are integral to the parking lot,* Zoo Entry, *and throughout the campus.*

Bottom: *Located in drainage zones, five subsurface cisterns will capture storm water throughout the Zoo campus*

ANIMAL CARE | CONSERVATION | VISITOR EXPERIENCE | EQUITABLE ACCESS | ENVIRONMENTAL SUSTAINABILITY | OPERATIONAL EXCELLENCE

Phasing implementation

The phasing schedule — six phases spread out over 20 years — takes numerous factors into consideration, including economic projections, minimal disruption to Zoo operations, and balancing investment, community benefit, and increased attendance.

PHASE 1: CALIFORNIA, ZOO ENTRY COMPLEX, CIRCULATION & PARKING

PHASE 2: ASIA, TREETOPS, NATURE PLAY & RAINFOREST

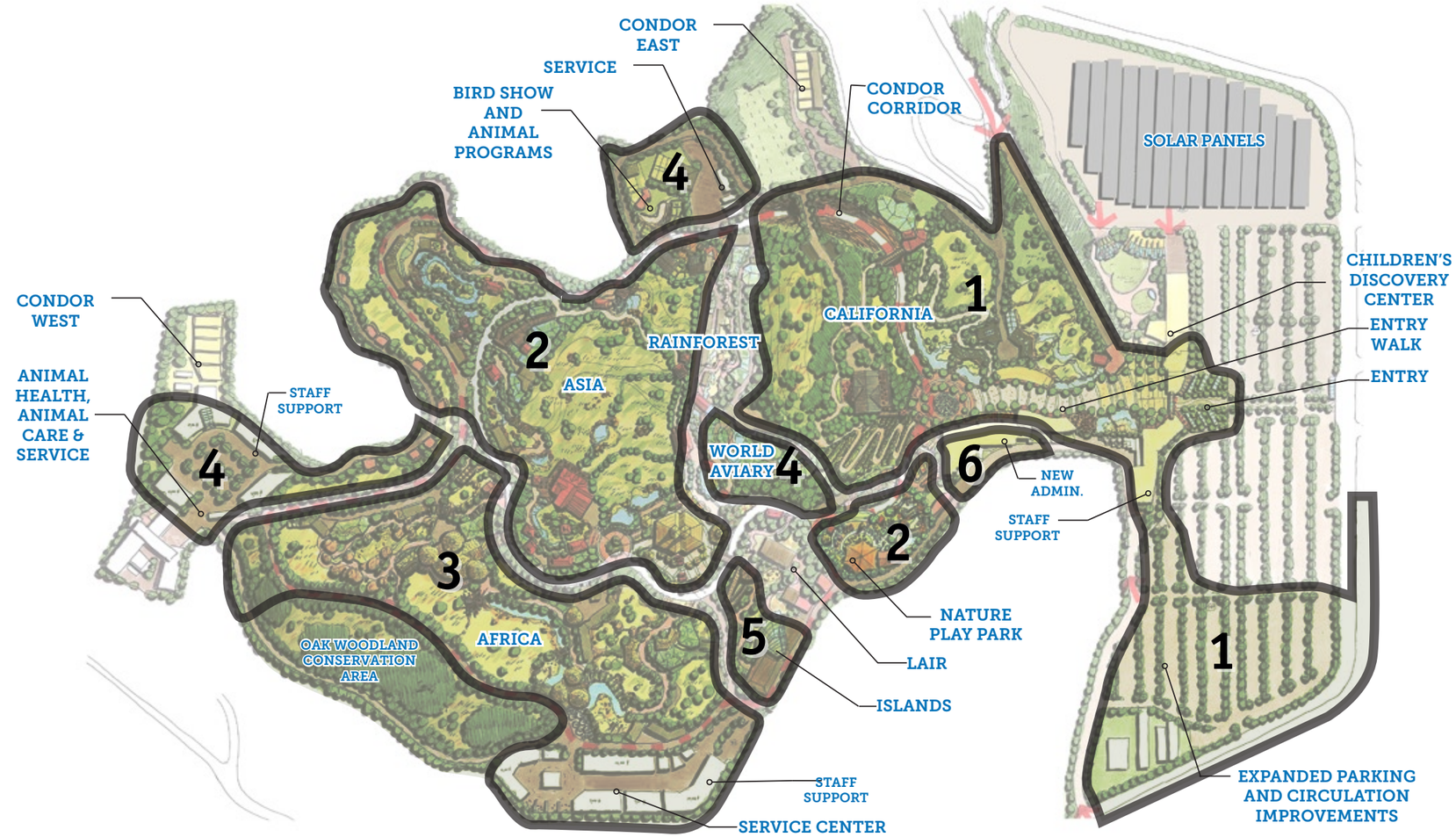
PHASE 3: AFRICA, SERVICE CENTER

PHASE 4: BIRD SHOW, ANIMAL PROGRAMS, WORLD AVIARY, ANIMAL HEALTH & SERVICE CENTER

PHASE 5: ISLANDS

PHASE 6: ADMINISTRATION BUILDING

For the first time in the history of the Zoo, this Plan addresses the entire campus and each of the 2,100 animals in our care.



ANIMAL CARE | CONSERVATION | VISITOR EXPERIENCE | EQUITABLE ACCESS | ENVIRONMENTAL SUSTAINABILITY | OPERATIONAL EXCELLENCE

Zoo Entry, California, and Enhancements to Access

PHASE 1

Welcome to your Los Angeles Zoo

Phase 1 of the Los Angeles Zoo's Plan prioritizes animal welfare, equitable access, conservation, and immersion in nature. Expansive habitats will create homes for both Zoo animals and local wildlife. The new Entry complex and circulation loop keep families and groups together on an accessible path. *California* will immerse visitors in native California landscapes. Zoo conservation projects will stretch their legs with new spaces for California condors and peninsular pronghorn. And all guests will have safer access to the Zoo through enhancements to traffic circulation.

Zoo Entry

A GATEWAY TO A WORLD OF NATURE, FOR EVERYONE

1. **Equitable Access** is prioritized with amenities such as stroller and wheelchair rental, as well as membership services, now located at the front entrance.

