SECTION 3 - AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES, AND MITIGATION MEASURES

3.1 PROPOSED ACTION

This section evaluates the impacts of the Proposed Action on specific environmental factors. The format for the discussion of each environmental factor includes a detailed description of the affected environment or characteristics of the surrounding area and the Project site, the environmental consequences, also called environmental effects or impacts of the Project, and the mitigation measures that will be part of the Project development. The affected environment discussion is also applicable to the analysis of alternatives contained in Section 3.2, but is not repeated.

The following matrix summarizes potential impacts to the "critical elements of the human environment" (BLM Manual H-1790-1, Appendix 5, as amended) which are elements of the human environment which must be addressed in all BLM environmental analyses. Affected elements will be discussed in further detail in the section noted in the far right-hand column. Discussions of certain elements were included in the document, were determined to have no impact, and are so noted. Elements for which there are no issues related to the Proposed Action or alternatives will not be discussed further.

3.1.1 Geotechnical

This section considers geotechnical aspects of TMC's proposed sand and gravel mining operation in Soledad Canyon including the geology, soils, mineral resources, and geologic hazard concerns both onsite and in the surrounding area. It summarizes and incorporates information from geologic studies of the Project site completed by Soil and Testing Engineers, Inc. (STE) and Hilltop Geotechnical (Hilltop) (STE 1990a, 1990b, 1991; Hilltop 1992, 1993a, 1993b, 1995a, 1995b, 1996, 1997a, 1997b, 1997c). Those studies involved a review of relevant geologic literature and surface reconnaissance of the site to map and describe the general geology (including the lithology, structure, soils, and seismicity), determination of the usable aggregate resources onsite, and slope stability evaluations.

3.1.1.1 Affected Environment

Surrounding Area

Geology

The Project site is located on the south margin of the Soledad Basin, which is situated near the central part of the Transverse Range Province of California. The Soledad Basin is considered

POTENTIAL IMPACTS TO CRITICAL ELEMENTS OF THE HUMAN ENVIRONMENT BY ALTERNATIVE

Critical Element of the Human Environment (Relevant Authority)	Alternative								
	Proposed Action	No Action	Reduced North Fines Storage Area	Batch Plant Location	Reclaimed Water	Railroad Transportation	Alternative North Fines Storage Area	Reduced Quantity Mining Concept	EIS Section
Air Quality (The Clean Air Act as amended (42 USC 7401 et seq.))	NO_x, ROG, and PM-10 emissions remain significant.	No impact.	Reduced emissions from less onsite activity remains significant.	Slightly fewer emissions, remains significant.	Increased, if water is trucked in, remains significant.	Increased emissions from train transport, remains significant.	Slightly increased emissions, rmains significant.	Fewer emissions over long term, NO_x, PM-10, and ROG remain significant.	3.1.7
Areas of Critical Environmental Concern (Federal Land Policy and Management Act of 1976 (43 USC 1701 et seq.))	No issues.	No issues.	No issues.	No issues.	No issues.	No issues.	No issues.	No issues.	Not Applicable.
Cultural Resources (National Historic Preservation Act as amended (16 USC 470))	Historic site will be avoided.	No impact.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.	3.1.9
Native American Religious Concerns (American Indian Religious Freedom Act of 1978 (42 USC 1966))	No issues.	No issues.	No issues.	No issues.	No issues.	No issues.	No issues.	No issues.	Not Applicable.
Farm Lands (prime or unique) (Surface Mining Control and Reclamation Act of 1977 (30 USC 1201 et seq.)	No impacts.	No impacts.	No impacts.	No impacts.	No impacts.	No impacts.	No impacts.	No impacts.	3.1.12
Floodplains (E.O. 11988, as amended, Floodplain Management, 5/24/77)	Potential impacts from increased runoff reduced to non-significant.	Potential significant impacts from no silting/debris basin controls.	Slightly less than Proposed Action.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.	Greater runoff potential, impacts reduced to non-significant.	3.1.2, 3.2
Minerals (Surface Mining Control and Reclamation Act of 1977 (30 USC 1201 et seq.)	No impacts.	All resources would remain in place.	No impacts.	No impacts.	No impacts.	No impacts.	No impacts.	Some resources would remain in place.	3.2

POTENTIAL IMPACTS TO CRITICAL ELEMENTS OF THE HUMAN ENVIRONMENT BY ALTERNATIVE (CONTINUED)

Critical Element of the Human Environment (Relevant Authority)	Alternative								
	Proposed Action	No Action	Reduced North Fines Storage Area	Batch Plant Location	Reclaimed Water	Railroad Transportation	Alternative North Fines Storage Area	Reduced Quantity Mining Concept	EIS Section
Threatened or Endangered Animal Species (Endangered Species Act of 1973 as amended (16 USC 1531))	Potential impacts to unarmored threespine stickleback reduced to non-significant.	Potential impacts to stickleback habitat.	Same as Proposed Action.	Similar impact to Proposed Action.	No impact.	Same as Proposed Action.	Same as Proposed Action plus potential impact to slender-horned spineflower.	Same as Proposed Action.	3.1.8, 3.2
Threatened or Endangered Plant Species (Endangered Species Act of 1973 as amended (16 USC 1531)) **Wetlands/Riparian Zones** (E.O. 11990, Protection of Wetlands, 5/24/77)	Loss of natural vegetation and sensitive species reduced to non-significant.	Potential impacts to stickleback habitat.	Slightly less acreage than Proposed Action affected.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.	Slightly larger area then Proposed than Proposed Action affected.	Less acreage than Proposed Action affected.	3.1.8, 3.2
Wastes (hazardous/solid) (Resource Conservation and Recovery Act of 1976 (42 USC 6901 et seq.), Comprehensive Environmental Response, Compensation and Liability Act of 1980 as amended (42 USC 9615))	Onsite materials not significant.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.	3.1.1, 3.2
Water Quality (drinking/ground) Clean Water Act of 1977 (33 USC 1251 et seq.))	Potential impacts from increased sedimentation, debris flows, and operational contaminants reduced to non-significant.	No erosion or sedimentation control would result in potentially significant impact.	Same as Proposed Action.	Same as Proposed Action - slight reduction in water demand.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.	3.1.4, 3.2

POTENTIAL IMPACTS TO CRITICAL ELEMENTS OF THE HUMAN ENVIRONMENT BY ALTERNATIVE (CONTINUED)

Critical Element of the Human Environment (Relevant Authority)	Alternative								
	Proposed Action	No Action	Reduced North Fines Storage Area	Batch Plant Location	Reclaimed Water	Railroad Transportation	Alternative North Fines Storage Area	Reduced Quantity Mining Concept	EIS Section
Wild and Scenic Rivers (Wild and Scenic Rivers Act as amended (16 USC 1271))	No issues.	No issues.	No issues.	No issues.	No issues.	No issues.	No issues.	No issues.	Not Applicable.
Wilderness Areas (Federal Land Policy and Management Act of 1976 (43 USC 1701 et seq.) Wilderness Act of 1964 (16 USC 1131 et seq.))	No issues.	No issues.	No issues.	No issues.	No issues.	No issues.	No issues.	No issues.	Not Applicable.
Environmental Justice (E.O. 12898, 2/11/94)	No impact.	No impact.	No impact.	No impact.	No impact.	No impact.	No impact.	No impact.	3.1.19
Environmental Health and Safety Risks to Children (E.O. 13045, 4/21/97)	No impact.	No impact.	No impact.	No impact.	No impact.	No impact.	No impact.	No impact.	3.1.19