4.10 PUBLIC SERVICES AND UTILITIES

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This section of the EIR discusses the public services and utilities that would be required to serve new dairies, and identifies any service and utility deficiencies or shortfalls.

SETTING

WATER SERVICE

Much of the agricultural land in Kings County is served by on-site water delivery systems operated by the owners. The water service typically relies on a combination of groundwater and surface water supplies. Groundwater supplies are often provided by on-site or nearby wells, and surface water supplies are provided by local irrigation districts during wet weather years when such supplies are available and are purchased.

Groundwater is pumped from both shallow and deep aquifers underlying Kings County. The shallow aquifer provides agricultural water supplies for irrigation of crops. The water in the shallow aquifer in Kings County is generally of a quality that is inappropriate for potable use. Domestic water supply is from wells that pump water from the deeper aquifer, where water quality meets drinking water standards for human consumption.

WASTEWATER SERVICE

One or more residences are often constructed on the site of approved dairies to house dairy owners, workers, or managers. These individual residences generally rely on individual septic tank/leach field systems that are constructed within each dairy facility. The construction of the systems requires a permit from the Kings County Department of Planning and Building Inspection.

STORM DRAINAGE SERVICE

The storm drainage system for the typical dairy approved under the Kings County Draft Dairy Element (Element) would be integrated into the process water management system, and is discussed in Section 4.3, Water Resources, of this EIR. Surface water runoff from the manured areas of dairy facilities is required to be collected and retained on-site, typically in retention ponds. Runoff from roofed areas within dairy facilities and from adjacent areas is required to be diverted away from manured areas, usually into agricultural drainage ditches, unless the runoff is collected and treated. The storm drainage system for dairies established in rural agricultural areas would not normally require the construction of any public storm water drainage facilities.

POLICE AND FIRE PROTECTION

Police and fire protection services throughout the rural agricultural areas of Kings County are provided by the Kings County Sheriff's Department and Kings County Fire Department, respectively. The California Division of Forestry is responsible for providing fire protection to the remote and hilly area of the County west of State Highway 33.

The Kings County Sheriff's Department headquarters is located at the County government center in Hanford, with satellite sheriff's offices in the outlying communities of Avenal, Corcoran, and Kettleman City (Estes, 2000). The Kings County Fire Department headquarters is also located at the County government center in Hanford. The department operates twelve individual fire stations that provide fire and basic life support emergency services. Ten of the stations are located in the more populated northern portion of the County, including stations in or near Armona, Corcoran, Halls Corner, Hanford, Hardwick, Lemoore, and Stratford. County fire stations are also located in Avenal and Kettleman City in the southwest part of the County (Kings County, 1993).

The California Highway Patrol is responsible for patrolling the adjacent State highways (SR 33, 43, 41, and 198), as well as all dedicated roads in the unincorporated area.

SOLID WASTE

The solid manure generated by the herds of dairy cows that would be approved under the Element would either be used on-site as fertilizer for cropland, or would be collected and trucked off the site for sale and use on nearby fields as fertilizer. This aspect of manure management for a typical dairy facility would be regulated under the requirements of the Element. Potential impacts related to dairy manure are discussed in Section 4.3, Water Resources.

Municipal and industrial solid waste from the dairy facilities would be picked up by one of Kings County's thirteen existing service providers. One of the largest garbage companies that serves the unincorporated county area is USA Waste. Solid waste is collected from existing and future dairy facility sites in the northern and central portions of the County and is trucked to the Kings Waste and Recycling Authority materials recovery station in Hanford. The unrecyclable residual waste is then trucked to the USA Waste/Chemical Waste Management facility in Kettleman Hills. The Kettleman Hills facility has signed a contract to accept the Authority's municipal waste for 25 years (Gonzalez, 2000).

SCHOOLS

Kings County is served by fourteen separate school districts (Kings County, 1993). Any new residences associated with dairy development would be required to pay a per unit fee to the local school district as required under Proposition 1A (SB 50) passed by the voters in 1998.

PARKS AND RECREATION

The Parks and Grounds Division of the Kings County Public Works Department operates three regional parks in the northern half of the County. The County also maintains a community park in the unincorporated community of Stratford, while Armona and Kettleman City Community Services Districts maintain parks in each of those communities.

RELEVANT GOALS, OBJECTIVES, AND POLICIES

~~**Policies**~~ **Policy DE 3.6a** ~~**and 3.6b**~~ requires that dairies conform to specific standards for dairy facilities established by the Kings County Fire Department. In addition, the numerous policies that address requirements for dairy process water and manure treatment management systems are summarized in Section 4.3, Water Resources, of this EIR.

IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

According to the environmental checklist recommended by the CEQA Guidelines, potentially significant impacts could occur if the project resulted in "substantial adverse physical impacts associated with the provision of, or need for, new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives" for police or fire protection, schools, parks, or other public facilities. A proposed project could cause potentially significant impacts if it:

- exceeds wastewater treatment requirements;
- requires or results in the construction of new water, wastewater, or storm water drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects;
- does not have sufficient water supplies;
- would result in a determination by the wastewater treatment provider that it may not have adequate capacity to serve the project;
- would be served by a landfill with insufficient capacity; or

- fails to comply with Federal, State and local statutes and regulations related to solid waste.

Impact 4.10-1

Increases in water consumption. This is a less-than-significant impact.