2. It's impossible to miss the solar panels on rooftops throughout the *Zoo Entry* complex, a sign of the Zoo's commitment to environmental **sustainability** and reduced consumption.

3. A gently sloping and accessible walkway replaces the previous entry's steps, so families stay together and everyone shares the same **experience**. At 80 feet wide, the entry promenade doubles its former width, creating a pleasant atmosphere, even on high-capacity days, and native trees line the pathway for **sustainably**-produced shade.

4. Iconic California species, including sea lions and grizzly bears, are welcoming ambassadors that start visitors' animal **experiences** right away.

5. Underfoot and hidden from view, a new utility backbone replaces deteriorating and undersized 50-year-old infrastructure. Upgrades to the entire campus flow through the *Zoo Entry*, improving **operational** capacity for everything from sewer and storm drains to the electric grid.

The five-percent grade entry walk replaces the front stairs and ramps, so that all guests approach their day at the Zoo together.

California

CONNECTING OUR COMMUNITY TO NATURE

1. *California*'s **visitor experience** prioritizes naturalistic settings, so that animals and people alike are immersed in the wilderness. A winding path leads guests through native habitats, creating a sensation that is more like a nature walk than a typical zoo outing.

2. **Animal care** is prioritized in *California's* habitat design. 74% of California's 21 acres are designated for animals and their welfare. Animals have expansive new living areas, with more space and enrichment opportunities than previously possible. The needs of large species are accommodated with features such as pools, natural terrain, and specialized night quarters.

3. Local **conservation** is at the heart of the Zoo's mission, and *California* expands the Zoo's capacity to save numerous species from extinction. In the 2010's only 26 free-ranging Peninsular pronghorn remained in the wild, and a new habitat expands the Zoo's successful conservation breeding program capabilities with large grazing fields and custom-built housing.

4. The Zoo's longest-running **conservation** project, the California Condor Recovery Program, is showcased in a dedicated habitat and redesigned California Condor Rescue Zone play space. Only 22 California condors survived in 1982. Through the efforts of the Zoo and its partners, these animals exist today and can be seen in California landscapes including Big Sur, Pinnacles National Park, and now, for the first time in public view, at the Los Angeles Zoo.

5. Improvements to the landscape, replacing concrete and non-native plants with high-quality native habitat, will benefit local wildlife from migrating songbirds to insect-eating bats.

6. Visitors continuing along *California*'s meandering path ultimately reach the California Overlook. This understated structure will blend into the native landscape while creating space to cool off and relax. New classrooms and open spaces will give local students a chance to learn in nature.

7. The best views in the Zoo will be **equitably accessible** for all visitors. Guests can choose to use the native plant-lined ADA accessible pathway, a funicular, or the winding path through California to reach the top of the hill. After they descend, the rest of the Zoo is reachable via Condor Corridor or the tram, so everyone can pick the best path for their needs.

Just steps from the entrance, all of California *is within reach. Guests will explore the diversity of terrain and wildlife of this great state, while the Zoo's local conservation work will expand and have a showcase for the first time.*

ANIMAL CARE | CONSERVATION | VISITOR EXPERIENCE | EQUITABLE ACCESS | ENVIRONMENTAL SUSTAINABILITY | OPERATIONAL EXCELLENCE

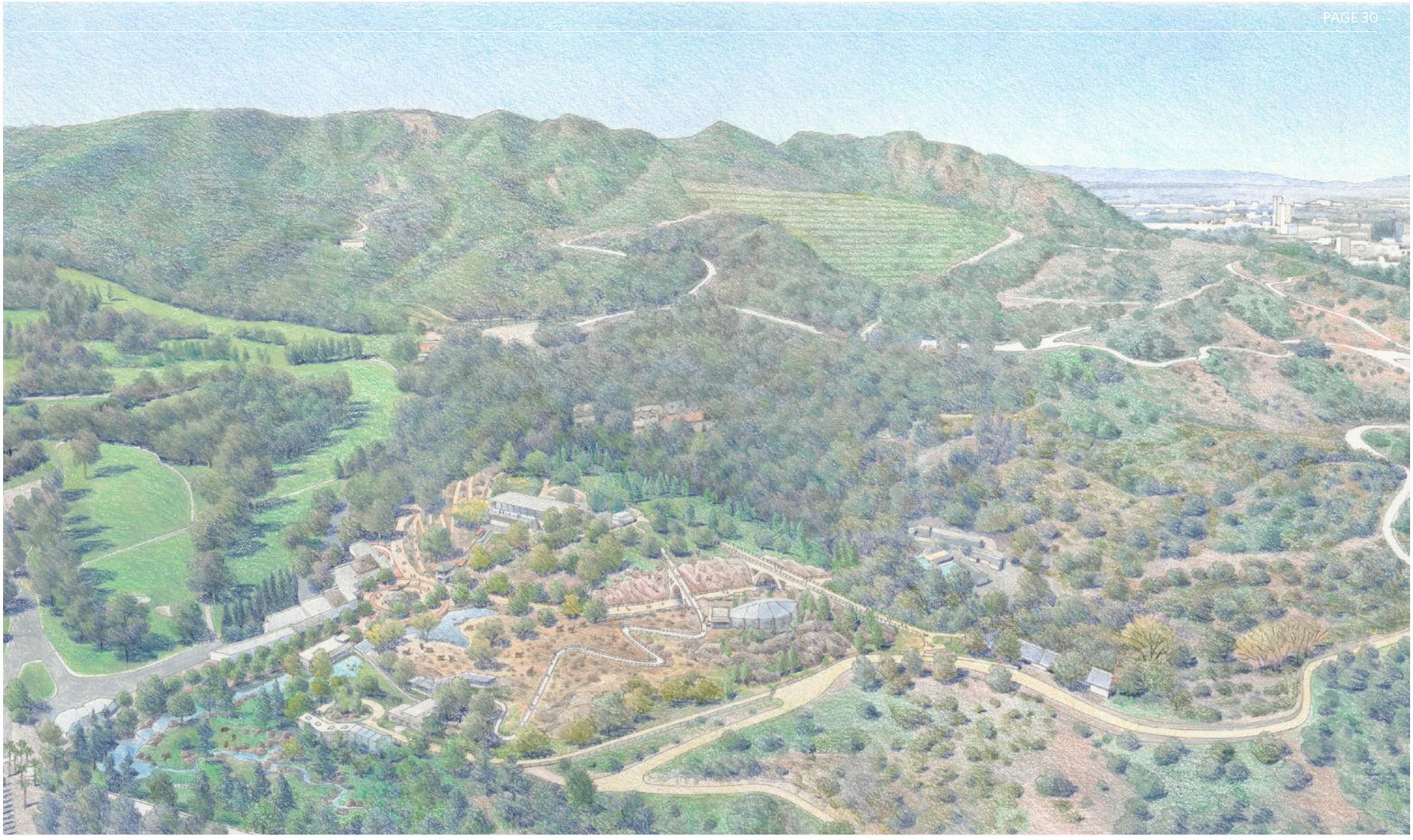
An Illustrated View of Alternative 1.5: *California* Area

