

The SJVUAPCD considers that a project will have no potential to create a violation of the CO standard if the level of service at intersections in the project vicinity will not be reduced to LOS E or F and if the project will not substantially worsen an already existing LOS F on one or more streets or intersections in the project vicinity.

The only roadways in Kings County that are operating near capacity are located in urban areas, such as Hanford, where new dairy development would not be allowed. Therefore, based on the estimated traffic increase resulting from construction of approximately 257 new dairy facilities, the proposed project would not be considered to violate the CO standard, according to the District's guidelines. Therefore, the increase in CO emissions is considered a less-than-significant impact.

**Mitigation Measure 4.2-9**

None required.

Implementation of Policy DE 3.1g would reduce the potential for adverse queuing of traffic generated by dairy development and the potential for a significant increase in CO emissions.

**Impact ~~4.2-11~~ 4.2-10**

**Implementation of the Element would result in a cumulative increase in PM<sub>10</sub> emissions. This is a significant and unavoidable cumulative impact.**

The San Joaquin Valley is currently in nonattainment for PM<sub>10</sub> Federal and State standards. Operation of new or expanded dairies within the county would adversely contribute to the air basin's PM<sub>10</sub> attainment problem from dairy and agricultural operations. The SJVUAPCD ~~is currently amending~~ has recently amended the Regulation VIII rules and is also conducting on-field agricultural research projects to determine appropriate control strategies. Until the research projects are completed, SJVUAPCD is strongly recommending that the voluntary conservation practices developed by SJVUAPCD and the Natural Resource Conservation Service be implemented to reduce emissions from on-field agricultural activities, including livestock management. ~~Proposed~~ Rule 8081 deals with off-field agricultural activities.

**Mitigation Measure ~~4.2-11~~ 4.2-10**

None available.

Although implementation of Policies DE 5.1e, ~~5.1h~~ 5.1g, ~~5.1i~~ 5.1h, ~~6.1b~~ 6.1a, ~~6.1d~~ 6.2c, ~~6.1e~~, and ~~7.1d~~ 6.1b of the Element would reduce PM<sub>10</sub> emissions from cumulative project operations, PM<sub>10</sub> emissions could continue to be generated during cumulative operations;

therefore, the impact would constitute a significant and unavoidable adverse cumulative impact.

**Impact ~~4.2-12~~ 4.2-11**

**Implementation of the Element would result in a cumulative increase in ROG ozone precursor emissions. This is a significant and unavoidable cumulative impact.**

Existing dairies, as well as new or expanded dairies under the Element, are or would be generating ROG and NOx emissions during operations. ROG and NOx ~~is an~~ are ozone precursors and the San Joaquin Valley is currently in nonattainment for both the Federal and State ozone standards. Additional ROG ozone precursor emissions would exacerbate the valley's nonattainment conditions. Therefore, the cumulative projects would be considered to have a significant and unavoidable adverse cumulative impact on regional air quality.

*Mitigation Measure ~~4.2-12~~ 4.2-11*

*None available.*

Although implementation of **Policies DE 5.1c, ~~6.1b~~ 6.1a, ~~6.1e~~ 6.2d, ~~6.1f~~ 6.2e, and ~~6.2a~~ 6.3a** would reduce or prevent the release of ROG ozone precursor emissions into the environment from manure storage or collection systems, ROG ozone precursor emissions would continue to be generated from existing, new, or expanded dairies in the County (i.e., exhaust emissions, manure stockpile, initial deposition of manure). Therefore, this impact would constitute a significant and unavoidable adverse cumulative impact.

**Impact ~~4.2-13~~ 4.2-12**

**Implementation of the Element would result in a cumulative increase in methane emissions. This is a significant and unavoidable cumulative impact.**

Increases in greenhouse gases, such as methane, to the atmosphere are an international environmental air quality problem. Manure decomposition and ruminant animal digestive systems are considered two major methane generating sources as identified by the U.S. EPA. None of the existing or approved animal feed operations in Kings County is known to be designed to prevent methane emissions. Therefore, existing, new, or expanded dairy-related feed operations would most likely be generating methane emissions from dairy operations. New or expanded dairies under the Element would further increase the amount of methane generated within the County from confined animal facility operations.

*Mitigation Measure ~~4.2-13~~ 4.2-12*

*None available.*

Even with the implementation **Policies DE 3.1a, 5.1c, 5.1f, 6.1b 6.1a, 6.1e 6.2d, 6.1f 6.2e, 6.1g, 6.2a 6.3a, and 7.1d 6.1b** of the Element, some methane emissions would still be generated from cumulative projects. Therefore, methane emissions generated from the cumulative projects would be considered to result in a significant unavoidable and adverse cumulative impact.

**Impact ~~4.2-14~~ 4.2-13**

**Implementation of the Element would result in a cumulative increase in hydrogen sulfide emissions. This is a significant and unavoidable cumulative impact.**

New and expanded dairies under the Element, as well as existing animal feed operations in the County would or are generating hydrogen sulfide emissions during operation activities. None of the existing confined animal facility operations in Kings County is known to be designed to prevent hydrogen sulfide emissions. The cumulative projects would further increase the amount of hydrogen sulfide generated in the project vicinity from confined animal facility operations.

*Mitigation Measure ~~4.2-14~~ 4.2-13*

*None available.*

Hydrogen sulfide emissions would continue to be generated from cumulative project operations even with the implementation of **Policies DE 3.1a, 5.1c, 6.1b 6.1a, 6.1e 6.2d, 6.1f 6.2e, 6.2a 6.3a, and 7.1d 6.1b** in the Element. Therefore, this impact would constitute a significant and unavoidable adverse cumulative impact.

**Impact ~~4.2-15~~ 4.2-14**

**Implementation of the Element would result in a cumulative increase in ammonia emissions. This is a significant and unavoidable cumulative impact.**

New and expanded dairies under the Element, in addition to existing animal feed operations in the County, would or are generating ammonia emissions during operation. None of the existing or approved confined animal facility operations in Kings County is known to be designed to prevent ammonia emissions. The cumulative projects would further increase the amount of ammonia generated in the project vicinity from confined animal facility operations.

*Mitigation Measure ~~4.2-15~~ 4.2-14*

*None available.*

Ammonia emissions would continue to be generated from cumulative project operations even with the implementation of Policies DE 3.1a, 5.1c, ~~6.1b~~ 6.1a, ~~6.1e~~ 6.2d, ~~6.1f~~ 6.2e, ~~6.2a~~ 6.3a, and ~~7.1d~~ 6.1b in the Element. Therefore, this impact would constitute a significant and unavoidable adverse cumulative impact.