



# **EMERGENCY ACTION PLAN**

FOR  
DEAD ANIMAL  
MANAGEMENT

Date Prepared: April 30, 2007

# DEAD ANIMAL MANAGEMENT POLICY

## BACKGROUND:

During the heat wave encountered in the summer of 2006, it became apparent that the current dead animal management system for the three county areas (Kings, Tulare and Fresno) was operating at or near capacity. When excess load is introduced into the system, or there is processing equipment failure, the system cannot remove bovine carcasses within the required 72 hour time frame as required by the *Dairy Element* of the *Kings County General Plan*. There were no approved backup or alternate systems in place, except emergency procedures, to respond to system failures. Other animal based agri-business may also be affected during natural disasters which could further add to the accumulation of animal carcasses requiring proper disposal. An alternative procedure is necessary to ensure that the public health and safety is protected, and that the dairy, poultry, swine and goat economies remains healthy. During a significant disease outbreak or natural disaster, it is important to have as many disposal options as possible.

## CURRENT PROGRAM REQUIREMENTS:

The *Dairy Element* of the *Kings County General Plan* provides the requirements for the management of dead animals on dairies and associated calf/heifer facilities. The *Dairy Element* states:

**Policy DE 4.1d:** *Dead Animals Management Plan (DAMP)* - A Dead Animal Management Plan (see Component 5 of Appendix J) shall be prepared and implemented for the disposal of all dead animals in a way that does not adversely affect groundwater or surface water, create public health concerns, or cause nuisances due to odor or vectors. The plan shall specify at a minimum that dead animals shall be removed from the dairy within 72 hours. Carcasses shall be stored in an area screened from public view and accessible via an all weather road or driveway. No animals shall be buried on site unless by order of an officer of a regulatory agency with jurisdiction over dead animal management, including, but not limited to, the County Agricultural Commissioner, the County Health Officer, and State and Federal Agencies.

Since rendering is the most common method used to dispose of dead animals, a plan for the timely delivery of dead stock to appropriately permitted facilities that will process the dead stock will adequately serve as the *Dead Animal Management Plan (DAMP)*.

(Mitigation for Impact 4.3-5)

Appendix J of the *Dairy Element* states:

- 5. Dead Animal Management Plan (DAMP) (Policy DE 4.1d):**  
The *Dead Animal Management Plan (DAMP)* is a part of the *Technical Report* submitted with each application to either establish a new dairy or expand an existing dairy. The DAMP shall include a program of removing dead animals from the site within 72 hours, or by the end of the first working day after a holiday weekend. Burial or otherwise disposing of the carcasses on site shall not be allowed unless by order of the Health Officer, Agricultural Commissioner, or other authority authorized to make such an order.

Record keeping for the DAMP shall be documented and the records shall be kept at the dairy site. The documentation shall include the number of dead animals by date; the date and method of their removal, and location where the dead animals were taken when removed from the dairy site. The documentation shall be made available to Code Compliance personnel upon their request.

Policy DE 4.1d states that a plan for the timely delivery to an appropriately permitted facility that will process the dead animals is adequate. However, none of the permit applications have included a contingency plan for situations when their primary method of carcass disposal is not available. Due to

the recent inability of Baker Commodities to meet their contractual obligations and accept drop-off clients, an alternative or back up method needs to be identified in all future applications for dairies.

#### OPTIONS:

1. Currently, there are no other businesses providing this service in Kings County. If a second company opened here, that could be the back-up plan.
2. Solid waste disposal is an option if the designated landfill's permit includes disposal of large animal carcasses. The only landfill in Kings County with such a permit is the Chemical Waste Management, Kettleman Hills Facility. CWM will not accept drop-off business, and does not collect carcasses from individual dairies after 8/31/2006. A central collection point would be required.
3. **On an emergency basis only and at the direction of the County of Kings**, on-site composting and on-site burial may be allowed.

According to the California Environmental Protection Agency the prescribed hierarchy is established as follows for emergency animal disposal:

- Temporary storage of carcasses for transport to rendering.
- Disposal at permitted solid waste landfills.
- On-site composting
- On-site burial

#### PROBLEM

Even if the new permits are issued with the revised requirement for a contingency or alternate plan for disposal of carcasses, that will not resolve the problem for the existing dairies which are not under the Dairy Element regulations or were permitted under the Dairy Element, but only identify the use of Baker Commodities as the Dead Animal Management Plan. Any solution to this issue will require options for existing dairies.

All animal facility owners and operators are required to consider measures that could be taken prior to an imminent emergency that could reduce the impact on the facility and the environment. This Emergency Action Plan is intended to act as a guideline for the facility owner/operator to accomplish that goal.