THE ZOO, TRANSFORMED

1. Entry Plaza
2. Entry Walk
3. California Condor Exhibit
4. Entry Garden and Park
5. California Conservation Education Room
6. Griffith Park
7. California Overlook
8. Condor Corridor
9. Grizzly
10. Berrendo (Peninsular Pronghorn)
11. ADA Accessible Walkway
12. Griffith Park Condor Trail
13. Existing Zoo Administration Building
14. Closed Toyon Canyon Landfill
15. Big Horn Sheep
16. Wilson & Harding Golf Courses
17. Burbank
18. Glendale
19. L.A. Zoo / LADWP Solar Carport and Resiliency Project
20. Condors East

Some elements may only be visible in the view looking east (see page 30).

The view of California, looking west



The view of California, looking west

Phase 1 Focus: Creating Native Habitat

The view of California, looking east. Legend on page 29.

GROWING LOCAL HABITAT

While 14 acres of the *California* area are considered "underdeveloped," they are far from pristine habitat and have been disturbed for past uses such as construction and storage.

Phase 1 will create more native habitat than previously existed in this part of the Zoo through its large, contiguous animal spaces and prioritization of a California native plant palette.

Native birds, pollinators, reptiles, and small mammals will have access to improved California native habitat with these improvements. The public, too, will be able to view vistas of Griffith Park and the surrounding urban landscape from within the Zoo for the first time.

Phase 1 Focus: Conservation

Left: *Young California condors at the Zoo's condor conservation facilities. The Zoo saved condors from extinction and will have room to tell that story, and inspire the next generation of conservationists, for the first time.*

Right: *Peninsular pronghorn will have larger habitats, giving Zoo staff more options for managing large herds that support our conservation partners.*

MORE ROOM FOR OUR MISSION

The Los Angeles Zoo's mission is to save wildlife, enrich our communities, and create connections to nature. Today, just 1.7 acres in the *California* area footprint are used for animals and their welfare. The Alternative 1.5 Plan increases this to 15.6 acres, or 74% of the total space in *California*. This added space will let the Zoo's mission-based priorities work in conjunction with each other, rather than be in competition. More space for breeding programs, such as for our peninsular pronghorn or southern mountain yellow-legged frog recovery programs, will also create more space for guests to experience animals in their natural settings. More California native habitat in Zoo animal spaces helps local wildlife conservation efforts at our home in Griffith Park. And more Angelenos engaged in conservation improves our collective future.

Phase 1 Focus: Access

ACCESS FOR ALL

A primary focus of Phase 1 is to improve access into and throughout the Zoo. Re-routing Crystal Spring Drive and other roadway improvements will separate vehicle and pedestrian traffic and a create safer place for everyone, including students from the North Hollywood High School Zoo Magnet Center, who must cross the busy street multiple times a day throughout the year. Inside the Zoo, a new graded path at the entrance and the Condor Corridor loop will combine to ensure the entire Zoo is accessible for people of all mobilities.

Upper Left: *The Americans with Disabilities Act (ADA) sets standards for accessible design. Slopes should be less than 5% grade, and Condor Corridor provides an ADA accessible loop around the entire Zoo for the first time.*

Upper Right: *Re-routing Crystal Springs Drive and other roadway improvements create safer separation between pedestrians and vehicles.*

Bottom: *The Zoo Entrance becomes a shade-filled ADA-accessible ramp, removing the separate stairs and ramp of today.*

Asia, Rainforest, and Nature Play Park

PHASE 2

Space to roam, play, and explore

Phase 2 of the Plan updates the heart of the Zoo. In the enlarged *Asia*, the Zoo's world-class elephant habitat is joined by new facilities to care for tigers, gibbons, and more. Rhinos have expanded habitats, growing the Zoo's legacy of ground-breaking rhinoceros care and conservation. Meaningful connections to nature — the heart of our conservation mission — are best forged during childhood. The new *Nature Play Park* will give young conservationists inclusive access to natural areas while in the presence of supportive family members: key ingredients to developing this lifelong bond. Additions to the Zoo's excellent *Rainforest of the Americas* round out this phase's improvements.

Asia

THE HEART OF THE ZOO

1. The existing *Elephants of Asia* exhibit is expanded to be even bigger, covering 6.8 acres and allowing for awe-inspiring connections between elephants and guests.

2. Visitors exploring *Asia's* lush trails **experience** incredible biodiversity. New species, more visible animals, and natural habitats are transformative to this part of the Zoo's original 1966 campus.

3. Repeat visitors will never have the same experience twice thanks to the Zoo's commitment to creating large, enriched, and flexible **animal care** spaces. In *Asia*, an area might be used by multiple species simultaneously or by different species throughout the day — just as in the wild.

4. The expansive habitats that ring *Asia's* center are home to the Zoo's resident Indian rhinos. The Zoo's long legacy of working with this species and its **conservation** is a tradition that *Asia* proudly continues.

