

11 November 1985

Dear Prairie Conservationists:

The Johnson County Conservation Board will be considering the attached proposal at about 7:30 p.m. on November 21. The meeting will be held at the Kent Park maintenance building office (east of the entrance). The Board members have been sent a bound copy of this proposal, complete with color photos inside front and back covers. The Board appears to be influenced by public opinion. Your presence and potential commentary, as both a citizen of the county and representative of a conservation-minded organization, could aid the passage of this proposal. We are scheduled on the Board meeting agenda just before their main event (consideration of the annual budget) and we are hoping that our portion of this meeting will be brief and satisfactory.

Sincerely,



Peter Kollasch



Lon Drake

Kristin Arnold  
Dick Baker  
Aaron Basten  
Barbara Buckley  
Carolyn Crawford  
Riley Grimes  
Kathryn Gillies  
Steve Hendrix  
Bob Howe  
Ken Jensen  
Barbara & Don Kirchner

Bernie Knight  
Roger & Marianne Milkman  
Connie Mutel  
Alan Nagel  
Jean Prior ✓  
Jeff Schabilion  
Nancy & Frank Seiberling  
Wendall Simonson  
Jud TePaske  
Tim Thompson  
Robert Wachel

# A Proposal

Addressed To:

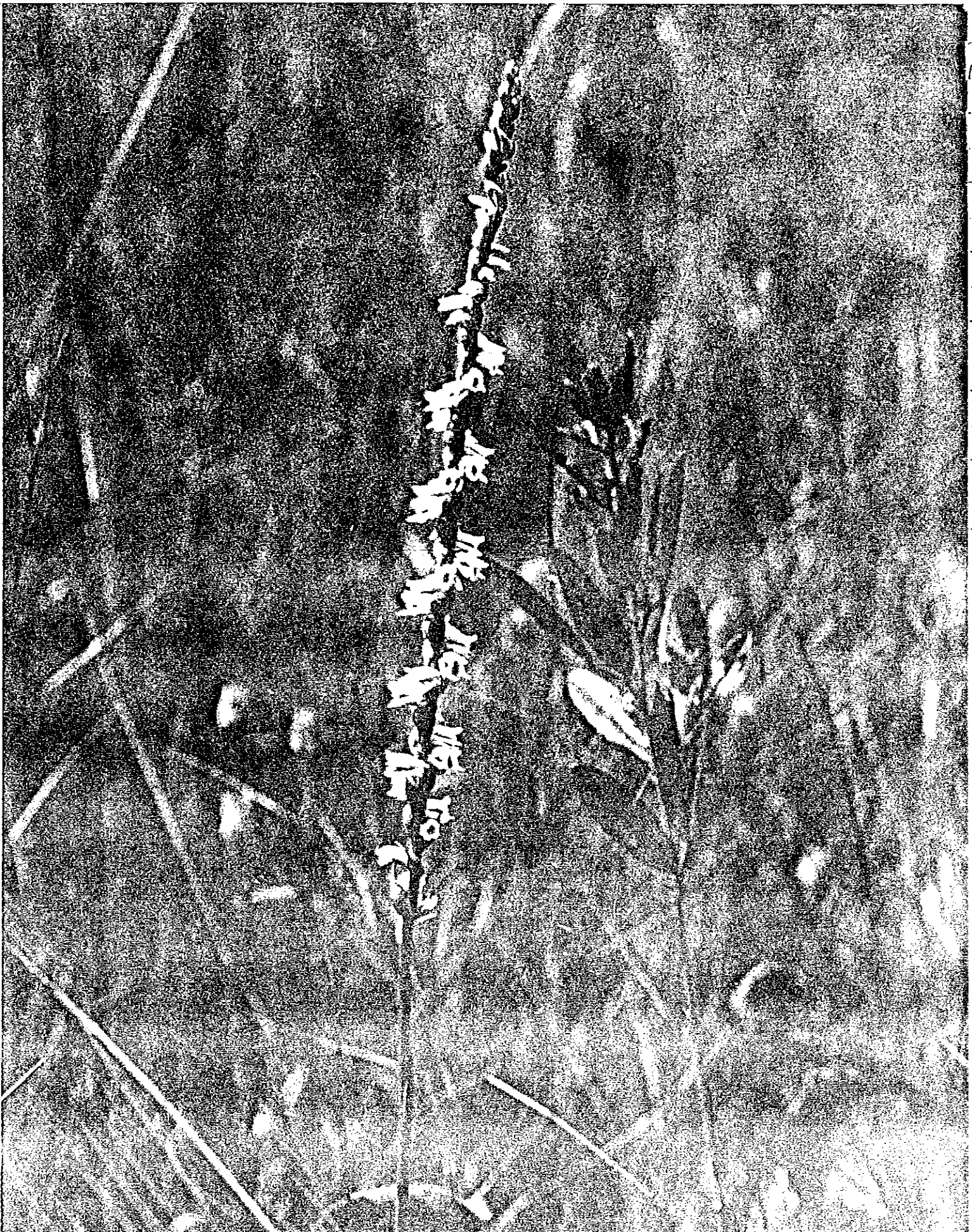
Johnson County  
Conservation Board

Recommending:

Preservation and  
Management of Two  
Native Prairie Sites  
Within Kent Park

By:

Peter Kollasch and Lon Drake  
October 1985



THE PRAIRIE SITES

Two native prairie remnants have been found within Kent Park. The larger one, labeled site "A" on Figure 1 (page 2), is approximately 6 acres in extent. The smaller, labeled site "B", comprises about 1 1/2 acres. We have observed these sites regularly since autumn 1984 and now have sufficient information to offer a specific proposal.

More than 30 prairie species have been found, to date, at Site A, of which 3 are endangered in Iowa. Site "B" contains over 14 native prairie species, including a population of the exceedingly rare slender ladies tresses orchid (photo inside front cover). Preliminary species lists for both sites are available on Tables 1 and 2 (pages 3 and 4).

Like nearly all native prairie remnants in Iowa, neither of the sites is perfectly pristine. Site "A" has been severely overgrazed in the past, producing some shallow gullies along the lower edge. However, the prairie vegetation has recovered after cessation of grazing and has restabilized these areas. Without prairie fires to control woody plants, site "A" is now being rapidly overgrown with shrubs and young trees and needs immediate management if it is to remain a prairie. Site "B" is underlain by gravelly sand, and some shallow excavations were made within it many decades ago to mine the sand. Adapted prairie vegetation has recolonized the site, which is the reason fewer species are present. Seedling trees and shrubs are also