Other, more restrictive rules relating to dead animal management may be in effect at any given time. Please refer to the County Website at [www.countyofkings.com](http://www.countyofkings.com) for additional information. Information in this plan will be updated as necessary and reviewed annually to take advantage of new technology and methods as they become available.

# **EMERGENCY PERSONNEL NAMES AND PHONE NUMBERS**

## Kings County Emergency Director

Name: Supervisor Joe Neves Phone: (559) 582-3211 ext 2368

## Kings County Environmental Health Division Director

Name: Keith Winkler Phone: (559) 582-3211 ext 2625

## Kings County Planning Director

Name: William Zumwalt Phone: (559) 582-3211 ext 2686

## Kings County Agricultural Commissioner

Name: Tim Niswander Phone: (559) 582-3211 ext 2833

## Mortality Intervention Team

Name: Tim Niswander Phone: (559) 582-3211 ext 2833

# **ADDITIONAL RESOURCES**

## U.C. Davis Cooperative Extension

Name: Carol Collar Phone: (559) 582-3211 ext 2739

## Baker Commodities, Inc.

Name: Doug Fletcher Phone: (559) 582-0271

## Chemical Waste Management, Inc.

Name: Bob Henry Phone: (559) 386-9711

## **Darling**

## **International**

Name: Jeff Baker Phone: (800) 245-1999

## **MORTALITY INTERVENTION TEAM**

A Mortality Intervention Team established by Kings County and supervised by Kings County Agricultural Commissioner will respond to emergency requests from property owners or animal facility operators to provide technical assistance in the proper disposal of animal carcasses in an emergency situation. The team is comprised of 6-8 individuals, trained in the proper methods of composting and burial and is available upon request to provide on-site assistance as needed.

Property owners or animal facility operators are required to have available on-site, all necessary equipment, materials and labor in order to properly implement the recommendations of the Mortality Intervention Team. The property owner or facility operators must also ensure that land is identified and set aside in advance for the emergency disposal of animal carcasses.

Timely notification of the Mortality Intervention Team by the property owner or facility operator will limit the necessity of moving dead animals on County roadways.

## **STANDARD REQUIREMENTS FOR OFF-SITE BURIAL**

### Chemical Waste Management Facility:

This option may be available in instances of catastrophic events involving the death of numerous animals when the rendering plant is unable to process the carcasses in a timely manner. An emergency situation must be declared by the County of Kings if it exceeds **Chemical Waste Management's permitted daily tonnage.**

Landfilling of carcasses has not been a routine practice, but it does provide several advantages ~~including environmental protection and disposal of carcasses in an emergency situation when~~ to accept carcasses. This will depend on a wide variety of factors including the nature of the mortality (infectious or not), the ability of the landfill to accept the waste without disruption to existing operations, the requirements of their solid waste permit, the financial incentive and the political and public perception factors.

For off-site disposal, the primary concern is carcass transport in a safe, sanitary and timely fashion, while not endangering public health.

- The carcasses must be hauled to the landfill in trucks that prevent leakage of carcass fluids on the roadway.
- The carcasses must be screened from public view during transportation to the landfill.

## **STANDARD REQUIREMENTS FOR EMERGENCY ON-SITE COMPOSTING**

Currently California regulations prohibit the composting of mammalian flesh, organs, unprocessed hide, blood, bone and marrow, absent a declaration of emergency (Title 14, California Code of Regulations, Section 17852(i)).

Composting is a natural process, enhanced and accelerated by the mixing of organic waste with other ingredients in a prescribed manner for optimum microbial growth and aerobic decomposition. Composting transforms a waste product (manure and dead animals) into a useful soil amendment.

The process involves layering a prescribed weight or number of carcasses into straw, corn stalks, manure solids or other source of carbon with adequate moisture and oxygen. Within a matter of months, soft tissue is completely decomposed and all that is left are large bones. The residual composted "soil" becomes fertilizer for land application to crops. Studies have shown that properly composted carcasses do not pose a significant threat to air or water quality.

Composting can be difficult to manage and can result in objectionable odors. Supervision of the composting process by a knowledgeable person is necessary to ensure completed decomposition and a stable composted material.

This method applies only to animals that died on-site (no off-site transportation). On-site composting should only be attempted if the owner or dairy operator has the specific knowledge required to correctly carry out the process. **Contact the Kings County Agricultural Commissioner/ Mortality Intervention Team for specific details.**

## **STANDARD REQUIREMENTS FOR EMERGENCY ON-SITE BURIAL**

The property owner is responsible for burial in a timely and sanitary manner so as not to become a nuisance on-site or to neighbors, to prevent the spread of disease to other cattle or wildlife and to protect public health and safety. An emergency situation must be declared.