With expanded animal care spaces, new paths and circulation, and a refurbished Treetops of Asia, Asia *becomes the heart of the Zoo.*

Rainforest

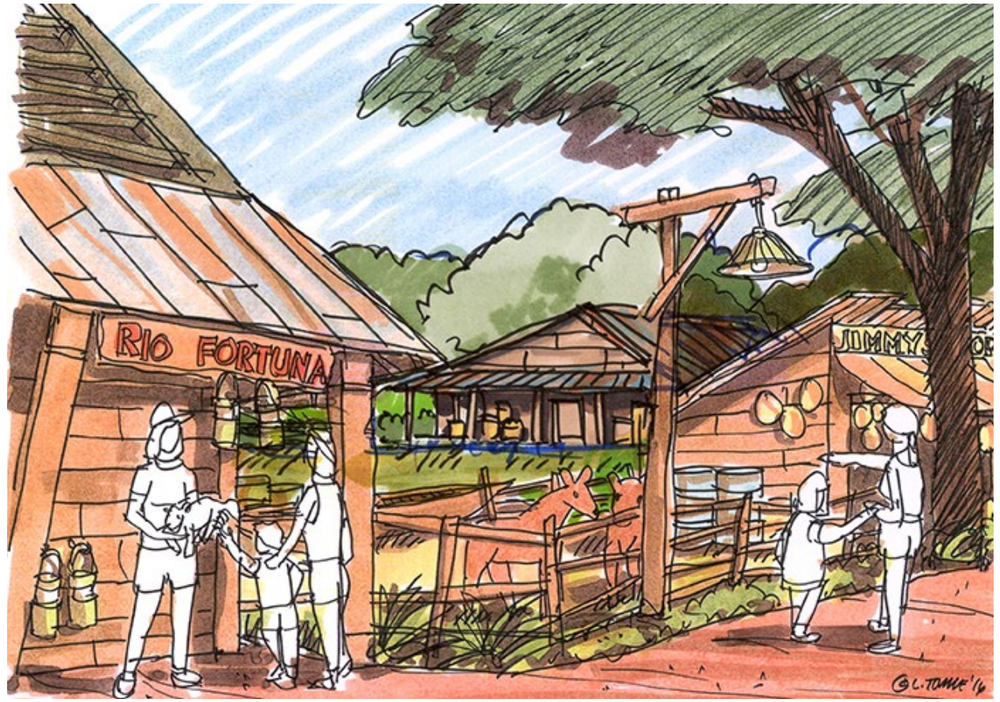
A HOME FOR EVERY LIVING THING

1. Guests exploring *Rainforest of the Americas* (completed in 2014) discover that rainforests are some of the most biodiverse and densely populated plant and animal homes anywhere on Earth. Previously, poor wayfinding limited the number of visitors that experienced the important story that *Rainforest of the Americas* tells. New circulation improvements address this problem, allowing visitors to find and navigate this area more easily.

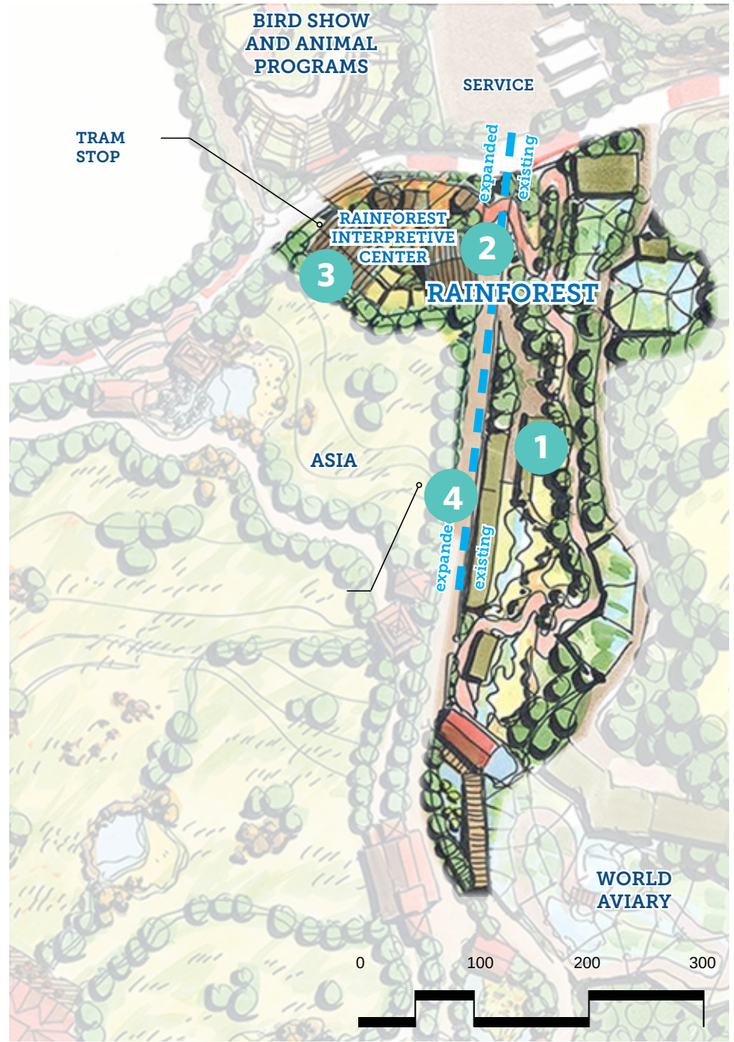
2. The advancements in **animal care** that enabled unprecedented success in raising giant river otters — the charismatic stars of *Rainforest of the Americas* — continue in *Rainforest*, with expanded habitats for anteaters, spider monkeys, and more.

3. At the heart of the adjoining *Rainforest* and *Rainforest of the Americas*, visitors find an interpretive center. Part outdoor classroom, this interpretive center tells **conservation** education stories, and teaches about sustainability.

4. The roadway between *Asia* and *Rainforest*, previously used as a guest path, is now service-only for both areas, increasing **operational efficiencies** and improving the visitor experience.



A new interpretive center offers opportunities for animal interactions and conservation education.



ANIMAL CARE | CONSERVATION | VISITOR EXPERIENCE | EQUITABLE ACCESS | ENVIRONMENTAL SUSTAINABILITY | OPERATIONAL EXCELLENCE

Nature Play Park

NURTURING THE NEXT GENERATION OF CONSERVATIONISTS

1. At three times the original play park's size, the *Nature Play Park* significantly expands one of the most popular areas in the Zoo. For frequent visitors, its reason enough to return time and again.