FIGURE 1

PRAIRIE SITES WITHIN KENT PARK

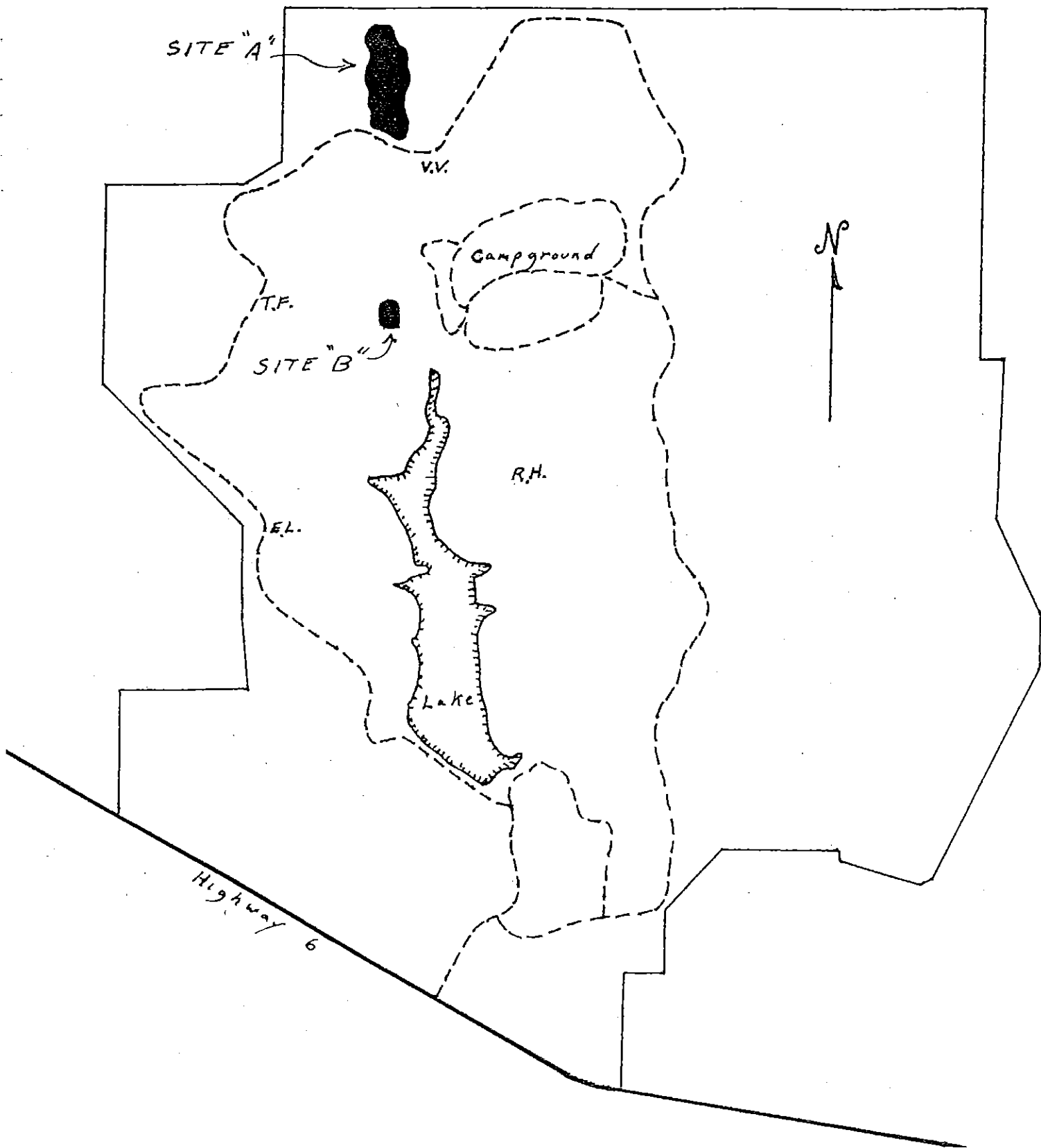


Table 1  
 Prairie Species Identified  
 Site "A"

<u>Scientific Name</u>	<u>Common Name</u>	<u>Status in Iowa</u>
Andropogon gerardi	big bluestem	prairie dominant
Antennaria neglecta	pussytoes	spreads in degraded prairies
Antennaria plantaginifolia	plantainleaf pussytoes	spreads in degraded prairies
Aster spp	many species of asters	
Bidens spp	several species of bur marigold	
Cassia fasciculata	partridge pea	common prairie pioneer
Ceanothus americanus	new jersey tea	high quality indicator
Dianthus armeria	deftford pink	prairie invader?
Echinacea pallida	pale purple coneflower	spreads in overgrazed prairies
Euphorbia corollata	flowering spurge	spreads in disturbed prairies
Gerardia tenuifolia	slender false foxglove	high quality indicator
Kuhnia eupatorioides	false boneset	common prairie species
Lespedeza capitata	roundheaded bush clover	spreads in disturbed prairies
Linum sulcatum	grooved flax	common in prairies
Lithospermum croceum	hairy puccoon	high quality indicator
Lobelia spicata	pale blue lobelia	common in prairies
Monarda fistulosa	purple beebalm	spreads in disturbed prairies
Oenothera biennis	evening primrose	common in prairies
Polygala sanguinea	blood milkwort	high quality indicator
Rosa spp	several species of prairie rose	common in prairies
Senecio pauperculus	balsam ragwort	common in prairies
Sisyrinchium campestre	blue-eyed grass	high quality indicator
Solidago spp	many species of goldenrod	
Sorghastrum nutans	indiangrass	prairie dominant
Spiranthes cernua	nodding ladies tresses orchid	high quality indicator
Spiranthes gracilis	slender ladies tresses orchid	endangered
Spiranthes magnicomponium	great plains ladies tresses orchid	endangered
Terrapene ornata	western box turtle	common in prairies
Tradescantia ohioensis	spiderwort	common in prairies
Vernonia fasciculata	ironweed	common in prairies

