

# Section 3

## Environmental Analysis

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### 3.1 INTRODUCTION TO THE ENVIRONMENTAL ANALYSIS

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#### Organization of this Section

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This section of the Draft EIR presents an analysis of environmental factors that may be affected by the proposed Kaiser Permanente Redwood City Medical Center project. The environmental analysis has been prepared consistent with Sections 15125 and 15126 of the CEQA Guidelines. For each issue, the following information is presented:

- **Setting**—describes existing baseline conditions, including the environmental context and regulatory background.
- **Impact Assessment**—identifies standards of significance and evaluates how the proposed project would affect the baseline conditions.
- **Mitigation Measures**—identifies ways to reduce, eliminate or avoid impacts that are considered significant and adverse.

#### Classification of Impacts

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The impact and mitigation portion for each environmental discussion includes impact statements that highlight the environmental consequences of the proposed action with regard to that environmental topic. An explanation of each impact and an analysis of its significance follow the impact statement.

For each impact, a level of significance is determined and is reported in the impact statement. Conclusions of significance are defined as follows:

1. **Significant (S)** impacts include effects that exceed established or defined thresholds. For example, traffic volumes that exceed local intersection level-of-service standards would be considered a significant adverse impact.
2. **Potentially significant (PS)** impacts include those cases where it is not precisely clear whether a significant effect would occur; the analysis in these instances conservatively assesses the worst-case conditions, but the discussion acknowledges that there is uncertainty regarding the extent of the impact.
3. **Less-than-significant (LTS)** impacts include effects that are noticeable, but do not exceed established or defined thresholds. For example, air pollution caused by an increase in the development and density of population in the project area may be perceptible, but need not exceed acceptable thresholds or standards. Therefore, the effect would not be considered significant.

4. No Impact (NI) includes situations where there is no adverse effect.

Thresholds or significance criteria are used to classify an impact into one of the above categories. These significance criteria are defined for each environmental topic, based on existing standards of the City of Redwood City, Caltrans, or CEQA. These significance criteria explain to the reader the basis for determining the significance of an impact.

For each impact identified as being significant (S) or potentially significant (PS), the EIR provides mitigation measures to reduce, eliminate, or avoid the negative effect.

If the mitigation measures would reduce the impact to a less-than-significant (LTS) level successfully, this is stated in the EIR. If the mitigation measures would not diminish these effects to a less-than-significant level, the EIR classifies the impacts as “significant unavoidable effects (SU).”

**Enumeration of Impacts and Mitigation.** Each impact topic is numbered using an alpha-numerical system that identifies the environmental issue. For example, *NO-1* denotes the first impact discussion in the Noise subsection. The two letter codes used to identify the environmental issues discussed in this section are:

- LU – Land Use and Planning
- VQ – Visual Quality
- TR – Transportation
- AQ – Air Quality
- NO – Noise
- HM – Hazardous Materials
- PH – Population and Housing
- PS – Public Services
- UT – Utilities and Service Systems

Mitigation measures are numbered to correspond to the impacts they address; e.g., Mitigation Measure TR-3.1 refers to the first mitigation for Impact 3 in the Transportation subsection. A brief title is included to easily identify the mitigation measure. Mitigation measures that apply to particular alternatives are also denoted after the mitigation measure title.

## **CEQA Methodological Requirements**

The CEQA Guidelines at Section 15151 describe standards for the preparation of an adequate EIR. Specifically, “an EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. . . . Disagreement among experts does not make an EIR inadequate, but

the EIR should summarize the main points of disagreement among the experts.” In practice, this means that EIR preparers should adopt a reasonable methodology upon which to estimate impacts. This approach means making reasonable assumptions using the best information available. In some cases, typically when information is scarce or there is possible variation in project characteristics, EIR preparers will employ a reasonable “worst-expected-case analysis” in order to capture the largest expected potential change from existing baseline conditions that a project might have. This practice of creating worst-expected-case scenarios is not mandated by CEQA but is one common practice to address uncertainty; such exists with the Master Plan project that is expected to be completed over five phases. Again, CEQA requires analysis of a project’s reasonably foreseeable, most likely impacts, not the unlikely maximum possible impacts.

### **Estimating Future Impacts**

**Footprint Impacts.** The proposed project would add approximately 628,450 GSF of medical floor area to the Kaiser Medical Center, an increase of about 190 percent over the Medical Center’s existing 330,850 GSF. This increase of built space as shown in the site plan (Figure 2-3) defines a building envelope and that allows the analysis of various physical impacts. The extension of a building footprint into a surface parking lot, the construction of a taller MOB, the construction of buildings along Redwood Creek – all involve occupying space. From the building envelope, one can estimate how much development might encroach into biologically sensitive areas, hazardous areas subject to flooding or severe groundshaking, or highly scenic view corridors, for example. These so-called footprint impacts are derived from the increase in floor area and their spatial arrangement on the campus.