2. Integration with animal habitats takes the **visitor experience** to the next level. Reggie and Tina the alligators, two of the Zoo's most famous residents, are the *Nature Play Park's* stars.

3. Naturalistic play structures, balancing activities, and **accessible** structures designed for all abilities create graduated challenges for children as they grow, so that the young — and the young at heart — always have something new to try.

4. Dirt and water play encourage families to get as messy as they wish, forging future **conservationists** every time a child feels the cool rush of a stream, discovers a natural treasure for the first time, or creates a lovingly crafted mud pie.

Children of all ages will be able to experience the joy of play in nature.

Phase 2 Focus: More Land for Elephants

ELEPHANT-SIZED SPACE

Elephants of Asia, built in 2010, provides 3.5 acres of connected space for the Zoo's elephant herd. The amount of space and enrichment it provides is world-class, but the Zoo wanted to do even more -- and so did many of the community members who commented during the Plan's creation.

The entire *Asia* area will substantially expand, making room for *Elephants of Asia* to provide an additional 3.3 acres of space for the Zoo's elephants, almost doubling the usable land to 6.8 acres in total.

The new *Elephants of Asia* will maximize area for elephant space while providing expansive and immersive views of the animals and their habitat for guests.

Africa and Service Center

Multi-species, changing habitat

Phase 3 will complete the Zoo's near term transformation. Largely untouched by the previous Master Plan, the 50-year-old spaces within the *Africa* area will be transformed with natural environments and open vistas dotted with rocky outcroppings. Visitors will explore multiple ecoregions, from the African forest to savanna, populated with ever-changing animals and mixed-species groupings. Meanwhile, updates to the Zoo's behind-the-scenes service center will ensure the operational capacity necessary to save wildlife and enrich our communities for years to come.

Africa

DESTINATION AFRICA — A DYNAMIC, ALWAYS EVOLVING EXPERIENCE

1. Visitors entering into *Africa* encounter compelling stories of **conservationists** doing the on-the-ground work of saving species such as gorillas, lemurs, and okapi in the continent's challenging and fragile forests.

2. Turning a corner and coming face-to-face with an unexpected animal can be an exciting encounter. Discovering a 4,000 pound behemoth tiptoeing through its watery home elevates exciting to unforgettable. Underwater viewing of hippos will make this **experience** possible daily for all Angelenos.

3. No two days — or even hours — are exactly alike at watering holes in the savanna. Likewise, *Africa's* innovative design means that different animals are visible in different parts of the savanna throughout the day, while landscapes change with the seasons. This dynamic environment enriches **animal care** and is a reason for visitors to come back again and again.

4. The Africa Vista offers 360° views and and a place to relax before your next adventure; giraffe feedings and animal close-ups make every visit memorable; and food service and an inviting veranda offer respite and rejuvenation.

5. The tram is separated from pedestrian traffic for **operational efficiency,** but the stunning views and exclusive animal encounters that it affords passengers make it a can't-miss experience.

6. Previously undeveloped acreage within the Zoo, the *Oak Woodland Conservation Area* is home to more than 100 native oak and black walnut trees. This land will be newly preserved and restored, creating habitat for local wildlife and a natural backdrop to exhibits in the valley below.

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The transformed Africa *area nearly doubles the existing space for animals compared to today, from 6.4 to 12.3 acres.*

ANIMAL CARE | CONSERVATION | VISITOR EXPERIENCE | EQUITABLE ACCESS | ENVIRONMENTAL SUSTAINABILITY | OPERATIONAL EXCELLENCE

Service Center and Circulation

OPTIMIZING SERVICE AREAS AND CIRCULATION

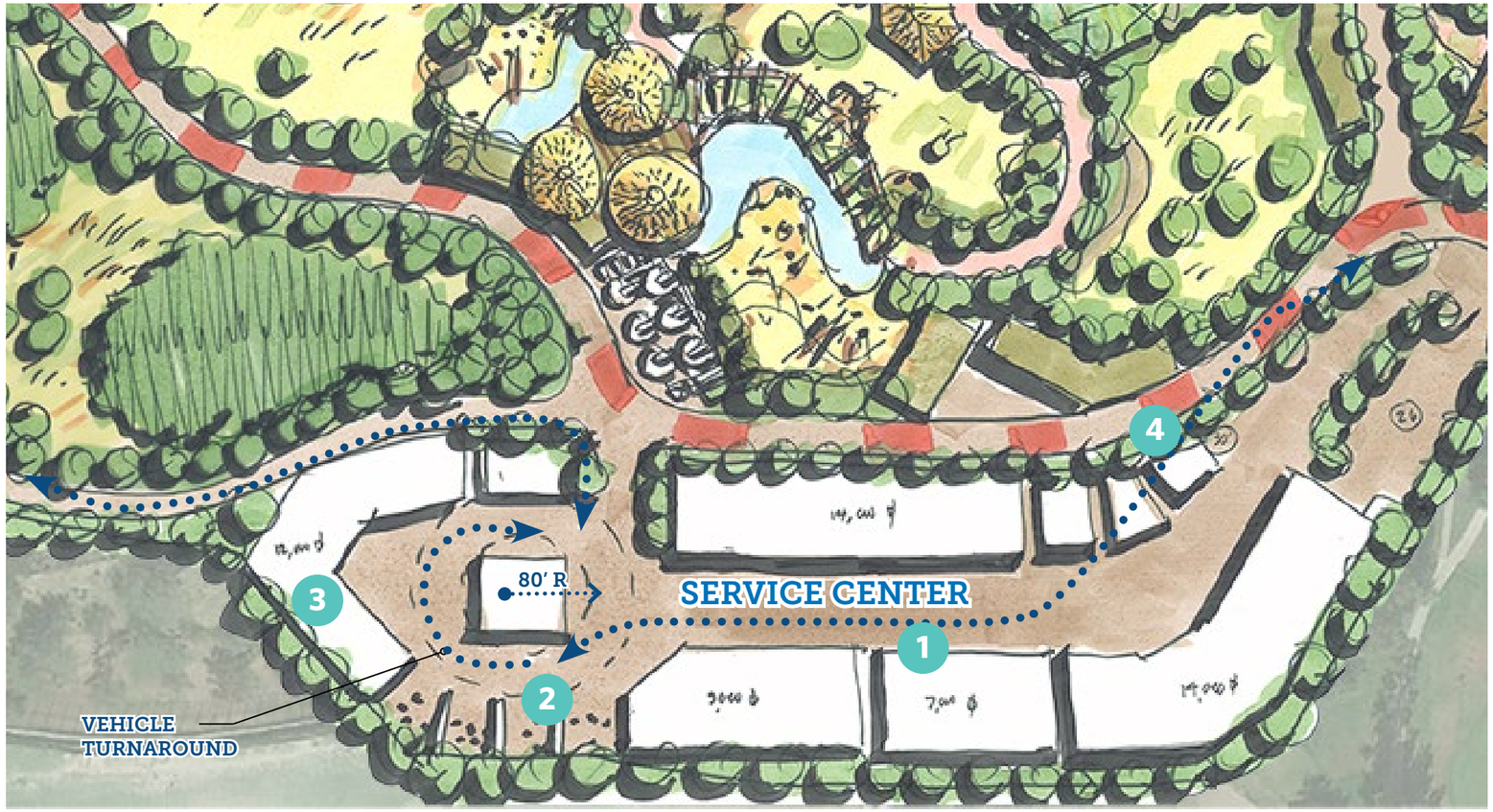
The Plan provides needed space for service areas, and, for the first time, dedicated service roads and turnarounds for delivery trucks. Dedicated staff parking saves valuable employee time and maximizes guest parking spaces, all to better support the Zoo's mission.