Table 2  
Prairie Species Identified

<u>Scientific Name</u>	<u>Common Name</u>	<u>Site "g"</u>	<u>Status in Iowa</u>
Antennaria neglecta	pussytoes		spreads in degraded prairies
Echinacea pallida	pale purple coneflower		spreads in overgrazed prairies
Euphorbia corollata	flowering spurge		spreads in disturbed prairies
Kuhnia eupatorioides	false boneset		common prairie species
Lespedeza capitata	roundheaded bush clover		spreads in disturbed prairies
Linum sulcatum	grooved flax		common in prairies
Lobelia inflata	indian tobacco		common in prairies
Monarda fistulosa	purple beebalm		common in prairies
Polygala sanguinea	blood milkwort		high quality indicator
Rosa spp	several species of prairie rose		common in prairies
Senecio pauperculus	balsam ragwort		common in prairies
Sisyrinchium campestre	blue-eyed grass		high quality indicator
Solidago spp.	several species of goldenrod		
Spiranthes gracilis	slender ladies tresses orchid		endangered
Terrepepe ornata	western box turtle		endangered

slowly becoming established at the site, but the soils are so dry and well-drained that these have not yet been very successful.

#### RATIONALE FOR PRESERVATION

Four significant reasons are offered for the preservation and management of these two prairie sites:

1) The presence of the endangered species should mandate a public conservation agency to respond affirmatively. The slender ladies tresses orchids are so rare that when the Iowa threatened and endangered list was revised in early 1984, this species was not listed because no surviving populations were known within the state. Since then, one population has been observed in Cedar County plus the two locations at Kent Park. State ecologist, Dean Roosa, has indicated that this species will be added to the endangered list when it is revised in 1986.

2) The prairie vegetation offers habitat, food and breeding opportunities for different species of animals than do the woodlands and shrubs in the rest of Kent Park. In general, the prairie sites will help support a greater diversity of animals within the park. The two prairie sites are the prime habitat and probably the only breeding area within the park for the endangered western box turtle. If they convert to shrubs and trees, this species of turtle will probably vanish from the park within a few years. The prairie-woodland border also



increases the edge-effect, which is favorable to a variety of eastern Iowa animals because the original native landscape was a mosaic of prairies and forests.

3) The prairies are compatible with Kent Park's educational mission. Many county residents will see their first prairie and awaken their first interests in their prairie heritage at Kent Park. At the scientific level, little is known about the habitat requirements, life history, physiology or other aspects of the prairie orchids and other uncommon species. Significant opportunities for scientific and environmental research will be present at these prairies.

4) The prairies also compliment Kent Park's recreational goals. Prairie flowers bloom from early spring to late autumn and will attract the public. For example, both sites offer a spectacular display of pale purple coneflowers (back cover) in early summer. Once this became known in 1985 a number of residents have visited to photograph the scene. There are only 2 public parks in Iowa where the western box turtle can be observed. The outer loop trail proposed around site "A" (following pages) is a useful 1/4 mile footpath/skipath.