Average daily water consumption for dairy projects that could be approved under the Element would vary according to the specific type of facility constructed. Total water demand for a modern freestall dairy is about 80 gallons per day per milking cow (Schultz, 1999). The 80 gallons of water are used for washing cows, cleaning milking areas, cooling systems, and drinking water for the animals.

Using an estimate of 80 gallons per day per milking cow, total water demand for a dairy facility of 5,000 milking cows would be approximately 1.23 acre-feet per day or 448 acre-feet per year. Assuming that the size of an average dairy facility for this milking cow herd size is about 115 acres (Kings County, 1999), the water demand would equal approximately 3.5 acre-feet per acre per year for the dairy facility land. However, most of the water at the dairy facility is process water that is reused to irrigate nearby fields. Dairy process water is usually mixed with fresh water to irrigate cropland and is therefore reused. Thus, the actual consumption of water at a dairy is equal to the amount of water that is turned into milk (approximately 8 gallons per milking cow per day) and the water that is lost to evaporation.

The remaining acreage of the typical dairy site that is not covered with the dairy sheds, corrals, and associated operations is planted with silage crops to be consumed by the dairy herd and irrigated with process water augmented with irrigation supplies. Wheat and corn silage are typically grown in Kings County for dairies, with double-cropping each year. Estimated water demand rates for double-cropping wheat and corn silage grown in the San Joaquin Valley are up to 3.9 acre-feet per acre per year (University of California, 1999a and 1999b).

Thus, a typical large dairy facility in the Tulare Lake Basin approved under the Element would use less water overall than if all the land was planted to row crops and irrigated. Irrigated silage lands for a dairy would use about the same amount of water as other crops, such as cotton, but the lands occupied by the dairy facilities would use less water than planted agricultural lands. However, dairy development in Sunflower Valley and the Kettleman Plain could cause depletion of water resources. **Policy DE 3.2h** acknowledges this potential impact and requires the Technical Report for dairy applications to demonstrate that an adequate and sustainable water supply is available.

On-site water demand would also include domestic water use by any residences proposed in conjunction with dairy facilities. Typical domestic water use for one family is approximately 0.5 acre-foot per year. Water quality of domestic wells varies throughout Kings County. Community wells must be tested on a regular basis to prove that water quality is within State Title 22 specifications for safe drinking water. Rural residences in Kings County generally rely on well water supplies. Any residences planned as part of a dairy project approved under the Element would have to meet Title 22 standards. This is a less-than-significant impact.

Mitigation Measure 4.10-1

None required.

Impact 4.10-2

Increase in the amount of storm water runoff. This is a less-than-significant impact.

Construction and operation of new dairy facilities approved under the Element would increase the amount of impervious surface area causing an increase in storm water runoff and requiring storm drain facilities. The runoff from manured areas would be required to be handled by the on-site process water systems designed for each dairy, and would be stored on the site.

Policy DE 4.1a of the Element ~~specifies~~ provides that clean water from dairy operations, including rainfall from roofs of dairy facilities, ~~shall~~ may be diverted from contact with any manured areas. If not, the runoff must be collected in the manure treatment system. Thus, storm water runoff from dairy facility roofs would be diverted away from on-site manure storage areas and corrals.

Mitigation Measure 4.10-2

None required.

Impact 4.10-3

Increases in the demand for police and fire protection, emergency medical response, solid waste collection and disposal services, school facilities, and recreation facilities. This is a less-than-significant impact.

Construction of on-site residences and operation of new dairy facilities approved under the Element would create a slight increase in demand for public and private services, such as police and fire protection, emergency medical response, solid waste, school, and recreation services.

The storage of large amounts of feed, particularly hay, at dairy facilities presents an increased risk of fire. The Kings County Fire Department has proposed specific minimum fire protection standards for dairy design and operation. **~~Policies~~ Policy DE 3.6a** ~~and 3.6b~~ requires that new and expanded dairies comply with these standards.

For each new dairy that is approved, at least one new residence is typically constructed to house the herdsman and his or her family. Each new dairy can employ several dozen to over 100 workers, typically split between two ten-hour shifts each day. The creation of the on-site residents and employees would cause a slight increase in demand for police and fire protection and emergency medical services, which are provided by the Kings County Sheriff's Department and Kings County Fire Department and by the California Highway Patrol.

Solid waste from the dairy offices and residences would be picked up by one of the area's thirteen existing service providers. Solid waste would be disposed of at the USA Waste/Chemical Waste Management facility in Kettleman Hills, which has adequate disposal capacity (Gonzalez, 2000).

Operation of the proposed dairies would create a slight increase in demand for additional school facilities, as children of employees living on the site would attend schools in one of the school districts in the County. Each new residence constructed as part of a new dairy would be required to pay a per unit fee as set forth under Proposition 1A (SB 50), passed by the voters in 1998. The current fee as set by State law is a maximum of $2.05 per square foot for new residential use and $0.33 per square foot for commercial/industrial use. Under these current fees, a typical 2,000-square foot house would pay $4,100 in school fees.

Each new dairy facility would not be expected to significantly increase demand on local park facilities, since a relatively small number of employees would be at each dairy facility during a single shift, and only one family would be living at each dairy.

The slight increase in demand for public services is a less-than-significant impact.

Mitigation Measure 4.10-3

None required.