1. A new service center increases capacity of the work space seven-fold, from 8,000 square feet to 56,000 square feet, creating space to build, run, and enhance the Zoo's **operations** in ways never before possible.

2. Service areas are consolidated and separated from animal care and visitor areas, keeping noise and construction away from animals and guests.

3. A large 160-foot-diameter turnaround (one of two, the other in the new Animal Service area) allows larger trucks to serve the Zoo, making deliveries and returning down the service road, increasing **operational efficiencies.**

4. 56 additional parking spaces allow staff to park close to their work area and relieve pressure in guest lots on peak days.



Consolidated maintenance operations in a dedicated service area enhances operational excellence and efficiency.

Phase 3 Focus: Restoring Native Oak Woodland

BACKYARD BIODIVERSITY

Six acres of undeveloped hillside border the *Africa* planning area. A backdrop to *Africa's* multi-species savanna, this Coast Live Oak Woodland contains over 100 California live oak (*Quercus agrifolia*) and approximately 22 Southern California black walnut (*Juglans californica var. californica*).

The 2018 Vision Plan called for this land to be largely kept intact, with various African hoof-stock grazing among the trees and light terracing where needed for animal safety and stability. Public feedback was clear, though, that this land should be preserved to its fullest extent. The Zoo not only agreed, but is taking that idea even further.

Instead of preserving the land untouched with its mix of native and non-native plants, the Zoo will restore the Coast Live Oak Woodland to be healthier, more productive habitat for Griffith Park's native wildlife. Following best environmental practices, this space will be a model for what can be done to restore and protect our collective heritage. While adjacent to Phase 3's *Africa*, this work will begin as soon as the Plan is approved.

The Coast Live Oak Woodland has both native trees and non-native grasses.

Phase 3 Focus: Multi-species, Changing Habitats

The multi-species Africa *savanna, looking towards restored Coast Live Oak Woodland*

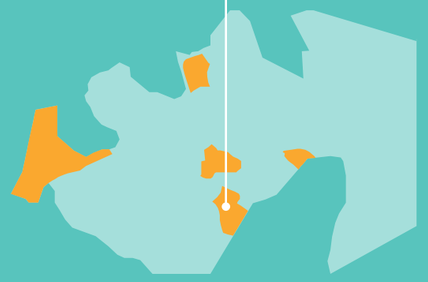
EMBRACING CHANGE

Imagine drinking your morning coffee at the Africa Vista, overlooking a large savanna with zebra, giraffe, and more gathered around a watering hole. The view is so stunning and serene that you decide to return for lunch, but when you do, a herd of African painted dogs is now visible, eagerly sniffing as they explore the grasslands. You remember that when you were last here a few months prior, the grass itself was much shorter, but has now grown to be feet high in places, transforming the savanna into a sea of gold.

The habitats of *Africa* will contain the Zoo's most innovative multi-species, changing exhibits. Building on best practices to ensure excellent welfare, animals may mingle or move throughout the course of a day. The land may also transform throughout the seasons, offering enriching change to the animals who live there and a reason for guests to come back again and again.

Future Phases

PHASES 4-6



Finishing Touches

Future phases will complete the Zoo's transformation, with each square foot updated to be modern, accessible, and sustainable. Whether behind-the-scenes at the Bird Show and adjacent service areas, within the Zoo's Animal Health Center complex and administrative buildings, or among the Zoo's popular Australian residents, the Zoo will be poised to have each of its 133 acres working towards our mission to save wildlife, enrich our communities, and create connections to nature.

World Aviary

WINGED AND WONDERFUL

1. The Zoo's dedicated breeding facilities have played a critical part in saving California condors from extinction. The *World Aviary* builds on the Zoo's successes, from hatching blue-throated macaws to raising gray-crowned cranes, in a new **conservation** center that is open to visitors.

2. At 70,000 square feet, the *World Aviary* is one of the largest and most immersive aviaries in the United States. Incorporating waterfalls, pools, and birds from around the world, the *World Aviary* is truly a can't-miss destination.

3. Improvements from the previous-generation aviary mean each level of the *World Aviary* is accessible to everyone. All visitors are able to get a bird's-eye view of this unforgettable Zoo **experience**.

4. While the previous aviary was a hidden gem, circulation improvements with multiple entry and exit points from *Asia, Rainforest,* and *California* now make the *World Aviary* front-and-center.

Integrating water features, lush plantings, and improved breeding facilities, the World Aviary *complex brings together dozens of bird species from around the world.*

Islands

MAKING NEW CONNECTIONS

1. A path from Treetops of Asia links two previously disconnected areas (*Asia* and *Islands*), improving **visitor experience** and flow.

