Chapter 15

Public Health and Safety

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INTRODUCTION

Alternative 4, "EBMUD-Only Lower American River Delivery," and Alternative 5, "Sacramento River Delivery," in this REIR/SEIS include facilities that are very similar to those discussed for Alternative 3, "Joint Water Supply," in the 1997 DEIR/EIS. The 1997 DEIR/EIS therefore includes a full discussion of the environmental setting for these alternatives, and that information is summarized below as appropriate. Because Alternative 6, "Freeport East Delivery," Alternative 7, "Freeport South Delivery," and Alternative 8, "Bixler Delivery," include facilities in locations that were not described in the 1997 DEIR/EIS, additional information is provided in the "Affected Environment" section below.

AFFECTED ENVIRONMENT

Alternative 4: EBMUD-Only Lower American River Delivery

From intake Site 5 to the Fairbairn WTP, the pipeline is within developed urban areas in the City. The pipeline segment also traverses some long-established commercial uses and parallels the southern corner of the former Mather Air Force Base runway. Although the airport is the site of extensive groundwater contamination, groundwater levels are well below the anticipated 10- to 15-foot trench depth for pipeline construction, and no near-surface soil contamination is known to be present at the site.

The remainder of this pipeline segment crosses grazing land and land previously mined for aggregate, and the potential for existing soil contamination is relatively low. Construction in the annual grasslands along this alignment segment could increase the potential for fire.

A Phase I environmental site assessment conducted for the I-5 to FSC alignment in June 1997 identified several sites of potential concern for contamination near the alignment: City of Sacramento landfills, Suburban Roofing Company, the former Metropolitan Ambulance Facility, Home Depot/Walsh Construction, Mather Field, and numerous commercial businesses (East Bay Municipal Utility District 1997a). Soil and groundwater sampling is recommended to confirm the presence or absence of contamination at the identified sites.

The FSC pipeline alignment traverses primarily agricultural land with scattered residences, small businesses, and industries in Sacramento and San Joaquin counties. Unknown soil contamination could exist at or near commercial and industrial sites and potentially in cultivated areas where agricultural chemicals are used.

Historical gold and copper mining along the upper Mokelumne River drainages may have resulted in mercury contamination of alluvial sediment as far downstream as the FSC to Mokelumne Aqueducts pipeline crossing. Residues of acid mine drainage, spilled concentrator reagents, and some detrital heavy metal sulfide minerals released upstream in the Mokelumne River from Penn Mine could still be present in the downstream river alluvium, although it is unlikely that more than trace amounts remain. Remnants of fuel, lubricants, hydraulic fluid, and similar substances could also be present near the Mokelumne River crossing. An existing power house with a substation at the dam could be a source of past soil contamination.

A search of federal and state databases for recorded hazardous materials and hazardous waste sites along the pipeline alignment identified several sites of potential contamination, including accidental spills and leaking underground storage tanks (VISTA Environmental Information 1996a, 1996b). However, a preliminary hazardous materials assessment, which included soil sampling at various locations along the alignment, did not indicate the presence of soil constituents at

hazardous or potentially hazardous levels at the sites sampled (CH2M Hill and Montgomery Watson 1997).

Construction in the extensive annual grasslands along some portions of the pipelines could create a potential fire hazard.

Alternative 5: Sacramento River Delivery

The pipeline segment from the new intake facility on the Sacramento River to Fairbairn is within developed urban areas in the City. From the end of Bannon Street to the intersection of C Street and 23rd Street, the pipeline segment follows the same alignment as described for Intake 1 under Alternative 3. Sites of potential concern for contamination identified near this segment include Union Pacific Railroad lines and Ralph & Farber's (East Bay Municipal Utility District 1997a). These sites were recommended for further investigation. After the intersection of C Street and 23rd Street, the alignment for Alternative 5 is identical to that described for Alternative 4.

