

1 **5.10 MINERAL RESOURCES**

2 In any urban development it is important that land use decisions be made with full recognition of
3 the natural resources of the area. Depending on the region, these natural resources can include
4 geologic deposits of moderate to high value minerals used in manufacturing processes and in the
5 production of construction materials. Aggregate (crushed rock) and limestone used in concrete
6 production are examples of common extractable mineral resources. The past several decades of
7 urban expansion in the San Francisco Bay Area and Southern California have reduced or restricted
8 access to significant mineral resources, resulting in a net loss of potential resources.

9 **5.10.1 Regulatory Setting**

10 To limit new development in areas containing significant mineral deposits, the California State
11 Legislature enacted the Surface Mining and Reclamation Act (SMARA) in 1975. SMARA calls for
12 the state geologist to classify the lands within California based on mineral resource availability.
13 Although California has a wide range of mineral commodities, it was recognized that construction
14 materials like sand, gravel, and crushed stone produced regionally are used in every urban area of
15 the state, and require special classification data. The California Division of Mines and Geology
16 (CDMG) has classified urbanizing lands according to the presence or absence of significant sand,
17 gravel, or stone deposits that are suitable as sources of aggregate (CDMG 1999). These areas,
18 called Mineral Resource Zones (MRZ), are described below:

- 19 • SZ – Scientific Resource area containing unique or rare occurrences of rocks, minerals, or fossils
20 that are of outstanding scientific significance.
- 21 • MRZ-1 – Mineral Resource Zone where adequate information indicates that no significant
22 mineral deposits are present or likely to be present.
- 23 • MRZ-2 – Mineral Resource Zone where adequate information indicates that significant mineral
24 deposits are present, or there is a high likelihood of their presence and development should be
25 controlled.
- 26 • MRZ-3 – Mineral Resource Zone where the significance of mineral deposits cannot be
27 determined from the available data.
- 28 • MRZ-4 – Mineral Resource Zone where there is insufficient data to assign any other MRZ
29 designation.

30 The classification system is intended to ensure that through appropriate lead agency policies and
31 procedures, mineral deposits of statewide or regional significance are considered in agency
32 decisions. Each lead agency develops and adopts mineral resource management policies to
33 incorporate into its planning policies, based on the mineral classification data provided. Most of
34 the comprehensive mineral resource mapping in California has been completed for urban areas
35 where there is a high probability that converted land uses would be incompatible with mining.

1 **5.10.2 Environmental Setting**

2 **5.10.2.1 San Francisco Bay Area Network**

3 The San Francisco Bay Area Network would be installed in already disturbed Union Pacific and
4 Caltrain rights-of-way. Most of the alignment is on land classified as MRZ-1. Certain sections of
5 the route in South Hayward and Fremont are classified as MRZ-3 and new build number 16 of the
6 Pacific Bell Structure in Walnut Creek (see Figure 4-2b) is in an area classified as MRZ-4. The
7 project route would not pass through any areas designated as MRZ-2.

8 Six of the nine POP sites in the San Francisco Bay Area Network are located in the Union Pacific or
9 Caltrain rights-of-way. The other three POPs, located in Oakland, Hayward, and San Jose, are in
10 urbanized areas and within the area classified as MRZ-1.

11 **5.10.2.2 Los Angeles Basin Network**

12 The Los Angeles Basin includes several areas designated as MRZ-2, predominantly in the eastern
13 San Fernando Valley and along the San Gabriel, Los Angeles, and Santa Ana rivers. The Los
14 Angeles Basin Network alignment would not cross these areas. Most of the Los Angeles Basin
15 Network alignment is located in designated MRZ-1 areas. The 15 proposed POP sites for the Los
16 Angeles Basin Network would be located within existing buildings.

17 Petroleum resources are discussed in the geology section of this document (section 5.6).