FINDING OF NO SIGNIFICANT IMPACT

To All Interested Government Agencies and Public Groups:

Pursuant to the requirements of Section 511(c) of the Clean Water Act and the environmental review procedures of the U. S. Environmental Protection Agency (EPA) at 40 CFR Part 6, "Procedures for Implementing the Requirements of the Council on Environmental Quality on the National Environmental Policy Act" for the National Pollutant Discharge Elimination System (NPDES) New Source Program, the EPA has conducted a general environmental review of the following proposed action:

Proposed Action:	Issuance of General NPDES Permit AZG800000 for Concentrated Animal Feeding Operations (CAFOs) in Arizona.
Proponent:	Clean Water Act Standards and Permits Office (WTR-5) U.S. Environmental Protection Agency, Region 9 75 Hawthorne Street San Francisco, California 94105
Type of Facility:	Concentrated Animal Feeding Operations are defined in 40 CFR 122 Appendix B, and Part VII.H of the General Permit
Location:	All areas administered by Region 9 in the State of Arizona

General Project Description

In 1972, the Federal Water Pollution Control Act (also referred to as the Clean Water Act) was amended to provide that the discharge of any pollutants to waters of the United States from any point source is unlawful, except if the discharge is in compliance with an NPDES permit. Section 502(14) of the Act provides that Concentrated Animal Feeding Operations (CAFOs) are point sources subject to NPDES permitting requirements. In 1976, EPA promulgated the regulatory definition of CAFO, contained in 40 CFR 122 Appendix B. 41 Fed. Reg. 11458 (Mar. 18, 1976). In 1974, EPA promulgated effluent limitations guidelines which address discharges of waste and precipitation waters from feedlots. 39 Fed. Reg. 5704 (Feb. 14, 1974). The permit being issued covers CAFOs with NPDES permitting requirements within the State of Arizona. Facilities with new source performance standards (those facilities established after 1974 and meeting the definition of “new source” in 40 CFR 122.2) are required to meet the effluent limitation of "no discharge" to waters of the U.S. except when a 25-year, 24-hour storm event causes an overflow from a properly designed, constructed, maintained and operated waste water storage or retention structure.

Finding

The environmental information identified potential impacts to surface waters; potential impacts to groundwater resources; and potential impacts to the ambient air quality generally associated with CAFOs. The permit’s effluent limitations and discharge prohibitions, as well as special conditions including requirements for a best management practices plan for control of pollution, minimum standards (covering diversion of run-on, waste water control or retention structure freeboard, CAFO expansion, land application of manure, buffers and equivalent practices,

chemical handling, disposal of material into waste water control or retention structures, dead animals, spills, facility closure, and liner requirements for new waste water control or retention structures), nutrient management and inspection and record keeping, generally include the new source performance standards (NSPS) effluent guidelines for CAFOs which require that there be no discharge of process waste water to waters of the U.S. The waste water control or retention structure must be designed, constructed and operated to contain all process generated waste waters and the runoff from a 25-year, 24-hour rainfall event. New waste water control and retention structures must be lined to prevent contamination of groundwater.

On the basis of a general environmental review and assessment of the environmental information and other available information, and in accordance with the guidelines for determining the significance of proposed Federal actions (40 CFR 1508.27), the EPA has made a finding that the issuance of General NPDES Permit AZG800000 to new source CAFOs will not result in any significant adverse environmental impact and that an Environmental Impact Statement (EIS) is not required. The project will not significantly affect soils and geology, air quality, water quality or quantity, vegetation, wildlife, threatened or endangered species, noise, light and glare, natural resources, population, housing, transportation/circulation, public service, energy, land use plans or policies, and human health. The project also conforms with all applicable Federal statutes and executive orders.

This Finding of No Significant Impact (FNSI) covers CAFO facilities in place and operating at the time of issuance of the General Permit, and will become final with the issuance of the final permit decision. Applicants for CAFO facilities proposed after the issuance of the General Permit shall submit an appropriate EID and undergo environmental review prior to the start of operation under the permit.

