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Generic Environmental Impact Statement on Animal Agriculture:

A Summary of the Literature Related to Social/Community (A)

Prepared for the Minnesota Environmental Quality Board

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To Interested Minnesotans:

The GEIS on Animal Agriculture is a statewide study authorized and funded by the 1998 Minnesota Legislature and ordered by the EQB. The Legislature directs the EQB to "...examine the long-term effects of the livestock industry as it exists and as it is changing on the economy, environment and way of life of Minnesota and its citizens."

The intent of the GEIS is twofold: 1) to provide balanced, objective information on the effects of animal agriculture to future policymakers; and 2) to provide recommendations on future options for animal agriculture in the state. The success of the GEIS on Animal Agriculture will be measured by how well it educates and informs government officials, project proposers, and the public on animal agriculture, and the extent to which the information is reflected in future decisions and policy initiatives, made or enacted by Minnesota state and local governments.

The GEIS consists of three phases during the period summer 1998 through summer 2001: scoping the study; studying and analyzing the 12 scoped topics; and drafting and finalizing the GEIS. The EQB has established a 24-member Advisory Committee to provide advise to EQB during all phases of the GEIS. The scoping phase of the GEIS was completed in December of 1998.

This literature summary is the first step in the second phase aimed at study and analysis of the 12 key topics. This summary is intended to inform the Environmental Quality Board (EQB) members, EQB staff, and the Advisory Committee on the "Feedlot GEIS" scoping questions and research needed for adequate completion of the GEIS. The EQB would like to acknowledge the time and effort of the Advisory Committee members who provided invaluable input in the development of this "tool" for use throughout the GEIS process.

The literature summary is formatted to address the 12 topics of concern and 56 study questions outlined in the Feedlot GEIS Scoping Document (www.mnplan.state.mn.us). Any conclusions or inferences contained in this report are those of the authors and do not necessarily reflect the positions of the EQB or the Feedlot GEIS Advisory Committee.

The EQB would like to make this literature summary available to others interested in the effects of animal agriculture. Copies of this literature summary will be available for use in the Minnesota Planning/EQB Library: 300 Centennial Building, 658 Cedar Street, St. Paul. The Library will also house copies of the key literature review articles and the searchable database compiled as part of this literature review. A limited number of copies of this literature summary will be printed for distribution at cost.

For further information on the GEIS or this literature summary please contact the EQB at 651-296-9535.

Sincerely,

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EXECUTIVE SUMMARY: LITERATURE REVIEW ON SOCIAL/COMMUNITY IMPACTS

The structure of animal agriculture is changing. It includes consolidation at each stage of the value chain, from genetics through all stages of animal raising, animal slaughtering, disassembling of animals, and marketing. At the same time, vertical integration is occurring in the food chain so that increased ownership and control often accompany increased scale at each stage. Contracting is one form of vertical integration. Contracts reduce producer risk and reduce the degrees of freedom in animal management once the decision to contract has been made.

The impact of this consolidation has only been partially analyzed in peer reviewed studies in the fields of sociology, anthropology, geography and other social sciences. The largest body of literature is studies of meatpacking towns. There are also some comparative county-level studies looking at changing sizes of animal production units. Other than that, there are few studies that can answer the key questions regarding the impact of the changing structure of animal agriculture on the quality of life of Minnesotans in both rural and urban areas.

Studies to date suggest that the racial and ethnic composition in communities is changed with large animal units that require increased labor input. This is often accompanied by decreased residential stability. Associations of community members often form in opposition to large animal units, particularly when outsiders own them.

Some research suggests a distribution of power and authority shifts in rural communities where meatpacking plants enter, but no systematic studies have been done with other forms of animal production. Case studies show that leadership emerges from the movements in opposition to outside corporate animal agriculture entering rural communities. Neighborhood identity and neighborliness have increased in cases of successful opposition, documented by a case study in Michigan, but there is little systematic work in this area, particularly regarding vertical integration of farms already in the community.

Meatpacking town studies suggest that the demand for housing increases when new residents come in to perform jobs related to raising and slaughtering animals. The meatpacking town studies also show an increase in demands for public services, such as public safety and health; however, there is not systematic data on other forms of animal agriculture and its impact on public services.

There is little data on natural resource and land use, although case studies identify land use as a major source of conflict, as well as concerns about water quality and air quality.

There is nothing in the literature showing how the structure of animal agriculture relates to historical and cultural resources, except for case studies that document the importance of animal agriculture as part of local identity in some areas. Studies of community inequality (none relate that inequality to the structure of animal agriculture) show that high inequality

decreases the ability of the community to respond to difficulty. There is little analysis of community inequality, as affected by integrated animal agriculture, except in meatpacking towns.

The ability to work together to find solutions to problems has not been systematically studied, nor has trust between communities members.

Quality of life, separate from standard of living, in relation to different structures of animal agriculture has not been systematically measured.

Impacts of changing structure of animal agriculture on households and individuals, including farmers, has been little studied. There is some evidence that large confinement operations increase the perception of local residents of risk to their health.

Systematic studies of friendships and family relations, attitudes about social well-being, and enjoyment of property have also not been systematically addressed, although these factors lend themselves to comparative research. The meatpacking town studies suggest that attitudes toward cultural diversity are initially negative but can become more positive over time.

Individual quality of life of farmers or rural residents in relation to structure of animal agriculture has not been addressed, except in a series of studies looking at alternative production systems, particularly rotational grazing. These studies suggest that changing to these types of systems increase quality of life. There are no studies which examine the implications for quality of life from contract growing, which could include reduced stress and less sense of control.

The structure of animal agriculture studies shows some disequilibrium with what consumers demand and what they are willing to pay for. That includes animal well being while being raised and slaughtered. Ecosystem health, food safety, and food quality all require knowledge of the food supply. This requires preservation of the identity of the animal, including how it is treated, from conception to plate. It is not clear that the current structure of animal agriculture, with its concentration and vertical integration and scale, allow this to happen, although there are alternative systems in place that can take advantage of the consumer demand for these qualities in meat.

Another literature looks at citizen action, such as what citizens ask of government. Compared to other countries, the U.S. has much less regulation of animal care, even though consumers indicate a willingness to pay more for animals that have been treated humanely. Citizen action groups can impact regulation and subsidies for environmental enhancement related to animal agriculture. In particular, citizen action groups can force the internalization of externalities into the price of food produced through concentration and vertical integration. Citizens in action also impact government inspection and regulation.

There are many mechanisms now in place to resolve problems. Research suggests that these work better when they are carried out among neighbors who share a way of viewing

the world. However, most of these mechanisms are based on anecdote and theory. There has been no research to determine the effectiveness of different mechanisms under different circumstances.

The lack of research on these important questions suggests the need for systematic study in Minnesota. An approach to carrying out that key research is proposed. Simple description will not be sufficient.