

3.0 ENVIRONMENTAL IMPACT ANALYSIS AND MITIGATION

This section of the Environmental Impact Report (EIR) addresses the potential environmental impacts of the proposed Los Angeles Zoo Vision Plan (Vision Plan). The EIR addresses potential impacts that could result from the construction and operation of uses and development anticipated to occur with implementation of the Vision Plan (proposed Project). The proposed Vision Plan would guide Zoo development and operations for the next 20 years, establishing a phased development program and guidelines.

3.0.1 Environmental Resources Analyzed in the Environmental Impact Report

The scope of this EIR is based on the Project Description in Section 2.0 and the Notice of Preparation (NOP) (Appendix B), focusing on potentially significant impacts of the proposed Project on environmental resources. This section evaluates the potential for environmental impacts on the following resource areas:

Section 3.1, Aesthetics and Visual Resources	Section 3.10, Hydrology and Water Quality
Section 3.2, Air Quality	Section 3.11, Land Use and Planning
Section 3.3, Biological Resources	Section 3.12, Noise and Vibration
Section 3.4, Cultural and Tribal Resources	Section 3.13, Public Services
Section 3.5, Energy	Section 3.14, Recreation Resources
Section 3.6, Urban Forestry Resources	Section 3.15, Transportation
Section 3.7, Geology and Soils	Section 3.16, Utilities
Section 3.8, Greenhouse Gas Emissions	Section 3.17, Wildfire
Section 3.9, Hazards and Hazardous Materials	Section 3.18, Cumulative Impacts

Sections 3.1 through 3.18 provide detailed discussions of the regulatory setting and environmental baseline or setting, methodology for impact assessment for the resource, impacts associated with implementation of the near-term and long-term improvements proposed under the Vision Plan, and mitigation measures designed to reduce significant impacts where required and when feasible. The level of impact that will remain after mitigation is implemented is discussed.

3.0.2 Organization of Environmental Impact Analysis

Each section addresses an environmental resource area. Each environmental resource section addresses the Project under the following subsections; for resource areas where unique or supplementary information is available, additional subsections are provided section to section:

- **Introduction.** Introduces the environmental resource and provides a general approach to the assessment.
 - **Environmental Setting.** A description of the applicable regulatory framework associated with the environmental topic and applicable to the proposed Project,

followed by the existing environmental setting, or baseline conditions, against which the proposed Project's environmental impacts are analyzed;

- **Impact Assessment Methodology.** A list of the impact significance thresholds and criteria applicable to the environmental topic and a description of the methodology employed in the impact analysis. The criterion or threshold for a given environmental effect is the level at which the City finds the effect to be significant. The significance criteria can be a quantitative or qualitative standard, or set of criteria, pursuant to which the significance of a given environmental effect may be determined. (State CEQA Guidelines, Section 15064.7);
- **Environmental Impacts Analysis.** An analysis of the proposed Project impacts relative to the applicable thresholds of significance used to determine whether the proposed Project would have a significant effect on the environmental resource being addressed;
- **Mitigation Measures.** Measures necessary to reduce potentially significant project impacts; and
- **Impacts Summary.** Summarizes final impact determination for each resource after the implementation of mitigation measures and discloses any remaining significant and unavoidable impacts.

3.0.3 Assessment Methodology

Key CEQA Principles Guiding EIR Analysis

The Guidelines for Implementation of the California Environmental Quality Act (CEQA Guidelines) identify key principles that allow for complete understanding of the environmental context, impacts analysis methods, and conclusions presented in this EIR. These principles are intended to inform the reader and facilitate objective and sound interpretation of the analyses and conclusions presented in the EIR by decision makers. Per CEQA Guidelines Section 15021, it is the duty of public agencies to avoid or minimize environmental damage where feasible but recognizes that a public agency also has an obligation to balance a variety of public objectives including economic, environmental, and social factors. In determining the significance of potential environmental effects, CEQA Guidelines Section 15064 requires findings of significance of each adverse effect and indicates that findings shall be based on scientific and factual data and in consideration of substantial evidence in the whole record before a lead agency. CEQA Guidelines Section 15144 notes that drafting an EIR necessarily involves some degree of forecasting, and while foreseeing the unforeseeable is not possible, an agency must use its best efforts to discover and disclose all that it reasonably using a general "rule of reason". CEQA Guidelines Section 15145 notes that if, after thorough investigation, a lead agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact. This section deals with a difficulty in forecasting where a thorough investigation is unable to resolve an issue and the answer remains purely speculative.