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Laura Yoshii Date
Acting Regional Administrator, Region IX
U.S. Environmental Protection Agency

ENVIRONMENTAL ASSESSMENT

FOR THE ISSUANCE OF A GENERAL NPDES

PERMIT FOR NEW SOURCE

CONCENTRATED ANIMAL FEEDING OPERATIONS IN ARIZONA

prepared by
United States Environmental Protection Agency
Region 9
CWA Standards and Permits Office
75 Hawthorne Street
San Francisco, CA 94105

Approved:_____ _____

Laura Yoshii Date
Acting Regional Administrator

1.0.0 GENERAL INFORMATION

The 1969 National Environmental Policy Act (NEPA) established a Federal framework for policy decisions regarding Federal actions that will have a significant effect on the environment. “Federal”actions generally include projects undertaken by the Federal government, as well as non-Federal actions eligible for Federal assistance and non-Federal actions that require Federal permits or approvals. Thus, NEPA requirements apply to National Pollutant Discharge Elimination System (NPDES) permits issued by EPA to new sources in non-delegated States, such as Arizona. The Act’s most important provision is Section 102(2)(c), requiring Federal agencies such as EPA to file an Environmental Impact Statement (EIS) on all “proposals for legislation and other major Federal actions significantly affecting the quality of the human environment.” The definition of what constitutes such actions is a matter of ongoing discussion. The Act establishes a framework for cooperation on environmental matters between the United States government at all levels.

Pursuant to the requirements of Section 511(c) of the Clean Water Act (CWA) and the environmental review procedures of the EPA at 40 CFR Part 6, "Procedures for Implementing the Requirements of the Council on Environmental Quality on the National Environmental Policy Act" for the National Pollutant Discharge Elimination System (NPDES) New Source Program, the EPA has conducted a general environmental review of the following proposed action.

Proposed Action:	Issuance of General NPDES Permit for New Source Concentrated Animal Feeding Operations (CAFO), defined in 40 CFR 122 Appendix B, for CAFO facilities located in the State of Arizona.
Proponent:	U.S. Environmental Protection Agency, Region 9 CWA Standards and Permits Office 75 Hawthorne Street San Francisco, CA 94105
Type of Facility:	Concentrated Animal Feeding Operations are defined in 40 CFR 122 Appendix B,
Location:	All areas administered by Region 9 in the State of Arizona
Prepared by:	Jacques Landy CWA Standards and Permits Office

2.0.0 PROJECT DESCRIPTION

In 1972, the Federal Water Pollution Control Act (also referred to as the Clean Water Act) was amended to provide that the discharge of any pollutants to waters of the United States from any

point source is unlawful, except if the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. Section 502(14) of the Act provides that Concentrated Animal Feeding Operations (CAFOs) are point sources subject to NPDES permitting requirements. In 1976, EPA promulgated the regulatory definition of CAFOs. 41 Fed. Reg. 11458 (Mar. 18, 1976). In 1974, EPA promulgated effluent limitations guidelines which address discharges of waste and precipitation waters from feedlots. 39 Fed. Reg. 5704 (Feb. 14, 1974).

The permit that is being proposed is intended to cover CAFOs with NPDES permitting requirements in the State of Arizona. Facilities which must meet new source performance standards (those facilities established after 1974 and meeting the definition of "new source" in 40 CFR 122.2) are required to meet the effluent limitation of "no discharge" to waters of the United States except when a 25-year, 24-hour storm event causes an overflow from a properly designed, constructed, maintained and operated waste water storage or retention structure.

2.1.0 Current Operations and Effects in Arizona

2.1.1 Estimated Number of AFOs and CAFOs in Arizona.

In Arizona, there is a total of approximately 177 animal feeding operations (AFOs) and 97* CAFOs. The number of AFOs by type is estimated as follows:

Dairy	136 **
Beef	27 **
Swine	7 ***
Poultry	5 ****
Ostrich	7

* AZ Department of Environmental Quality, March 2001
** AZ Department of Ag. '99
*** AZ Department of Ag. '97
**** AZ Department of Ag. '98

At the present time, in Arizona the number of dairies is increasing, hog operations are decreasing and the number of poultry and beef operations are remaining static. Approximately 70 percent of Arizona's CAFOs are located in west Maricopa County. According to the ADEQ's CAFO Database (August 15, 2000) there are 101 dairies in Maricopa County, 7 feedlots, one swine facility and two poultry facilities.