MANAGEMENT OPTIONS

The historic and prehistoric record shows that fire played a major role in maintaining the native prairies. Today, fire is accepted as the "tried and true" management tool for helping both to maintain prairies in their natural state and to return degraded ones to their native condition. However, Mr. Dunlap is quite concerned about burning prairies in a park extensively planted to conifers. Therefore we offer two management plans - one using fire and the other without.

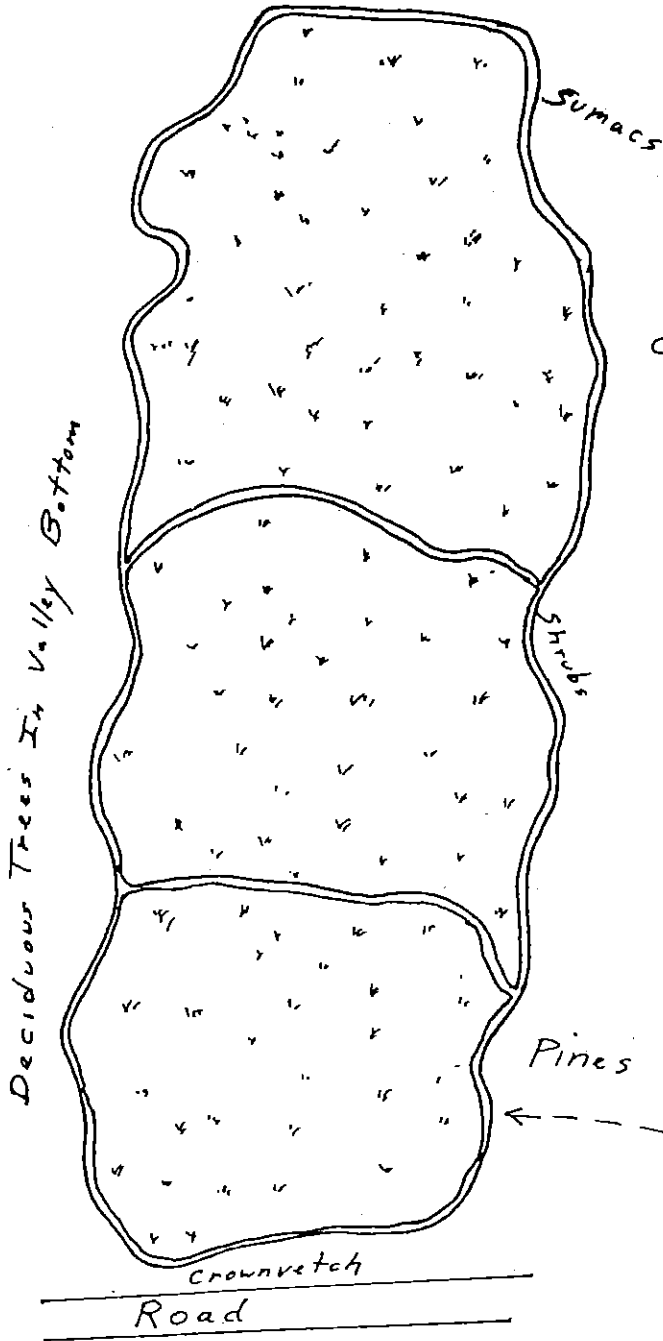
Management with Fire

One of the safest methods for managing a prairie with fire is to maintain a permanently mown firebreak around the perimeter of the prairie. After a year or two of regular mowing, the firebreak will become a footpath dominated by lawn grasses like Kentucky bluegrass. When the prairie is burned in early spring (late March-early April) the close-mown footpath will already be green and growing and not flammable, while the prairie will still be dry and combustible. The prairie sites should be divided into about three separate parcels, separated by footpath-firebreaks, and only one parcel burned each year or alternate year. On other sites, a green mown firebreak the width of a tractor swath has proven adequate and a double width (10'-14') firebreak offers a huge safety factor. A more detailed map illustrating the proposed firebreak-footpaths is on Figure 2, page 8.