Establishing the Baseline Environmental Conditions

Baseline conditions are defined as the existing physical setting that may be affected by the Project (CEQA Guidelines, Section 15125, subd. (a)). Baseline conditions are the local and regional physical environmental conditions as they existed at the time of the NOP, which was published on January 24th, 2019. This environmental setting constitutes the baseline physical conditions against which the City will determine whether impacts from the proposed Project and alternatives are significant. Physical change from Vision Plan implementation, such as new development on undeveloped hillside and excavation of soils for new infrastructure, would affect this physical setting. Project impacts are defined as changes to the environmental setting that are attributable to implementation of the Vision Plan. Existing Zoo operational activities are part of the baseline because they are part of the existing environmental condition at the Zoo. Therefore, it is only the projected new and expanded Zoo planning areas and operational activities, which are not part of the baseline, that are the focus of this EIR.

Per CEQA Guidelines, impacts may result from changes to the physical setting of the Project area. Several investigations were conducted to establish physical baseline conditions in the Project area. The EIR consultant team performed reconnaissance-level surveys in October and December 2018 and February and April 2019 of the existing Zoo, including visitor-serving spaces and service areas, to observe and document existing facilities, land uses, structures, layout, and operations at the Zoo. Existing uses and facilities were photographed and delineated on a GIS-based map to estimate acreage of different land use types (e.g., visitor-serving and animal environments, parking, administration) and indicate existing transportation and utility infrastructure on site (refer to Figure 2-3).

Based on this analysis, the Project area comprises approximately 142 acres, of which approximately 117 acres are developed and approximately 25 acres are undeveloped (Figure 2-3). Within the developed areas, 55 acres are dedicated to visitor-serving and animal habitat uses and 29 acres are provided as parking for visitors and employees. Approximately 3 acres are dedicated to conservation programs, such as the California Condor Recovery Program. There are approximately 8 acres of internal Zoo administration facilities near the Zoo's western and northern boundaries and approximately 6 acres of staff support services and storage. Additionally, based on the proposed Vision Plan, approximately 9 out of the 55 acres of visitor-serving and animal habitat area are considered under-developed, inadequate, and/or inconsistent with the Zoo's current standards.

As further described in each individual resource section, information on existing environmental baseline has been obtained from existing literature review as well as through the review of technical studies prepared specifically for the City to analyze the potential impacts of the proposed Project.

Key EIR Assumptions for the Vision Plan

Development Under the Vision Plan

As described in Section 2.0, *Project Description*, the purpose of the Vision Plan is to guide future development and operations at the Zoo over the next 20 years. This EIR assumes the development of 25 acres of currently undeveloped/underutilized land for visitor-serving and animal habitat uses. The proposed Project would also result in redevelopment of approximately 85 percent of the existing 117-acre developed area within the Zoo property. The proposed Project would occur within the existing Zoo and would not expand the Zoo property beyond the existing boundary. Some proposed transportation and circulation improvements would occur in the public right of way, beyond Zoo property.

Zoo Operations and Attendance

Physical impacts may occur from changes in operations of the Zoo as a result of the proposed Project. In particular, changes in annual attendance and peak daily attendance that would occur under the proposed Project may result in physical changes to the environment from increased demand for services and infrastructure. Attendance at the Zoo has fluctuated between 1.3 and 1.8 million annual visitors within the past 20 years. Total annual attendance at the Zoo during fiscal year 2017/2018 was 1,802,387 and total annual attendance in fiscal year 2016/2017 was 1,743,795. The Vision Plan projects growth in attendance from 1,743,800 to 3 million over 20 years. This growth would occur through a combination of expanded visitor-serving and animal habitat space and increased special events, including nighttime events which extend Zoo operational hours. The proposed Project would convert 25 acres of undeveloped/under-utilized land within the Zoo to visitor-serving/animal habitat area, which would increase the capacity of the Zoo for additional visitors.