2. Visitors can take a direct path from the *L.A.I.R.* to *Islands*, cutting down on travel time and confusion as they explore this popular section of the Zoo.

3. The **animal care** needs of Australia's unique and wonderful fauna create unique opportunities for visitor interactions, from wandering among wallabies to up-close encounters with emu.

4. Los Angeles' Mediterranean climate makes it one of the few places in the world suitable for growing the native plants that Australia's animals need to thrive. Visitors will encounter the Zoo's commitment to meeting these unique **animal care** needs each time the dinosaur-like cassowary emerges from the shadows of a Victorian box tree or a koala quietly munches on eucalyptus leaves.

5. The Zoo's **sustainability** efforts in *Islands* noticeably include both reduction and reuse. The updated Australia House repurposes existing structures while adding solar panels and updating to LEED Silver standards or better.

In addition to advancing animal care for dozens of rare and endangered species, Islands *also improves direct accessibility to more areas of the Zoo.*

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Bird Show and Animal Programs

UP CLOSE AND PERSONAL

1. Behind the scenes, new facilities are custom built to meet the specialized **animal care** needs of the ambassador animals who regularly participate in outreach and public engagement.

2. New shade structures provide respite for guests enjoying the updated bird show. **Visitor experience** and comfort have been prioritized in the amphitheater's upgrades and enhancements.

3. Repurposed service space better meets the Zoo's **operational** needs and eliminates distracting views into work areas.

With improved shade over the amphitheater and additional behind-the-scenes support spaces, this area showcases the Zoo's commitment to deepening personal connections to nature and wildlife.

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Animal Health and Service Center & Administration

CONSOLIDATING ANIMAL CARE OPERATIONS

Animal care operations are consolidated under one roof for the first time in the Zoo's history, improving operational efficiency and excellence. Also for the first time, the California condor facility (Condor West) will be enhanced for behind-the-scenes viewing, so that visitors will have the opportunity to observe firsthand the Zoo's critical role in rescuing these amazing birds from extinction.

1. California condor facility improvements enhance the program's **conservation** capabilities and upgrade the program's "temporary" trailers, which have been in use since the 1980s.

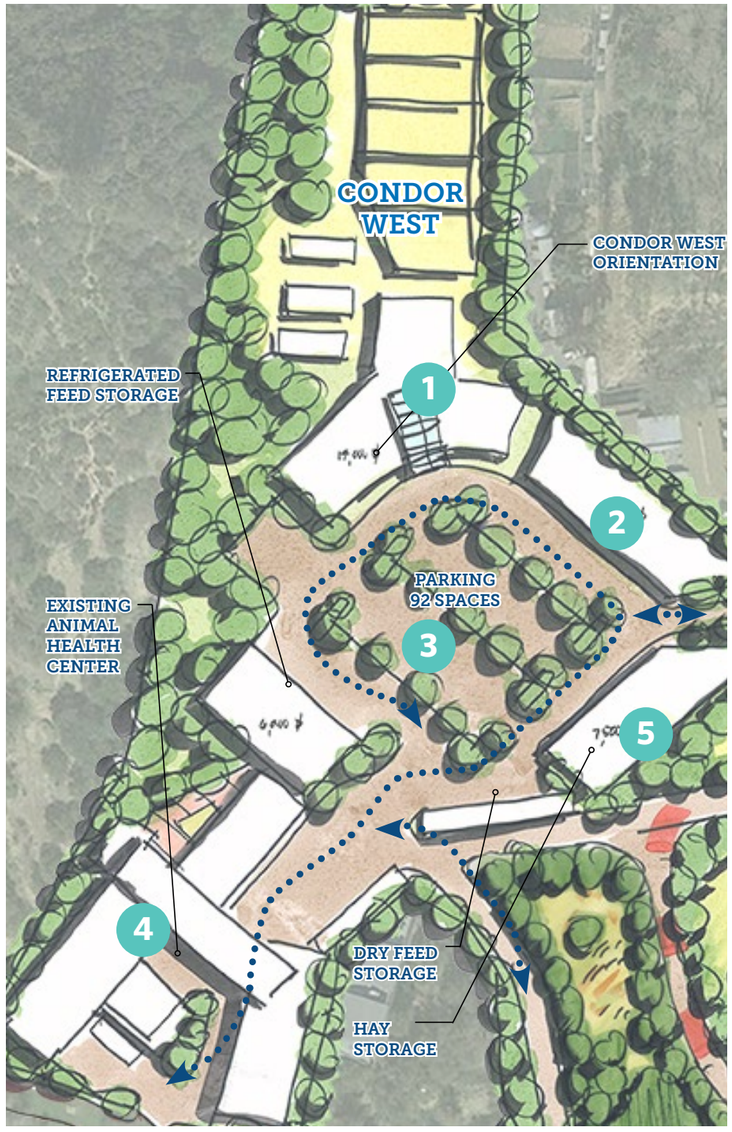
2. The area continues to house the Zoo's important reptile breeding facility, critical for **animal care** at the Los Angeles Zoo and contributing to the greater body of knowledge in the zoo community. With the increased capacity of this area, additional similar programs can grow and thrive here.

3. The Zoo previously lacked an area for large trucks to turn around, so delivery trucks had to navigate the entire perimeter road, which was shared by visitors. The animal service center now is accessed via a dedicated service road and has one of two new turnarounds for trucks, saving time and making deliveries and **operations** more efficient and safe.

4. The animal care facilities complement and expand upon the recently built animal health center, ensuring the quality of **animal care** at the Zoo continues to evolve with advances in the field.

5. Feed storage is expanded, allowing for full beds of hay and bulk quantities of both dry and refrigerated foods to be delivered and stored. Larger deliveries reduce frequency and costs, as well as improve **operations**.

6. The Zoo's Administration buildings will be updated in Phase 6, ensuring the entire campus has **sustainable** infrastructure.



Top Right: *The Zoo's Administration buildings will be constructed with sustainability as a top priority.*

Left: *Consolidating the* Animal Health and Service Center *increases operational efficiency and animal welfare in equal measure.*

ANIMAL CARE | CONSERVATION | VISITOR EXPERIENCE | EQUITABLE ACCESS | ENVIRONMENTAL SUSTAINABILITY | OPERATIONAL EXCELLENCE

05 | CHANGES FROM 2018 TO 2022

We've been listening

"In Los Angeles, sustainability is a core value that guides all of our work, because our survival depends on it."