Alternative 6: Freeport Delivery East

The pipeline from Freeport to FSC traverses vacant land near the river and then commercial, residential, and industrial areas until the land use becomes agricultural about two miles before the alignment reaches FSC. There may be unknown soil contamination at or near the commercial and industrial sites and potentially in agricultural areas where agricultural chemicals have been used. The agricultural areas near FSC are currently grazing lands; construction in this area could create a potential fire hazard.

The FSC pipeline to the Mokelumne Aqueducts for Alternative 6 is identical to that described for Alternative 4.

Alternative 7: Freeport Delivery South

The pipeline from Freeport to the Mokelumne Aqueducts in Stockton traverses agricultural, residential, commercial, and industrial development, as well as some undeveloped land designated for commercial and industrial uses. The treatment facility at Bixler would be constructed on agricultural land.

There may be unknown soil contamination at or near the commercial and industrial sites and potentially in agricultural areas where agricultural chemicals have been used.

Alternative 8: Bixler Delivery

The pipeline segment from Indian Slough to the Mokelumne Aqueducts in Bixler traverses agricultural land, and the treatment facilities would also be constructed on agricultural land. Under the advanced treatment option, the treated water and brine pipelines would be located in the Mokelumne Aqueducts right-of-way and would traverse agricultural land as well as developed urban areas.

There may be unknown soil contamination at or near the commercial and industrial sites and potentially in agricultural areas where agricultural chemicals have been used.

ENVIRONMENTAL CONSEQUENCES

Methods and Assumptions

The analysis in this REIR/SEIS uses the same methods and assumptions as the 1997 DEIR/EIS. The evaluation of impacts on public health and safety was focused on the potential for health and safety hazards during project construction. Health and safety issues following construction would be minimized or avoided through implementation of permanent security and design features described in Chapter 2, "Alternatives Considered in the REIS/SEIS."

Significance Criteria

The significance criteria described in the 1997 DEIR/EIS were used to analyze the additional alternatives evaluated in this document. An alternative was considered to have a significant impact if it would create a

potential public health hazard or involve the use, production, or disposal of materials that pose a hazard to people or animal or plant populations in the affected area; expose people to existing soil or water contamination; result in new contamination of soil or water; or substantially increase the risk of fire in areas with flammable vegetation.

Impacts Found to Be Less Than Significant

Alternative 4: EBMUD-Only Lower American River Delivery

The facilities associated with Alternative 4 are essentially identical to those in Alternative 3, "Joint Water Supply," as described in the 1997 DEIR/EIS. Therefore, Alternative 4 would have the same impacts as described for Alternative 3:

- Exposure of people to existing contamination.
- Contamination of soil and water during construction.
- Increased risk for fires during construction.
- Potential for contamination at chemical conditioning facilities. (The polymers and alum to be used in this alternative are not highly toxic.)

These impacts are less than significant. No mitigation is required.

Alternative 5: Sacramento River Delivery

The facilities associated with Alternative 5 are essentially identical to those in Alternative 3, "Joint Water Supply," as described in the 1997 DEIR/EIS. Therefore, Alternative 5 would have the same impacts as described for Alternative 3 and listed above for Alternative 4. These impacts are less than significant. No mitigation is required.

Alternative 6: Freeport East Delivery

This alternative would have similar impacts to those described for Alternative 3 in the 1997 DEIR/EIS and listed above for Alternative 4. These impacts are less than significant. No mitigation is required.

Alternative 7: Freeport South Delivery

This alternative would have similar impacts to those described for Alternative 3 in the 1997 DEIR/EIS and listed above for Alternative 4. These impacts are less than significant. No mitigation is required.

Alternative 8: Bixler Delivery

This alternative would have similar impacts to those described for Alternative 3 in the 1997 DEIR/EIS and listed above for Alternative 4. These impacts are less than significant. No mitigation is required. Although toxic chemicals (chlorine, ammonia, and sulfuric acid) would be used in this alternative, compliance with applicable regulations and codes would minimize potential impacts to a less than significant level.

Significant Impacts and Mitigation Measures

None of the project alternatives would result in significant impacts on public health and safety, and no mitigation measures are required.

Chapter 16

Visual Resources