PROPOSED MANAGEMENT LAYOUT

SITE "A"

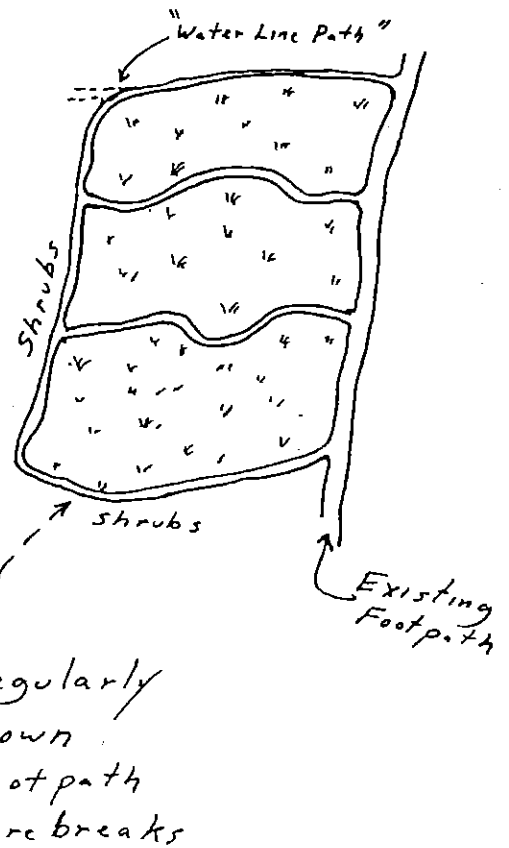
Boundary Fence  
Pine Border



Conifers



SITE "B"



### Management Without Fire

Mechanical clearing and selective use of herbicides can substitute for fire in keeping prairie areas free of woody vegetation. In heavily overgrown sites, like much of "A", it is sometimes the preferred way to begin management because it produces conspicuous results the first year, whereas the effect of fire is one of gradual attrition of woody plants over a number of burns. One approach, proven effective, is to cut the trees and shrubs off close to the ground in autumn or spring, wait for them to resprout and then selectively hand spray only the new growth with an herbicide which has no carryover potential (Roundup brand). Mr. Dunlap suggests that a method with which he has had some experience, is to mow the brush quite high with a "bush hog" and then apply Roundup to the new sprouts with a tractor-mounted wick applicator set higher than the desirable species. Both methods could be used at site "A", with the tractor method working rapidly on the most level ground and hand methods used around gullies and the more erodeable slopes. The shrubbery in the firebreak footpaths should be cut nearly flush with the land surface, to permit routine mowing to get underway. This clearing could be done piecemeal over the next several years, as personnel and equipment come available. Volunteers could be readily recruited for the clearing portion of this project, although the herbicide applications should be in the hands of trained personnel. Some potential disadvantages of the above include the fact that the orchids are both

inconspicuous and exceedingly sensitive to herbicides and might be inadvertently destroyed. Tractors are also fatal to turtles and could readily create an erosion problem on these sandy slopes.

#### SUMMARY



We request that these 2 native prairie sites be officially designated as prairie habitat in the Kent Park development plan. We request they be managed by removal or reduction of woody plants in a manner which safeguards the survival and growth of the endangered prairie species and their habitat.



Patricia Meade  
Beverly Full  
Michael Rocca  
Charles Duffy  
Robert Womer  
Rod Dunlap

Ladies and Gentlemen:

Rod Dunlap has scheduled us to meet with you at the next gathering of the County Conservation Board (7:30 p.m., November 21). We realize that you need to devote most of that meeting to the annual budget, so we have prepared our request in written form (enclosed), for your consideration prior to the meeting.

Sincerely,



Lon Drake  
R. R. 1  
Oxford, IA



Peter Kollasch  
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Iowa City, IA