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January 17, 1979

SUBJECT: Ecological status of the Weaver Ninemile Prairie, Lancaster Co. Neb.

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STATEMENT:

Being a professional grassland ecologist who was hired by the University of Nebraska in 1977 to initiate a research program on native midwest grasslands, I have been inventorying significant tall grass prairie remnant grasslands in Eastern Nebraska which would be suitable for future research.

Tall grass prairie remnants in the midwest and especially in Eastern Nebraska, are practically nonexistent due to intensive farming activity and relatively flat topography suitable for plow-agriculture. Larger parcels over 40-50 acres are extremely rare and many of these have been overgrazed for many years.

This past year professional people in Lincoln and at the University of Nebraska pointed out to me the existence of a large 640 acre tract owned by the City of Lincoln which has not been destroyed by plowing due primarily to the fact that the parcel was a fenced buffer area around a bomb storage depot for a USA Airforce Base at Lincoln approximately 1940-1970. The airbase was recently inactivated and surplus property conveyed to the City of Lincoln. Thus the prairie parcel received "accidental" protection by the Airforce through the 1940's, 50's, and 60's in an apparently ungrazed, "unmanaged" state. With the assignment of the former airbase property to the semi-autonomous, City of Lincoln Airport Authority, the airport operation began deriving operating funds by leasing commercial storage space in the former munitions storage bunkers and leasing grazing rights to the balance of the 640 acres.

I have visited the "Ninemile Prairie" (so named by Dr. J.E. Weaver, and students) approximately 6 times during this past growing season and have reviewed the published and unpublished data which researchers have derived from this tall grass prairie remnant. The prairie has had an extensive, early publication history (see reprints of articles and bibliography) compared to many such tall grass prairie remnants, which makes it extremely valuable (almost invaluable) scientifically. Dr. J.E. Weaver and his students of the 1920's-50's used this parcel for teaching and research resulting in important published studies prior to, during, and after the disastrous Great Drought of the 1930's. Weaver's work on grassland ecology and effects of drought and grazing on ecological succession in prairies is of national and international reputation. Thus, this remnant tall grass prairie which has received so much scientific attention has simply survived by "accident" and currently enjoys no formal protection. I plead with you to consider any mechanism which you may have to help give this prairie immediate protection.

After surveying the area this past summer and examining historical aerial photographs (deposited in the State of Nebraska Conservation Survey) of the area, only approximately 230 acres of the total 640 acres are in good ecological condition due to past mismanagement and severe overgrazing of the northern portion (see aerial photo enclosed, provided by Mr. E. Rousek). However, the southern fenced 230 acres inventoried by Mr. Rousek, myself and others this past summer has not been significantly overgrazed since the City of Lincoln received the land from the US government.

Steiger, who published "Structure of Prairie Vegetation" in the journal Ecology in 1930, listed 345 plant species existing on the site 1927-28 with 237 "regular" prairie species. I have annotated and updated Steiger's 1928 list of species and many of them still exist on the prairie although an intensive ecological restudy of the site is required to answer the question of plant and animal community changes on this prairie since its initial ecological description, and to identify the extent of recovery of this prairie from the 1930's drought which Robertson (1939) documented and Weaver (1944, 1956) described.

As far as I can tell, field work and long term observations, on 9-mile prairie was used in part by Weaver to formulate his published ecological description of a "typical" midwestern upland tall grass prairie. Much of his early research on soil relations and prairie plant roots system descriptions (which are widely known and appreciated by plant ecologists) was conducted on this prairie.

The prairie is logistically an ideal place for future educational and research projects due to its proximity to the University of Nebraska, Wesleyan College, and other public schools in the City of Lincoln.

In terms of my future scientific research plans this prairie remnant could provide a superb opportunity to document any biological changes which might have occurred since Weaver's and others studies of the early 1900's, of this undisturbed, climax prairie ecosystem. Comparative ecological community studies using modern ecological methods need to be done on tall grass prairie ecosystems and we have recently assembled a staff of 4 young ecologists at the University of Nebraska who could direct these kinds of studies. Let me relate a single specific case in point. A new faculty member, Dr. A. Joern who is studying ecology of grasshopper populations, could have used 9-mile prairie as a study area but could not, since the area was disturbed during the growing season by grazing domestic beef cattle. In my estimation, this parcel has infinitely much more scientific value than the City of Lincoln or the Airport Authority Board recognizes or is currently deriving from a commercial grazing lease. In addition, the 230 acres under consideration has received a relatively light grazing impact since the property was acquired by the City in the early 1970's. Nevertheless, trampling and disturbance is relatively severe along the spring seeps and steep sided stream courses, where many of the rarer plant and animal species are found. In my view, the current grazing management (even though light - and apparently in accordance with current range management guidelines) is not compatible with the prairie's scientific value as a future "baseline" study area for ecological information and for gauging future environmental impact on a climax tall grass prairie ecosystem.

In addition, this prairie remnant is immediately threatened by sprawling urbanization in the Lincoln area, inflated land values, and potential industrial development under control of the City of Lincoln or the Lincoln Airport Authority.

The 9-mile prairie holds tremendous potential scientific and educational value since it is a significant remnant of the formerly extensive tall grass prairie vegetation type all but destroyed (replaced?) by modern agriculture. It is an important and historic part of the natural heritage of all Nebraskans which is just now coming to be appreciated by its absence. In Lincoln and in the midwest in general there is a "grass roots" interest in the ecology and natural history of native prairie plant and animal species, again mainly due to the past intensive agricultural impact in the area and the scarcity of preserved or protected "natural" areas for scientific study and environmental education.