2.1.2 Surface Water Impacts.

ADEQ's biennial assessment of statewide water quality conditions, the most recent of which is entitled "The Status of Water Quality in Arizona: Clean Water Act Section 305(b) Report 2000"

(ADEQ, EQR-00-03), does not specifically identify CAFOs as a probable source of pollutants (agricultural "stressors" are defined as crop production and/or grazing practices). In this assessment, ADEQ found that in 2000, 32 miles of the stream reaches assessed were impaired due to nutrients, 30 miles of the stream reaches assessed were impaired due to low dissolved oxygen, and 130 miles of the stream reaches assessed were impaired due to pathogens. 4,096 acres of lakes assessed were impaired due to low dissolved oxygen and 150 acres of lakes assessed were impaired due to pathogens. ADEQ identified grazing practices and crop production as probable sources of stressors impairing 407 and 132 miles, respectively, of stream reaches assessed in 2000. ADEQ identified grazing practices and crop production as probable sources of stressors impairing 175 and 386 acres, respectively, of lakes assessed in 2000. However, the relative contribution from CAFOs, rather than from other agricultural sources, is not known.

2.1.3 Ground Water Impacts.

In west Maricopa County, several drinking wells have been inactivated due to excessive nitrate levels. Despite the concentration of CAFOs in west Maricopa County, some research has shown that while CAFOs contribute to the nitrate problem, they are not the major source. One ongoing study in west Maricopa County estimates that the primary nitrate inputs include human waste (40%), fertilizer (30%), animal wastes (15%), and natural/miscellaneous (15%). Of nitrate inputs from animal wastes, the study estimates that half are from CAFOs. Consequently, it is possible that about 8% of the nitrate in ground water in west Maricopa County is caused by CAFOs. It is unclear how CAFO management improvements would impact fertilizer application rates in this area. Ground water impacts from CAFOs and land application by CAFOs probably needs to be assessed further.

3.0.0 FINDINGS

3.1.0 <u>Unavoidable Adverse Impacts.</u>

3.1.1 Environmental Effects Generally Associated with CAFOs.

<u>3.1.1.1. Potential Impacts to Surface Waters</u>. Impacts to surface waters may result from runoff potentially contaminated with pesticides from veterinary treatments, nutrients and bacteria from the fecal matter, and rations and mineral blocks. Other contaminants in the runoff may result from improper disposal of dredge material from the waste water holding ponds, and from erosion resulting from uncontrolled runoff. The new source performance standards effluent guidelines for feedlots require that there be no discharge of process waste water pollutants to waters of the United States except when a 25-year, 24-hour storm event causes an overflow from a properly designed, constructed, maintained and operated waste water storage or retention structure. Therefore, treatment ponds at new facilities governed by the general permit will be designed, constructed and operated to contain all process generated waste waters, and runoff from a 25-year, 24-hour rainfall event for the area of the point source.

3.1.1.2. Potential Impacts to Groundwater Resources. Contaminants in unlined holding ponds may seep into groundwater resources. Possible contaminants contained in the ponds include the nutrients, solids, and bacteria from fecal materials, and pesticides used in veterinary treatments. Under the permit, new holding ponds will be lined with either a synthetic or a clay liner to prevent groundwater contamination.

3.1.1.3. Potential Impacts to the Ambient Air Quality. The primary impacts to the ambient air quality derive from the methane emissions and the noxious odors to adjoining areas. Consistent with local zoning or land use requirements, buffer zones may be used to separate new feed lot areas from residential areas to mitigate for odor and visual impacts.