**Population Impacts.** How many trips are made to the hospital and MOBs, how much water is consumed, how many new residents are projected for Redwood City – these type of “population” impacts depend on how intensely the building space is utilized. As discussed in Section 2, Project Description, there is a phenomenon in healthcare known as “decompression.” As new space is built at the Medical Center, the number of employees and physicians per square foot is expected to decrease, because the new space must accommodate new medical technology. As a result, rather than using the change in square feet as a way of estimating population impacts, this EIR examines the change in providers, i.e., individuals who provide health care. Health care industry standards and Kaiser’s own facilities were used to derive a certain number of employees per provider and a certain number of vehicle trips per provider.

**Consumption/By-Products Impacts.** One potential effect of changes in the Medical Center size, operations, and utilization is the change in the use of hazardous materials and the generation of hazardous waste, including biomedical wastes. Use and disposal of hazardous materials is not a function of the size of the facilities nor is it necessarily dependent on the number of providers or staff. For purposes of this EIR, hazardous materials use and waste generation is assumed to be correlated to the growth in Kaiser Permanente membership. According to the project sponsor, Kaiser membership is projected to grow by about 20 percent between 2001 and 2025.

**Worst-Case Scenario.** As a final note, it is important to point out that deriving the ultimate “worst-case” scenario (that is, the greatest level of impact) is possible. One would identify the department or

activity that has the highest visitor rate and greatest turnover and assume that all of the new space would be developed with this particular use. From a practical standpoint, however, it is highly unlikely that a full-service acute care hospital with a similar amount of square footage devoted to clinical floor area would be developed which would be occupied by activities that all exhibit the highest trip-making characteristics and activity levels. This methodology requires that patient visits and trips per department are available and that the department with the highest activity levels can be identified. From a practical standpoint, trip generation data for the “high-volume” services or specialties are not available and would be difficult to collect. Further, the Institute of Transportation Engineers, which produces a commonly used reference book on trip generation, does not have data on trip generation factors by department. Thus, data to present this worst-case assessment do not presently exist. Lastly, as noted above, even if the data were available, CEQA does not require use of the most extreme, maximum possible worst-case scenario, but a reasonable assessment of project impacts.

For these reasons, the emphasis in this EIR is on conservative estimates of impacts, rather than a worst-case scenario. A monitoring program (see discussion below) is proposed to ensure that development of various phases of the Master Plan will not create significant environmental impacts, regardless of the way Kaiser uses space at the Medical Center in the future.

### **Role of the Monitoring Program**

Given the uncertainty over future specific medical-related services and programs and the number of providers and staff that could be accommodated with buildout of the Master Plan and given Kaiser’s requests for flexibility in developing the Master Plan consistent with the Precise Plan, this EIR proposes an ongoing monitoring program to ensure that impacts associated with any City discretionary approval of subsequent development phases of the Master Plan would not exceed the established significance thresholds or other key monitoring milestones set forth in this EIR. If monitoring reveals that activities at Kaiser would create a significant impact, then the project sponsor could be required to modify its operations, alter activities, or reduce the size of the Master Plan project as proposed to remain within the significance thresholds in the EIR. Under this program, Kaiser would have the flexibility to change uses onsite consistent with the Precise Plan to respond to a fast-changing health care market provided that it did not exceed the EIR impact envelope. The City will develop details of the monitoring program, such as the specific indicators to monitor and the frequency of reporting. At a minimum, possible indicators could include:

- Number of total employees, including number of providers,
- Number of employee visits per day,
- Patient visits per day, and
- Water consumption and wastewater generation.

In summary, approval of the Master Plan is approval in concept for all Master Plan improvements, with subsequent approvals for constructing specific components of the Master Plan phased according to Kaiser’s need for them, but consistent with the Precise Plan. With approval of the Master Plan,

monitoring would be required on a regular basis, possibly annually, and reports would be required to inform the City of the status of each indicator and whether they were near, at, or already over the established significance thresholds. In addition, monitoring data would be required whenever a new City approval is sought and the conditions of the new approval would consider the status of each indicator in determining the conditions for the new approval. As noted above, additional Master Plan improvements would not be permitted, if it was determined that the impacts from the additional Master Plan improvement would exceed the impact envelope identified in the EIR. Alternatively, if it were feasible for Kaiser to alter its operations to create enough room under the impact envelope to allow the Master Plan improvement to be approved, Kaiser could propose this to the City.

The mitigation monitoring program is expected to be administered by the City; however, the project sponsor would be expected to pay for the consultant(s) hired by the City to collect, compile, synthesize, and submit the data to the City for review.

### **Economic and Fiscal Effects**

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Under CEQA, economic and fiscal effects of a project are not required to be evaluated. However, lead agencies may choose to present economic or fiscal information in, or associated with, an EIR in order to disclose the relative impact of a project, or series of projects, on these important community considerations. In addition, there are specific ways that economic or fiscal effects may be considered as part of the EIR. Section 15131 of the CEQA Guidelines states:

- a. Economic or social effects of a project shall not be treated as significant effects on the environment. An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic or social changes. The intermediate economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the physical changes.
- b. Economic or social effects of a project may be used to determine the significance of physical changes caused by the project.
- c. Economic, social, and particularly housing factors shall be considered by public agencies together with technological and environmental factors in deciding whether changes in a project are feasible to reduce or avoid the significant effects on the environment identified in the EIR.