For the purpose of this EIR, baseline attendance was considered 1,743,800 annual visitors to ensure analysis is aligned with the growth magnitudes described in the Vision Plan and in its technical studies. Specifically, the increase in annual attendance projected under the Vision Plan is based upon an economic analysis completed in October 2017 (Appendix A). However, since the Project phasing was adjusted in response to NOP comments in 2019, the economic analysis evaluated annual attendance increases under the Vision Plan using a slightly different phasing scenario than evaluated in this EIR. As such, the annual attendance data was adjusted to align with the proposed Project's phasing plan by the EIR consultant team (refer to Section 2.0, *Project Description*). Further, the Vision Plan projected growth in attendance up to 3 million annual visitors through Project implementation, which is 523,500 annual visitors more than estimated in the October 2017 economic analysis. The EIR consultant team assigned this additional growth to each phase relative to growth increments estimated by the economic analysis. As a result of this analysis, this EIR assumes annual attendance growth with implementation of the Vision Plan would be 1,265,200.

Based on Zoo attendance records and ingress/egress surveys conducted in 2019, the EIR also assumes that a maximum daily attendance would be approximately 14,000 visitors with a

maximum occupancy inside the Zoo of approximately 10,000 visitors at any one time. However, on a typical busy day at the Zoo entails approximately 7,850 visitors per day and approximately 5,500 visitors at any one time in the Zoo.

As increases in Zoo attendance would be partially driven by an increase in visitor-serving space within the Zoo. Changes to visitor-serving space would only occur in Phases 1 through 5 of the Project. Increases in administrative space and the proposed parking structure in Phase 6 and 7 would not incite or facilitate attendance growth; rather, these improvements would serve the increased demand generated by the new and expanded attractions within the Zoo. As such, increases in visitation are expected occur within each new phase of development through 2034. Further, the majority (85 percent) of the projected growth is expected to occur during implementation of Phases 1, 2, and 3 of the Vision Plan when most of the exhibit improvements and development of the proposed visitor centers would occur (Appendix A).

Impact Analysis of Near-Term and Long-Term Project Improvements

As described Section 2.0, *Project Description*, the Vision Plan includes near-term improvements (i.e., 5 to 10 years) and long-term improvements (i.e., 10 to 20 years). Phases of Zoo redevelopment would generally occur sequentially with no overlap. Improvements envisioned for near-term phases of the Project area more well-defined in the Vision Plan than the proposed long-term phases. As such, impact analysis is organized to address near-term improvements at a greater level of detail with more specific or targeted mitigation approaches than the long-term improvements. The EIR analysis provides as much detail as possible about each phase of Vision Plan implementation, as described in Section 2.0, *Project Description*.

- **Near-Term Impacts.** Considers the potential impacts resulting from implementation and operation of Vision Plan Phases 1-3. Where impacts are similar, findings are combined to simplify analysis, with separate findings where impacts materially differ by scenario. Near-term impacts are analyzed more on an individual project/development level of detail.
- **Long-Term Impacts.** Considers the potential impacts resulting from long-term implementation and operation of Vision Plan Phases 4-7. Where impacts are similar, findings are combined to simplify analysis, with separate findings where impacts materially differ by scenario. Long-term impacts are analyzed more at a programmatic level of detail.

While the criteria for determining potentially significant impacts are specific to each issue area, the analysis applies a uniform classification of the impacts based on the following definitions:

- **Significant and Unavoidable:** Significant impacts that cannot be feasibly mitigated or avoided to a less than significant level. Measures could be taken to avoid or reduce these adverse effects, but not to a level of less than significant. Even after application of feasible mitigation measures, the residual impact would be significant. If the Vision Plan is approved with significant and unavoidable impacts, decision-

makers are required to adopt a Statement of Overriding Considerations pursuant to CEQA Section 15093 explaining how they have balanced the various factors and why benefits of the proposed Project outweigh the potential damage caused by the significant unavoidable impact.

- **Less than Significant with Mitigation:** Significant impacts that can be reduced to a less than significant level with feasible mitigation, which can include incorporating changes to the Vision Plan prior to adoption and implementation. If the proposed Vision Plan is approved with significant but mitigatable impacts, decision-makers are required to make findings pursuant to CEQA Section 15091, stating that impacts have been mitigated to the maximum extent feasible and the residual impact would be less than significant.
- **Less than Significant:** Potentially adverse but less than significant impacts that do not require mitigation and do not require findings to be made prior to adoption or approval. Measures may be recommended to further reduce environmental effects and/or improve consistency with policies in the City's General Plan and applicable Community Plans and regulations of City Code, but are not required mitigation measures under CEQA needed to reduce impacts to less than significant.
- **Beneficial impacts:** Effects that are beneficial to the environment.
- A determination of **No Impact** is given when no adverse changes or benefits in the environment are expected.