3.1.1.4. Endangered Species Act. Part II.B.2 of the permit expressly prohibits coverage under the permit of any CAFO which is likely to adversely affect a listed or proposed to be listed threatened or endangered species or its critical habitat. Any such facility would be required to apply for and obtain an individual NPDES permit, and the process of issuing the individual permit would fully address protection of endangered and threatened species and their habitat through the Section 7 consultation process of the Endangered Species Act (ESA). Section 7 consultation with the U.S. Fish and Wildlife Service (FWS) on the general permit was initiated on July 21, 2000. On July 25, 2000, EPA received a list of threatened and endangered species which could be effected by permit issuance. On December 20, 2000, EPA submitted to FWS a draft Biological Evaluation (BE) of effects of permit issuance on threatened and endangered species. Following discussions with FWS on the BE, EPA has decided to issue the permit pursuant to ESA Section 7(d), without concluding the consultation with FWS, based on the finding that this action will not result in an irreversible or irretrievable commitment of resources.

EPA has included Part II.C of the general permit, as follows, to ensure that any measures that result from the Section 7 consultation are incorporated into the permit in the future, as necessary: "This permit may be modified or revoked and reissued based on the results of Endangered Species Act section 7 consultation with the U.S. Fish and Wildlife Service."

3.1.2 Other Factors Considered by EPA.

Other factors evaluated and determined not to be of significant or relevant consequence included historical and archaeological preservation, agricultural lands, floodplain management, wetlands protection, wild and scenic rivers, noise, radiation, municipal water supply systems, municipal wastewater treatment systems, geology, soils, land-use compatibility, solid or hazardous waste disposal, natural hazards, man-made hazards, biota, community viability and integrity, residential areas, municipal and support systems, park and recreation facilities, educational facilities, health services and facilities, aesthetics, and roads and transportation systems.

3.1.3 Mitigation Measures Implemented in the General Permits.

The permit includes special conditions, management practices, and other non-numeric limitations

as follow:

1. Diversion of Run-on.

2. Waste Water Control or Retention Structure Freeboard.

3. CAFO Expansion.

4. Land Application of Manure.

5. Buffers and Equivalent Practices.

6. Chemical Handling.

7. Disposal of Material into Waste Water Control or Retention Structure.

8. Dead Animals.

9. Spills.

10. Facility Closure.

11. Liner Requirements for New Waste Water Control or Retention Structures.

The permit also includes nutrient management requirements for the application of CAFO process waste waters and manure onto land for agricultural purposes, both on and off land under the operational control of the CAFO owner or operator.

3.2.0 Irreversible/Irretrievable Commitment of Resources.

The primary irreversibly/irretrievably committed resources will be the energy resources needed to operate the facilities covered by the permit.

3.3.0 Relationship Between Local, Short Term Use of the Environment and the Maintenance/Enhancement of Long Term Beneficial Use.

The sites currently used for CAFO operations may be incompatible with residential-use areas, and with surface and groundwater resource areas. This permit action will enhance the land-use compliance with highest and best use concepts by controlling the potential for contamination of the water resources.

3.4.0 Parties Receiving Public Notice.

- National Public Notice in the Federal Register
- Public Notice Mailed to List of Interested Parties
- Public Notice Posted on EPA Region 9 NPDES web-site
- Newspaper Notice

3.5.0 Alternative Actions Considered.

3.5.1 Approval. Recommend approval of the permit actions as proposed.

3.5.2 Modify. Recommend approval of modified permit actions.

3.5.3 EIS. Recommend the preparation of an Environmental Impact Statement.

3.6.0 Recommended Action. On the basis of a general review of the impacts commonly associated with CAFOs, and other available information, the EPA has made a finding that the issuance of the General NPDES Permit will not result in any significant adverse environmental impacts and that an Environmental Impact Statement (EIS) is not required. Accordingly, the alternative recommended is to approve issuance of the final permit. This Finding of No Significant Impact (FNSI) covers CAFO facilities in place and operating at the time of issuance of the General Permit. Applications for CAFO facilities proposed after the issuance of the General Permits will require submission of an appropriate EID and undergo environmental review and assessment before the facility becomes a CAFO and before the facility obtains authorization to discharge under the general permit.