— MAYOR ERIC GARCETTI, "L.A.'S GREEN NEW DEAL"

"The L.A. Zoo sees nearly two million annual visitors from all ages, languages and backgrounds — they all should know that L.A. is for Everyone."

— CAPRI MADDOX, L.A. CIVIL RIGHTS EXECUTIVE DIRECTOR

The COVID-19 pandemic, renewed calls for social justice action, and the increasing impact of climate change all have contributed to a different set of needs today than in 2018 when the Vision Plan was created. The Zoo has responded, adding a new division of Equity Programs, creating its first ever Conservation Strategic Plan, and conducting hundreds of conversations with dozens of interested parties.

Left: *Impacts from the COVID-19 pandemic were felt by Zoo staff, guests, and animals.*

Above: *Representatives from the Mayor's office met with Zoo staff in December 2021, surveying the* California *area.*

"All of us bring light to exciting solutions never tried before

For it is our hope that implores us, at our uncompromising core,

To keep rising up for an earth more than worth fighting for."

— AMANDA GORMAN, FIRST YOUTH POET LAUREATE OF LOS ANGELES, "EARTHRISE"

Changes from the 2018 Vision Plan to the 2022 California Focused Conservation Alternative

RESTORE COAST LIVE OAK WOODLAND

The Zoo will restore six acres of undeveloped hillside to be healthier, more productive habitat for Griffith Park's native wildlife. The 2018 Plan included this space in the *Africa* area, but the 2022 Plan calls for it to be managed separately. A backdrop to *Africa's* multi-species savanna, this Coast Live Oak Woodland contains over 100 California live oak (*Quercus agrifolia*) and approximately 22 Southern California black walnut (*Juglans californica var. californica*).

95% of the protected trees in the Zoo's undeveloped land are within the six acre Coast Live Oak Woodland restoration zone.

REPLACE PARKING GARAGE WITH SOLAR PANELS

The Zoo has removed the proposed parking garage originally planned for the final phase of the 2018 Vision Plan. In its place is a joint Zoo-LADWP project to add a solar panel carport to the north parking lot. The 3.4 megawatt system will be the largest in City history. Additionally, the proposed aerial tram from the *California* to *Africa* areas has been removed from the Plan.

The solar panel carport will include up to 100 make-ready EV charging ports and up to 25 DC fast chargers.

INCREASE EMPHASIS ON CALIFORNIA BIODIVERSITY

The *California* and *Entry* projects are moved to Phase 1 to have the biggest impact for guests and more quickly transform the underdeveloped shrubland of that section into productive native California habitat. The ADA accessible ramp from the Entry Plaza to the top of the hill at the California Overlook has its plant palette changed from vineyards to a native Californian focus. The Zoo's California-based conservation projects will be given more space, more quickly with these updates.

In 2020, Zoo herpetology staff released a total of 1,600 Zoo-bred southern mountain yellow-legged frog tadpoles into native mountain streams where the species had gone locally extinct.

RENEW COMMITMENT TO EQUITABLE ACCESS

The 2022 Plan adds the guiding principle "Equitable Access" to make explicit our commitment to this value. We've kept Condor Corridor (renamed from Condor Canyon) to ensure an ADA accessible loop around the entire Zoo, and moved the construction of a new entry ramp to better welcome all visitors into Phase 1. We've committed to build restrooms that are inclusive and to create spaces that meet the varying sensory needs of our communities throughout the 133 acre campus.

The Zoo's partnership with KultureCity helps guests with sensory needs have the tools necessary for a successful visit.

Changes from the 2018 Vision Plan to the 2022 California Focused Conservation Alternative

The Vision Plan's updated Environmental Impact Report identifies the 2022 Plan ("Alternative 1.5: The California Focused Conservation Alternative") as the Environmentally Superior Alternative.

MORE ROOM FOR ELEPHANTS

Elephants of Asia, built in 2010, currently provides 3.5 acres of connected space for the Zoo's elephant herd. After feedback during the initial Environmental Impact Report process, *Asia* was redesigned to create even more room for elephants, almost doubling the usable space to 6.8 acres in total. *Asia* itself grows to 20 acres in total, ensuring room for other visitor favorites such as tigers and rhinos.

The Zoo's herd of Asian elephants will have more space in the updated Plan.

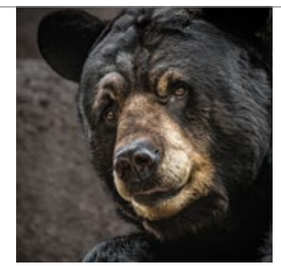
MAKE PLAY MORE ACCESSIBLE

The *Nature Play Park* is moved from the current play park location at the top of the Zoo to just outside California, near the front entrance. Designed as an accessible play-based experience for people of all abilities, its new location will now allow even more families to enjoy this space together.

The Zoo's current play park is one of its most popular destinations for children and families.

CHANGE PHASING TO INCREASE IMPACT

Throughout the design process, community feedback was clear that the Zoo needed more animal experiences near the front entrance. *California* and the *Entry* area are moved to Phase 1 to address this concern as well as increase conservation impact and native California habitat early in the project. *Asia* and the N*ature Play Park* move up to Phase 2, and the entire plan shrinks from eight phases down to just six.



Bears return to the Zoo sooner with the reconfigured phasing schedule as a part of Phase 1's California.

COMMIT TO MULTI-MODAL ACCESS SOLUTIONS

In addition to removing the parking garage from the Plan's late phases, the Zoo is committing to work with City and regional partners to increase multi-modal access to the Zoo. The Zoo is currently served by a single bus route to Griffith Park. Future Zoo visitors should have the option to bike, ride, or access the Zoo in whatever way best suits their needs, with systems that aim to reduce traffic and minimize vehicle miles traveled.

Biking is just one of the ways future visitors will reach the Zoo and Griffith Park.

06 | ACKNOWLEDGMENTS

Los Angeles Zoo Alternative 1.5 Plan (2022) Acknowledgments

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