Location and site consideration of proposed burial site:

- In determining the location of the potential burial site(s), consult the soil data available at <http://websoilsurvey.nrcs.usda.gov> to determine if burial of animals would be allowed per United States Department of Agriculture, Natural Resources Conservation Service (USDA/NRCS).
- Dead animal carcasses shall not be buried in a floodway or flood zone.
- Each burial site shall be located a minimum of 100 feet from any well, watercourses and water bodies.
- Burial trenches and pits must have at least a five (5) foot separation above highest groundwater level.

- Each burial site shall be located a minimum of 25 feet from any structure, property line or major cut or embankment.
- Each burial site shall be located a minimum of 0.25 miles from any park, road or highway.
- Burial of carcasses should only be deep enough to cover the top of the carcass with 4-6 feet of compacted soil to prohibit exhumation from feral animals (dogs, coyotes, etc).
- CALL BEFORE YOU DIG. Call 1-800-227-2600 if you are unsure if the proposed burial area might contain underground utilities.

## Burial guidelines:

- Burial should be within a reasonable time period, i.e. 24-48 hours after death.
- Carcasses must be covered daily as to reduce vectors (dogs, rats, snakes, flies, etc) in and around the trench or pit.
- The pits or trenches should be surrounded by a berm to divert rainfall and runoff from the site.
- When the burial pit is full, the site should be capped with a 2 foot mound of soil so that precipitation is not allowed to collect in the pit.
- The burial site should be monitored so that these conditions remain after settling of decomposing carcasses and capping material.
- A record of the location of the burial site, the burial history of each burial site to include the date, species, head count and age should be kept by the owner and made available on request to the Kings County Environmental Health Division, Agricultural Commissioner or the Kings County Code Enforcement Division.

**Environmental Impacts:** The proposed burial site shall not be within an area where known cultural, historical, archeological or paleontological resources are present. The property owner (CHRIS) and the Native American Heritage Commission (NAHC) in advance to determine if a review of their records indicates known cultural resources in or near the proposed burial site.

Policy DE 3.1e of the *Dairy Element of the Kings County General Plan* states that;

**If any potential historical, archeological or paleontological resources are encountered during**

**burial excavation, work in the vicinity of the find shall be suspended or diverted. The resource property owner/facility operator shall retain a qualified archeologist to perform an assessment of the site.** Depending on the nature of any such find, evaluation may include determination of site boundaries and assessment of site integrity and significance. Standards for the site evaluation shall comply with appropriate State and Federal requirements (including California Public Resources Code Section 21083.2).

Evaluation shall include, if necessary, site with GFIQA Guidelines Subsurface. If, after evaluation, the qualified archeologist judges an historical, archeological or paleontological resource to be of importance, a mitigation plan shall be prepared in accordance with appropriate guidelines and submitted to the Zoning Administrator. Mitigation could include avoidance, site capping, data recovery, or a combination of these or other measures, as determined by the qualified

archeologist or paleontologist. Consultation with representatives of recognized local Native American groups shall be reflected in the development of any mitigation plan affecting Native American cultural resources.



## **INDIVIDUAL FACILITY INVENTORY OF AVAILABLE RESOURCES**

Animal facility owner/operators should use this form as an inventory tool to document the assets available to the facility in the event of a declared emergency. Once completed, maintain this form on-site.

**Number of available trucks:** \_\_\_\_\_

**Type of truck:** \_\_\_\_\_

**Capacity of trucks:** \_\_\_\_\_

\_\_\_\_\_

**Backhoe or other digging equipment:** \_\_\_\_\_

\_\_\_\_\_

**Materials:** Lime, Straw, Manure, tarps, rope, etc, \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Other:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**TRANSPORTATION OF DEAD ANIMALS**

Transportation routes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Type of Vehicle used: \_\_\_\_\_  
\_\_\_\_\_

**LOCATION OF LAND AVAILABLE AND RECORD OF COMPOSTING/BURIAL**

Address: \_\_\_\_\_

APN: \_\_\_\_\_

Estimated Capacity (# of animals) of site: \_\_\_\_\_

Date of Carcass Disposal: \_\_\_\_\_

Number and type of animal Disposed of: \_\_\_\_\_

Provide a site plan showing the exact location(s) of the proposed composting and/or burial sites. This site plan shall be made available to Kings County Planning Agency upon request.